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State of New Hampshire

DEPARTMENT OF SAFETY
OFFICE OF THE COMMISSIONER
33 HAZEN DR. CONCORD, NH 03305
603/271-2791

JOHN J. BARTHELMES
COMMISSIONER

January 25, 2016

Her Excellency, Margaret Wood Hassan
and the Honorable Council
State House
Concord, NH 03301

Requested Action

Pursuant to RSA 106-H:6, III, authorize Department of Safety, Division of Emergency Services and Communications (9-1-1) to enter into a contract with Kraus Associates Inc., d/b/a AK Associates (VC# 174402-R001), 326 Porta Rosa Circle, St Augustine, Florida 32092, in the amount of \$2,432,527.20 to provide hardware, software and services for Next Generation 9-1-1. This contract will be effective upon Governor and Council approval through February 1, 2021. Funding Source: 81% Capital Funds (E911)/19% Agency Income.

Funds are available in the SFY2016-2017 operating budget as follows and contingent upon availability and continued appropriations in SFY2018 through SFY2021 with the authority to adjust between fiscal years through the Budget Office if needed and justified.

02-23-23-236530-09950000 Dept. of Safety – Emergency Communications – 11-253:1:XIII-A E911 Next Gen
039-500188-23ADM1396 Telecommunications – Telecommunications Voice

SFY2016
\$1,980,040.96

02-23-23-2365-10-13960000 Dept. of Safety – Emergency Communications – Network
039-500188 – 23ADM1396 Telecommunications – Telecommunications Voice

<u>SFY2017</u>	<u>SFY2018</u>	<u>SFY2019</u>	<u>SFY2020</u>	<u>SFY2021</u>	<u>TOTAL</u>
\$46,662.12	\$112,457.81	\$113,114.06	\$113,595.30	\$66,656.95	\$2,432,527.20

Explanation


This contract provides services to support the call processing of 9-1-1 emergency service requests at both New Hampshire 9-1-1 Public Safety Answering Point (PSAP) facilities. The Division of Emergency Services and Communications (DESC) will contract with AK Associates 911 to equip two geo diverse redundant call centers with Next Generation systems allowing appropriate handling and distribution of 9-1-1 emergency service requests to the appropriate local dispatch center throughout New Hampshire and to bordering states. Furthermore, the systems to be implemented allow for greater interoperability and better positions the State for emerging technologies and changing industry standards. DESC recently awarded the network services contract to INdigital (approved by Governor and Council on October 7, 2015, Item #68B) for providing the delivery of the “emergency service requests for assistance” to the systems provided under this contract. AK Associates will coordinate with the Network provider, INdigital, and State of NH staff to ensure the citizens and visitors to the State of NH can get the assistance they need from 9-1-1 services.

DESC issued a Request for Proposal (RFP) for these services which included posting it on the state website beginning February 11, 2015, as well as direct e-mailings to contacts of several companies within the Public Safety (9-1-1) industry

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derived from publications, attending vendor conferences, and previous responses to a Request for Information (RFI). Proposals were received from four vendors, with each proposal being evaluated by a six-member committee. AK Associates was selected as the lowest qualified bidder.

Respectfully submitted,


John J. Barthelmes
Commissioner of Safety

Bid Summary

NG9-1-1 System Contract Bid 2015-170

Program Name: NG9-1-1 Call Premise Equipment

The bidder selected is AK Associates; they were the technical winner as well as the lowest price of a complete solution. The DESC posted the RFP to the public on 2/11/2015 which included posting to the State Website as well as direct e-mailings to contacts of several companies within the Public Safety (9-1-1) industry derived from publications, attending vendor conferences, and previous responses to our RFI. The Division received a total of 5 bids. One bidder not listed below was disqualified for failure to meet the submission requirements and therefore was not scored.

Definitions of Scoring Criteria:

Proposed Solution: This category rates the overall fit of the bidder's solution to what was ask for in the RFP. Bids were evaluated on a variety of topics such as required functionality, disaster recovery, testing, support, and implementation strategies.

Technical Staff: This category rated the bidders technical and project management staff experience and resumes, as well as their quality assurance approach using this staff.

Company: This category evaluated the bidder's company in areas such as industry experience, completion of similar projects, and third-party references.

Cost: This is a mathematical formula by where the lowest bid receives a total of 30 points.

The four companies evaluated –

Airbus DS Communications, Inc., 42505 R10 Nedo, Temecula, CA, 92590 - (Airbus below)

Spok, Inc, 6850 Versar Center suite 420, Springfiled, VA, 22151 – (Spok below)

Kraus Associates d/b/a AK Associates, 7 Independence Ave, Derry, NH, 03038 – (AK below)

General Dynamics Information Technology, 77 "A" St., Needham, MA 02494 – (GDT below)

RFP Score Summary

RFP Criteria	Max Points	Airbus	Spok	AK Associates	GDT
Proposed Solution	45	40.9	27.9	41.6	22.4
Technical Staff	10	9.3	6.3	10	4.4
Company	15	14.6	5.3	14.1	6.7
Cost	30	19.1 (\$3,823,435)	17 (\$4,293,701)	30 (\$2,432,527)	10.9 (\$6,713,687)
Total Points	100	83.8	56.5	95.7	44.4

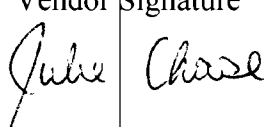
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AGREEMENT

The State of New Hampshire and the Vendor hereby mutually agree as follows:

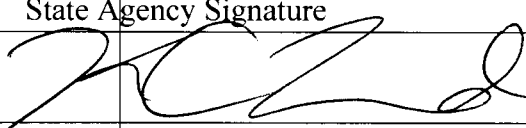
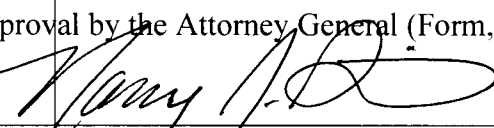
GENERAL PROVISIONS

1. IDENTIFICATION.

<p>1.1 State Agency Name Dept. of Safety Division of Emergency Services & Communications</p>	<p>1.2 State Agency Address 110 Smokey Bear Blvd Concord NH 03305</p>		
<p>1.3 Kraus Associates Inc., d/b/a AK Associates</p>	<p>1.4 326 Porta Rosa Circle St Augustine, Florida 32092</p>		
<p>1.5 Vendor 603-432-5755</p>	<p>1.6 Account Number 02-23-23-2365-30-09950000 (CAPEX) 02-23-23-2365-10-13960000 (OPEX)</p>	<p>1.7 Completion Date 2/1/21</p>	<p>1.8 Price Limitation \$2,432,527.20</p>
<p>1.9 Contracting Officer for State Agency Peter A. DeNutte</p>	<p>1.10 State Agency Telephone Number (603)271-6911</p>		
<p>1.11 Vendor Signature </p>	<p>1.12 Name and Title of Vendor Signatory Julie Chase, VP of Sales and Marketing</p>		
<p>1.13 Acknowledgement: State of NH, County of Rockingham</p> <p>On December 22 <i>December 22, 2015</i>, before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.</p>			
<p>1.13.1 Signature of Notary Public or Justice of the Peace</p> <p style="text-align: center;">[Seal] <i>Beth A. Stankus</i></p>			



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1.13.2 Name and Title of Notary or Justice of the Peace Beth A. Stankus	
1.14 State Agency Signature 	1.15 Name and Title of State Agency Signatory Administrator IV
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____	
1.17 Approval by the Attorney General (Form, Substance and Execution) By:  On: 2/19/2014	
1.18 Approval by the Governor and Executive Council By: _____ On: _____	

2. EMPLOYMENT OF VENDOR/SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 (“State”), engages Vendor identified in block 1.3 (“Vendor”) to perform, and the Vendor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached Exhibit A which is incorporated herein by reference (“Services”).

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, this Agreement, and all obligations of the parties hereunder, shall not become effective until the date the Governor and Executive Council approve this Agreement (“Effective Date”).

3.2 If the Vendor commences the Services prior to the Effective Date, all Services performed by the Vendor prior to the Effective Date shall be performed at the sole risk of the Vendor, and in the event that this Agreement does not become effective, the State shall have no liability to the Vendor, including without limitation, any obligation to pay the Vendor for any costs incurred or Services performed. Vendor must complete all Services by the Completion Date specified in block 1.7.

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4. CONDITIONAL NATURE OF AGREEMENT. Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Vendor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/ PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in Exhibit B, which is incorporated herein by reference.

5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Vendor for all expenses, of whatever nature incurred by the Vendor in the performance hereof, and shall be the only and the complete compensation to the Vendor for the Services. The State shall have no liability to the Vendor other than the contract price.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Vendor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY VENDOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Vendor shall comply with all statutes, laws, regulations, and orders of federal, state, county, or municipal authorities, which impose any obligation or duty upon the Vendor, including, but not limited to, civil rights and equal opportunity laws. In addition, the Vendor shall comply with all applicable copyright laws.

6.2 During the term of this Agreement, the Vendor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.

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6.3 If this Agreement is funded in any part by monies of the United States, the Vendor shall comply with all the provisions of Executive Order No. 11246 (“Equal Employment Opportunity”), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Vendor further agrees to permit the State or United States access to any of the Vendor’s books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

7.1 The Vendor shall at its own expense provide all personnel necessary to perform the Services. The Vendor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Vendor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State’s representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer’s decision shall be final for the State.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Vendor shall constitute an event of default hereunder (“Event of Default”):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

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- 8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:
- 8.2.1 give the Vendor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Vendor notice of termination;
 - 8.2.2 give the Vendor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Vendor during the period from the date of such notice until such time as the State determines that the Vendor has cured the Event of Default shall never be paid to the Vendor;
 - 8.2.3 set off against any other obligations the State may owe to the Vendor any damages the State suffers by reason of any Event of Default; and/or
 - 8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/ PRESERVATION.

- 9.1 As used in this Agreement, the word “data” shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.
- 9.2 All data and any property, which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.
- 9.3 Confidentiality of data shall be governed by N.H. RSA chapter 106-H or other existing law. Disclosure of data requires prior written approval of the State.

- 10. TERMINATION.** In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Vendor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report (“Termination Report”) describing in detail all Services performed, and the contract price earned, to and including the date of

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termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached Exhibit A.

11. VENDOR'S RELATION TO THE STATE. In the performance of this Agreement, the Vendor is in all respects an independent Vendor, and is neither an agent nor an employee of the State. Neither the Vendor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS. The Vendor shall not assign, or otherwise transfer any interest in this Agreement without the prior written consent of the N.H. Department of ~~Administrative Services~~ Safety. None of the Services shall be subcontracted by the Vendor without the prior written consent of the State.

13. INDEMNIFICATION. The Vendor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees; by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Vendor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Vendor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$250,000 per claim and \$2,000,000 per occurrence; and

14.1.2 fire and extended coverage insurance covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

Julie Chase

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14.3 The Vendor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Vendor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than fifteen (15) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to endeavor to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than ten (10) days prior written notice of cancellation or modification of the policy.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Vendor agrees, certifies and warrants that the Vendor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("Workers' Compensation").

15.2 To the extent the Vendor is subject to the requirements of N.H. RSA chapter 281A, Vendor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Vendor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Vendor, or any subcontractor or employee of Vendor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Vendor.

17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire.

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19. **CONSTRUCTION OF AGREEMENT AND TERMS.** This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.
20. **THIRD PARTIES.** The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.
21. **HEADINGS.** The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.
22. **SPECIAL PROVISIONS.** Additional provisions set forth in the attached Exhibit C are incorporated herein by reference.
23. **SEVERABILITY.** In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.
24. **ENTIRE AGREEMENT.** This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.

GENERAL CONTRACT REQUIREMENTS

H-25.1 Vendor Responsibilities

The Vendor shall be solely responsible for meeting all requirements, and terms and conditions specified in this contract, the RFP, its addendums, and the vendor's proposal submission, regardless of whether or not it proposes to use any Subcontractor.

The Vendor shall remain wholly responsible for performance of the entire Contract regardless of whether a Subcontractor is used. The State will consider the Vendor to be the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from any Contract.

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H-25.2 Vendor Staff

The Vendor's selection of a Project Manager will be subject to the prior approval of the State. The State's approval process may include, without limitation, at the State's discretion, review of the proposed Project Manager's resume, qualifications, references and background checks, and an interview. The Vendor's Project Manager must be qualified to perform the obligations required of the position under the Contract, have full authority to make binding decisions, and shall function as the Vendor's representative for all administrative and management matters. The Project Manager must be available to promptly respond during Normal Working Hours within two (2) hours to inquiries from the State, and be at the site as needed. The Vendor must use his or her best efforts on the Project.

The Vendor shall not change key Vendor staff and Project Manager commitments (collectively referred to as "Project Staff") unless such replacement is necessary due to sickness, death, termination of employment, or unpaid leave of absence. Any such changes to the Vendor's Project Staff shall require the prior written approval of the State. Replacement Project Staff shall have comparable or greater skills with regard to performance of the Project as the staff being replaced and be subject to the provisions of this Contract.

The State, at its sole expense, may conduct reference and background checks on the Vendor's Project Staff. The State shall maintain the confidentiality of reference and background screening results. The State reserves the right to reject the Vendor's Project Staff as a result of such reference and background checks. The State also reserves the right to require removal or reassignment of the Vendor's key Project Staff found unacceptable to the State.

Notwithstanding anything to the contrary, the State shall have the option to terminate the Contract, at its discretion, if it is dissatisfied with the Vendor's replacement Project Staff.

H-25.3 Work Plan

A final Work Plan will be due five (5) business days after Contract award upon approval by Governor and Executive Council.

The Vendor shall update the Work Plan as necessary, but no less than every two weeks to accurately reflect the status of the Project, including without limitation, the Schedule, tasks, Deliverables, major milestones, task dependencies, and payment schedule. Any updates to the Work Plan shall require the written approval of the State prior to final incorporation into the Contract.

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Unless otherwise agreed in writing by the State, changes to the Work Plan shall not relieve the Vendor from liability to the State for any damages resulting from the Vendor's failure to perform its obligations under the Contract, including without limitation, performance in accordance with the Schedule.

In the event of a delay in the Schedule, the Vendor must immediately notify the State in writing. The written notification will identify the nature of the delay, i.e., specific actions or inactions of the Vendor or State causing the problem; its estimated duration period to reconciliation; specific actions that need to be taken to correct the problem; and the expected Schedule affect the Project.

In the event the Vendor requires additional time to correct Deficiencies, the Schedule shall not change unless previously agreed in writing by the State, except that the Schedule shall automatically extend on a day-to-day basis to the extent that the delay does not result from Vendor's failure to fulfill its obligations under the Contract. To the extent that the State's execution of its major tasks takes longer than described in the Work Plan, the Schedule shall automatically extend on a day-to-day basis.

Notwithstanding anything to the contrary, the State shall have the option to terminate the Contract for default, at its discretion, if it is dissatisfied with the Vendor's Work Plan or elements within the Work Plan.

H-25.4 Change Orders

The State may make changes or revisions at any time by written Change Order. Within five (5) business days of a Vendor's receipt of a Change Order, the Vendor shall advise the State, in detail, of any impact on cost (e.g., increase or decrease), the Schedule, or the Work Plan.

A Vendor may request a change within the scope of the Contract by written Change Order, identifying any impact on cost, the Schedule, or the Work Plan. The State shall attempt to respond to a Vendor's requested Change Order within five (5) business days. The State, which includes the requesting Agency and the Department of Information Technology, must approve all change orders in writing. The State shall be deemed to have rejected the Change Order if the parties are unable to reach an agreement in writing.

All Change Order requests from a Vendor to the State and the State acceptance of a Vendor's estimate for a State requested change, will be acknowledged and responded to, either acceptance or rejection, in writing. If accepted, the Change Order(s) shall be subject to the Contract amendment process, as determined to apply by the State.

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H-25.5 Deliverables

The Vendor shall provide the State with the Deliverables and Services in accordance with the time frames in the Work Plan. All Deliverables shall be subject to the State's Acceptance as set forth in Section H-25.7: Testing and Acceptance herein.

Upon its submission of a Deliverable, the Vendor represents that it has performed its obligations under the Contract associated with the Deliverable.

By unconditionally accepting a Deliverable, the State reserves the right to reject any and all Deliverables in the event the State detects any Deficiency in the System, in whole or in part, through completion of all Acceptance Testing, including but not limited to, Software/System Acceptance Testing, and any extensions thereof.

For each denial of Acceptance, the Acceptance Period may be extended, at the option of the State, by the corresponding time required to correct the Deficiency, retest or Review.

H-25.5.1 Written Deliverables Review

The State will review the Written Deliverables for an Acceptance Period of five (5) business days after receiving written Certification from the Vendor that the Written Deliverable is final, complete, and ready for Review. The State will notify the Vendor in writing of its Acceptance or Non-Acceptance of a Deliverable by the end of the five (5) day Review Period. If any Deficiencies exist, the State will notify the Vendor in writing of the Deficiency and the Vendor must correct the Deficiency within five (5) business days of receiving notice from the State at no charge to the State. Upon receipt of the corrected Deliverable, the State will have five (5) business days to Review the corrected Written Deliverable and notify the Vendor in writing of its Acceptance or rejection thereof.

H-25.5.2 Software Deliverables Review

Described in Section H-25.7: Testing and Acceptance.

H-25.5.3 Non-Software Deliverables Review

The State will review Non-Software Deliverables to determine whether any Deficiency exists and notify the Vendor in writing of its Acceptance or non-acceptance of the Non-Software Deliverable. The Vendor must correct the Deficiencies within five (5) business days, or within the period identified in the Work Plan, as applicable. Following correction of the Deficiency, the State will notify the Vendor in writing of its Acceptance or rejection of the Deliverable.

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H-25.6 Licenses

The State has defined the Software license grant rights, terms and conditions, and has documented the evaluation criteria.

H-25.6.1 Software License Grant

The Software License shall grant the State a worldwide, perpetual, irrevocable, non-exclusive, non-transferable, limited license to use the Software and its associated Documentation, subject to the terms of the Contract.

The State may allow its agents and Vendors to access and use the Software, and in such event, the State shall first obtain written agreement from such agents and Vendors that each shall abide by the terms and conditions set forth herein.

H-25.6.2 Software and Documentation Copies

The Vendor shall provide the State with a sufficient number of hard copy versions of the Software's associated Documentation and one (1) electronic version in Microsoft WORD and PDF format. The State shall have the right to copy the Software and its associated Documentation for its internal business needs. The State agrees to include copyright and proprietary notices provided to the State by the Vendor on such copies.

H-25.6.3 Restrictions

Except as otherwise permitted under the Contract, the State agrees not to:

- a) Remove or modify any program markings or any notice of Vendor's proprietary rights;
- b) Make the programs or materials available in any manner to any third party for use in the third party's business operations, except as permitted herein; or
- c) Cause or permit reverse engineering, disassembly or recompilation of the programs.

H-25.6.4 Title

The Vendor must allow the State to use the Software or hold all title, right, and interest (including all ownership and intellectual property rights) in the Software and its associated Documentation.

H-25.6.5 Third Party

The Vendor shall identify all third party contracts to be provided under the Contract with the Vendor's Proposal. The terms in any such contracts must be consistent with this Contract.

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H-25.7 Testing and Acceptance

The State requires that an integrated and coherent approach to complete System testing, Security Review and Testing, Deficiency correction, Acceptance, and training, and that Warranty Services be provided to ensure a successful Project.

In its Proposal, the Vendor provided Test Plan methodology and scheduling assumptions used regarding the client resource efforts required during testing. After Contract award, the Vendor will be required to customize its proposed Test Plan methodology to reflect the needs of the Project and include the details of its Test Plan methodology in the detailed Work Plan (the first Project Deliverable). A separate Test Plan and set of test materials will be prepared for each Software function or module.

In addition, the Vendor will provide a mechanism for reporting actual test results versus expected results and for the resolution and tracking of all errors and problems identified during test execution. The Vendor will also provide training as necessary to the State staff responsible for test activities.

H-25.7.1 Remedies

If the Vendor fails to correct a Deficiency within the period of time allotted by the State, the Vendor shall be deemed to have committed an Event of Default, pursuant Section 8 above and H-25.12, and the State Shall have the right, at its option, to pursue the remedies in Section H-25.12.1 Termination for Default as well as to return the Vendor's product and receive a refund for all amounts paid to the Vendor, including but not limited to, applicable license fees, within ninety (90) days of notification to the Vendor of the State's refund request

Notwithstanding any provision of the Contract, the State's option to terminate the Contract and pursue the stated remedies will remain in effect until the Vendor completes the Contract to the satisfaction of the State.

H-25.7.2 System Acceptance

Upon completion of the Warranty Period, the State will issue a Letter of Final System Acceptance.

H-25.8 Warranty

H-25.8.1 Warranty Period

The Warranty Period will initially commence upon the State issuance of a Letter of Acceptance for UAT and will continue for one year.

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If within the last thirty (30) calendar days of the Warranty Period, any Systems provided fail to operate as specified, the Warranty Period will cease, the Vendor will correct the Deficiency, and a thirty (30) calendar day Warranty Period will begin. Any further Deficiencies with the Systems must be corrected and run fault free for thirty (30) days.

H-25.8.2 Warranties

H-25.8.2.1 System

The Vendor shall warrant that the System must operate to conform to the Specifications, terms, and requirements of the Contract.

H-25.8.2.2 Software

The Vendor shall warrant that the Software is properly functioning within the System, compliant with the requirements of the Contract, and will operate in accordance with the Specifications.

Software shall be archived and or version controlled through the use of Harvest Software.

H-25.8.2.3 Non-Infringement

The Vendor shall warrant that it has good title to, or the right to allow the State to use all Services, equipment, and Software provided under this Contract, and that such Services, equipment, and Software (“Material”) do not violate or infringe any patent, trademark, copyright, trade name or other intellectual property rights or misappropriate a trade secret of any third party.

H-25.8.2.4 Viruses; Destructive Programming

The Vendor shall warrant that the Software will not contain any viruses, destructive programming, or mechanisms designed to disrupt the performance of the Software in accordance with the Specifications.

H-25.8.2.5 Compatibility

The Vendor shall warrant that all System components, including any replacement or upgraded System Software components provided by the Vendor to correct Deficiencies or as an Enhancement, shall operate with the rest of the System without loss of any functionality.

H-25.8.2.6 Professional Services

The Vendor shall warrant that all Services provided under the Contract will be provided in a professional manner in accordance with industry standards and that Services will comply with performance standards.

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H-25.8.3 Warranty Services

The Vendor shall agree to maintain, repair, and correct Deficiencies in the System Software, including but not limited to the individual modules or functions, during the Warranty Period at no additional cost to the State, in accordance with the Specifications and terms and requirements of the Contract, including without limitation, correcting all errors, and Defects and Deficiencies; eliminating viruses or destructive programming; and replacing incorrect, Defective or Deficient Software and Documentation.

Warranty Services shall include, without limitation, the following:

- a. Maintain the System Software in accordance with the Specifications, terms, and requirements of the Contract;
- b. Repair or replace the System Software or any portion thereof so that the System operates in accordance with the Specifications, terms, and requirements of the Contract;
- c. The Vendor shall have available to the State on-call telephone assistance, with issue tracking available to the State, twenty four (24) hours per day and seven (7) days a week with an email / telephone response within two (2) hours of request, with assistance response dependent upon issue severity;
- d. On-site additional Services within four (4) business hours of a request;
- e. Maintain a record of the activities related to Warranty Repair or maintenance activities performed for the State;
- f. For all Warranty Services calls, the Vendor shall ensure the following information will be collected and maintained:
 - 1) nature of the Deficiency;
 - 2) current status of the Deficiency;
 - 3) action plans, dates, and times;
 - 4) expected and actual completion time;
 - 5) Deficiency resolution information;
 - 6) Resolved by;
 - 7) Identifying number i.e. work order number;
 - 8) Issue identified by;
- g. The Vendor must work with the State to identify and troubleshoot potentially large-scale Software failures or Deficiencies by collecting the following information:
 - 1) mean time between reported Deficiencies with the Software;
 - 2) diagnosis of the root cause of the problem; and

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- 3) identification of repeat calls or repeat Software problems; and
- h. All Deficiencies found during the Warranty Period and all Deficiencies found with the Warranty Releases shall be corrected by the Vendor no later than five (5) business days, unless specifically extended in writing by the State, at no additional cost to the State.

If in the Event of Default, the Vendor fails to correct the Deficiency within the allotted period of time (see above), the State shall have the right, at its option: 1) declare the Vendor in default, terminate the Contract, in whole or in part, without penalty or liability to the State; 2) return the Vendor's product and receive a refund for all amounts paid to the Vendor, including but not limited to, applicable license fees within ninety (90) days of notification to the Vendor of the State's intent to request a refund; 3) and to pursue its remedies available at law or in equity.

Notwithstanding any provision of the Contract, the State's option to terminate the Contract and pursue the remedies above will remain in effect until satisfactory completion of the full Warranty Period.

H-25.9 Ongoing Software Maintenance and Support Levels

The Vendor shall maintain and support the system in all material respects as described in the applicable program documentation for five (5) years of maintenance after delivery and the warranty period of ninety (90) days.

The Vendor will not be responsible for maintenance or support for Software developed or modified by the State.

H-25.9.1 Maintenance Releases

The Vendor shall make available to the State the latest program updates, general maintenance releases, selected functionality releases, patches, and documentation that are generally offered to its customers, at no additional cost.

H-25.9.2 Vendor Responsibility

The Vendor shall be responsible for performing on-site or remote technical support in accordance with the Contract Documents, including without limitation the requirements, terms, and conditions contained herein.

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As part of the Software maintenance agreement, ongoing software maintenance and support levels, including all new Software releases, shall be responded to according to the following:
(Definitions of the Deficiency Classes can be found below in the Terms and definitions Section)

- a. Class A & B Deficiencies** The Vendor shall have available to the State oncall telephone assistance, with issue tracking available to the State, 24 hours per day seven (7) days a week. The Vendor shall provide support on-site or with remote diagnostic Services, within two (2) business hours of a request;
- b. Class C Deficiencies** The State shall notify the Vendor of such Deficiencies during regular business hours and the Vendor shall respond back within four (4) hours of notification of planned corrective action;

The Vendor shall repair or replace Software, and provide maintenance of the Software in accordance with the Specifications, Terms and Requirements of the Contract;

The Vendor shall maintain a record of the activities related to warranty repair or maintenance activities performed for the State;

For all maintenance Services calls, the Vendor shall ensure the following information will be collected and maintained: 1) nature of the Deficiency; 2) current status of the Deficiency; 3) action plans, dates, and times; 4) expected and actual completion time; 5) Deficiency resolution information, 6) Resolved by, 7) Identifying number i.e. work order number, 8) Issue identified by; and

The Vendor must work with the State to identify and troubleshoot potentially large-scale System failures or Deficiencies by collecting the following information: 1) mean time between reported Deficiencies with the System; 2) diagnosis of the root cause of the problem; and 3) identification of repeat calls or repeat Software problems.

If the Vendor fails to correct a Deficiency within the allotted period of time Stated above, the Vendor shall be deemed to have committed an Event of Default, pursuant to Section H-25.12, and the State shall have the right, at its option, to pursue the remedies in H-25.12, as well as to return the Vendor's product and receive a refund for all amounts paid to the Vendor, including but not limited to, applicable license fees, within ninety (90) days of notification to the Vendor of the State's refund request

If the Vendor fails to correct a Deficiency within the allotted period of time

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Stated above, the Vendor shall be deemed to have committed an Event of Default, pursuant to Section H-25.12, and the State shall have the right, at its option, to pursue the remedies in Section H-25.12.

H-25.10 Administrative Specifications

H-25.10.1 Travel Expenses

The State will not be responsible for any travel or out of pocket expenses incurred in the performance of the Services.

The Vendor must assume all travel and related expenses by “fully loading” the proposed labor rates to include, but not limited to: meals, hotel/housing, airfare, car rentals, car mileage, and out of pocket expenses.

H-25.10.2 Shipping and Delivery Fee Exemption

The State will not pay for any shipping or delivery fees unless specifically itemized in the Contract.

H-25.10.3 Project Workspace and Office Equipment

The State agency will work with the Vendor to determine the requirements for providing all necessary workspace and office equipment, including desktop computers for the Vendor’s staff.

H-25.10.4 Work Hours

For the purpose of Help Desk Class C Deficiencies and during project implementation Vendor personnel shall work hours between 8:15 am and 4:15 pm, Monday through Friday, excluding State of New Hampshire holidays. Changes to this schedule may be made upon agreement with the State Project Manager.

H-25.10.5 Access/Cooperation

As applicable, and reasonably necessary, and subject to the applicable State and federal laws and regulations and restrictions imposed by third parties upon the State, the State will provide the Vendor with access to all program files, libraries, personal computer-based systems, software packages, network systems, security systems, and hardware as required to complete the contracted Services.

The State will use reasonable efforts to provide approvals, authorizations, and decisions reasonably necessary to allow the Vendor to perform its obligations under the Contract.

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H-25.10.6 State-Owned Documents and Data

The Vendor shall provide the State access to all Documents, State Data, materials, reports, and other work in progress relating to the Contract (“State Owned Documents”). Upon expiration or termination of the Contract with the State, Vendor shall turn over all State-owned Documents, State Data, material, reports, and work in progress relating to this Contract to the State at no additional cost to the State. State-Owned Documents must be provided in both printed and electronic format.

H-25.10.7 Intellectual Property

Upon successful completion and/or termination of the Implementation of the Project, the Vendor shall own and hold all, title, and rights in any Software modifications developed in connection with performance of obligations under the Contract, or modifications to the Vendor provided Software, and their associated Documentation including any and all performance enhancing operational plans and the Vendors’ special utilities. The Vendor shall license back to the State the right to produce, publish, or otherwise use such software, source code, object code, modifications, reports, and Documentation developed under the Contract.

In no event shall the Vendor be precluded from developing for itself, or for others, materials that are competitive with, or similar to Custom Software, modifications developed in connection with performance of obligations under the Contract. In addition, the Vendor shall be free to use its general knowledge, skills, experience, and any other ideas, concepts, know-how, and techniques that are acquired or used in the course of its performance under this agreement.

H-25.10.8 IT Required Work Procedures

All work done must conform to standards and procedures established by the Department of Information Technology and the State.

H-25.10.9 Computer Use

In consideration for receiving access to and use of the computer facilities, network, licensed or developed software, software maintained or operated by any of the State entities, systems, equipment, Documentation, information, reports, or data of any kind (hereinafter “Information”), Vendor understands and agrees to the following rules:

- a. Every Authorized User has the responsibility to assure the protection of information from unauthorized access, misuse, theft, damage, destruction, modification, or disclosure.

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- b. That information shall be used solely for conducting official State business, and all other use or access is strictly forbidden including, but not limited to, personal, or other private and non-State use and that at no time shall Vendor access or attempt to access any information without having the express authority to do so.
- c. That at no time shall Vendor access or attempt to access any information in a manner inconsistent with the approved policies, procedures, and/or agreements relating to system entry/access.
- d. That all software licensed, developed, or being evaluated by the State cannot be copied, shared, distributed, sub-licensed, modified, reverse engineered, rented, or sold, and that at all times Vendor must use utmost care to protect and keep such software strictly confidential in accordance with the license or any other Agreement executed by the State. Only equipment or software owned, licensed, or being evaluated by the State, can be used by the Vendor. Personal software (including but not limited to palmtop sync software) shall not be installed on any equipment.
- e. That if the Vendor is found to be in violation of any of the above stated rules, the User may face removal from the State Contract, and/or criminal or civil prosecution, if the act constitutes a violation of law.

H-25.10.10 E-mail Use

Mail and other electronic communication messaging systems are State of New Hampshire property and are to be used for business purposes only. E-mail is defined as “internal email systems” or “State-funded email systems.” Vendors understand and agree that use of email shall follow State standard policy (available upon request).

H-25-10.11 Internet/Intranet Use

The Internet/Intranet is to be used for access to and distribution of information in direct support of the business of the State of New Hampshire according to State standard policy (available upon request).

H-25.10.12 Regulatory/Governmental Approvals

This contract shall be contingent upon the Vendor obtaining all necessary and applicable regulatory or other governmental approvals.

H-25.10.13 Force Majeure

Neither Vendor nor the State shall be responsible for delays or failures in performance resulting from events beyond the control of such party and without fault or negligence of such party.

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Such events shall include, but not be limited to, acts of God, strikes, lock outs, riots, and acts of War, epidemics, acts of Government, fire, power failures, nuclear accidents, earthquakes, and unusually severe weather.

Except in the event of the foregoing, Force Majeure events shall not include Vendor's inability to hire or provide personnel needed for the Vendor's performance under the Contract.

H-25.11 Pricing

H-25.11.1 Invoicing

The Vendor shall submit correct invoices to the State for all amounts to be paid by the State. All invoices submitted shall be subject to the State's written approval, which shall not be unreasonably withheld. The Vendor shall only submit invoices for Services or Deliverables as permitted by the Contract. Invoices must be in a format as determined by the State and contain detailed information, including without limitation: itemization of each Deliverable and identification of the Deliverable for which payment is sought, and the Acceptance date triggering such payment; date of delivery and/or installation; monthly maintenance charges; any other Project costs or retention amounts if applicable.

H-25.11.2 Overpayments to the Vendor

The Vendor shall promptly, but no later than fifteen (15) business days, pay the State the full amount of any overpayment or erroneous payment upon discovery or notice from either the Vendor or the State.

H-25.11.3 Credits

The State may apply credits due to the State, arising out of this Contract, against the Vendor's invoices with appropriate information attached.

H-25.11.4 Records Retention and Access Requirements

The Vendor shall agree to the conditions of all applicable State and federal laws and regulations, which are incorporated herein by this reference, regarding retention and access requirements, including without limitation, retention policies consistent with the Federal Acquisition Regulations (FAR) Subpart 4.7 Vendor Records Retention.

The Vendor and its Subcontractors shall maintain books, records, documents, and other evidence of accounting procedures and practices, which properly and sufficiently reflect all direct and indirect costs, invoiced in the performance of their respective obligations under the Contract. The Vendor and its Subcontractors shall retain all such records for three (3) years following termination of the Contract, including any extensions. Records relating to any litigation matters regarding the Contract shall be kept for one (1) year following the termination of all litigation, including the termination of all appeals or the expiration of the appeals period.

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Upon prior notice and subject to reasonable time frames, all such records shall be subject to inspection, examination, audit and copying by personnel so authorized by the State and federal officials so authorized by law, rule, regulation or Contract, as applicable. Access to these items will be provided within Merrimack County of the State of New Hampshire, unless otherwise agreed by the State. Delivery of and access to such records shall be at no cost to the State during the three (3) year period following termination of the Contract and one (1) year term following litigation relating to the Contract, including all appeals or the expiration of the appeal period. The Vendor shall include the record retention and review requirements of this section in any of its subcontracts.

The State agrees that books, records, documents, and other evidence of accounting procedures and practices related to the Vendor's cost structure and profit factors shall be excluded from the State's review unless the cost or any other Services or Deliverables provided under the Contract is calculated or derived from the cost structure or profit factors.

H-25.11.5 Accounting Requirements

The Vendor shall maintain an accounting system in accordance with generally accepted accounting principles. The costs applicable to the Contract shall be ascertainable from the accounting system and the Vendor shall maintain records pertaining to the Services and all other costs and expenditures.

H-25.12 Termination

This section H-25.12 shall survive termination or Contract conclusion.

H-25.12.1 Termination for Default

Any one or more of the following acts or omissions of the Vendor shall constitute an event of default hereunder ("Event of Default")

- a. Failure to perform the Services satisfactorily or on schedule;
- b. Failure to submit any report required; and/or
- c. to perform any other covenant, term or condition of the Contract

Upon the occurrence of any Event of Default, the State may take any one or more, or all, of the following actions:

- a) Unless otherwise provided in the Contract, the State shall provide the Vendor written notice of default and require it to be remedied within, in the absence of a greater or lesser specification of time, within thirty (30) days from the date of notice, unless otherwise indicated within by the State ("Cure Period"). If the Vendor fails to cure the default within the Cure Period, the State may terminate the Contract effective two (2) days after

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giving the Vendor notice of termination, at its sole discretion, treat the Contract as breached and pursue its remedies at law or in equity or both.

- b) Give the Vendor a written notice specifying the Event of Default and suspending all payments to be made under the Contract and ordering that the portion of the Contract price which would otherwise accrue to the Vendor during the period from the date of such notice until such time as the State determines that the Vendor has cured the Event of Default shall never be paid to the Vendor.
- c) Set off against any other obligations the State may owe to the Vendor any damages the State suffers by reason of any Event of Default;
- d) Treat the Contract as breached and pursue any of its remedies at law or in equity, or both.
- e) Procure Services that are the subject of the Contract from another source and the Vendor shall be liable for reimbursing the State for the replacement Services, and all administrative costs directly related to the replacement of the Contract and procuring the Services from another source, such as costs of competitive bidding, mailing, advertising, applicable fees, charges or penalties, and staff time costs; all of which shall be subject to the limitations of liability set forth in the Contract.

In the event of default by the State, the Vendor shall provide the State with written notice of default, and the State shall cure the default within thirty (30) days.

Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive termination or Contract Conclusion.

H-25.12.2 Termination for Convenience

The State may, at its sole discretion, terminate the Contract for convenience, in whole or in part, by thirty (30) days written notice to the Vendor. In the event of such termination for convenience, the State shall pay the Vendor the agreed upon price, if separately stated, for Deliverables for which Acceptance has been given by the State. Amounts for Services or Deliverables provided prior to the date of termination for which no separate price is stated will be paid, in whole or in part, generally in accordance with Exhibit B: Pricing Worksheet.

During the thirty (30) day period, the Vendor shall wind down and cease its Services as quickly and efficiently as reasonably possible, without performing unnecessary Services or activities and by minimizing negative effects on the State from such winding down and cessation of Services.

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H-25.12.3 Termination for Conflict of Interest

The State may terminate the Contract by written notice if it determines that a conflict of interest exists, including but not limited to, a violation by any of the parties hereto of applicable laws regarding ethics in public acquisitions and procurement and performance of Contracts.

In such case, the State shall be entitled to a pro-rated refund of any current development, support and maintenance costs. The State shall pay all other contracted payments that would have become due and payable if the Vendor did not know, or reasonably did not know, of the conflict of interest.

In the event the Contract is terminated as provided above pursuant to a violation by the Vendor, the State shall be entitled to pursue the same remedies against the Vendor as it could pursue in the event of a default of the Contract by the Vendor.

H-25.12.4 Termination Procedure

Upon termination of the Contract, the State, in addition to any other rights provided in the Contract, may require the Vendor to deliver to the State any property, including without limitation, Software and Written Deliverables, for such part of the Contract as has been terminated.

After receipt of a notice of termination, and except as otherwise directed by the State, Vendor shall:

- a. Stop work under the Contract on the date, and to the extent specified, in the notice;
- b. Promptly, but in no event longer than thirty (30) days after termination, terminate its orders and subcontracts related to the work which has been terminated and settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the State to the extent required, which approval or ratification shall be final for the purpose of this Section;
- c. Take such action as the State directs, or as necessary to preserve and protect the property related to the Contract which is in the possession of Vendor and in which State has an interest;
- d. Transfer title to the State and deliver in the manner, at the times, and to the extent directed by the State, any property which is required to be furnished to State and which has been accepted or requested by the State; and
- e. Provide written certification to the State that Vendor has surrendered to the State all said property.

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H-25.13 Limitation of Liability

H-25.13.1 State

Subject to applicable laws and regulations, in no event shall the State be liable for any consequential, special, indirect, incidental, punitive, or exemplary damages. Subject to applicable laws and regulations, the State's liability to the Vendor shall not exceed the total Contract price set forth in Contract Agreement, Section 1.8 of the Contract Agreement – General Provisions.

Notwithstanding the foregoing and any provision of this Contract to the contrary, in no event does the State waive its sovereign immunity or any applicable defenses or immunities.

H-25.13.2 The Vendor

Subject to applicable laws and regulations, in no event shall the Vendor be liable for any consequential, special, indirect, incidental, punitive or exemplary damages and the Vendor's liability to the State shall not exceed two times (2X) the total Contract price set forth in the Contract Agreement, Section 1.8 of the Contract Agreement – General Provisions. Notwithstanding the foregoing, the limitation of liability shall not apply to the Vendor's indemnification obligations set forth in the Contract Agreement - Sections 13: Indemnification.

H-25.13.3 State's Immunity

Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive termination or Contract conclusion.

H-25.13.4 Survival

This Contract Agreement, Section H-25.13: Limitation of Liability shall survive termination or Contract conclusion.

H-25.14 Change of Ownership

In the event that the Vendor should change ownership for any reason whatsoever, the State shall have the option of continuing under the Contract with the Vendor, its successors or assigns for the full remaining term of the Contract; continuing under the Contract with the Vendor, its successors or assigns for such period of time as determined necessary by the State; or immediately terminate the Contract without liability to the Vendor, its successors or assigns.

H-25.15 Assignment, Delegation and Subcontracts

The Vendor shall not assign, delegate, subcontract, or otherwise transfer any of its interest, rights, or duties under the Contract without the prior written consent of the State. Such consent will not be unreasonably withheld. Any attempted transfer, assignment, delegation,

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or other transfer made without the State's prior written consent shall be null and void and may constitute an event of default at the sole discretion of the State.

The Vendor shall remain wholly responsible for performance of the entire Contract regardless of whether assignees, delegates, Subcontractors or other transferees ("Assigns") are used, unless otherwise agreed to in writing by the State and the Assigns fully assumes in writing any and all obligations and liabilities under the Contract from the Effective Date . In the absence of a written assumption of full obligations and liabilities of the Contract, any permitted assignment, delegation, subcontract or other transfer shall neither relieve the Vendor of any of its obligations under the Contract nor shall it affect any remedies available to the State against the Vendor that may arise from any event of default of the provisions of the Contract. The State will consider the Vendor to be the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from the Contract.

H-25.16 Dispute Resolution

Prior to the filing of any formal proceedings with respect to a dispute (other than an action seeking injunctive relief with respect to intellectual property rights or Confidential Information), the party believing itself aggrieved (the "Invoking Party") shall call for progressive management involvement in the dispute negotiation by written notice to the other party. Such notice shall be without prejudice to the Invoking Party's right to any other remedy permitted by this Agreement.

H-25.17 Venue and Jurisdiction

Any action on the Contract may only be brought in the State of New Hampshire Merrimack County Superior Court.

H-25.18 Project Holdback

The State will withhold 20% of the agreed Deliverables pricing tendered by the Vendor in this engagement until System Acceptance as defined in Section H-25.7.2: Letter of Final System Acceptance.

H-25.19 Escrow of Code

Vendor will enter into a source and configuration code agreement with a State-approved escrow agent. The escrow agreement requires the Vendor to put the Vendor Software source and configuration code in escrow. The source code shall be released to the State if one of the following events has occurred:

- a) The Vendor has made an assignment for the benefit of creditors; or
- b) The Vendor institutes or becomes subject to a liquidation or bankruptcy proceeding of any kind; or

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- c) A receiver, or similar officer, has been appointed to take charge of all or part of the Vendor's assets; or
- d) The Vendor or its subcontractor terminates its maintenance and operations support Services for the State for the Software or has ceased supporting and maintaining the Software for the State, whether due to its ceasing to conduct business generally or otherwise, except in cases where the termination or cessation is a result of the non-payment or other fault of the State; or
- e) Vendor defaults under the Contract; or
- f) Vendor ceases its on-going business operations or that portion of its business operations relating to the licensing and maintenance of the Software.

TERMS AND DEFINITIONS

The following general contracting terms and definitions apply except as specifically noted elsewhere in this document.

Acceptance		Notice from the State that a Deliverable has satisfied Acceptance Test or Review.
Acceptance Letter		An Acceptance Letter provides notice from the State that a Deliverable has satisfied Acceptance Tests or Review.
Acceptance Period		The timeframe during which the Acceptance Test is performed
Acceptance Test Plan		The Acceptance Test Plan provided by the Vendor and agreed to by the State that describes at a minimum, the specific Acceptance process, criteria, and Schedule for Deliverables.
Acceptance Test and Review		Tests performed to determine that no Defects exist in the application Software or the System
Access Control		Supports the management of permissions for logging onto a computer or network
Agreement		A contract duly executed and legally binding.
Appendix		Supplementary material that is collected and appended at the back of a document
Audit Trail Capture and Analysis		Supports the identification and monitoring of activities within an application or system

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Breach or Breach of Security	Unlawful and unauthorized acquisition of unencrypted computerized data that materially compromises the security, confidentiality or integrity of personal information maintained by a person or commercial entity
CCP	Change Control Procedures
CR	Change Request
COTS	Commercial Off-The-Shelf Software
CM	Configuration Management
Certification	The Vendor's written declaration with full supporting and written Documentation (including without limitation test results as applicable) that the Vendor has completed development of the Deliverable and certified its readiness for applicable Acceptance Testing or Review.
Change Control	Formal process for initiating changes to the proposed solution or process once development has begun.
Change Order	Formal documentation prepared for a proposed change in the Specifications.
Completion Date	End date for the Contract
Confidential Information	Information required to be kept Confidential from unauthorized disclosure under the Contract
Contract	This Agreement between the State of New Hampshire and a Vendor, which creates binding obligations for each party to perform as specified in the Contract Documents.
Contract Conclusion	Refers to the conclusion of the Contract, for any reason, including but not limited to, the successful Contract completion, termination for convenience, or termination for default.
Contract Documents	Documents that comprise this Contract

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Contract Managers	The persons identified by the State and the Vendor who shall be responsible for all contractual authorization and administration of the Contract. These responsibilities shall include but not be limited to processing Contract Documentation, obtaining executive approvals, tracking costs and payments, and representing the parties in all Contract administrative activities.
Contracted Vendor	The vendor whose proposal or quote was awarded the Contract with the State and who is responsible for the Services and Deliverables of the Contract.
Conversion Test	A test to ensure that a data conversion process correctly takes data from a legacy system and successfully converts it to form that can be used by the new system.
COTS	Commercial off the Shelf
Cure Period	The thirty (30) day period following written notification of a default within which a contracted vendor must cure the default identified.
Custom Code	Code developed by the Vendor specifically for this project for the State of New Hampshire
Custom Software	Software developed by the Vendor specifically for this project for the State of New Hampshire
Data	State's records, files, forms, Data and other documents or information, in either electronic or paper form, that will be used /converted by the Vendor during the Contract Term
DBA	Database Administrator
Deficiencies/Defects	<p>A failure, deficiency, or defect in a Deliverable resulting in a Deliverable, the Software, or the System, not conforming to its Specifications.</p> <p>Class A Deficiency – Software - Critical, does not allow System to operate, no work around, demands immediate</p>

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		<p>action; Written Documentation - missing significant portions of information or unintelligible to State; Non Software - Services were inadequate and require re-performance of the Service.</p> <p>Class B Deficiency – Software - important, does not stop operation and/or there is a work around and user can perform tasks; Written Documentation - portions of information are missing but not enough to make the document unintelligible; Non Software - Services were deficient, require reworking, but do not require re-performance of the Service.</p> <p>Class C Deficiency – Software - minimal, cosmetic in nature, minimal effect on System, low priority and/or user can use System; Written Documentation - minimal changes required and of minor editing nature; Non Software - Services require only minor reworking and do not require re-performance of the Service.</p>
Deliverable		A Deliverable is any Written, Software, or Non-Software Deliverable (letter, report, manual, book, other), provided by the Vendor to the State or under the terms of a Contract requirement.
Department		An agency of the State
Department of Information Technology (DoIT)		The Department of Information Technology established under RSA 21-R by the Legislature effective September 5, 2008.
Documentation		All information that describes the installation, operation, and use of the Software, either in printed or electronic format.
Digital Signature		Guarantees the unaltered state of a file
Effective Date		The Contract and all obligations of the parties hereunder shall become effective on the date the Governor and the Executive Council of the State of New Hampshire approves the Contract.

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Encryption	Supports the encoding of data for security purposes
Enhancements	Updates, additions, modifications to, and new releases for the Software, and all changes to the Documentation as a result of Enhancements, including, but not limited to, Enhancements produced by Change Orders

Event of Default	Any one or more of the following acts or omissions of a Vendor shall constitute an event of default hereunder (“Event of Default”) <ul style="list-style-type: none"> a. Failure to perform the Services satisfactorily or on schedule; b. Failure to submit any report required; and/or c. Failure to perform any other covenant, term or condition of the Contract
Firm Fixed Price Contract	A Firm-Fixed-Price Contract provides a price that is not subject to increase, i.e., adjustment on the basis of the Vendor’s cost experience in performing the Contract
Fully Loaded	Rates are inclusive of all allowable expenses, including, but not limited to: meals, hotel/housing, airfare, car rentals, car mileage, and out of pocket expenses
GAAP	Generally Accepted Accounting Principles
Governor and Executive Council	The New Hampshire Governor and Executive Council.
Harvest	Software to archive and/or control versions of software
Identification and Authentication	Supports obtaining information about those parties attempting to log on to a system or application for security purposes and the validation of those users
Implementation	The process for making the System operational for processing the Data.
Implementation Plan	Sets forth the transition from development of the System to full operation, and includes without limitation, training, business and technical procedures.

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Information Technology (IT)	Refers to the tools and processes used for the gathering, storing, manipulating, transmitting, sharing, and sensing of information including, but not limited to, Data processing, computing, information systems, telecommunications, and various audio and video technologies.
Input Validation	Ensure the application is protected from buffer overflow, cross-site scripting, SQL injection, and canonicalization
Intrusion Detection	Supports the detection of illegal entrance into a computer system
Invoking Party	In a dispute, the party believing itself aggrieved
Key Project Staff	Personnel identified by the State and by the contracted vendor as essential to work on the Project.
Licensee	The State of New Hampshire

Non Exclusive Contract	A contract executed by the State that does not restrict the State from seeking alternative sources for the Deliverables or Services provided under the Contract.
Non-Software Deliverables	Deliverables that are not Software Deliverables or Written Deliverables, e.g., meetings, help support, services, other
Normal Business Hours	Normal Business Hours – 8:00 a.m. to 5:00 p.m. EST, Monday through Friday excluding State of New Hampshire holidays. State holidays are: New Year’s Day, Martin Luther King Day, President’s Day, Memorial Day, July 4 th , Labor Day, Veterans Day, Thanksgiving Day, the day after Thanksgiving Day, and Christmas Day. Specific dates will be provided
Notice to Proceed (NTP)	The State Contract Manager’s written direction to the Vendor to begin work on the Contract on a given date and time
Open Data Formats	A data format based on an underlying Open Standard.
Open Source Software	Software that guarantees the user unrestricted use of the Software as defined in RSA 21-R:10 and RSA 21-R:11.
Open Standards	Specifications for the encoding and transfer of computer data that is defined in RSA 21-R:10 and RSA 21-R:13.

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Operating System	System is fully functional, all Data has been loaded into the System, is available for use by the State in its daily operations.
Operational	Operational means that the System is operating and fully functional, all Data has been loaded; the System is available for use by the State in its daily operations, and the State has issued an Acceptance Letter.
Order of Precedence	The order in which Contract/Documents control in the event of a conflict or ambiguity. A term or condition in a document controls over a conflicting or ambiguous term or condition in a document that is lower in the Order of Precedence
Project	The planned undertaking regarding the entire subject matter of an RFP and Contract and the activities of the parties related hereto.
Project Team	The group of State employees and contracted Vendor's personnel responsible for managing the processes and mechanisms required such that the Services are procured in accordance with the Work Plan on time, on budget and to the required specifications and quality
Project Management Plan	A document that describes the processes and methodology to be employed by the Vendor to ensure a
	successful project.
Project Managers	The persons identified who shall function as the State's and the Vendor's representative with regard to Review and Acceptance of Contract Deliverables, invoice sign off, and review and approval of Change Requests (CR) utilizing the Change Control Procedures (CCP)
Project Staff	State personnel assigned to work with the Vendor on the project
Proposal	The submission from a Vendor in response to the Request for a proposal or statement of work.
Regression Test Plan	A plan integrated into the Work Plan used to ascertain whether fixes to defects have caused errors elsewhere in the application/process.

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Review		The process of reviewing Deliverables for Acceptance
Review Period		The period set for review of a Deliverable. If none is specified then the review period is five (5) business days.
RFP (Request for Proposal)		A Request For Proposal solicits Proposals to satisfy State functional requirements by supplying data processing product and/or Service resources according to specific terms and conditions
Role/Privilege Management		Supports the granting of abilities to users or groups of users of a computer, application or network
Schedule		The dates described in the Work Plan for deadlines for performance of Services and other Project events and activities under the Contract
SaaS		Software as a Service- Occurs where the COTS application is hosted but the State does not own the license or the code.
Service Level Agreement (SLA)		A signed agreement between the Vendor and the State specifying the level of Service that is expected of, and provided by, the Vendor during the term of the Contract.
Services		The work or labor to be performed by the Vendor on the Project as described in the Contract.
Software		All custom Software and COTS Software provided by the Vendor under the Contract
Software Deliverables		COTS Software and Enhancements
Software License		Licenses provided to the State under this Contract
Solution		The Solution consists of the total Solution, which includes, without limitation, Software and Services, addressing the requirements and terms of the Specifications. The off-the-
		shelf Software and configured Software customized for the State provided by the Vendor in response to this RFP.

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Specifications		The written Specifications that set forth the requirements which include, without limitation, this RFP, the Proposal, the Contract, any performance standards, Documentation, applicable State and federal policies, laws and regulations, State technical standards, subsequent State-approved Deliverables, and other Specifications and requirements described in the Contract Documents. The Specifications are, by this reference, made a part of the Contract as though completely set forth herein.
State		Reference to the term “State” refers to the Dept. of Safety Division of Emergency Services and Communications, and its applicable supporting State of NH agencies.
Statement of Work (SOW)		A Statement of Work clearly defines the basic requirements and objectives of a Project. The Statement of Work also defines a high level view of the architecture, performance and design requirements, the roles and responsibilities of the State and the Vendor. The SOW defines the results that the Vendor remains responsible and accountable for achieving.
State’s Confidential Records		State’s information regardless of its form that is not subject to public disclosure under applicable state and federal laws and regulations, including but not limited to RSA Chapter 106-H
State Data		Any information contained within State systems in electronic or paper format.
State Fiscal Year (SFY)		The New Hampshire State Fiscal Year extends from July 1 st through June 30 th of the following calendar year
State Project Leader		State’s representative with regard to Project oversight
State’s Project Manager (PM)		State’s representative with regard to Project management and technical matters. Agency Project Managers are responsible for review and Acceptance of specific Contract Deliverables, invoice sign off, and Review and approval of a Change Proposal (CP).

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Subcontractor	A person, partnership, or company not in the employment of, or owned by, the Vendor, which is performing Services under this Contract under a separate Contract with or on behalf of the Vendor
System	All Software, specified hardware, and interfaces and
	extensions, integrated and functioning together in accordance with the Specifications.
TBD	To Be Determined
Technical Authorization	Direction to a Vendor, which fills in details, clarifies, interprets, or specifies technical requirements. It must be: (1) consistent with Statement of Work within statement of Services; (2) not constitute a new assignment; and (3) not change the terms, documents of specifications of the SOW.
Test Plan	A plan, integrated in the Work Plan, to verify the code (new or changed) works to fulfill the requirements of the Project. It may consist of a timeline, a series of tests and test data, test scripts and reports for the test results as well as a tracking mechanism.
Term	The duration of the Contract.
Transition Services	Services and support provided when the contracted vendor is supporting system changes.
UAT	User Acceptance Test
Unit Test	Developers create their own test data and test scenarios to verify the code they have created or changed functions properly as defined.
User Acceptance Testing	Tests done by knowledgeable business users who are familiar with the scope of the Project. They create/develop test cases to confirm the System was developed according to specific user requirements. The test cases and scripts/scenarios should be mapped to business requirements outlined in the user requirements documents.

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User Management	Supports the administration of computer, application and network accounts within an organization
Vendor/Vendor	The contracted individual, firm, or company that will perform the duties and Specifications of the contract.
Verification	Supports the confirmation of authority to enter a computer system, application or network
Walk Through	A step-by-step review of a specification, usability features or design before it is handed off to the technical team for development
Warranty Period	A period of coverage during which the contracted vendor is responsible for providing a guarantee for products and services delivered as defined in the
	contract.
Warranty Releases	Code releases that are done during the warranty period.
Warranty Services	The Services to be provided by the Vendor during the Warranty Period.
Work Hours	Vendor personnel shall work normal business hours between 8:00 am and 5:00 pm, eight (8) hour days, forty (40) hour weeks, excluding State of New Hampshire holidays. Changes to this schedule may be made upon agreement with the State Project Manager. However, the State requires an unpaid lunch break of at least thirty (30) minutes be taken after five (5) consecutive hours of work.
Work Plan	The overall plan of activities for the Project created in accordance with the Contract. The plan and delineation of tasks, activities and events to be performed. The Work Plan shall include a detailed description of the Schedule, tasks/activities, Deliverables, critical events, task dependencies, and the resources that would lead and/or participate on each task.
Written Deliverables	Non-Software written deliverable Documentation (letter, report, manual, book, other) provided by the Vendor either in paper or electronic format.



**DEPARTMENT OF SAFETY
DIVISION OF EMERGENCY SERVICES AND
COMMUNICATIONS**

**Scope Statement for
Solacom Guardian Next Generation
9-1-1 Call Taking and Mapping Solution**

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1 Scope Statement Purpose

The purpose of this Statement of Work (SOW) is to clarify the responsibilities of AK Associates and the New Hampshire Department of Safety, regarding the scope of work,

deliverables, and terms and conditions as it relates to the *RFP DOS 2015-170* response. This document, and any subsequent revisions, shall be an exhibit to the master agreement by and between New Hampshire Department of Safety and AK Associates

2 Project Background and Objectives

The current legacy equipment is manufacturer discontinued as of January 31st, 2016. As such the Next Generation equipment proposed will remedy the mandated Text-to-9-1-1 and SIP trunking as set forth in the requirements to the RFP. (Reference response to RFP DOS 2015-170)

The below sheets identify the hardware and software components to be implemented. These include a Geo-Diverse server based call answering platform at the two main PSAPs. The software applications driving this project include Guardian Call Taking, Solacom and GeoLynx Mapping solutions. Existing applications to be desktop integrated include Valor CAD and Datamaster ALI. (see parts list in 2 below)

3 Timetable/ Schedule

The Timeline for the project will be adjusted and implemented once all components are delivered and the final SOW is completed. This timetable shall take into consideration the coordination with the State of NH network provider and the installation of new network facilities. Note: anticipated to be 60-90 days delivery from issuance of purchase order.

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
1.	Determine project scope, milestone dates, project management plan and schedule	AK	Solacom	
2.	Create Solacom Statement of Work specific to material and services purchased	Solacom	AK	
3.	Review material and requirements with customer expectations and contracted deliverables.	AK	Solacom	
4.	Create a list of key Project Milestones based on signed contract.	AK	Solacom	
5.	Create a master project schedule (Gantt Chart) which address's task start, task duration and task complete	AK	Solacom	
6.	Review AK responsibilities based on OEM Dist. Agreement	Solacom	AK	
7.	Review 3rd party responsibilities (CAD/Radio/Voice recorder/Mapping etc.)	AK	Solacom	
8.	Schedule kick-off meeting with customer	AK	-	
9.	Schedule a site survey meeting at customer location(s).	AK	Solacom	
10.	Collect site specific information required to enable provisioning of the Solacom equipment prior to shipment.	AK	Solacom	

Exhibit A Services (Statement of Work)
 AK Associates – State of New Hampshire

11.	Track completion of Solacom milestones.	Solacom	-	
12.	Provide weekly project updates.	AK	Solacom	
13.	Review resource requirements necessary to support the project's installation and training.	Solacom AK	End User	
14.	Perform a pre-installation site survey and on-site meeting	AK	Solacom	
15.	Create a document library to facilitate all project related information by cut live.	Solacom/ AK	-	
16.	Coordinate with AK Associates/Customer to have all required site preparation completed prior to Solacom arrival (power, grounding, cabling etc.)	Solacom	AK	
17.	Prepare Site Acceptance Test Report for project signoff	AK	Solacom	
18.	Identify and track tasks that LEC is required to complete	AK	Solacom	
19.	Work with Customer to finalize Solacom system / PSAP Cut Plan.	AK	Solacom	
20.	Develop the "go-live" checklist for Solacom Equipment	AK	Solacom	

4 Project Roles & Responsibility

4.1 Legacy System Support upon signing of Contract

AK Associates shall support the function of the existing legacy systems in accordance with requirements in the RFP, upon signing of this contract. This support shall be maintained until such time as the legacy systems are decommissioned and the new systems have been fully tested and deployed.

4.2 Project Management

4.2.1 Project Management – Planning Deliverables

All line item deliverables as set forth in the contract will be reviewed and included in the table below in the time frame agreed upon. This includes all agreed enhancements, upgrades, integration testing and on site delivery dates.

New Hampshire RFP Request for Feature (RFF)

- The contact list shall support the ability to define up to 10 custom fields for each contact list. RFF381.
- Real time ACD statistics and information available on screen as well to be reported on such as **longest idle agent**, agent's availability, etc. RFF404
- MIS: Abandoned Call Percentages
- MIS: Top 10, 25 and 50 Callers by ANI

New Hampshire additional commitments:

- Supplemental ALI improvements:
 - Export record(s) feature RFF 412
 - Add 4 custom fields
 - Print in both Calltaker and Management with privilege RFF413
- GuardianLight on two PCs
- GIS improvement so that GIS data for GuardianMap can be automatically distributed. This is outlined in Attachment A .

4.2.2 Project Management – Installation Services

Item	Tasks	Responsibility		
		Owner	Support	Support/ Comments
1.	Assume role of single point of contact for all project related issues	AK	Solacom	
2.	Review material list with customer to ensure all material has been inventoried.	AK	Solacom	State
3.	Formulate an installation plan for all Solacom materials.	AK	Solacom	
4.	Formulate the configuration of all Solacom equipment.	AK	Solacom	
5.	Perform SAT (Site Acceptance Test Plan) without Customer	Solacom and AK		
6.	Perform SAT (Site Acceptance Test Plan) with AK, Technician, PM and Customer. Obtain customer sign-off.	Solacom/ AK	State	State
7.	Coordinate all Solacom provided on-site services.	AK	Solacom	
8.	Identify all 3 rd party vendors for coordination	AK	State	
9.	Provide agreed upon status reports	AK	State	Solacom

4.2.3 Project Management – “Cut-Over” Deliverables

Item	Tasks	Responsibility		
		Owner	Support	Support/ Comments
1.	Develop and provide a copy of the final cut-plan to Customer and 3rd Party vendors for review 2 weeks prior to cut-over and request a formal response with acceptance.	AK	Solacom	Provide Cut-Over plan to State
2.	Schedule Go, No-Go meeting with AK / Customer week prior to schedule cut-over.	AK	Solacom	State

Exhibit A Services (Statement of Work)
AK Associates – State of New Hampshire

3.	Schedule meeting to review cut-plan with AK/Customer and 3rd party vendors	AK	Solacom	State
4.	Document all technical and operational issues or concerns that come up during the cutover.	AK	Solacom	
5.	Schedule Cut-over follow-up meeting to review and capture issues.	AK	Solacom	State

4.2.4 Project Management – Post Cut-Over Activities

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
6.	Review Solacom site specific configuration documents and ensure all material is update with most current information and provide to AK.	Solacom	AK	
7.	Schedule a weekly meeting with Customer to review outstanding issues (if necessary)	AK	Solacom	State
8.	Schedule a 30 day post-cut follow-up meeting with Customer.	AK		State
9.	Participate in 30 day post-cut follow-up meeting with Customer.	AK	Solacom	State
10.	Attend Commission meetings as requested	AK	Solacom as needed	

4.3 Network Design

4.3.1 Network Design – Interoperability Agreements

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
1.	Coordinate with State Network provider	AK	Support	INDigital
2.	Identify all requirements for wireless inter-connect and call transfer	State	AK	Telco
3.	Identify connectivity / Transport with Wireless Carriers	State	AK	Telco
4.	Identify connectivity / Transport with STP Provider (SS7 Only)	N/A		
5.	Identify connectivity / Transport type with ALI provider(s)	State	AK	Datamaster
6.	Identify ownership of ALI modems (if required)	State	AK	Wireless Providers

4.3.2 Network Design – Voice / Data Circuit Procurement

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
1.	Integrate 9-1-1 Trunks from wireless carriers with State network provider	INdigital	AK	
2.	Integrate 9-1-1 Trunks from LEC with State network provider	INdigital	AK	
3.	Integrate Trunks from Telco to PSAPs (if required) with State network provider	INdigital	AK	
4.	Integrate VoIP connectivity from ISP (as needed/available) with State network provider	INdigital	AK	
5.	Integrate Administrative Lines	State	AK	
6.	Integrate ALI circuits from LEC / Wireless Carriers / VoIP provider	State	AK	
7.	Order Static IP interface for AK/ Solacom Remote Access	State	AK	Both A and B locations
8.	Order SIP Trunks from awarded provider	State	AK	Provider
9.	Order SMS from Text Control Center	State	AK	Provider

4.4 Installation Services

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
1.	Perform Site Survey / document observations	AK	Solacom	
2.	Confirm Site locations for Solacom equipment	AK	Solacom	
3.	Provide End User with Solacom required power consumption and BTU requirements.	Solacom	AK	State
4.	Complete equipment room electrical additions and modifications	NH	AK	Electrician (State)
5.	Uncrate and move Solacom equipment to final destination in equipment room	AK	Assist from State	Assist from State
6.	Complete all required structured cabling to Solacom demark	AK	State	Review cabling deliverables
7.	Confirm turn-up on all Circuits to Solacom equipment	AK	Solacom	
8.	Shipping of equipment to customer location(s)	Solacom	AK	
9.	Perform on-site inventory of Solacom equipment	AK	Solacom	

Exhibit A Services (Statement of Work)
 AK Associates – State of New Hampshire

10.	Connect Power to Solacom equipment following instructions in the provided Solacom CM documentation	AK	State	State to provide 20Amp Twist Lock(NEMA L5-20P) receptacles
11.	Ground the Solacom equipment following instructions in the provided Solacom CM documentation	AK	Electrician (State)	Electrician (State)
12.	Anchor Solacom Equipment Rack to floor (if required)	AK	End Customer	Building Facility Dept. (State)
13.	Stage all Call Taker Positions at final location (Training Room)	AK	Solacom	State
14.	Installation of IP Phones at primaries and five remote locations	AK	State to Deploy	Remote PSAPs
15.	Installation of IP Phones at remainder of remote locations	State	AK	Solacom
16.	Connection to time sync source (provided by others)	AK	Solacom	State to provide NTP port Side A and B
17.	Installation and setup of Active Remote Monitoring (if purchased)	N/A	N/A	
18.	Connection and integration with ALI database	AK	State	Datamaster911/Solacom
19.	Connection and integration of Centralized Logging Recorder	AK	State	Exacom/Solacom
20.	Configure CAD Port and provide CAD Spill to CAD vendor	Solacom	AK	Valor CAD
21.	Installation of IRR (if applicable)	Solacom	AK	Already installed on CPU
22.	Installation of Solacom Mapping Application and GIS data (if applicable)	Solacom	AK	Integration Testing @ Solacom
23.	Installation of Valor CAD(Integration Testing)	Valor	Solacom	Integration Testing @ Solacom
24.	Guardian Map installation(On-Site Server implementation Side A and B	Geocomm	AK	Solacom
25.	GeoLynx workstations supplied by State (see GeoLynx Desktop System Requirements)	State	Geocomm	AK
26.	Installation of GeoLynx Desktop at five remote locations.	Geocomm	State	AK/Valor/Solacom
27.	Installation of GeoLynx Desktop at remainder of remote locations.	State	AK	Solacom
28.	Perform evaluation of existing CoE network and report on suitability too include the existing Cisco 891 routers	AK	State	Solacom
29.	Load existing data in the Guardian SupALI system	Solacom	AK	State provides

4.4.1 ALI database

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
1.	Determine ALI formats from ALI provider	AK	State	State/ Datamaster
2.	Provide ESN/ESZ for selective transfer	AK	State	
3.	Configure emergency zone inside ECRF assignment (SR only)	State	AK	
4.	Participate in PSAP test call deliveries	AK	Solacom	
5.	Provide connectivity for ESN / TN updates to Solacom	AK	Solacom	State Selective Transfer table from Memory cards

4.5 Training

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
1.	Guardian Administrative Training	AK	Solacom	
2.	Guardian Train the Trainer	AK	Solacom	
3.	Guardian Call Taker Training	State	AK	End User Training provided by State
4.	ECaTs Stats Setup and Training	ECaTs	AK	
5.	ECaTs Customer Reporting Package	ECaTs	AK	
6.	ECaTs Text to 9-1-1 Training	ECaTs	AK	
7.	Instant Recall Recorder	AK	Solacom	
8.	Guardian Map Training- Admin and Train the Trainer	Solacom	Geocomm	AK
9.	Guardian Map Training- Call Taker Training	State	Solacom	AK
10.	GeoLynx Desktop with Valor CAD Interface and GeoLynx Sync Server and Client - Onsite Installation and Training (admin and train-the-trainer training)	Geocomm	AK	
11.	GeoLynx Desktop User Training at five remote PSAPs	Geocomm	AK	State

Exhibit A Services (Statement of Work)
AK Associates – State of New Hampshire

12.	GeoLynx Desktop User Training at all remaining remote PSAPs	State	AK	Solacom/Geocomm
13.	Enhanced IP Phones (Remote Sites) Admin Training	AK	Solacom	Solacom
14.	Enhanced IP Phones (Remote Sites) End User Training	State	AK	Solacom
15.	Installation and Maintenance Course-Customer Site 5 Days.	Solacom	AK	State to receive on site I and M
16.	Provide training documentation on all courses taken	Solacom		

4.6 Testing

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
1.	Complete Solacom SAT document	Solacom and AK	NH	
2.	Complete ECATS SAT document	ECaTS	AK	
3.	Complete Audio Quality test at each Guardian Position	AK	Solacom	
4.	Coordinate carriers for circuit and system testing	AK	Solacom	
5.	Prepare Cut Over Test Plans agreed to by End User	AK	Solacom	
6.	Testing each wireless carrier trunks Audio quality and ANI	AK	Solacom	
7.	Testing of trunks from wire line carriers Audio quality and ANI	AK	Solacom	
8.	Test each Trunk between S/R and PSAP Equipment for Audio Quality and ANI.	AK	Solacom	
9.	Testing of Call transfers between all PSAP	AK	Solacom	
10.	Testing of Wireless Phase I information is received with correct format	AK	Solacom	Test with SIP trunks
11.	Test Wireless Phase II information is received with correct format	AK	Solacom	Test with SIP trunks
12.	Testing of Exacom Recorder (SIP Trunk Recording)	AK	State	Solacom/Exacom
13.	Test SS7 call set-up from each wire line carrier via STP (if applicable)	N/A	N/A	
14.	Test ISUP Audio on each of the SS7 trunks (if applicable)	N/A	N/A	
15.	Testing of Wireless Phase II (by carrier by tower) (if applicable)	AK	Solacom	Test with SIP Trunks
16.	Security Testing	AK	Solacom	
17.	Create system metric baseline	Solacom	AK	
18.	Test SupALI functionality	AK	Solacom	
19.	Test the GIS functionality to the full complement of PCs and report on performance	GeoComm/Solacom	AK	
20.	Test data deployment functionality to Guardian Map in both PSAPs.	GeoComm/Solacom	AK	State
21.	Test the integration of GeoLynx Desktop with ValorCAD,	GeoComm/Solacom	AK	State

Exhibit A Services (Statement of Work)
 AK Associates – State of New Hampshire

22.	Test the GIS data deployment functionality over ESInet.	GeoComm /Solacom	AK	State
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4.7 "Go-Live" Support Services

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
1.	Schedule meeting to review cut-plan with Solacom/Customer and 3rd party vendors	AK	Solacom	State
2.	AK Associates, Solacom and NH 911 shall conduct and approve a pre-cut system acceptance prior to the system being placed in service.	AK	Solacom	State
3.	Perform Cutover	AK	Solacom	State
4.	Document all technical and operational issues or concerns that come up during the cutover.	AK	Solacom	State will be provided Punch list
5.	Schedule Cut-over follow-up meeting to review and capture issues.	AK	Solacom	State

5 Post "Go-Live" Support

Item	Tasks	Responsibility		
		Owner	Support	Support/Comments
1.	Warranty Support of Solacom Supplied Equipment	AK	Solacom	
2.	Provide 1 st Level On-going telephone support 24/7	State	AK	Solacom
3.	Provide 2 nd Level On-going telephone support 24/7 (if purchased)	AK	Solacom	State
4.	Provide on-site 2nd level (2 hours or 4 hours) response as per End Customer requirement	AK	Solacom	
5.	Active Remote Monitoring of Solacom Equipment	Solacom	AK	Remote access provided by State
6.	On-going s/w upgrades (as long as software support is up to date)	Solacom	AK	AK to perform upgrades on site

Exhibit A Services (Statement of Work)
 AK Associates – State of New Hampshire

7.	Provide necessary hardware for Solacom software upgrades as required	State/ AK	Solacom	Identify all 3 rd party hardware not included in contract including routers and switches for remote PSAPs
8.	Hardware Support of Guardian Components (exceptions listed in quote)	Solacom	AK	

5.1 Service and Support

Item	Task	Prime	Support
1	Tier 1 Support	STATE	AK ASSOCIATES
2	Tier 2 Support	AK ASSOCIATES	SOLACOM
3	Tier 3 Support	SOLACOM	

5.2 Glossary

Item	Task	Description
Tier 1 Support		First line of support services shall be provided by the State of NH including initial troubleshooting; fault verification, resolution and on-site 1st level. Tier 1 support emails AK ticketing system (or calls) Tier 2 support with all troubles/issues where they need assistance and Tier 2 Support shall work with tier 1 to resolve all issues. If tier 3 Support is needed, then Tier 2 Support shall open and monitor ticket (FPR) on Solacom website partner portal when necessary.
Tier 2 Support		Second line of support services provided by AK Associates to further analyze incident data and to implement problem resolution when Tier 1 support fails to identify the cause of a failure within 2 hrs for remote and/or 4 hrs for on-site support. Tier 2 Support shall also include labor to install scheduled upgrades.
Tier 3 Support		Third line of support services provided by Solacom involving core competencies and profound product knowledge to correct failures identified but not resolved by Tier 2 support. Non critical requests for Tier 3 On-Site assistance may include expenses incurred by the requesting party.

6 Attachment A – GeoComm Description of Data Deployment Interface Guardian Map

Solacom for the State of New Hampshire

GeoLynx Sync System Description

Document here

Introduction

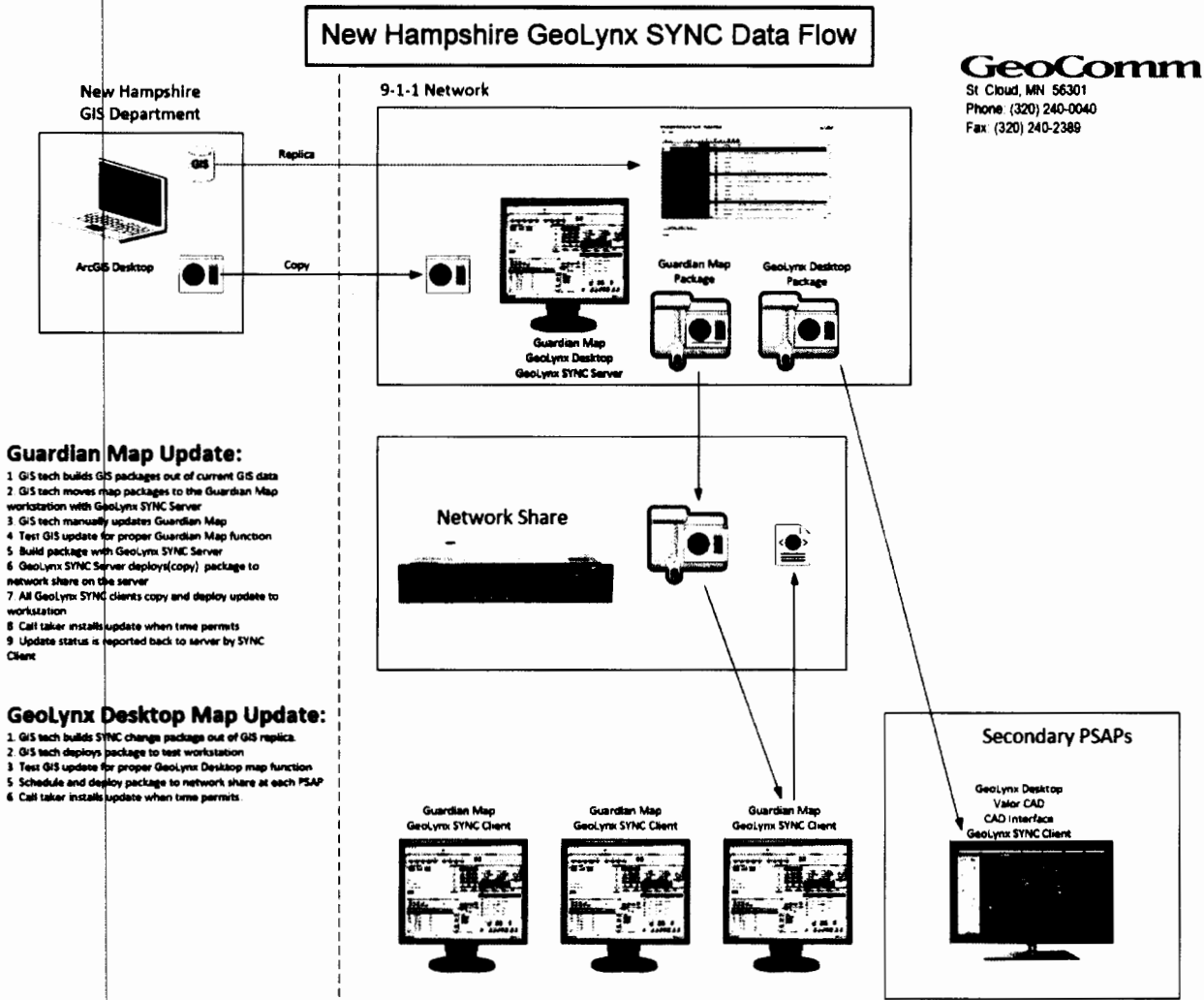
Guardian Map and GeoLynx Desktop use map data stored locally on each workstation. Because of this, each time existing files are modified or new files are created, the system administrator must distribute and secure the data. GeoLynx Sync alleviates the time-consuming and error-prone task of manual data and file synchronization.

From an administrative workstation, file updates can be synchronized on a regular basis with no interference with day-to-day call-taking operations of a mission-critical environment. GeoLynx Sync Client\Server achieves file replication to any GeoComm mapping system on a network. The application's enhanced performance allows automated updates from a master computer to every workstation or laptop containing a license of Guardian Map or GeoLynx Desktop. This ensures reliable data availability while eliminating the task of traveling to individual workstations to individually download updated files or copying them from CDs to each workstation.

GeoComm commits to releasing an updated version of GeoLynx Sync, which will support provisioning GIS data to Guardian Map over a local-area network (LAN), by January 29, 2016. The new release of GeoLynx Sync will be delivered to Solacom on or before that date. Solacom's implementation work may then commence after delivery.

System Diagram

The diagram on the following page depicts the GeoLynx Sync deployment at the State of New Hampshire.



GeoComm

St. Cloud, MN 56301
Phone: (320) 240-0040
Fax: (320) 240-2389

GeoLynx Sync Product Description

General Overview

GeoLynx Sync leverages the efficiencies of network-distributed data storage with local-data storage speed and network independent reliability. GeoLynx Sync seamlessly integrates into GIS map maintenance software, Guardian Map, and GeoLynx Desktop for managing map files, supporting file updates, and changes in configuration settings to individual workstations or laptops. Updates may be transmitted manually with a few commands from the system user/administrator, or they can be scheduled to be transmitted to workstations or laptops automatically. Update packages are compressed and encrypted, offering efficient and secure transmission through the network. After the workstations and laptops receive update packages, the updates apply after a logout/logon event.

GeoLynx Sync Server

The GeoLynx Sync Server is designed to push software settings, software updates, and GIS updates to client positions from a PSAP map server. GeoLynx Sync Server is typically run on the administrator's workstation.

GeoLynx Sync Client

Each Guardian Map and GeoLynx Desktop workstation will utilize the GeoLynx Sync Client software. The client software on each workstation receives update packages from the Server. The client at each workstation will wait for a logout/logon event to apply updates from the update package. Update packages can be compressed for transmission through the network.

Pull Process

1. An updated package is created and placed in a specific location on the local or wide area network.
2. The user logs on to Guardian Map or GeoLynx Desktop, launching the GeoLynx Sync Client software.
3. GeoLynx Sync Client pulls the available package and updates the files on the workstation using the pull process flow.
4. In a pull process, the destination path would be a general path name to where Guardian Map or GeoLynx Desktop is located on the individual machine. To set up a pull, Guardian Map or GeoLynx Desktop must be loaded in the same hard drive location on each workstation pulling the transfer package.
5. If the update package is newer than the current package on the workstation(s) the software will pull the update package onto the workstation, update the files and launch Guardian Map or GeoLynx Desktop with the updated files.

GeoLynx Sync Advanced Add-on

GeoLynx Sync Advanced provides advanced functionality to the basic GeoLynx Sync system to replicate only changes in the GIS data. GeoLynx Sync Advanced Add-on will be implemented on GeoLynx Desktop workstations at the State of New Hampshire. It minimizes the amount of data transferred over a network. Only the actual updates for the specified period are sent from GeoLynx Sync Server Advanced to GeoLynx Desktop workstations, instead of sending the entire dataset for each update. Due to smaller data update packet size, the process is able to send more efficient updates to vital dispatch GIS workstations.

The GeoLynx Sync Advanced add-on utilizes Esri ArcSDE technology to enable one-way data replication. It replaces the standard push/pull processes of the basic GeoLynx Sync software.

Note: The State of New Hampshire is responsible for providing Esri ArcSDE technology. GeoLynx Sync will utilize the State's existing ArcSDE technology.

Exhibit B Pricing Worksheet

Qty.	Part No.	Service or Part Description	Unit Price	Price
1	S-GEODiverseRED	Concord, NH		
1	SL-GUARDSOFTLIC-GEO	Guardian Controller License Geo-Diverse Side A	\$10,513.15	\$10,513.15
1	P-CABINET-42U	42U Cabinet Kit with Sides	\$2,549.23	\$2,549.23
1	P-ENH ADMIN-5YS+	Enhanced Administrative Server <i>Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support</i>	\$4,230.31	\$4,230.31
1	P-STD APP-5YS+	Standard Application Server <i>Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support</i>	\$4,163.84	\$4,163.84
1	P-ENH UTILITY-5YS+	Enhanced Utility Server 5YS+	\$5,609.02	\$5,609.02
1	P-KVM 4 PORT	KVM (Keyboard,Video,Mouse) Switch 4Ports	\$1,146.10	\$1,146.10
1	P-IP_SERIAL-8P	8-Ports Serial to 100BT Converter	\$1,049.33	\$1,049.33
2	P-PWR_BAR_20A	20Amp Vertical Power Bar (NEMA L5-20P)	\$109.54	\$219.08
1	P-IQ1000	IQ1000 Chassis Kit	\$4,939.97	\$4,939.97
1	P-HDVOIP	High Density 512 Port VoIP Card	\$13,307.81	\$13,307.81
1	S-NETWORK	Common Network Equipment		
1	P-M1K-FXO-KIT	Mediant 1000 FXO Kit with Dual Power <i>Includes Mediant 1000 chassis, Single module containing single FXO span, Dual AC power supply</i>	\$2,247.06	\$2,247.06
1		Interalia	\$864.00	\$864.00
1	P-M1K-FXO	Mediant 1000 FXO Module	\$394.63	\$394.63
1	P-M1K-T1	Mediant 1000 T1 Module	\$2,688.34	\$2,688.34
1	P-ENH_FWALL_SPLX	Enhanced Simplex Firewall Package	\$860.55	\$860.55
1	P-ESK-3CISCO	CISCO Ethernet Switch Kit (1I + 2E)	\$6,108.71	\$6,108.71
1	P-AP-SBC3-HA	SBC AP-1100 High Avail. w/ 25 Sessions	\$6,851.92	\$6,851.92
7	SL-AP-SBC3 +5 Sessions	SBC AP-1100 +5 Session Lic. Central Equipment B	\$415.24	\$2,906.68
1	S-GEODiverseRED	Laconia, NH		
1	SL-GUARDSOFTLIC-GEO	Guardian Controller License Geo-Diverse Side B	\$10,513.15	\$10,513.15
1	P-CABINET-42U	42U Cabinet Kit with Sides	\$2,549.23	\$2,549.23
1	P-ENH ADMIN-5YS+	Enhanced Administrative Server <i>Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support</i>	\$4,230.31	\$4,230.31
1	P-STD APP-5YS+	Standard Application Server <i>Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support</i>	\$4,163.84	\$4,163.84

1	P-KVM 4 PORT	KVM (Keyboard,Video,Mouse) Switch 4Ports	\$1,146.10	\$1,146.10
1	P-IP_SERIAL-8P	8-Ports Serial to 100BT Converter	\$1,049.33	\$1,049.33
2	P-PWR_BAR_20A	20Amp Vertical Power Bar (NEMA L5-20P)	\$109.54	\$219.08
1	P-IQ1000	IQ1000 Chassis Kit	\$4,939.97	\$4,939.97
1	P-HDVOIP	High Density 512 Port VoIP Card	\$13,307.81	\$13,307.81
1	S-NETWORK	Common Network Equipment		
1	P-M1K-FXO-KIT	Mediant 1000 FXO Kit with Dual Power Includes Mediant 1000 chassis, Single module containing single FXO span, Dual AC power supply	\$2,247.06	\$2,247.06
1		Interalia	\$864.00	\$864.00
1	P-M1K-FXO	Mediant 1000 FXO Module	\$394.63	\$394.63
1	P-M1K-T1	Mediant 1000 T1 Module	\$2,688.34	\$2,688.34
1	P-ENH_FWALL_SPLX	Enhanced Simplex Firewall Package	\$860.55	\$860.55
1	P-ESK-3CISCO	CISCO Ethernet Switch Kit (1I + 2E)	\$6,108.71	\$6,108.71
1	P-AP-SBC3-HA	SBC AP-1100 High Avail. w/ 25 Sessions	\$6,851.92	\$6,851.92
7	SL-AP-SBC3 +5 Sessions	SBC AP-1100 +5 Session Lic. PSAP 1- Concord	\$415.24	\$2,906.68
1	S-PSAPv2	Concord, NH		
20	SL-GUARDPOS LIC	Guardian Call Taker Position License	\$7,195.50	\$143,910.00
1	SL-BUPGUARDPOS LIC	Guardian Backup Call Taker Pos License	\$3,685.50	\$3,685.50
21	P-SUP POS-2M-5YS+	Superior Position with 2- 24" Monitors Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support	\$2,527.33	\$53,073.93
42	P-MONITOR 24in	Standard Monitor 23.5 Inches	\$198.07	\$8,318.94
21		Quad Monitor Stand	\$172.50	\$3,622.50
21	P-IRR	Dual IRR Recording Software License- 911	\$482.33	\$10,128.93
1	P-ENH_IP PHONE	Enhanced IP Phone	\$263.54	\$263.54
21	P-PAC II	Position Audio Controller II w/ Jack Box	\$1,731.24	\$36,356.04
21	P-SUPV_JACK	Supplemental/Supervisor Jackbox	\$326.59	\$6,858.39
21	P-SPKRBAR	Speaker Bar for Positions	\$34.02	\$714.42
1	P-PRN-CLR	Network Color Laser Printer	\$366.66	\$366.66
1	P-CSTM-MM	50 Inch LCD TV with Wall mount	\$2,155.68	\$2,155.68
1	P-STATPKG	Status Ring Group Package for Display - Customer Provided Display Screen PSAP 2- Laconia	\$3,600.07	\$3,600.07
1	S-PSAPv2	Laconia, NH		
20	SL-GUARDPOS LIC	Guardian Call Taker Position License	\$7,195.50	\$143,910.00
1	SL-BUPGUARDPOS LIC	Guardian Backup Call Taker Pos License	\$3,685.50	\$3,685.50
21	P-SUP POS-2M-5YS+	Superior Position with 2- 24" Monitors Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support	\$2,527.33	\$53,073.93
42	P-MONITOR 24in	Standard Monitor 23.5 Inches	\$198.07	\$8,318.94
21		Quad Monitor Stands	\$172.50	\$3,622.50
21	P-IRR	Dual IRR Recording Software License- 911	\$482.33	\$10,128.93

1	P-ENH_IP PHONE	Enhanced IP Phone	\$263.54	\$263.54
21	P-PAC II	Position Audio Controller II w/ Jack Box	\$1,731.24	\$36,356.04
21	P-SUPV_JACK	Supplemental/Supervisor Jackbox	\$326.59	\$6,858.39
21	P-SPKRBAR	Speaker Bar for Positions	\$34.02	\$714.42
1	P-PRN-CLR	Network Color Laser Printer	\$366.66	\$366.66
1	P-CSTM-MM	50 Inch LCD TV with Wall mount	\$2,155.68	\$2,155.68
1	P-STATPKG	Status Ring Group Package for Display - Customer Provided Display Screen Training Center	\$3,600.07	\$3,600.07
1	S-PSAPv2	Updated PSAP & Accessories		
13	SL-BUPGUARDPOS LIC	Guardian Backup Call Taker Pos License	\$3,685.50	\$47,911.50
13	P-SUP POS-2M-5YS+	Superior Position with 2- 24" Monitors Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support	\$2,527.33	\$32,855.29
26	P-MONITOR 24in	Standard Monitor 23.5 Inches	\$198.07	\$5,149.82
13		Quad Monitor Stands	\$172.50	\$2,242.50
13	P-IRR	Dual IRR Recording Software License- 911	\$482.33	\$6,270.29
2	P-ENH_IP PHONE	Enhanced IP Phone	\$263.54	\$527.08
13	P-SPKRBAR	Speaker Bar for Positions - 2 phones in training center to generate test calls Peripherals	\$34.02	\$442.26
1	S-UpgradePos	Updated PSAP & Accessories		
1	P-ENH_IP PHONE	Enhanced IP Phone	\$263.54	\$263.54
1	SL-RespondAddPro	Guardian Responder Add-on Pro for IP Phone (ALI+CAD)	\$1,755.00	\$1,755.00
2	SL-GUARD-LITE	Guardian Lite Position License	\$3,088.65	\$6,177.30
2	P-SUP POS-1M-5YS+	Superior Position with 1- 24" Monitor Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support	\$2,013.92	\$4,027.84
2	SL-MAPSTDPOS	Guardian Map Software License- Per Pos	\$3,024.00	\$6,048.00
2	SL-MAPSYNCPOS	Guardian Map Sync Software Lic.- Per Pos Remotes	\$200.34	\$400.68
2	P-PBX-MEDIA-SRV 5YS+	PBX and Media on Server	\$2,182.72	\$4,365.44
1	P-ES-CS100M24POE	Cisco Catalyst 24 ports 100M POE	\$1,818.16	\$1,818.16
100	P-ENH_IP PHONE	Enhanced IP Phone *Customer to provide routers/switches at the remotes Mapping Central Equipment	\$263.54	\$26,354.00
2	SL-MAPSYNCSRV	Guardian Map Sync Server Software Lic. Primary PSAPs/Training Center	\$3,194.10	\$6,388.20
59	SL-MAPSTDPOS	Guardian Map Software License- Per Pos	\$3,024.00	\$178,416.00
59	SL-MAPSYNCPOS	Guardian Map Sync Software Lic.- Per Pos	\$200.34	\$11,820.06
1	SV-GIS_STPSTD	Analysis & Setup of STD Size GIS Data Remotes	\$6,469.20	\$6,469.20

1	GEOLYNX	Geolynx- Desktop Dispatch Mapping - GIS Setup Services - GeoLynx Desktop Software (80 secondary licenses) - GeoLynx Desktop Software (1 training license) - Standard Dispatch CAD Interface with Valor CAD - GeoLynx Desktop Admin (2 licenses) - GeoLynx Sync Advanced Server (2 licenses) - GeoLynx Sync Client (81 licenses) - GeoLynx Desktop with Valor CAD Interface and GeoLynx Sync Server and Client - Onsite Installation and Training (admin and train-the-trainer training)	\$356,476.68	\$356,476.68
2	P-GL-SRAS1	GeoLynxMAP and WebEdit srv Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support	\$5,300.54	\$10,601.08
2	P-SUP POS-5YS+	Superior Position PC Includes 5 Years Manufacturer's Maintenance with 4 Hour Onsite Support	\$2,013.95	\$4,027.90
2	P-MONITOR 24in	Standard Monitor 23.5 Inches Spares	\$198.07	\$396.14
1	S-SparePos	Updated PSAP & Accessories		
2	P-PAC II	Position Audio Controller II w/ Jack Box	\$1,731.24	\$3,462.48
1	S-NETWORK	Common Network Equipment		
2	P-M1K-PS	Mediant 1000 Power Supply	\$308.45	\$616.90
2	P-M1K-FXO	Mediant 1000 FXO Module	\$394.63	\$789.26
1	P-M1K-T1	Mediant 1000 T1 Module Installation	\$2,688.34	\$2,688.34
1	S-Installation	Installation Services AK Installation Services AK Project Management Services Installation Materials		\$40,000.00 \$15,000.00 \$6,000.00
1	SV-T&L1stD	Travel and Living Expenses - First Day	\$1,700.00	\$1,700.00
9	SV-T&LSubD	Travel and Living Expenses- Daily	\$255.00	\$2,295.00
2	SV-InstT&Lprem	Travel and Living Expenses (Weekend)	\$255.00	\$510.00
10	SV-InstDaily	Installation Services - Daily Rate	\$1,300.00	\$13,000.00
1	SV-PC_Cert	Certification of Cust Provided PC Testing to Co-Hab: - ValorCAD - ProQA	\$6,000.00	\$6,000.00
		*** AK Associates to provide installation; Solacom to provide secondary installation services.		
1	SV-ARM-SETUP	Active Remote Monitoring - Setup	\$3,547.00	\$3,547.00
2	SV-InstRemDaily	Remote Install Services - Daily Rate - For SBC Provisioning and Configuration Training	\$1,300.00	\$2,600.00
1	S-Training	Training Selection		
1	TR-T<rain1stD	Travel and Living Expenses - First Day	\$1,700.00	\$1,700.00
6	TR-T<rainSubD	Travel and Living Expenses- Daily	\$255.00	\$1,530.00

2	TR-T<rainPrem	Travel and Living Expenses (Weekend)	\$255.00	\$510.00
1	TR-TrainI&M	Installation and Maintenance Course Customer Site- 5 Days Warranty/Support	\$6,000.00	\$6,000.00
		Guardian		
1	MT-HSGUARD-01	Annual Guardian Hardware Support Year 1	\$0.00	\$0.00
		The Guardian hardware support program covers all hardware purchased from Solacom with the following exceptions: 1. Computers and servers are covered under standard or extended manufacturers maintenance as indicated in the quotation; 2. Monitors, keyboards and mice purchased with initial order carry same warrantee purchased for the computer and/or server; 3. Touch or regular LCD screens, monitors, keyboard, mouse, headsets, handsets are offered with the initial manufacturer warrantee and not eligible for extended support.		
1	MT-HSGUARD-0205	Annual Hardware Support Years 2 to 5 If Purchased Upfront; Annual Fees Listed In Options	\$26,385.88	\$26,385.88
55	MT-SSGUARD-01	Position Software Support Years 1-5	\$4,680.00	\$257,400.00
2	MT-GUARD-LITE	Position (Lite) Software Support Years 1-5	\$2,730.00	\$5,460.00
55	SV-ARM_Guardian-1Y	Active Remote Monitoring per Pos (1Yr) SBC	\$430.00	\$23,650.00
2	MT-AP-SBC3-HA	SBC AP-1100 HA w/25 Sessions Maint. 1Yr	\$910.57	\$1,821.14
14	MT-AP-SBC3 +5 Session M	SBC AP-1100 +5 Session Maint. 1Yr	\$32.96	\$461.44
		Mapping		
1	MT-MAPSYNCSRV	Sync Server Software Support- 1 Year For Mapping Sync Server Software	\$484.00	\$484.00
57	MT-MAPSTDPOS	Map Software Support Per Position 1 Year For Guardian Mapping Standard Solution	\$502.00	\$28,614.00
57	MT-MAPSYNCPOS	MapSync Software Support Per Pos 1 Year For Guardian Mapping Sync Solution Software	\$24.00	\$1,368.00
1	MT-GEOLYNX	Desktop Dispatch Map Maintenance- Years 1-5 - GeoLynx Desktop Annual Software Support and Maintenance (primary and secondary licenses, for a total of 81) - GeoLynx Sync Basic and Advanced Client Annual Support and Maintenance	\$266,595.00	\$266,595.00
		ECATS		
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
24		Text to 9-1-1 Access Fee PSAP access fee for Text to 9-1-1 reporting modules	\$50.98	\$1,223.42
		Tier Two Support		
		AK Associates Basic Maintenance (Year 1) Shipping		\$45,000.00
1	ShippingFee	Shipping and Handling ECaTs	\$9,552.15	\$9,552.15

Non Reoccurring Costs				
1	DC-INSRV	ECaTS Instance Server	\$18,900.00	\$18,900.00
1	DC-STN-V3	RDDM-Rev3 - Location A	\$3,456.00	\$3,456.00
1	DC-STN-V3	RDDM-Rev3 - Location B	\$3,456.00	\$3,456.00
2	AO-ENHANCEDRPT	Enhanced Reporting Package	\$3,283.20	\$6,566.40
		Optional Item: Includes The Following Premium Reports: Agent Module, Audit Module, Called Back Summary Report, COS ALI Change Report, Daily Invalid ALI Report, Dynamic COS Report, Friendly Line Manager Report, Top 20 Busiest Hours Graphing		
1	AO-CUSTOMRPT	Custom Reporting Package***	\$10,000.00	NC
		Includes 40 hours of Custom Report Development as directed by the End User.		
		Text to 911 Module		
		Non Reoccurring Cost		
2	T9-SETUP	Text To 911 Reporting Module	\$432.00	\$864.00
		Text to 9-1-1 Reporting Implementation, Configuration & Training		
		Discounts		
		Less Market Incentive Discount		
				-\$240,000.00
		Total Initial Charge		\$1,980,040.96

Year 2				
55	SV-ARM_Guardian-1Y	Active Remote Monitoring per Pos (1Yr)	\$430.00	\$23,650.00
SBC				
2	MT-AP-SBC3-HA	SBC AP-1100 HA w/25 Sessions Maint. 1Yr	\$910.57	\$1,821.14
14	MT-AP-SBC3 +5 Session M	SBC AP-1100 +5 Session Maint. 1Yr	\$32.96	\$461.44
Mapping				
2	MT-MAPSYNCSRV	Sync Server Software Support- 1 Year For Mapping Sync Server Software	\$484.00	\$968.00
59	MT-MAPSTDPOS	Map Software Support Per Position 1 Year For Guardian Mapping Standard Solution	\$502.00	\$29,618.00
59	MT-MAPSYNCPOS	MapSync Software Support Per Pos 1 Year For Guardian Mapping Sync Solution Software	\$24.00	\$1,416.00
ECATS				
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
24		Text to 9-1-1 Access Fee PSAP access fee for Text to 9-1-1 reporting modules	\$50.98	\$1,223.52
Tier One Support AK Associates Basic Maintenance (Year 2)				
				\$45,000.00
Year 2 Subtotal				\$111,989.06

Year 3				
55	SV-ARM_Guardian-1Y	Active Remote Monitoring per Pos (1Yr)	\$430.00	\$23,650.00
SBC				
2	MT-AP-SBC3-HA	SBC AP-1100 HA w/25 Sessions Maint. 1Yr	\$910.57	\$1,821.14
14	MT-AP-SBC3 +5 Session M	SBC AP-1100 +5 Session Maint. 1Yr	\$32.96	\$461.44
Mapping				
2	MT-MAPSYNCSRV	Sync Server Software Support- 1 Year For Mapping Sync Server Software	\$484.00	\$968.00
59	MT-MAPSTDPOS	Map Software Support Per Position 1 Year For Guardian Mapping Standard Solution	\$502.00	\$29,618.00
59	MT-MAPSYNCPOS	MapSync Software Support Per Pos 1 Year For Guardian Mapping Sync Solution Software	\$24.00	\$1,416.00
ECATS				
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
24		Text to 9-1-1 Access Fee PSAP access fee for Text to 9-1-1 reporting modules	\$50.98	\$1,223.52
Tier One Support AK Associates Basic Maintenance (Year 3)				
				\$46,125.00
Year 3 Subtotal				\$113,114.06

Year 4

55	SV-ARM_Guardian-1Y	Active Remote Monitoring per Pos (1Yr)	\$430.00	\$23,650.00
		SBC		
2	MT-AP-SBC3-HA	SBC AP-1100 HA w/25 Sessions Maint. 1Yr	\$910.57	\$1,821.14
14	MT-AP-SBC3 +5 Session M	SBC AP-1100 +5 Session Maint. 1Yr	\$32.96	\$461.44
		Mapping		
2	MT-MAPSYNCSRV	Sync Server Software Support- 1 Year For Mapping Sync Server Software	\$484.00	\$968.00
59	MT-MAPSTDPOS	Map Software Support Per Position 1 Year For Guardian Mapping Standard Solution	\$502.00	\$29,618.00
59	MT-MAPSYNCPOS	MapSync Software Support Per Pos 1 Year For Guardian Mapping Sync Solution Software	\$24.00	\$1,416.00
		ECATS		
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
24		Text to 9-1-1 Access Fee PSAP access fee for Text to 9-1-1 reporting modules	\$50.98	\$1,223.52
		Tier One Support		
		AK Associates Basic Maintenance (Year 4)		\$46,125.00
		Year 4 Subtotal		\$113,114.06
		Year 5		
55	SV-ARM_Guardian-1Y	Active Remote Monitoring per Pos (1Yr)	\$430.00	\$23,650.00
		SBC		
2	MT-AP-SBC3-HA	SBC AP-1100 HA w/25 Sessions Maint. 1Yr	\$910.57	\$1,821.14
14	MT-AP-SBC3 +5 Session M	SBC AP-1100 +5 Session Maint. 1Yr	\$32.96	\$461.44
		Mapping		
2	MT-MAPSYNCSRV	Sync Server Software Support- 1 Year For Mapping Sync Server Software	\$484.00	\$968.00
59	MT-MAPSTDPOS	Map Software Support Per Position 1 Year For Guardian Mapping Standard Solution	\$502.00	\$29,618.00
59	MT-MAPSYNCPOS	MapSync Software Support Per Pos 1 Year For Guardian Mapping Sync Solution Software	\$24.00	\$1,416.00
		ECATS		
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
12	ES-T5	Tier 4 * MIS & PSAP Access Fee	\$326.29	\$3,915.48
24		Text to 9-1-1 Access Fee PSAP access fee for Text to 9-1-1 reporting modules	\$50.98	\$1,223.52
		Tier One Support		
		AK Associates Basic Maintenance (Year 5)		\$47,280.00
		Year 5 Subtotal		\$114,269.06

Exhibit C

Provisions

1. CONTRACT DOCUMENTS

In the event of conflict or ambiguity among any of the text of the Contract Documents, the following Order of Precedence shall govern:

- a. State of New Hampshire Terms and Conditions, AK Associates Contract for NH NG9-1-1 CPE and Services, General Provisions Form P-37
- b. Exhibit A Scope of Services
- c. Exhibit B Payment Schedule
- d. Exhibit C Special Provisions
- e. RFP DOS 2015-170 with addendums and responses to Vendor Questions incorporated.
- f. AK Proposal to RFP 2015-170, dated April 20, 2015.
- g. End User License Agreement, Software License Agreement for Licensee

7.2 Personnel

Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Vendor or the state shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State or Vendor's employee or official, who is materially involved in the procurement, administration or performance of this Agreement. This provision shall survive termination of this Agreement

8 EVENT OF DEFAULT/REMEDIES

8.1 failure to perform Services per the contract and SOW satisfactorily or on schedule

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished except for any enhancements made to the Vendors standard software product.

H-25.8.2 Software and Documentation Copies

The Vendor shall provide the State with a sufficient number of hard copy versions of the Software's associated Documentation and one (1) electronic version in Microsoft WORD and PDF format for all training materials and only A PDF for user documentation. The State shall have the right to copy the Software and its associated Documentation for its internal business needs. The State agrees to include copyright and proprietary notices provided to the State by the Vendor on such copies.

H-25.8.4 Title

The Vendor must allow the State the Right to Use the Software and not to hold all title, right, and interest (including all ownership and intellectual property rights) in the Software and its associated Documentation.

Buying the "Right of Use" as per the Solacom License Agreement does not constitute IP ownership. The State will have all the rights associated to using the software for its intended use. Title to all software shall at all times remain with Solacom.

H-25.10.2.6 Professional Services

The Vendor shall warrant that all Services provided under the Contract will be provided in a professional manner in accordance with industry standards and that Services will comply with performance standards.

H-25.12.6 State-Owned Documents and Data

The Vendor shall provide the State access to all Documents, State Data, materials, reports, and other work in progress relating to the Contract ("State Owned Documents"). Upon expiration or termination of the Contract with the State, Vendor shall turn over all State-owned Documents, State Data, material, reports, and work in progress relating to this Contract to the State at no additional cost to the State. State-Owned Documents must be provided in both printed and electronic format. "State owned documents" does not include intellectual property or software licensed through this contract or service offerings provided by this contract.

H-25.14.1 Termination for Default

- a. Failure to perform the Services satisfactorily per the SOW and contract or on schedule;

RFP DOS 2015-170 with addendums and responses to
Vendor Questions incorporated.

DEPARTMENT OF SAFETY
DIVISION OF EMERGENCY SERVICES AND COMMUNICATIONS

NEXT GENERATION 9-1-1 SYSTEM (NG9-1-1)

RFP 2015-170

RFP ISSUED.....February 11, 2015

VENDOR CONFERENCE.....March 9, 2015 at 10:00 A.M. (EST)

AT: NH Fire Academy
98 Smokey Bear Blvd.
Concord, NH 03301
Classrooms 5 & 6

STATE POINT of CONTACT.....Robert Brown, IT Manager
rbrown@e911.nh.gov, (603) 271-6911, Cell: (603) 856-3308

CONTRACT TYPE.....FIRM FIXED PRICE

PROPOSALS DUE.....April 1, 2015, 2:30 P.M. (E.S.T.)

AT: Robert Brown, IT Manager
Division of Emergency Services and Communications
33 Hazen Drive
Concord, NH 03305

STATE OF NEW HAMPSHIRE
 Dept. of Safety, Division of Emergency Services and Communications
 NEXT GENERATION 9-1-1 SYSTEM
 RFP 2015-170

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1. INTRODUCTION

The purpose of this Request for Proposal (RFP) is to provide the State of New Hampshire, Department of Safety, Division of Emergency Services and Communications (DESC) with a solution that will implement a new 9-1-1 system. This system should implement as many NENA i3 solution components as possible, given today's standards, and as much as possible, be open to future NG9-1-1 components or standards as they are developed. We require a highly-reliable, thoroughly-tested and industry-proven solution.

Primarily, the DESC is looking to replace the existing CPE, which is approaching end of life, as well as the network delivering the calls (separate, forthcoming RFP). It is our intention to leverage or maintain as many of our existing systems as possible that are already deemed NENA i3 compatible. This should ideally lower costs as well as preserve familiarity with parts of the system for our call takers. However, the DESC is still interested to learn about any systems that vendors deem to have a competitive advantage or are required to integrate with the CPE and ESINet being proposed.

As an example, the DESC would prefer to continue to utilize Valor Systems' MiniCAD as it has custom functionality to accommodate the DESC's call handling functions. The DESC assumes at this time that replacing this component would require significant customization by another vendor. The DESC would also prefer to leverage the existing Carrier over Ethernet Network (CE Network) to continue to deliver calls for service identification, location and other data to local dispatch agencies and also potentially function as an extension to the proposed ESINet.

1.1 Contract Award

The State plans to execute a Firm Fixed Price (FFP) Contract as a result of this RFP. The award will be based upon criteria, standards, and weighting identified in this RFP.

1.1.1 Non-Exclusive Contract

Any resulting Contract from this RFP will be a non-exclusive Contract. The State reserves the right, at its discretion, to retain other vendors to provide any of the Services identified under this procurement.

1.1.2 Public Announcement

If a Contract is awarded, the Vendor must obtain written consent from the State before any public announcement or news release is

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issued pertaining to any Contract award. Such permission, at a minimum, will be dependent upon approval of the Contract by Governor and Executive Council of the State of New Hampshire.

1.2 Contract Term

Time is of the essence in the performance of a Vendor's obligations under the Contract.

The Vendor shall be fully prepared to commence work by June 30, 2015, after full execution of the Contract by the parties, and the receipt of required governmental approvals, including, but not limited to, Governor and Executive Council of the State of New Hampshire approval ("Effective Date").

The Vendor's initial term will begin on the Effective Date and extend through June 30, 2020. The term may be extended up to three (3) years ("Extended Term") at the sole option of the State, subject to the parties' prior written agreement on applicable fees for each extended term, up to but not beyond June 30, 2023. Such Extended Term shall be via three (3) optional, 1-year extensions.

The maintenance and warranty period on the new system begins at provisional final system acceptance and extends through June 30, 2020. The contract will also include an option for three (3) optional, 1-year maintenance periods, at the sole discretion of the State, up to but not beyond June 30, 2023.

The Vendor shall commence work upon issuance of a written Notice to Proceed by the State.

The State does not require the Vendor to commence work prior to the Effective Date; however, if the Vendor commences work prior to the Effective Date and a Notice to Proceed, such work shall be performed at the sole risk of the Vendor. In the event that the Contract does not become effective, the State shall be under no obligation to pay the Vendor for any costs incurred or Services performed; however, if the Contract becomes effective, all costs incurred prior to the Effective Date shall be paid under the terms of the Contract.

1.3 Overview of Project or High Level Statement of Work

The Vendor will be responsible for all aspects of the Project, including, but not limited to:

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- Hardware (Servers, workstations, etc.)
- Software (Operating systems, custom CPE solution software, etc.)
- Integration of The System with pre-existing components
- Maintenance of existing system between the time the contact is awarded and the time that cutover to the new system is accomplished.
- Complete Management Information System (MIS) for The System
- Implementation
- Training
- Support during and after cutover

1.4 Subcontractors

The Vendor shall identify all Subcontractors to be provided to deliver required Services subject to the terms and conditions of this RFP, including but not limited to, in Appendix H Section H-25: *General Contract Requirements* herein and Appendix H: *State of New Hampshire Terms and Conditions* of this RFP.

The Vendor shall remain wholly responsible for performance of the entire Contract regardless of whether a Subcontractor is used. The State will consider the Vendor to be the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from any Contract.

1.5 E-mail Intent to Submit Proposal

Vendors intending to submit a Proposal shall submit an email stating their Intent to Submit Proposal. The email shall be submitted to the same email addresses provided in the Proposal Inquiries section, Section 4.2 herein. Emails shall include the subject line, "NG9-1-1 RFP Intent to Submit".

Emails shall be sent by the date and time prescribed in the Schedule of Events section, herein. It is the Vendor's responsibility to ensure that the DESC has received its "Intent to Submit Proposal" email. If a confirmation from the DESC is not received within twenty-four (24) hours from the date and time of submission, the Vendor shall call or otherwise reach the DESC contact provided for the delivery of the RFP to verify receipt.

1.6 Order of Precedence

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Dept. of Safety, Division of Emergency Services and Communications
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In the event of conflict or ambiguity among any of the text of the Contract Documents, the following Order of Precedence shall govern:

- a) The State of New Hampshire Terms and Conditions, as stated in Appendix H of this RFP.
- b) The State of New Hampshire, Department of Safety Contract 2015-170 (resulting Contract from this RFP, once executed)
- c) RFP 2015-170 and all related attachments, appendices and addendum (if applicable)
- d) Final State Responses to Vendor Inquiries
- e) The Contractor Proposal to RFP 2015-170.

2. SCHEDULE OF EVENTS

The following table provides the Schedule of Events for this RFP through Governor and Council approval and Notice to Proceed.

EVENT	DEADLINE / DATE	TIME (E.S.T.)
RFP released to vendors - Advertisement (on or about)	2/11/15	12:00 PM
Vendor Inquiry Period begins (on or about)	2/11/15	4:00 PM
Vendors submit Intent to Bid (via e-mail)	3/2/15	4:00 PM
Public Advertisement Period ends	3/2/15	4:00 PM
Vendor Inquiry Period ends (final written inquiries due)	3/4/15	4:00 PM
RSVP/Notification to the State of the number of representatives attending the Vendor Conference (via e-mail)	3/4/15	4:00 PM
Vendor Conference; location identified in <i>General Instructions</i> , Section 4.3	3/9/15	10:00 AM
Final State Written Responses to Vendor Inquiries distributed to all vendors	3/13/15	4:00 PM

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Final Date for Proposal Submission (received at DESC)	4/1/15	2:30 PM
Invitations for Oral Presentations extended to vendors that pass minimum Technical Specifications Score	4/10/15	4:00 PM
Vendor Presentations and PSAP tours at Concord IPOC Bldg. Media Room (directions will be provided)	4/22/15	TBD
Proposal Evaluation completed	5/1/15	2:30 PM
Vendor Notification of Selection and Begin Contract Negotiations (on or about)	5/1/15	3:00 PM
Contract to DOS Business Office for Governor and Executive Council (G&C) preparation	5/18/15	4:00 PM
Anticipated G&C Approval	6/24/15	4:00 PM
Anticipated Notice to Proceed (requires G&C approval)	6/26/15	4:00 PM

3. SOFTWARE, HARDWARE, REQUIREMENTS AND DELIVERABLES

3.1 Complete On-Site Solution

The State seeks to purchase a fully functional NG9-1-1 on-site system with this Contract. Each Proposal must present Software and Hardware that can fully support the required functionality, as well as support services required for the cutover to the new system.

3.2 Requirements

3.2.1 Appendix B: *Minimum standards for Proposal Consideration, compliance with System requirements, use of proposed COTS Software, Vendor Implementation experience, and proposed Project Team.*

3.2.2 Appendix C: *System Requirements and Deliverables*

3.2.3 Appendix D: *Topics for Mandatory Narrative Responses for Software, technical, Services and Project Management topics.*

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3.2.4 Appendix E: *Standards for Describing Vendor Qualifications* including Vendor corporate qualifications.

3.3 Deliverables

The State classifies Deliverables into three (3) categories: Written Deliverables, Software Deliverables, and Non-Software Deliverables. Pricing and scheduling information requirements are provided in Appendix F: *Pricing Worksheets*. A set of required Project Deliverables organized by category is detailed in Appendix C: *System Requirements and Deliverables*. Appendix D: *Topics for Mandatory Narrative Responses* solicits responses, which will expound on the Vendors' understanding of the Implementation process, the manner of Service delivery and experience with similar projects related to the Software, technical Services, and Project Management topics.

4. INSTRUCTIONS

4.1 Proposal Submission, Deadline, and Location Instructions

Proposals submitted in response to this RFP must be received by the DESC, no later than the time and date specified in Section 2: *Schedule of Events*. Proposals must be addressed to:

**State of New Hampshire
Department of Safety, DESC
Attn: Robert Brown
110 Smokey Bear Boulevard
Concord, New Hampshire 03301**

Cartons containing Proposals must be clearly marked as follows:

**STATE OF NEW HAMPSHIRE
DEPARTMENT OF SAFETY, DESC**

**RESPONSE TO DOS, DESC RFP 2015-170
NEXT GENERATION 9-1-1**

Vendor's name must be clearly visible on each box. Each box must also be labeled sequentially (i.e. Box 1 of 4).

Late submissions will not be accepted, will remain unopened, and will be returned to the Vendor unopened. Delivery of the Proposals shall be at the

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NEXT GENERATION 9-1-1 SYSTEM
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Vendors' expense. The time of receipt shall be considered when a Proposal has been officially documented by the DESC, in accordance with its established policies, as having been received at the location designated above. The State accepts no responsibility for mislabeled or undelivered mail. Any damage that may occur due to shipping shall be the Vendor's responsibility.

All Proposals submitted in response to this RFP must consist of:

- a. One (1) original and Seven (7) clearly identified copies of the Proposal, including all required attachments,
- b. One (1) copy of the *Proposal Transmittal Form Letter* (described in Section 4.18.2: *Transmittal Form Letter*, herein) shall be signed by an official authorized to legally bind the Vendor and shall be marked "ORIGINAL."
- c. One (1) electronic copy on CD-ROM in MS WORD and PDF format.

The original and all copies shall be bound separately, delivered in sealed containers, and permanently marked as indicated above. A Vendor's disclosure or distribution of its Proposal other than to the State will be grounds for disqualification.

4.2 Proposal Inquiries

All inquiries concerning this RFP, including but not limited to, requests for clarifications, questions, and any changes to the RFP, shall be emailed, citing the RFP title, RFP number, page, section, and paragraph and submitted to the following RFP State Point of Contact:

Telephone: (603) 271-6911
Email: rbrown@e911.nh.gov

Physical Address:

Robert Brown, IT Manager
DOS, DESC
110 Smokey Bear Blvd.
Concord, New Hampshire, 03301

Mailing Address:

Robert Brown, IT Manager

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DOS, DESC
33 Hazen Drive
Concord, New Hampshire, 03305

Vendors are encouraged to submit questions via email; however, the State assumes no liability for assuring accurate/complete email transmission/receipt and is not responsible to acknowledge receipt.

Inquiries must be received by the RFP State Point of Contact (see above) no later than the conclusion of the Vendor Inquiry Period (see Section 2: *Schedule of Events*). Inquiries received later than the conclusion of the Vendor Inquiry Period shall not be considered properly submitted and will not be considered.

The State intends to issue official responses to properly submitted inquiries on or before the date specified in Section 2: *Schedule of Events*; however, this date may be subject to change at the State's discretion. The State may consolidate and/or paraphrase questions for sufficiency and clarity. The State may, at its discretion, amend this RFP on its own initiative or in response to issues raised by inquiries, as it deems appropriate. Oral statements, representations, clarifications, or modifications concerning the RFP shall not be binding upon the State. Official responses will be made in writing and provided to each Vendor deemed to have properly submitted an inquiry.

4.2.1 Restriction of Contact With State Employees

From the date of release of this RFP until an award is made and announced regarding the selection of a Vendor, all communication with personnel employed by or under contract with the State regarding this RFP is forbidden unless first approved by the RFP State Point of Contact listed in Section 4.2: *Proposal Inquiries*. State employees have been directed not to hold conferences and/or discussions concerning this RFP with any Vendor during the selection process, unless otherwise authorized by the RFP State Point of Contact.

4.3 Vendor Conference

A **non-mandatory** Vendor Conference will be held at the following location on the date and at the time identified in Section 2: *Schedule of Events*:

Dept. of Safety
NH Fire Academy

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98 Smokey Bear Blvd.
Classrooms 5 & 6
Concord, New Hampshire 03301

All Vendors who intend to submit Proposals are encouraged to attend the Vendor Conference. Vendors are requested to RSVP via email by the date identified in Section 2: *Schedule of Events*, indicating the number of individuals who will attend the Vendor Conference. Vendors are allowed to send a maximum number of three (3) representatives.

Vendors will have an opportunity to ask questions about the RFP and the State will make a reasonable attempt to answer questions it deems appropriate. Questions may include, without limitation, a request for clarification of the RFP; a request for changes to the RFP; suggestions or changes to the RFP that could improve the RFP competition or lower the offered price; and to review any applicable Documentation.

Vendors are encouraged to email inquiries at least forty-eight (48) hours prior to the Vendor Conference. No responses will be given prior to the Vendor Conference. Oral answers will not be binding on the State. The State's final response to Vendor inquiries and any requested changes to terms and conditions raised during the Vendor Inquiry Period will be posted to the website by the date specified as the final State responses to Vendor inquiries as specified in Section 2: *Schedule of Events*. Vendors are responsible for any costs associated with attending the Vendor Conference.

4.4 Alteration of RFP

The original RFP document is on file with the State of New Hampshire, Department of Administrative Services. Vendors are provided an electronic version of the RFP. Any alteration to this RFP or any file associated with this RFP is prohibited. Any such changes may result in a Proposal being rejected.

4.5 RFP Addendum

The State reserves the right to amend this RFP at its discretion, prior to the Proposal submission deadline. In the event of an Addendum to this RFP, the State, at its sole discretion, may extend the Proposal submission deadline, as it deems appropriate.

4.6 Non-Collusion

The Vendor's signature on a Proposal submitted in response to this RFP guarantees that the prices, terms and conditions, and Services quoted have

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been established without collusion with other Vendors and without effort to preclude the State from obtaining the best possible competitive Proposal.

4.7 Validity of Proposal

Proposals must be valid for one hundred and eighty (180) days following the deadline for submission of Proposals in Section 2: *Schedule of Events*, or until the Effective Date of any resulting Contract.

4.8 Property of the State

All material received in response to this RFP shall become the property of the State and will not be returned to the Vendor. Upon Contract award, the State reserves the right to use any information presented in any Proposal.

4.9 Confidentiality of a Proposal

A Proposal must remain confidential until the Effective Date of any resulting Contract as a result of this RFP. A Vendor's disclosure or distribution of Proposals other than to the State will be grounds for disqualification.

4.10 Public Disclosure

All submissions in response to this RFP shall be deemed confidential and are exempt from public inspection under New Hampshire statute (RSA 106-H:14). Likewise, any written information provided by DESC in response to Vendor inquiry shall be deemed confidential pursuant to RSA 106-H:14 and are exempt from public inspection. Vendors shall not use or distribute DESC information for any purpose other than to construct bids and proposed solutions and, ultimately, execute the accepted solution (winning Vendor).

4.11 Security

The State must ensure that appropriate levels of security are implemented and maintained in order to protect the integrity and reliability of its information technology resources, information, and services. State resources, information, and services must be available on an ongoing basis, with the appropriate infrastructure and security controls to ensure business continuity and safeguard State networks, Systems and data.

The State will evaluate the degree to which the proposed System is designed and architected to ensure the confidentiality and integrity of its valued asset, Data. Ideally the proposed solution will allow for single sign on access managed by a centralized directory services or it's equivalent.

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4.12 Non-Commitment

Notwithstanding any other provision of this RFP, this RFP does not commit the State to award a Contract. The State reserves the right, at its sole discretion, to reject any and all Proposals, or any portions thereof, at any time; to cancel this RFP; and to solicit new Proposals under a new acquisition process.

4.13 Proposal Preparation and Delivery Cost

By submitting a Proposal, a Vendor agrees that in no event shall the State be either responsible for or held liable for any costs incurred by a Vendor in the preparation or delivery in connection with the Proposal, or for work performed prior to the Effective Date of a resulting Contract.

4.14 Oral Presentations/Interviews and Discussion

The State reserves the right to require Vendors to make oral presentations of their Proposals and/or to make available for oral presentations/interviews the IT consultants proposed to implement the COTS application. All costs associated with oral presentations/interviews shall be borne entirely by the Vendor. Vendors may be requested to provide demonstrations of their proposed Systems as part of their presentations.

4.15 Required Contract Terms and Conditions

By submitting a Proposal, the Vendor agrees that the State of New Hampshire terms and conditions, contained in Appendix H: *State of New Hampshire Terms and Conditions* herein, shall form the basis of any Contract resulting from this RFP. In the event of any conflict between the State's terms and conditions and any portion of the Vendor's Proposal, the State's terms and conditions shall take precedence and supersede any and all such conflicting terms and conditions contained in the Vendor's Proposal.

4.16 Proposal Format

Proposals should follow the following format:

- The Proposal should be provided in a three-ring binder.
- The Proposal should be printed on white paper with dimensions of 8.5 by 11 inches with right and left margins of one (1) inch.
- The Proposal should use Times New Roman font with a size no smaller than eleven (11).
- Each page of the Proposal should include a page number and the number of total pages and identification of the Vendor in the page footer.
- Tabs should separate and help identify each section of the Proposal.

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Exceptions for paper and font sizes are permissible for: graphical exhibits, which may be printed on white paper with dimensions of 11 by 17 inches; and material in appendices.

4.17 Proposal Organization

Proposals should adhere to the following outline and should not include items not identified in the outline.

- **Cover Page**
- **Transmittal Form Letter**
- **Table of Contents**
- **Section I:** Executive Summary
- **Section II:** Glossary of Terms and Abbreviations
- **Section III:** Responses to Detailed Requirements and Deliverables
- **Section IV:** Narrative Responses to Scope of Work Questions
- **Section V:** Corporate Qualifications
- **Section VI:** Qualifications of key Vendor staff
- **Section VII:** Cost Proposal
- **Section VIII:** Copy of the RFP and any signed Addendum (a) - **required in original Proposal only*
- **Section IX:** Appendix

4.18 Proposal Content

4.18.1 Cover Page

The first page of the Vendor's Proposal should be a cover page containing the following text:

**STATE OF NEW HAMPSHIRE
Department of Safety, DESC**

**RESPONSE TO DOS, DESC RFP 2015-170
NEXT GENERATION 9-1-1 SYSTEM**

The cover page should also include the Vendor's name, contact person, contact telephone number, address, city, state, zip code, fax number, and email address.

4.18.2 Transmittal Form Letter

The Vendor must submit signed Transmittal Form Letter with their response using the Transmittal Form Letter Template provided herewith. Any electronic alteration to this Transmittal Form Letter is prohibited. Any such changes may result in a Proposal being rejected.

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State of New Hampshire Proposal Transmittal Form Letter

Company Name _____

Address _____

To: NH Department of Safety DESC State Point of Contact:
Robert Brown, IT Manager
DOS, DESC
33 Hazen Drive
Concord, New Hampshire, 03305
Telephone: (603) 271-6911
Email: rbrown@e911.nh.gov

RE: Proposal Invitation Name: Next Generation 9-1-1 System
Proposal Number: DOS DESC 2015-170
Proposal Due Date and Time: April 20, 2015; 2:30PM

Dear Sir:

Company Name: _____ hereby offers to sell to the State of New Hampshire the Services indicated in RFP NH DOS DESC RFP 2015-170 Next Generation 9-1-1 System at the price(s) quoted in Vendor Response Section VII: *Cost Proposal*, and Appendix F: *Pricing Worksheets*, in complete accordance with all conditions of this RFP and all Specifications set forth in the RFP and in the State of New Hampshire Terms and Conditions outlined in RFP Appendix H: *State of New Hampshire Terms and Conditions*.

Company Signor: _____ is authorized to legally obligate

Company Name: _____.

We attest to the fact that:

The company has reviewed and agreed to be bound by all RFP terms and conditions including but not limited to the *State of New Hampshire Terms and Conditions* in Appendix H, which shall form the basis of any Contract resulting from this RFP; No new terms and conditions have been added and no existing terms and conditions have been deleted in this RFP Proposal.

The Proposal is effective for a period of 180 days or until the Effective Date of any resulting Contract.

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The prices quoted in the Proposal were established without collusion with other eligible Vendors and without effort to preclude the State of New Hampshire from obtaining the best possible competitive price; and

The Vendor has read and included a copy of RFP 2015-170 and any subsequent signed Addendum (a).

Our official point of contact is

Title _____

Telephone _____

Email _____

Authorized Signature Printed

Authorized Signature

4.18.3 Table of Contents

The Vendor must provide a table of contents with corresponding page numbers relating to its Proposal. The table of contents must conform to the outline provided in Section 4.17: *Proposal Organization*, but should provide detail, e.g., numbering, level of detail.

4.18.4 Section I: Executive Summary

The executive summary, which must not exceed five (5) pages, must identify how the Vendor satisfies the minimum standards for consideration, which are described in Appendix B: *Minimum Standards for Proposal Consideration*, to this Request for Proposals. The executive summary will also provide an overview of the Vendor's proposed Solution and Services. Vendors are encouraged to highlight those factors that they believe distinguish their Proposal.

4.18.5 Section II: Glossary of Terms and Abbreviations

The Vendor must provide a glossary of all terms, acronyms, and abbreviations used in its Proposal.

4.18.6 Section III: Responses to Detailed Requirements and Deliverables

System requirements are provided in Appendix C: *System Requirements and Deliverables*.

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Using the response tables in Appendix C, the Vendor must document the ability to meet the Requirements and Deliverables of this RFP.

4.18.7 Section IV: Narrative Responses

Section IV solicits narrative responses describing the Software, Technical, Services and Project Management topics defined for this RFP Project. Appendix D: *Topics for Mandatory Narrative Responses* is organized into sections, which correspond to the different deliverables or aspects of the scoring process of the Proposal. Discussion of each topic must begin on a new page.

4.18.8 Section V: Corporate Qualifications

Section V should provide corporate qualifications of all firms proposed to participate in the Project. Specific information to be provided is described in Section E-1: *Required Information on Corporate Qualifications* of Appendix E: *Standards for Describing Vendor Qualifications*.

4.18.9 Section VI: Qualifications of Key Vendor Staff

This Proposal section must be used to provide required information on key Vendor staff. Specific information to be provided is described in Sections: E-2: *Team Organization and Designation of key Vendor staff*; E-3: *Candidates for Project Manager*; and E-4: *Candidates for key Vendor staff Roles*, of Appendix E: *Standards for Describing Vendor Qualifications*.

4.18.10 Section VII: Cost Proposal

The Cost Proposal must include the following:

- The *Activities/Deliverables/Milestones Pricing Worksheet* prepared using the format provided in Table F-1 of Appendix F: *Pricing Worksheets* and any discussion necessary to ensure understanding of data provided;
- A *Future Vendor Rates Worksheet* prepared using the format provided in Table F-2 of Appendix F: *Pricing Worksheets* and any discussion necessary to ensure understanding of data provided;
- A *Licensing, Maintenance and Support Pricing Worksheet* prepared using the format provided in Table F-3 of Appendix F: *Pricing Worksheets* and any discussion necessary to ensure understanding of data provided.

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4.18.11 Section VIII: Copy of the RFP and any signed Addendum(a) - *required in original Proposal only*

4.18.12 Section IX: Appendix- This section provided for extra materials as referenced in Appendix D- Topic O-Product Literature,

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5. PROPOSAL EVALUATION PROCESS

5.1 Scoring Proposals

Each Proposal will be evaluated and considered with regard to the Solution and Services proposed, qualifications of the Vendor and any Subcontractors, experience, and qualifications of proposed candidates, and cost.

The State will issue an Intent to Award Notice to a Vendor based on these evaluations. Should the State be unable to reach agreement with the Vendor during Contract discussions, the State may then undertake Contract discussions with the second preferred Vendor and so on. Such discussions may continue at the sole option of the State, until an agreement is reached, or all Proposals are rejected.

The State will use a scoring scale of 100 points, which shall be applied to the Solution as a whole. Points will be distributed among four (4) factors:

- 45 points - Proposed Solution;
- 10 points – Vendor's Technical, Service and Project Management Experience; (i.e. looking backward at experience in installing and maintaining similar to Proposal)
- 15 points – Vendor Company and Staffing Qualifications (i.e. looking forward, or capacity to fulfill Proposal); and
- 30 points – Solution Cost (Rates and Pricing)
- 100 points - Total Possible Score.

5.2 Rights of the State in Evaluating Proposals

The State reserves the right to:

- a. Consider any source of information in evaluating Proposals;
- b. Omit any planned evaluation step if, in the State's view, the step is not needed;
- c. At its sole discretion, reject any and all Proposals at any time;
- d. Issue a new RFP if any or all Proposals are rejected; and
- e. Open Contract discussions with the second highest scoring Vendor, if the State is unable to reach an agreement on Contract terms with the highest scoring Vendor.

5.3 Planned Evaluations

The State plans to use the following process:

- Initial screening

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- Preliminary scoring of the Proposals and reference and background checks;
- Oral interviews and product demonstrations;
- Final evaluation of Proposals.

5.3.1 Initial Screening

The State will conduct an initial screening step to verify Vendor compliance with submission requirements and to confirm that the Proposal satisfies the conditions defined in Appendix B: *Minimum Standards for Proposal Consideration*. A Proposal that fails to satisfy either submission requirements or minimum standards may be rejected without further consideration.

5.3.2 Preliminary Scoring of Proposals and Reference and Background Checks

The State will establish an evaluation team to initially score Proposals, and conduct reference and background checks.

5.3.3 Oral Interviews and Product Demonstrations

Preliminary scores from the initial evaluation of the Proposals will be used to select Vendors to invite to oral interviews and product demonstrations.

The purpose of oral interviews and product demonstrations is to clarify and expound upon information provided in the written Proposals. Vendors are prohibited from altering the basic substance of their Proposals during the oral interviews and product demonstrations.

For each invited Vendor, the oral interview and product demonstrations will be **approximately 90 minutes** in length. A highly structured agenda will be used for oral interviews and product demonstrations to ensure standard coverage of each invited Vendor. Information gained from oral interviews and product demonstrations will be used to refine scores assigned from the initial review of the Proposals. Optional PSAP tour will follow Vendor presentations.

5.3.4 Final Evaluation

The State will conduct final evaluations as a culmination of the entire process of reviewing Vendor Proposals and information gathering. After making a preliminary determination of award, the State reserves the right to conduct site visits to a Vendor location and/or government site(s) that utilizes the Vendor Software.

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5.4 Scoring Detail

The State will select a Vendor based upon the criteria and standards contained in this RFP.

5.4.1 Scoring of the Proposed Solution

The Vendor's Proposed Software Solution will be allocated a maximum score of forty five (45) points. These points will include, but not be limited to, the following sub-factors for the Solution: **Overall Fit; Features and Optional Features, Usability, and**

5.4.2 Scoring of Vendor Technical, Service, and Project Management Proposal

Vendor proposed Services will be allocated a maximum score of ten (10) points, which will include, but not be limited to, the following sub-factor narratives on: Technical Expertise; Ability to provide Professional Services and support

5.4.3 Scoring of Vendor Company and company experience

Vendor qualifications (including any Subcontractors) will be allocated a maximum score of fifteen (15) points which will include, but not be limited to, the following sub-factors: corporate qualifications including time in operation and stability; Company references; estimated size of Vendor subscriber base.

5.4.4 Scoring the Solution Cost

Vendor proposed Software Solution cost will be allocated a maximum score of thirty (30) points. The State will consider five years of operating costs, provided in Tables F-1: *Activities/Deliverables/Milestones Pricing Worksheet*, F-5: *Software Licensing, Maintenance, and Support Pricing Worksheet* and, *Maintenance, and Support Pricing Worksheet*. Cost information required in a Proposal is intended to provide a sound basis for comparing costs.

THE FOLLOWING FORMULA WILL BE USED TO ASSIGN POINTS FOR COSTS:

Vendor's Cost Score= (Lowest Qualified Submission Cost/Vendor's Proposed Cost) times NUMBER OF maximum points for Solution costs defined in Section 5.1: Scoring Proposals.

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For the purpose of this formula, the lowest proposed cost is defined as the lowest cost proposed by a Vendor who fulfills the minimum qualifications.

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APPENDIX A: BACKGROUND INFORMATION

A-1 Division of Emergency Services & Communications

The DESC is the single 9-1-1 authority in the State of New Hampshire.

The mission of the NH Dept. of Safety, DESC is to serve as the communications link between the public and public safety agencies. We shall work daily to exceed all standards of excellence by providing state of the art E9-1-1 and other communication services. In doing so, we envision a day when every person in the State of New Hampshire will know and use 9-1-1 with the utmost confidence that a high level of assistance will follow; furthering the ideal of "One Nation, One Number."

The DESC is responsible for procuring a new 9-1-1 system with NG9-1-1 capabilities composed of various NENA i3 components. The DESC is responsible for delivering 9-1-1 calls and call data to a variety of local dispatch centers across the state. It is the desire of the DESC to procure a new NG9-1-1 capable system that can service the needs of the Division and also provide enhanced services and abilities to the dispatch centers during a call. The goal of this RFP is to procure an updated system that takes the first steps towards a NG9-1-1 system. Specifically we are looking for this new system to be IP based, support text messaging, be compatible with current NENA i3 architecture, and be open to future enhancements as the industry settles on other standards such as picture, video and telematics delivery, future accepted use of Location Information Servers(LIS), and more widespread acceptance or use of Presence Information Data Format Location (PIDF-LO).

A-2 Related Documents Required at Contract time

- a. Certificate of Good Standing with the State of NH (Appendix G-2-item A) dated on or after April 1, 2014 and available from the Department of State by calling (603) 271-3244 or (603) 271-3246. Forms are also available on: www.sos.nh.gov/corporate/Forms.html
- b. Certificate of Authority/Vote (Appendix G-2-Item B)
- c. Proof of Insurance compliant with Appendix H: *State of New Hampshire Terms and Conditions*.

A-3 State Project Team

State high-level staffing for the Project will include:

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A-3.1 Project Sponsor

The Project Sponsor, the Department of Safety Commissioner, will be responsible for securing financing and resources, addressing issues brought to his attention by the State Project Manager, and assisting the State Project Manager in promoting the Project throughout the State. The Project Sponsor or an appropriate designee will be available to resolve issues on a timely basis.

A-3.2 State Project Manager

The State Project Manager will be responsible for:

- Leading the Project;
- Developing Project strategy and approach;
- Engaging all Vendors;
- Managing significant issues and risks; and
- Managing stakeholders' concerns.

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APPENDIX B: MINIMUM STANDARDS FOR PROPOSAL CONSIDERATION

A Proposal that fails to satisfy the requirements in this section may be rejected without further consideration.

B-1 Submission requirements

- The Proposal is date and time stamped before the deadline as defined in Section 2: *Schedule of Events*. The Vendor has sent the proper number of copies with the original version of the Proposal marked "ORIGINAL" and the copies marked "COPY" as defined in Section 4.1: *Proposal Submission, Deadline and Location Instructions*
- The original Proposal includes a signed Transmittal Letter accepting all terms and conditions of the RFP without exception

B-2 Compliance with System Requirements

System requirements and Deliverables are listed in Appendix C: *System Requirements and Deliverables* in this RFP. The proposed Vendor's Solution must be able to satisfy 90% of all mandatory requirements listed.

B-3 Current Use of Vendor Proposed Software – Current Implemented Sites of Vendor proposed software

Components that constitute the Vendor's proposed Software suite must be fully implemented and operational in at least one (1) government entity comparable in size and complexity to the State of New Hampshire.

B-4 Vendor Implementation Service Experience

The Implementation Vendor must have completed the Vendor proposed Software Implementation for at least one (1) government client comparable in size and complexity to the State of New Hampshire within the last two (2) years. The specific Vendor-proposed Software version and functionality must be described.

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APPENDIX C: SYSTEM REQUIREMENTS AND DELIVERABLES

C-1 SCOPE OF WORK

C-1-A Existing System and Background

1. Description of existing system see Appendix J

2. Systems Utilized:

- a. Cassidian Sentinel system utilizing 2 ECS1000's and 42 workstations across the two PSAPs, connected for redundancy and load balancing via ACD
- b. Exacom Hindsight G2 system – 2 systems each with dual decks
- c. Valor TM Mini-CAD at the 42 workstations sending ANI/ALI data to 70+/- dispatch agencies around the State of New Hampshire via a Carrier over Ethernet Network. At those sites half are utilizing complete Valor TM CAD provided by the State of NH DESC integrated with MicroData xTrakker. The other half receive the CAD spill into their own CAD system via a standard NENA ANI/ALI spill over TCP/IP.
- d. 911Datamaster DBMS system with redundant ALI servers
- e. MicroData xTrakker mapping solution at 42 workstations with 2 Xstore servers which also additionally serve the 80+/- dispatch agencies
- f. Medical Priority Dispatch - current version is ProQA 3.4.3; however, we will soon be upgrading to Paramount

3. Call Delivery and Handling

Both PSAPs utilize 54 trunks (27 to each) delivered from diverse and redundant COs via SS7. Each carrier-providing service within the State of New Hampshire is required to interconnect redundantly and ideally diversely to the network provider. The system and network has a high degree of fault tolerance with multiple paths to ensure call delivery. This includes a fail-safe allowing one or both PSAPs to activate a mechanical "make busy" system directing all calls away from a particular PSAP to the other PSAP or potentially to default routing if both are enabled. Default routing routes the emergency calls to a previously designated local dispatch center in that calling party's municipality. Any system presented should include a similar or greater degree of fault tolerance.

All 9-1-1 calls placed in New Hampshire are distributed to one of the DESC's 2 PSAPs. The call is answered at one of these and when the nature of the emergency is determined, data is transferred to the appropriate local dispatch center for the caller's location and emergency type utilizing Valor TM MiniCAD. This data is passed via TCP/IP over the DESC's CE Network. The voice is then transferred separately to the appropriate local dispatch agency via the PSTN.

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Additional resources may be notified as required. Those callers in need of medical assistance receive Emergency Medical Dispatch instructions from a DESC PSAP call taker.

4. Systems owned which are either NENA i3 compliant currently or will be compliant through our existing maintenance contracts at the time of implementation:

- The DESC currently utilizes microDATA xTrakker for GIS functionality in the PSAP and at the dispatch centers. This software component can be modified to handle NENA i3 data streams and, as such, we would prefer to keep this in place. Alternatives would be considered if they are seen to deliver enhanced functionality or required to function with other systems proposed. As noted above in section 1.2 the xTrakker system is also used at the remote dispatch centers integrated with Valor™ CAD.
- The DESC currently utilizes 911Datamaster's ALI and DBMS Database solutions. These solutions can be adapted for NENA i3, specifically the LDB, LIS and ECRF/LVF functions. It is our strong preference to continue to use these solutions; however, alternatives will be considered if they are demonstrated to deliver improved functionality or are required to function with other systems proposed.
- The DESC currently utilizes ProQA for emergency medical dispatching and would prefer that this solution is able to integrate fully into any proposed systems.
- The DESC currently has a robust GIS maintenance solution that was built on-site that authors all of the 9-1-1 GIS data. The DESC does not require GIS maintenance tools or SIF functionality.

C-1-B System Architecture

1. Overview

The System shall be an IP-based system that supports a distributed architecture, utilizing a Legacy Network Gateway(LNG) if needed and where needed. The System should have the ability for rules-based call routing and include appropriate Border Control Functions (BCF) or firewalls at each point of access. The System should also utilize an IP based VoIP network for call transfer/delivery to local dispatch centers (ESI Net), while also being able to connect to the PSTN as needed for redundancy and call delivery for those not on the ESI Net.

The System must be built on open standards, secure, so that interoperability with other industry standard systems and networks is assured. It shall be compatible with our existing vendors and systems. Those systems are Valor™ CAD, 911Datamaster DBMS and ALI products, the master recording solution Exacom, and TCS xTrakker . The DESC is interested in alternative GIS or map solution to the

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xTrakker product and recommendations, if provided, should be listed in your proposal as an option only. The DESC may or may not choose to stay with this product. The System should, to the greatest extent possible, leverage the most current technologies such as server virtualization, latest operating system versions, etc.

The Answering Positions shall consist of a high-end workstation running Call Processing Software (CPE) that is capable of answering and processing both emergency and administrative calls. The CPE software shall be responsible for all call -related functionality such as call answering, call transfers, ANI/ALI display and other call processing functions on both 911 and administrative circuits.. In addition, the high-end workstations shall be capable of running ancillary software such as supplemental ALI, GIS map display and search functionality, and the transfer of CAD data. The high-end workstations must be capable of processing these applications and must include multiple displays.

All relevant portions of the proposed solution shall conform to the applicable NENA i3 standards. The System must at a minimum provide call-handling capabilities to support the current volume of call traffic as the current system at peak as well as demonstrate the ability to accommodate potential future growth, if demands required.

2. Redundancy

The architecture of The System shall be such that the failure of any one component or module will not result in system failure, but only the loss of the equipment associated with that module. All vital system modules must have redundant modules configured in an active-active configuration to protect against any single point of failure. It is mandatory that any central processor and audio switching matrix shall be fully duplicated in an active-active configuration. Failover shall be automatic, lossless and shall not require manual intervention. The Bidder shall describe their system architecture with respect to the major components or modules, and describe how The System will react to a failure of each major component or module.

All major components proposed in The System should be geographically redundant allowing for dual-locality of all mission-critical components of the System. No single major component failure shall disable more than 50% of The System capacity. The System shall provide the ability to "make busy" or manually shut down one PSAP forcing all requests for service to be directed to the other PSAP. This will allow for troubleshooting, training, and maintenance as required.

3. Call Delivery

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The calls will be provided via SIP by the individual carrier where possible and by the 9-1-1 Telephone Network Aggregator, also via SIP, where not possible. Call delivery shall be configurable for routing calls based on geography or availability or both. The DESC will provide an ECRF for the purposes of geographic call delivery decisions if needed for the System. All incoming traffic will be in SIP format. However, if the system requires a location object, an LNG or similar component should be utilized to perform the ALI request and build the Location Object before passing the call to the CPE.

4. Call Transfer

All calls must have the ability to be transferred to agencies configured in a pre-defined list as well as with a manual ten-digit dial. "Speed Dial" buttons or Selective Transfer buttons should be populated for Police, Fire and Medical calls automatically based on the location of the 9-1-1 call cross-referenced with the DESC's dispatch center coverage polygons. The DESC will provide an ECRF for the purposes of determining the correct dispatch center if needed for The System. The System must be able to distinguish between agencies that are directly connected to the DESC ESINet and agencies that are not. Calls which are transferred to an agency connected to the ESINet must utilize SIP directly to the agency phone system and may be routed out through the Network Aggregator gateway in the event of a communications failure inside of the ESINet.

5. Supplemental ALI

The System must have the ability to provide Supplemental Information for a caller based on a voluntary sign-up system. The SupALI component must be able to display, at a minimum, several line of additional information such as medical issues, electricity requirements, mobility concerns, etc. This information must be able to be stored on "per-phone-number" basis and it is desired that this information can also be geographically tied to an address for visual display on a map for the purposes of indicating that an issue exists at an address, regardless of the phone used to report the emergency. The SupALI system must have an administration program that allows for new entries, modification of existing entries and deletion of old entries. This administration program must also be able to produce reports on the age of the record, when it was entered, when it was modified and when the data was last verified. A self-registration website is desired for users to be able to submit their supplemental information to the DESC, conditional upon approval of this information by DESC staff.

6. Instant Messaging

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The System must have the ability to provide Instant Messaging between telecommunicators and between supervisors and all telecommunicators. The Instant Messenger must be small, efficient and be able to be configured so as to not interrupt a live call. Users should have the option to message a specific position, all staffed positions, and/or an electronic display/message board. Messages should be able to be deleted, or made "sticky" for important messages so they stay on top of the list.

7. Questions

1. Describe in detail how your solution will meet the requirements listed above?
2. Identify all hardware (type, manufacturer, model, and the function it supports.) necessary to support the proposed system. The listing should differentiate equipment provided by the vendor under the proposal and the equipment to be provided by the DESC.
3. Describe how your system will recover from a failover or manual shutdown of 1 PSAP.
4. What operating system does your solution require for servers and for workstations?
5. Please describe, in detail, your solution to Supplemental ALI in C-1-B-5. Can The System accommodate land lines, VoIP lines and cell phone numbers? Can you link this information to an address? To an x/y location? Can your data be included directly on a map or must it be exported, geocoded and converted to a GIS layer first?
6. Please describe, in detail, your solution to Instant Messaging in C-1-B-6.

C-1-C Interfaces

1. Computer Aided Dispatch (CAD)

The System shall have an interface to the Valor™ Computer Aided Dispatch (CAD) system. The bidder's CPE software shall run on the same workstation as the DESC Valor™ CAD system software. The CPUs will be equipped with at a minimum quad monitor cards and two monitors. There shall be only one keyboard and mouse for the call answering and CAD software. It shall provide interface to multiple CAD servers using a standard NENA CAD spill. The System shall provide CAD spill update when ALI is rebid.

2. GIS Capabilities

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Any GIS solution should be compatible with Valor™ CAD software. The System should be compatible with MicroData's™ Xtrakker solution in the event the DESC does not select the proposed map solution. These should be listed as options within your cost proposal.

3. Database

The System shall be able to interface with the 911Datamaster™ DBMS solution for the purposes of retrieving ALI data via a land-line database and from VPCs and MPCs over the E2 circuits. DBMS will serve the role of Location Database (LDB) in this configuration. It must be able to interface with the multiple LDB servers located in Concord and Laconia and must be able to query both servers in the event of a failure at one location.

4. Master Log Recording

The System shall be compatible with Exacom™ Hindsight master call recorders.

5. External Clock

All components provided in this proposal should have the ability to synchronize with a net clock. The state currently owns two Spetracom Netclock model 9483 to be leveraged if deemed suitable.

6. Questions

1. Describe how The System will meet the requirements of C-1-C-1
2. Describe in detail how The System will interface with Valor™ CAD.
3. Describe how the The System will interface with xTrakker if required? Please describe in detail the GIS or mapping capabilities and options of your solution.
4. Describe in detail any alternate GIS solution that you would recommend with The System. If proposing an alternate GIS solution, please describe in detail how that component will interface with Valor™ CAD, particularly in the remote dispatch centers.
5. Describe how The System will interface with 911Datamaster LDB and DBMS products.
6. Describe how The System will interface with Exacom™
7. Describe how The System will synchronize with a net clock.

C-1-D Call Handling / CPE

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All calls shall be presented and include all standard call-handling features. Handling of a wireless call should be transparent to the telecommunicator in that all telephony features and functions at the telecommunicator position are the same as that of a wireline call. Single step ring-back is mandatory as the telecommunicator shall not be required to perform a manual ANI ring-back for wireless calls.

1. ACD (Automated Call Distribution (ACD))

The PSAP equipment shall contain an on-site intelligent call distribution system. The ACD shall contain the ability to provide seamless integration between the two primary PSAPs in Concord and Laconia. The ACD should combine both PSAP's agents into one virtual ACD. The DESC requires the seamless integration to do "look ahead" before a request for emergency services is presented to an agent to ensure their availability. This feature should not be done using "No answer call forward" technology. The incoming request for emergency services queue, in conjunction with the selected ACD scheme, presents the incoming request for emergency services to the next call-taker in the same order that the incoming request for emergency services was received. In the event of a failure or interruption of service for the "Virtual ACD" both PSAP's ACDs should have the ability to operate independently. PSAP managers shall have the ability to customize voice messages and select from several different 9-1-1 call ACD schemes, including:

- Longest idle
- Longest idle with alerting chime
- Predetermined Priority
- Ring All Calltakers
- No ACD
- Skill or Role-based call routing

All five ACD schemes ensures that no two calls with the same ANI are placed in the call waiting queue at the same time, thereby assuring that hang-ups and crank calls do not tie-up incoming trunks. A separate series of ACD queues, which are First-In First-Out (FIFO), shall be available for incoming administration calls.

2. Instant Recall Recorder (IRR)

The System shall be equipped with IRRs at each position and interface with a master log recorder. The master log recorder is a Multi-Channel Digital Recorder. The IRRs shall be integrated with the master log recorder.

3. ANI/ALI Controller

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The System may include an ANI/ALI controller as needed by the proposed solution to ensure functionality required in this proposal. The ANI/ALI controller shall comply with current protocols recommended by NENA.

4. ALI Retrieval System Interface

The System shall have the capability to interface to multiple ALI Retrieval systems. It must have at least two output interfaces for transmission and receipt of data to act as an interface between each database provider's ALI (Automatic Location Information) computers and the customer's premises equipment to display location information at the answering position handling the call.

5. Automatic Number Identification

The System shall be capable of providing visual display of the emergency caller's telephone number at the PSAP location. The System must be able to process a minimum of a 20-digit spill for wireless calls.

6. Automatic Location Identification

The System shall be capable of providing visual display of the calling party's street address information based on the ANI or Phase I/II wireless location. It must be capable of extracting geographical coordinate information from the ALI file received and transmitting this information to geographical mapping software.

7. Calltaker Console and Function

The console shall provide the ability to display the Calling Party Number and Location Information of an incoming 9-1-1 or emergency call before the call has been answered. It shall provide the ability to request the System to rebid the location of the caller and update the location in the call information display. The console shall provide the ability to perform a manual ALI request whereby the agent enters a phone number and The System performs an ALI query and displays the results on the console. This manual ALI query can be performed while the agent is idle or on a call.

8. Reverse ALI

The answering positions shall allow for reverse ALI lookups for 9-1-1 emergencies, testing and quality assurance if authorized by the Director of the DESC. The reverse ALI lookups shall be authorized by security within The System. Only a duty supervisor will have access to perform a reverse ALI look-up. It is also required that a report is generated daily for all reverse ALI lookups performed that captures the logged-on supervisor, the position, the time of day and telephone number of the reverse ALI

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lookup. The automated reverse ALI report will be reconciled with a manual form to ensure compliancy of system requirements.

9. TTY Communication

The PSAP equipment shall be capable of automatically detecting emergency calls originating from Baudot-type and ASCII2-type teletypewriters (TTY), and indicating to the telecommunicator the presence of the TTY call. The System must allow telecommunicators to communicate with TTY callers directly from their 9-1-1 answering position keyboard, without requiring the use of any external device. Telecommunicators must also be capable of manually connecting to emergency calls originating from ASCII2-type TTY equipment, as well as originating both Baudot and ASCII calls from their answering position. The answering position shall allow users to store and access (send) pre-programmed TTY messages, as well as to print the previous TTY conversations. The pre-programmed messages should be grouped under separate event type tabs for quick reference, such as Police, Fire, EMS and General. The telecommunicator shall also have the ability to create a conference between the TTY caller and up to seven (7) non- TTY parties either in 9-1-1 call-taking mode or administrative call-taking mode.

10. Dialing

The console shall provide a user interface where contacts can be displayed in an array of buttons for one-click dialing. One-click dialing will be based on the incoming ESN and shall be able to display at least 6 one-click options, for police, fire, and medical transfers to primary and secondary agencies. Multiple layers of these buttons must be able to be organized so that a call taker may be able to navigate to the appropriate button quickly.

11. Abandoned Call Handling

The console shall provide the ability to notify the agent of any abandoned calls. The notification shall be in the form of a visual indicator showing the quantity of abandoned calls as well as an audible indicator specific to abandoned calls.

12. Call Transfers and Conference Abilities

The PSAP equipment shall have the ability to route a call to an on-site or remote location using a single keystroke. The transfer must be capable of transferring ALI information of the original caller. It must provide the telecommunicator the ability to remain on a call and add a new party to the conversation. Any party shall be able to drop out of the conference, leaving the others talking as long as at least one of the other parties possesses supervision on their connection. Conferences should be

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set up using a single key-stroke without putting the caller on hold - the caller must remain on-line at all times. The System shall allow for up to 10 parties to be placed in a conference simultaneously.

13. Administrative and 9-1-1 Hold

Any administrative call shall be able to be placed on hold by selecting the hold button. Once the call is placed on hold, selecting the line button shall pick it up. The answering position shall allow the telecommunicator to place up to eight (8) 9-1-1 calls on hold. To assist in retrieving the proper call, telecommunicators shall be presented with a list of calls on hold, showing the ANI, the ESN, the trunk number, the time and date at which each call was placed on hold. Telecommunicators shall also have the capability of retrieving 9-1-1 calls that have been placed on hold at another telecommunicator's position.

14. Monitor

A supervisor shall have the ability to silently listen to any telecommunicator's telephone conversation from their answering position. Such action shall not cause any audio or visual disturbance at the monitored answering position. The supervisor can listen in on the call and optionally barge in to the call and establish a two way audio path with all participants in that call.

15. Join

The supervisor shall have the ability to enter a telecommunicator conversation, either from the click-free monitor mode or initially from an idle state. The telecommunicator, supervisor and caller are then part of a three-way conference.

16. Forced Disconnect

Telecommunicators shall be capable of releasing an existing 9-1-1 call at any time, regardless of whether the calling party has hung up.

17. Privacy

The telecommunicator shall have the ability to block the caller from hearing any conversation from the remaining parties in the conference. The caller's conversation shall continue to be heard by the remaining parties.

18. Muting

The telecommunicator shall have the ability to block the caller from hearing and talking with the remaining parties in the conference.

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19. Main Screen Requirements

The main screen shall consist at a minimum of the following components: Menu Bar, Toolbar, Status Bar, Call Information Window, Conference Window, Static Page Window, Multiple Page Window, Keypad, Volume Control Window, Selective Transfer Agencies Window, Texting Window and TTY Interface Window.

The keypad shall be used to dial telephone numbers or to input numbers as required. The keypad shall also provide access to the speed dial list and offer a redial function. The telecommunicator shall have the capability to select a redial number from a drop down list on the keypad. The list shall contain the last numbers dialed at the answering position with the most recent number appearing at the top of the list.

20. Call / Line Indicators

The answering position shall indicate incoming emergency and non-emergency calls by both audible and visual means. 9-1-1 trunks shall have a different audible and visual signal from other lines. The answering position shall also have the ability to visually display the status (idle, busy, ringing, on hold and out of service) of each emergency and non-emergency line. How does your system meet this requirement?

21. Comment Field Associated with the Call (Notes)

The system should allow the telecommunicator to enter comments and pertinent information about the call.

22. Print Capabilities

The answering position shall provide an interface port for automatically printing the ALI and the TTY conversation upon call release. The telecommunicator shall also have the capability to print on demand.

23. Audio and IO Management

The console shall provide an audio management device allowing the connection of up to three headsets, a long term recorder, a radio console call director and auxiliary audio inputs.

24. Text Messaging

The System shall accept text messaging integrated to the call taker's station. When the call taker is presented with a text message emergency service request they will

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now be unavailable to any other form of requests for service such as voice calls. Vice versa if they are currently active with a voice call they will not be presented with a text message. The System shall have similar abilities to handle a text message request for emergency assistance as it does for a voice request such as GIS functionality. All other normal call handling functions supported for voice calls should also be supported for text messaging such as the ability to join the call or monitor the call, previous call history, reporting, etc.

25. Interface Capabilities

The console shall provide the ability to include a shared call appearance resource for any inbound line or trunk of The System that will show the status of the line, pre-answer ANI of the caller, ability to pick up that line or join the call. The console shall provide pre-answer ANI and ANI to any shared call appearance.

The console shall provide the ability to include a multi-call appearance that queues multiple calls from assigned line groups and rings multiple positions. The multi-call appearance, if mapped to the current console UI layout, shall indicate the number of calls queued on that appearance as well as the waiting time for the oldest call.

26. Console Accessories – Headset

The headset shall be high quality, lightweight and equipped with a headset earpiece speaker, a microphone, a 10-foot coiled cord with quick disconnect and a microphone pre-amplifier with volume control. Headsets should be compatible with current standards and as an option have the ability to use wireless headsets. They should support an inline mute, a noise cancelling microphone and have options for 1 ear or 2 ears.

27. Questions

1. Describe how you will meet the requirements listed in Section C-1-D-1 of both the Scope of Work and in the Requirements.
2. Specifically please explain in detail how your system will comply with our requirement for Call Overflow to do a "look ahead".
3. How many call queues does your system support?
4. Describe how you will meet the requirements listed in C-1-D-2 of both the Scope of Work and in the Requirements.
5. What is the limit for the number of calls or length of time of recordings for the IRR?
6. Describe how you will interface with the Exacom™ Hindsight recorder.
7. Describe how you will meet the requirements listed in C-1-D-3 of the Scope of Work.

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8. Describe how you will meet the requirements listed in Section C-1-D-4 of both the Scope of Work and in the Requirements.
9. Describe how you will meet the requirements listed in C-1-D-5 of the Scope of Work.
10. Describe how you will meet the requirements listed in Section C-1-D-6 of both the Scope of Work and in the Requirements.
11. Describe how you will meet the requirements listed in Section C-1-D-7 of both the Scope of Work and in the Requirements.
12. Describe how you will meet the requirements listed in C-1-D-8 of the Scope of Work.
13. Describe how you will meet the requirements listed in C-1-D-9 of the Scope of Work.
14. Does your system meet all of the ADA requirements pertaining to section C-1-D-9? If not, explain in detail.
15. Describe how you will meet the requirements listed in Section C-1-D-10 of both the Scope of Work and in the Requirements.
16. Describe your system wide speed-calling feature?
17. Describe your telecommunicator speed-calling feature? What options are available to the telecommunicator?
18. Describe how you will meet the requirements listed in Section C-1-D-11 of both the Scope of Work and in the Requirements.
19. Describe how you will meet the requirements listed in Section C-1-D-12 of both the Scope of Work and in the Requirements.
20. Describe how you will meet the requirements listed in C-1-D-13 of the Scope of Work.
21. Describe how you will meet the requirements listed in C-1-D-14 of the Scope of Work.
22. Describe how you will meet the requirements listed in C-1-D-15 of the Scope of Work.
23. Describe how you will meet the requirements listed in C-1-D-16 of the Scope of Work.
24. Describe how you will meet the requirements listed in C-1-D-17 of the Scope of Work.
25. Describe how you will meet the requirements listed in C-1-D-18 of the Scope of Work.
26. Describe how you will meet the requirements listed in Section C-1-D-19 of both the Scope of Work and in the Requirements.
27. Describe how a telecommunicator would go back to review previous call history stored on their work position? How long is the data stored on each call taking position?
28. Describe how you will meet the requirements listed in C-1-D-20 of the Scope of Work.

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29. Describe how you will meet the requirements listed in C-1-D-21 of the Scope of Work. How is the data stored and retrieved? How long is the information retained? Is or can the information printed in the call log?
30. Describe how you will meet the requirements listed in C-1-D-22 of the Scope of Work.
31. Describe how you will meet the requirements listed in Section C-1-D-23 of both the Scope of Work and in the Requirements.
32. Describe how you will meet the requirements listed in Section C-1-D-24 of both the Scope of Work and in the Requirements.
33. Does The System support transferring or conferencing text messages to another PSAP? If not when will you and what is plan for doing so?
34. Does The System have the ability to translate foreign languages that are sent via text message? If not when will you and what is plan for doing so?
35. Describe how you will meet the requirements listed in C-1-D-25 of the Scope of Work.
36. Describe how you will meet the requirements listed in C-1-D-26 of the Scope of Work.

37. Does your system comply with the Print Capabilities requirements described in C-1-D Call Handling, #22 ("Print Capabilities")?

C-1-E PSAP Management Features

1. Shortcuts

The System administrator shall have the capability to assign single or multiple keystrokes to common functions on the answering position (e.g. F2 to release a call).

2. Customize the Screen Layout

The screen layout shall have the ability to be customized administratively system wide or personally for individual call takers.

3. User Interface Configurability

The call taking console shall permit customization of the user interface, including window and button layout, window sizes, control element sizes and properties, font size and types on a per console UI layout basis. The console shall support the assignment of one or multiple console UI layouts and configuration based on the agent role within an agency. The supervisor shall have the capability to modify the System sounds and button icons. The supervisor shall have the capability to restore the original screen layout while making modifications.

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4. Wall Display

The System shall be capable of interfacing to an external, electronic wallboard sign, capable of displaying real-time call statistics and warning messages. It should be configurable to show pertinent information to the status or health of the PSAP such as the number of calls in queue, longest call waiting time, number of active calls and number of available agents. The System shall allow supervisors and/or call-takers to view real time, concise ALL information of all 9-1-1 calls in queue at the PSAP.

5. Contact Management and Dialing

The System shall support a full-features contact list that is flexible, configurable and efficient.

6. Portable Consoles

The System shall be capable of providing portable operator answering positions using a high speed IP connection to remotely access the Central Communications Platform. These must be on laptop computers.

7. Questions

1. Describe in detail how your proposal meets the requirements put forward in section C-1-E.

C-1-F Remote Maintenance and Alarm

1. Maintenance /Supervisor Position

A Maintenance/Supervisor Position shall be provided with The System. The position shall have different security levels, protected by separate passwords. The position shall be capable of running diagnostics and reports. The console shall provide a window showing all agents logged currently into the agency including information such as their name, the name of their position, their current role, their call status and the name of the line if they are on a call.

2. Module Testing

Each of the systems modules shall be easily selected and tested individually.

3. Alarms

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Describe how every module within the PSAP equipment shall carry out certain tests on a continual basis and report any observed failures.

4. System Monitoring and Administration

The System shall be equipped with a monitoring capability that can be located with the Central Communications equipment and/or in a remote location.

5. System Monitor

The System shall be equipped with monitoring capability located at the PSAP. It shall provide a digital display format with audible tone and monitor system alarms. Upon a failure condition, it will display an alarm message.

6. Questions

1. Describe in detail how your proposal meets the requirements put forward in section C-1-F
2. Explain how remote access/support and alarm monitoring works in your solution
3. Describe how you monitor the emergency trunk activities, 9-1-1 call queuing, and 9-1-1 console activities in a real-time mode.

C-1-G Management Information System

The Bidder shall provide a Call Management Information System that will track the incoming calls and provide the PSAP management personnel with real time information and strategic management reports. It should be user friendly and capable of generating reports for varying time periods. Reports shall be available on an as needed basis or scheduled for specific intervals. A detailed list of mandatory reports can be found in the Detailed Requirements section (Table C-2).

The Bidder shall provide a comprehensive Management and Reporting (MIS) solution which will provide PSAP management and other authorized personnel historical information. It shall be an onsite solution, user customizable and capable of generating reports for varying time periods. In addition to static reporting capabilities, the MIS solution should provide a dynamic reporting capacity which would allow for custom groups, filters and unique totals for defined reports. The MIS solution should have traditional management and reporting capabilities that are industry standard but should also be forward focused and have an enterprise capability.

1. MIS Seamless Integration

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The reporting capability shall be in its entirety as well as by individual PSAP, individual position, shift, or a specific calltaker .

2. Call Detail Records

The PSAP equipment shall have the ability to provide call detail records after every terminated 9-1-1 call. The record should include but should not be limited to ANI, seizure time, position answered, answer time, disconnect time, incoming trunk number, etc. These should be in a report format, as opposed to raw data format. This information should automatically be saved as an electronic file in daily and/or monthly formats for permanent storage. Call Detail Records should be retrievable by the ANI or any other 'key-word' search in the record.

3. Questions

1. Provide a description of the standard reports and capabilities in the MIS system. Include a list of the available reports.
2. State of the art technology shall be used for the MIS solution. Describe what technology is used.
3. Describe what capabilities the MIS solution has regarding integration and support for next generation media types.
4. The MIS system should be able to incorporate reporting data and transfer times from the other integrated systems such as the Valor™ CAD associated with the call. This will allow for a more all-encompassing look at a call for service from the moment it was presented to the point the call was completed. How does your solution handling this problem?
5. Describe how your system will allow the archiving of older data. How can this archived data be retrieved if necessary?

C-1-H Implementation/Maintenance

1. Training Requirements

Training on all system functions shall be provided by the Contractor prior to acceptance of The System. Training will include sufficient information and experience to familiarize personnel (technical staff, telecommunicators and supervisors) with system features and operations for their particular assignments. The training provided by the bidder shall take place at facilities designated by DESC. Training manuals shall be provided to all attendees and the instructor to student ratio will be no greater than 1:8. The course outline and training material should be provided with your proposal. The system implemented CPE software, etc. should

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be able to be replicated in a fashion to allow the creation of a "Training room" to allow the DESC to facilitate on-going training of existing staff as well as training of new employees.

2. System Testing

The Vendor must thoroughly test the entire system prior to conversion. A comprehensive test plan must be included with the proposal for approval by the DESC and may be altered or negotiated prior to contract award. The test plan should be thoroughly comprehensive and include, at a minimum, Unit Test Plans for each component, System Integration Test Plans for The System's interface with each existing DESC system, a Stress Test Plan, and a Security Test Plan for any component that allows access from an outside network. During the testing of the E-9-1-1 equipment prior to cutover, the Vendor shall log all troubles found and make any necessary repairs or adjustments at their cost. These reports shall be submitted to the DESC showing all errors found and corrective action taken to resolve troubles.

3. Maintenance

The Bidder shall specify pricing for continuing maintenance of the total system after the expiration of the initial one-year warranty period. Such pricing shall be for Year 2 through Year 5.

During implementation the Laconia PSAP will be shut down while the new system is implemented, routing all traffic to the Concord facility. The existing Concord PSAP equipment will need to be maintained during this time period. The bidder shall provide full maintenance service for the existing PSAP equipment located at the Concord PSAP. The maintenance service options shall be for a period of one year at a time and extend through the same time period as the new PSAP CPE and/or the existing equipment is replaced with new equipment. The bidder may submit additional (optional) service plans and pricing.

4. Software Updates

The Vendor must provide within a software support program all software releases designed to enhance The System and to keep The System state-of-the-art. The Vendor must describe the support offered as well as the availability and costs related. The Vendor must provide any specific constraints, terms, or conditions in detail. All software updates or enhancements must be accomplished without taking The System out of service.

5. Future Expansion

The System shall provide an upgrade path to emerging and new NG9-1-1 i3 capabilities utilizing component upgrades, if required, instead of hardware replacement.

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The System described in these specifications shall be capable of meeting today's needs, as well as future expansion in order to meet anticipated future growth. The System should be installed with adequate processor and hardware to meet this growth.

6. Questions

1. Can you provide a training simulator software package? If yes, provide a copy with your bid.
2. What equipment of software will be needed to facilitate a training room? This equipment should be list as an option in your proposal.
3. What manuals will be provided to end-users and support staff? Will manuals be updated in conjunction with software updates?
4. How will the DESC be prepared to conduct ongoing training after Implementation is completed?
5. Describe any additional features and/or hardware/software and/or processes that in your opinion will facilitate or enhance the operation of the 9-1-1 system?
6. Describe any alternatives that would increase performance and/or reduce costs to the DESC?
7. Describe any exceptions or deviation from The System mandatory feature, processes and equipment or optional features and equipment must be fully detailed. Also include any pertinent features or equipment included in the bid price, which were not specifically required.
8. Describe the expansion capability of your equipment. What is the maximum you can expand the PSAP equipment to increases the numbers of incoming 9-1-1 trunks, the number of answering positions, the number of telephone lines, etc. without adding equipment?
9. If equipment is needed to accommodate this request, provide a brief description of each piece of equipment and the expansion capability it provides? Also, provide the amount the DESC would expect to pay for the equipment and installation. Describe how you would ensure the DESC there will be no future changes to your answer?

C-2 DETAILED REQUIREMENTS

Table C-2 General System Requirements -Vendor Response Checklist

REQ #	REQUIREMENT/DELIVERABLE	M/O	Y/M/N (SEE ABOVE)	VENDOR COMMENTS
	BUSINESS REQUIREMENTS			

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C-1-B	System Architecture			
1	The System components shall be i3 compliant.			
2	The System shall be capable of displaying all current 9-1-1 calls on a map utilizing GIS data provided by the DESC. (i.e. no "Google maps" or similar)			
3	The System shall be able to dynamically route calls to a PSAP or workstation "on the fly" based on a GIS polygon for applications such as a highway accident.			
4	The CPE application shall automatically take priority over any other application running on the workstation upon an incoming 9-1-1 call.			
5	The System shall provide the ability to "make busy" or manually shut down one PSAP forcing all requests for service to be directed to the other PSAP. This will allow for troubleshooting, training, and maintenance as required.			
C-1-D-1	Call Handling – ACD			
1	The System shall provide the ability to assign multiple roles to an agent.	M		
2	An agent shall be able to choose any of their assigned roles during their login with the ability to quickly login with their default role.	M		
3	The System shall be configurable to allow Call Takers to bypass ACD assignment and answer any ringing 9-1-1 call directly, based on configured layout.	M		
4	The System shall be configurable to allow Call Takers to bypass ACD assignment and answer any ringing 9-1-1 call directly, based on configured layout.	M		
5	The ACD shall provide the configurable ability to provide post-call-processing time for giving the agent time to wrap up the previous call prior to becoming available for new ACD calls.	M		
6	The ACD shall requeue a call when the call is presented to an agent and not answered in a configured amount of time.	M		
7	The ACD shall re-queue a call when a workstation failure is encountered during the call.	M		
8	The ACD shall provide routing based on console positions and/or based on agent role.	M		
9	The System shall support the ability to transfer a call from a console to any ACD queue in The System.	M		
10	The System shall support multiple skills/roles per agent and allowing the ACD to distribute calls based on the active role for each agent.	M		
11	The console shall provide the ability for an agent to refuse an ACD call presented to the workstation and whereby the refused call is re-queued to the ACD.	M		
12	The console shall provide the ability for an agent to change their state to and from ready and not ready to receive an ACD call.	M		

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13		The console shall provide the ability to automatically answer incoming ACD calls.	M		
C-1-D-2		Call Handling - IRR			
1		A telecommunicator shall have the capability to go back and listen to a call while the original party and/or the responding agency is still on the line.	M		
2		The System must have the ability to record both telephony and radio audio. Recording shall be available for playback during or after a call	M		
C-1-D-4		Call Handling – ALI Retrieval System Interface			
1		The System shall have the capability to interface to multiple ALI Retrieval systems based on an incoming 9-1-1 trunks or a trunk group.	M		
2		The System shall provide the ability to configure multiple ALI links associated to specific trunk group.			
3		Each ALI group shall be configurable for a specific ALI protocol and assignable to individual trunks.	M		
4		The System shall support ALI parsing to extract Class of Service, ESN and CPN (Calling Party Number).	M		
5		The System shall support multiple ALI request schemes across dual redundant ALI links including Priority, Simultaneous and Alternating ALI requests.	M		
6		The System shall provide the ability to create an incorrect location information report and send it to a printer or e-mail or written to another electronic file to be exported.	M		
C-1-D-6		Call Handling – ANI			
1		The System must be capable of requesting Phase II location repeatedly in order to update the geographic location of a wireless caller.	M		
C-1-D-7		Call Handling – Calltaker Console			
1		The console shall support the selective display of ALI for past recent calls.	M		
2		The console shall support the selective display of ALI for past recent calls.	M		
3		The console shall support the ability to print current or saved ALI.	M		
C-1-D-10		Call Handling – Dialing			
1		The console shall provide a search capability of all contacts whereby the search results are narrowed and displayed as the agent enters characters in the search field	M		
2		The search capability shall provide a simple search of the	M		

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	contact name or an advanced search where the agent can enter additional search criteria for other fields in the contact record.			
3	The System shall provide a list of recent incoming and outgoing calls for at least the last 100 calls. The list shall show detailed information about the call including the date and time, ANI, ALI, CPN, incoming circuit, and ESN.			
4	The console shall provide a one button callback for the most recent emergency call.	M		
5	The console shall provide a one button redial of the last outgoing call.	M		
C-1-D-11	Call Handling – Abandoned Call Handling			
1	The console shall provide the ability to automatically distribute the callback of the abandoned calls to individual agent positions.	M		
2	The console shall provide the ability to allow agents to selectively perform callback of abandoned call from the agency's abandoned call list.	M		
3	The ring-back of emergency TTY and wireless calls should be performed in the same manner.	M		
4	The PSAP equipment shall allow to program the ANI callback format to meet the requirements for toll calls and access PBX / Centrex™ lines. The callback format shall be defined on a per NPA-NXX basis.	M		
C-1-D-12	Call Handling – Call Transfers and Conference Abilities			
1	The console shall provide the ability to perform a supervised transfer, a blind transfer, or a supervised blind transfer.	M		
2	The console shall provide the ability to perform a no-hold conference where the existing parties on the call are not put on hold when conferencing in a new party.	M		
3	The console shall provide the ability to perform a conference, or transfer to any contact in the contact list with one click.	M		
4	The console shall provide the ability to perform a hold conference where the existing parties on the call are put on hold when conferencing in a new party.	M		
5	The console which initiated a conference shall support the ability to selectively drop, hold and unhold individual parties of a conference call.	M		
6	The console shall support the ability to drop the last party added to the conference call.	M		
C-1-D-19	Call Handling – Main Screen Requirements			
1	The menu bar shall contain drop down menus or a ribbon	M		

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	interface that provide access to all of the answering position features.			
2	The screen layout shall allow a high degree of customization to meet the needs of the PSAP.	M		
3	The call information window shall display the ANI/ALI information of an active 9-1-1 call. It should also provide additional information on the call such as the ESN, the circuit name, the status of the 9-1-1 caller (on line or hung up) and call statistics (number of emergency calls waiting in the ACD queue and on hold).	M		
4	The conference window shall contain a way to view and identify each party involved in the conference beside the call taker. It also shall provide the following indications: supervised circuit, privacy mode, mute mode and TTY.	M		
5	The System shall have a window group together in one location, for the feature and line buttons that the call takers use most often (police, fire, rescue, language line, etc.).	M		
6	Feature and line buttons arranged by task or frequency of use. Each page shall be properly identified with a descriptive tab such as General, State, Police, Fire, EMS, Administrative, etc. The telecommunicator shall simply click on the page tab in order to select the corresponding page.	M		
7	The volume control window shall be used to control the incoming call volume at the answering position's headset/handset.	M		
8	The selective transfer agencies (STA) window at a minimum shall provide the six emergency response agencies associated with the emergency service zone of the 9-1-1 caller. The buttons in the STA window shall change according to the 9-1-1 caller's ESN. As an option, the STA window shall automatically appear when an emergency call is answered.	M		
9	The TTY interface window shall display the caller and the telecommunicator's conversation separately as it takes place (real-time). It shall also contain all the pre-programmed messages grouped into related categories such as police, fire, EMS and general.	M		
C-1-D-24	Call Handling – Audio and IO Management			
1	The auxiliary audio inputs shall provide the ability to be automatically activated when the console is idle and disabled when the console is active in a call.	M		
2	The console shall provide the ability to individually control the volume of each headset, the IRR playback and the auxiliary audio input ports.	M		
3	The console shall provide the ability to manually mute attached headset microphones individually or all simultaneously at the click of one button.	M		
4	The console shall provide the ability to manually control a relay output included in the audio management device.	M		

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C-1-D-25	Call Handling – Text Messaging			
1	The System should have the ability to choose canned or predefined messages to expedite the text handling process.	M		
2	The System should have the ability to “free form” text message sent.	M		
3	The System should have the ability to administratively deny messages from coming in.	M		
4	The System should integrate with Medical Priority dispatch protocols auto populating the messages for sending medical instructions to the requesting party.	M		
C-1-E	PSAP Management Features			
1	The System administrator shall have the capability to assign single or multiple keystrokes to common functions on the answering position (e.g. F2 to release a call).	M		
2	The screen layout shall have the ability to be customized administratively system wide or personally for individual calltakers.	M		
3	The call taking console shall permit customization of the user interface, including window and button layout, window sizes, control element sizes and properties, font size and types on a per console UI layout basis.	M		
4	The console shall support the assignment of one or multiple console UI layouts and configuration based on the agent role within an agency.	M		
5	The supervisor shall have the capability to modify The System sounds and button icons.	M		
6	The supervisor shall have the capability to restore the original screen layout while making modifications.	M		
7	The console shall provide a window showing all agents logged currently into the agency including information such as their name, the name of their position, their current role, their call status and the name of the line if they are on a call.	M		
8	The System shall support a wall display panel configurable to show the number of calls in queue, longest call waiting time, number of active calls and number of available agents.	M		
9	The System shall support a wall display panel configurable to show the number of calls in queue, longest call waiting time, number of active calls and number of available agents.	M		
10	All calls shall be presented and include all standard call-handling features. Handling of a wireless call should be transparent to the telecommunicator in that all telephony features and functions at the telecommunicator position are the same as that of a wireline call. Single step ring-back is mandatory as the telecommunicator shall not be required to perform a manual ANI ring-back for wireless calls.	M		
11	The System shall support the creation of up to 20 contact lists for dialing, with each contact list assignable based on the role	M		

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	or agency of the users.			
12	The contact list shall support the ability to define up to 10 custom fields for each contact list.	M		
13	The System shall provide the ability to assign any contacts to a group to be used by an agent for selective transfer based on the ESN. The contacts associated to a caller's ESN can then be accessed with one click of the mouse or button.	M		
14	The System shall support dialing rules based on different contexts including the line type and the state of the console.	M		
15	A contact's dialing instructions can be programmed to also include call control commands such as transfer and conference.	M		
16	The System shall support the ability to import and/or export the contact list data utilizing standard data formats.	M		
C-1-F	Remote Maintenance and Alarm			
1	A Maintenance/Supervisor Position shall be provided with The System.	M		
2	The System shall allow supervisors and/or call-takers to view real time, concise ALI information of all 9-1-1 calls in queue at the PSAP.	M		
3	The System shall be equipped to run self-diagnostic programs and to automatically report any error via audible and visible alarms.	M		
4	All server maintenance and administration functions shall be accessed via a browser based application.	M		
5	The System shall allow supervisors and/or call-takers to view real time, concise ALI information of all 9-1-1 calls in queue at the PSAP.	M		
C-1-G	Required Reports for the Management Information System			
1	Abandoned Call Percentages	M		
2	Average Calls by Telecommunicator	M		
3	Breakdown of Call Statistics	M		
4	Call Count by Day	M		
5	Call Count by Day of Week	M		
6	Call Count by Day by Telecommunicator	M		
7	Call Count for Telecommunicator by Shift/Supervisor Group	M		
8	Hold Count by Range	M		
9	Hold Time by Range	M		
10	Response Time by Telecommunicator	M		
11	Response Time by Range	M		
12	Call Count by type of call (TTY, Wireless, text, etc.)	M		

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13	Telecommunicator Daily Activity	M		
14	Top 10, 25 and 50 Callers by ANI	M		
15	Total Call Statistics by Trunk/Line Number	M		
16	Total Call Statistics by Selected Time Period	M		
17	Total Call Statistics by Telecommunicator	M		
18	Total Calls by Month	M		
19	Total Calls by Shift	M		
20	Total Calls by Type	M		
21	Total Calls Transferred to Municipality by date range	M		
22	Total Calls Transferred to ESN by date range	M		
23	Total Calls Transferred to Responding Agency by date range	M		
24	Total Calls Transferred to Municipality and/or Speed Dial Listing by date range	M		
C-1-G cont.	Management Information System Functionality Requirements			
25	The System must be able to be configured to print information for only 9-1-1 calls or to also include administrative calls.	M		
26	The System shall be configurable to print the ALI record and the TTY/TDD/text message conversation for TTY/TDD/text message calls.	M		
27	The desired solution must also contain a capability which automatically associates related calls, to allow for evidence organization.	M		
28	The System also shall be able to auto-schedule the generation of predefined reports.	M		
29	The MIS system shall be designed to be highly reliable and protect data security and integrity.	M		
30	The MIS system shall contain near real-time information (shortly after call completion) and allow users to search for recently completed events and event details.	M		
31	The MIS system shall allow users to associate related events.	M		
32	The MIS solution shall include the ability to build ad hoc reports. An ad hoc report shall mean the ability to build a report template from scratch; not select filtered items from a list.	M		
33	Real time ACD statistics and information available on screen as well to be reported on such as longest idle agent, agents availability, etc.	M		
34	Report on the time difference from presentation of call to the system and time answered (how long was it ringing)	M		
35	MIS solution is on site not cloud based	M		

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C-3 DELIVERABLES

Table C-3 Deliverables Vendor Response Checklist

Activity, Deliverable or Milestone	Deliverable Type	Explain how your Solution meets the requirement. Cite the page of your Proposal.	Comments
Conduct Project Kickoff meeting	Non Software		
Status Meetings	Non Software		
Implementation Plan	Written		
Coordination with Network Provider	Non Software		
Coordination with Vendors for existing systems	Non Software		
Maintenance of Existing Systems at Concord PSAP during implementation	Non Software		
Feasibility analysis of existing CE Network for ESI Net/ retest as needed	Non software		
ESI Net Analysis results/Requirements report	Written		
Systems Installation	Non software /Software		
Systems Documentation (standard & "As-Built")	Written		

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Technical Training/ knowledge transfer & relevant documentation	Non Software/ Written		
Supervisor/ Telecommunicator "Train the Trainer" training & relevant documentation	Non Software/ Written		
Acceptance Testing	Non Software		
System Acceptance and Payment of Holdback upon completion of Warranty	Non Software		

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APPENDIX D: TOPICS FOR MANDATORY NARRATIVE RESPONSES

Vendors must limit narrative responses describing the Software, Technical, Services and Project Management topics defined for this Project. The following table identifies specific topics for narratives. Please refer to the Scope of Work Section for a complete list of narrative questions for the listed topic.

Topic	Scope of Work Section
Topic 1 – System Architecture	C-1-B-7
Topic 2 – Interfaces	C-1-C6
Topic 3 – Call Handling / CPE	C-1-D-27
Topic 4 – PSAP Management Features	C-1-E-13
Topic 5 – Remote Maintenance and Alarm	C-1-F-7
Topic 6 – Management Information System	C-1-G-3
Topic 7 – Implementation, Testing and Maintenance	C-1-H-7

D-1 PROPOSED SOLUTION

Please reference the grid above and respond to the question sections that are listed, which can be found in the appropriate sections of the Scope of Work.

APPENDIX E: STANDARDS FOR DESCRIBING VENDOR QUALIFICATIONS

Vendor qualifications are important factors in selecting a NG9-1-1 system and follow-on support Services. To facilitate evaluation of Vendor qualifications, the State seeks information about:

- (1) corporate qualifications of each Vendor proposed to participate in the Project,

This appendix identifies specific information that must be submitted.

E-1 Required Information on Corporate Qualifications

Information is required on all Vendors who will participate in the Project. Vendors submitting a Proposal must identify any Subcontractor(s) to be used.

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E-1.1 Vendor and Subcontractors

The Vendor submitting a Proposal to this Project must provide the following information:

E-1.1.1 Corporate Overview (5 page limit)

Identify the proposed role of the firm on the Project. Describe the major business areas of the firm. Provide a high-level description of the firm's organization and staff size. Discuss the firm's commitment to the public sector, experience with this type of Project Implementation and experience in New Hampshire.

E-1.1.2 Financial Strength

Provide at least one of the following:

- 1 The current Dunn & Bradstreet report on the firm; or
- 2 The firm's two most recent audited financial statements; and the firm's most recent un-audited, quarterly financial statement; or
- 3 The firm's most recent income tax return. For example, either a copy of the IRS Form 1065, U.S. Return of Partnership Income or Schedule E (IRS Form 1040) Supplemental Income and Loss (for partnerships and S corporations) OR IRS Form 1120, U.S. Corporation Income Return. These forms are typically submitted when a Vendor does not have audited financial statements.

E-1.1.3 Litigation

Identify and describe any claims made by clients during the last ten (10) years. Discuss merits, current status and, if available, outcome of each matter.

E-1.1.4 Prior NG9-1-1 Project Descriptions (limited to 3 pages for each project)

Provide descriptions of no more than three (3) similar, NG9-1-1 projects completed. Each project description should include:

1. An overview of the project covering type of client, objective, project scope, role of the firm and outcome;
2. Project measures including proposed cost, actual project cost, proposed project schedule and actual project schedule;

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3. Names and contact information (name, title, address and current telephone number) for one or two references from the client; and
4. Names and project roles of individuals on the proposed team for the New Hampshire Project that participated in the project described

E-1.1.5 Subcontractor Information

Vendors must provide information on any Subcontractors proposed to work on this Project. Required information shall include but not be limited to:

1. Identification of the proposed Subcontractor and a description of the major business areas of the firm and their proposed role on the Project.
2. A high-level description of the Subcontractor's organization and staff size.
3. Discussion of the Subcontractor's experience with this type of Project;
4. Resumes of key personnel proposed to work on the Project; and
5. Two references from companies or organizations where they performed similar services (if requested by the State).

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APPENDIX F: PRICING WORKSHEETS

A Vendor's Cost Proposal must be based on the worksheets formatted as described in this appendix.

F-1 Activities/Deliverables/Milestones Pricing Worksheet – Deliverables List

The Vendor must include, within the Firm Fixed Price for IT service activities, tasks and preparation of required Deliverables, pricing for the Deliverables required based on the proposed approach, and methodology and tools. The following format must be used to provide this information.

Table F-1: Activities/Deliverables/Milestones Pricing Worksheet

Activity, Deliverable or Milestone	Proposed Date	Pricing/Payment
	TOTAL	

F-2 Future Vendor Rates Worksheet

The State may request additional Services from the selected Vendor and requires rates in the event that additional Service is required. The following format must be used to provide this information. "SFY" refers to State Fiscal Year. The New Hampshire State Fiscal Year runs from July 1 through June 30 of the following calendar year. Positions not identified in the Proposed Position Worksheet may be included in the Future Vendor Rates Worksheet.

Table F-2: Future Vendor Rates Worksheet

Position Title	SFY 2015	SFY 2016	SFY 2017	SFY 2018
Project				

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Manager				
Position #1				
Position #2				
Position #3				

F-3 Licensing, Maintenance, and Support Pricing Worksheet

Table F-3: Software Licensing, Maintenance, and Support Pricing Worksheet

Software	Initial Cost	Maintenance FY 2015	Maintenance FY 2016	Maintenance FY 2017	Maintenance FY 2018
NG9-1-1					
Optional Services					

APPENDIX G-1 SECURITY

Application Security

IT Security involves all functions pertaining to the securing of State Data and systems through the creation and definition of security policies, procedures and controls covering such areas as identification, authentication and non-repudiation.

This shall include but is not limited to:

- Develop software applications based on industry best practices and incorporating information security throughout the software development life cycle

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- Develop applications following security-coding guidelines as set forth by organizations such as, but not limited to Open Web Application Security Project (OWASP) Top 10, SANS Common Weakness Enumeration (CWE) Top 25 or CERT Secure Coding.

APPENDIX G-2: CERTIFICATES

A. Certificate of Good Standing

As a condition of Contract award, the Vendor, if required by law, must furnish a Certificate of Authority dated on or after April 1, 2014, from the Office of the Secretary of State of New Hampshire. If your company is not registered, an application form may be obtained from:

Secretary of State
State House Annex
25 Capitol Street
Concord, New Hampshire 03301
603-271-3244

If your company is registered, a Certification thereof may be obtained from the Secretary of State.

Note: Sovereign states or their agencies may be required to submit suitable substitute documentation concerning their existence and authority to enter into a Contract

B. Certificate of Authority/Vote

The Certificate of Authority/Vote authorizes, by position, a representative(s) of your corporation to enter into an agreement or amendment with the State of New Hampshire. This ensures that the person signing the agreement is authorized as of the date he or she is signing it to enter into agreements for that organization with the State of New Hampshire

The officer's signature must be either notarized or include a corporate seal that confirms the title of the person authorized to sign the agreement. The date the Board officer signs must be on or after the date the contract or amendment is signed. The date the notary signs must match the date the Board officer signs.

You may use your own format for the Certificate of Authority/Vote as long as it contains the necessary language to authorize the agreement signatory to enter into agreements and amendments with the State of New Hampshire as of the date they sign.

CERTIFICATE OF AUTHORITY/VOTE CHECKLIST

SOURCE OF AUTHORITY

Authority must come from the **governing body**, either:

- (1) a **majority voted** at a meeting, or
- (2) the body provided **unanimous consent in writing**, or
- (3) the organization's **policy or governing document** (bylaws, partnership agreement, LLC operating agreement) authorizes the person to sign

SOURCE OF AUTHORITY WAS IN EFFECT ON DAY AGREEMENT OR AMENDMENT WAS SIGNED

Certificate must show that the person signing the contract **had authority when they signed the Agreement or Amendment**, either:

- (1) Authority was **granted the same day** as the day the Agreement or Amendment was signed, or
- (2) Authority was **granted after** the day the agreement or amendment was signed and the governing body ratifies and accepts the earlier execution, or
- (3) Authority was **granted prior** to the day the agreement or amendment was signed and it has not been amended or repealed as of the day the contract was signed.

APPROPRIATE PERSON SIGNED THE CERTIFICATE

The person signing the certificate may be the same person signing the Agreement or Amendment only if the certificate states that the person is the **sole director** (for corps) or **sole member** (for LLCs).

**APPENDIX H – STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS
AGREEMENT**

The State of New Hampshire and the Vendor hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name		1.2 State Agency Address	
1.3 Vendor Name		1.4 Vendor Address	
1.5 Vendor Phone Number	1.6 Account Number	1.7 Completion Date	1.8 Price Limitation
1.9 Contracting Officer for State Agency		1.10 State Agency Telephone Number	
1.11 Vendor Signature		1.12 Name and Title of Vendor Signatory	
1.13 Acknowledgement: State of _____, County of _____ On _____, before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.			
1.13.1 Signature of Notary Public or Justice of the Peace [Seal]			
1.13.2 Name and Title of Notary or Justice of the Peace			
1.14 State Agency Signature		1.15 Name and Title of State Agency Signatory	
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			

1.17 By:	Approval by the Attorney General (Form, Substance and Execution) On:
1.18 By:	Approval by the Governor and Executive Council On:

2. EMPLOYMENT OF VENDOR/SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages Vendor identified in block 1.3 ("Vendor") to perform, and the Vendor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached Exhibit A which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, this Agreement, and all obligations of the parties hereunder, shall not become effective until the date the Governor and Executive Council approve this Agreement ("Effective Date").

3.2 If the Vendor commences the Services prior to the Effective Date, all Services performed by the Vendor prior to the Effective Date shall be performed at the sole risk of the Vendor, and in the event that this Agreement does not become effective, the State shall have no liability to the Vendor, including without limitation, any obligation to pay the Vendor for any costs incurred or Services performed. Vendor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT. Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Vendor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/ PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in Exhibit B, which is incorporated herein by reference.

5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Vendor for all expenses, of whatever nature incurred by the Vendor in the performance hereof, and shall be the only and the complete compensation to the Vendor for the Services. The State shall have no liability to the Vendor other than the contract price.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Vendor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY VENDOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Vendor shall comply with all statutes, laws, regulations, and orders of federal, state, county, or municipal authorities, which impose any obligation or duty upon the Vendor, including, but not limited to, civil rights and equal opportunity laws. In addition, the Vendor shall comply with all applicable copyright laws.

6.2 During the term of this Agreement, the Vendor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.

6.3 If this Agreement is funded in any part by monies of the United States, the Vendor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Vendor further agrees to permit the State or United States access to any of the Vendor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

7.1 The Vendor shall at its own expense provide all personnel necessary to perform the Services. The Vendor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Vendor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement,

administration or performance of this Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Vendor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Vendor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Vendor notice of termination;

8.2.2 give the Vendor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Vendor during the period from the date of such notice until such time as the State determines that the Vendor has cured the Event of Default shall never be paid to the Vendor;

8.2.3 set off against any other obligations the State may owe to the Vendor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/ PRESERVATION.

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial

reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 All data and any property, which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

9.3 Confidentiality of data shall be governed by N.H. RSA chapter 106-H or other existing law. Disclosure of data requires prior written approval of the State.

10. TERMINATION. In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Vendor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached Exhibit A.

11. VENDOR'S RELATION TO THE STATE. In the performance of this Agreement, the Vendor is in all respects an independent Vendor, and is neither an agent nor an employee of the State. Neither the Vendor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS. The Vendor shall not assign, or otherwise transfer any interest in this Agreement without the prior written consent of the N.H. Department of Administrative Services. None of the Services shall be subcontracted by the Vendor without the prior written consent of the State.

13. INDEMNIFICATION. The Vendor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Vendor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Vendor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$250,000 per claim and \$2,000,000 per occurrence; and

14.1.2 fire and extended coverage insurance covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Vendor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Vendor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than fifteen (15) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to endeavor to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than ten (10) days prior written notice of cancellation or modification of the policy.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Vendor agrees, certifies and warrants that the Vendor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("Workers' Compensation").

15.2 To the extent the Vendor is subject to the requirements of N.H. RSA chapter 281-A, Vendor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Vendor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Vendor, or any subcontractor or employee of Vendor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Vendor.

17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire.

19. CONSTRUCTION OF AGREEMENT AND TERMS. This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

20. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. HEADINGS. The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. SPECIAL PROVISIONS. Additional provisions set forth in the attached Exhibit C are incorporated herein by reference.

23. SEVERABILITY. In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.

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GENERAL CONTRACT REQUIREMENTS

H-25.1 State of NH Terms and Conditions and Contract Requirements

The Contract terms set forth in Appendix H: State of New Hampshire Terms and Conditions shall constitute the core for any Contract resulting from this RFP.

H-25.2 Vendor Responsibilities

The Vendor shall be solely responsible for meeting all requirements, and terms and conditions specified in this RFP, its Proposal, and any resulting Contract, regardless of whether or not it proposes to use any Subcontractor.

The Vendor may subcontract Services subject to the provisions of the RFP, including but not limited to, the terms and conditions in Appendix H: State of New Hampshire Terms and Conditions. The Vendor must submit with its Proposal all information and documentation relating to the Subcontractor necessary to fully respond to the RFP, which must include terms and conditions consistent with this RFP. The Vendor shall remain wholly responsible for performance of the entire Contract regardless of whether a Subcontractor is used. The State will consider the Vendor to be the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from any Contract.

H-25.3 Project Budget/Price Limitation

The State has funds budgeted for this Project, subject to Appendix H: State of New Hampshire Terms and Conditions, Section 4: Conditional Nature of Agreement and Section 5: Contract Price/Price Limitation/Payment.

H-25.5 Vendor Staff

In the Proposal, the Vendor shall assign and identify a Project Manager and key Vendor staff, in accordance with the Requirements and Deliverables of Appendix C: System Requirements and Deliverables and Appendix E: Standards for Describing Vendor Qualifications.

The Vendor's selection of a Project Manager will be subject to the prior approval of the State. The State's approval process may include, without limitation, at the State's discretion, review of the proposed Project Manager's resume, qualifications, references and background checks, and an interview. The Vendor's Project Manager must be qualified to perform the obligations required of the position under the Contract, have full authority to make binding decisions, and shall function as the Vendor's representative for all

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administrative and management matters. The Project Manager must be available to promptly respond during Normal Working Hours within two (2) hours to inquiries from the State, and be at the site as needed. The Vendor must use his or her best efforts on the Project.

The Vendor shall not change key Vendor staff and Project Manager commitments (collectively referred to as "Project Staff") unless such replacement is necessary due to sickness, death, termination of employment, or unpaid leave of absence. Any such changes to the Vendor's Project Staff shall require the prior written approval of the State. Replacement Project Staff shall have comparable or greater skills with regard to performance of the Project as the staff being replaced and be subject to the provisions of this RFP and any resulting Contract.

The State, at its sole expense, may conduct reference and background checks on the Vendor's Project Staff. The State shall maintain the confidentiality of reference and background screening results. The State reserves the right to reject the Vendor's Project Staff as a result of such reference and background checks. The State also reserves the right to require removal or reassignment of the Vendor's key Project Staff found unacceptable to the State.

Notwithstanding anything to the contrary, the State shall have the option to terminate the Contract, at its discretion, if it is dissatisfied with the Vendor's replacement Project Staff.

H-25.6 Work Plan

Vendor shall submit a preliminary Work Plan in its Proposal. The Work Plan shall include, without limitation, a detailed description of the Schedule, tasks, Deliverables, major milestones, task dependencies, and payment schedule. A final Work Plan will be due five (5) business days after Contract award upon approval by Governor and Executive Council.

The Vendor shall update the Work Plan as necessary, but no less than every two weeks to accurately reflect the status of the Project, including without limitation, the Schedule, tasks, Deliverables, major milestones, task dependencies, and payment schedule. Any updates to the Work Plan shall require the written approval of the State prior to final incorporation into the Contract.

Unless otherwise agreed in writing by the State, changes to the Work Plan shall not relieve the Vendor from liability to the State for any damages resulting from

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the Vendor's failure to perform its obligations under the Contract, including without limitation, performance in accordance with the Schedule.

In the event of a delay in the Schedule, the Vendor must immediately notify the State in writing. The written notification will identify the nature of the delay, i.e., specific actions or inactions of the Vendor or State causing the problem; its estimated duration period to reconciliation; specific actions that need to be taken to correct the problem; and the expected Schedule affect the Project.

In the event the Vendor requires additional time to correct Deficiencies, the Schedule shall not change unless previously agreed in writing by the State, except that the Schedule shall automatically extend on a day-to-day basis to the extent that the delay does not result from Vendor's failure to fulfill its obligations under the Contract. To the extent that the State's execution of its major tasks takes longer than described in the Work Plan, the Schedule shall automatically extend on a day-to-day basis.

Notwithstanding anything to the contrary, the State shall have the option to terminate the Contract for default, at its discretion, if it is dissatisfied with the Vendor's Work Plan or elements within the Work Plan.

H-25.7 Change Orders

The State may make changes or revisions at any time by written Change Order. Within five (5) business days of a Vendor's receipt of a Change Order, the Vendor shall advise the State, in detail, of any impact on cost (e.g., increase or decrease), the Schedule, or the Work Plan.

A Vendor may request a change within the scope of the Contract by written Change Order, identifying any impact on cost, the Schedule, or the Work Plan. The State shall attempt to respond to a Vendor's requested Change Order within five (5) business days. The State, which includes the requesting Agency and the Department of Information Technology must approve all change orders in writing. The State shall be deemed to have rejected the Change Order if the parties are unable to reach an agreement in writing.

All Change Order requests from a Vendor to the State and the State acceptance of a Vendor's estimate for a State requested change, will be acknowledged and responded to, either acceptance or rejection, in writing. If accepted, the Change Order(s) shall be subject to the Contract amendment process, as determined to apply by the State.

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H-25.7 Deliverables

The Vendor shall provide the State with the Deliverables and Services in accordance with the time frames in the Work Plan. All Deliverables shall be subject to the State's Acceptance as set forth in Section H-25.9: Testing and Acceptance herein.

Upon its submission of a Deliverable, the Vendor represents that it has performed its obligations under the Contract associated with the Deliverable.

By unconditionally accepting a Deliverable, the State reserves the right to reject any and all Deliverables in the event the State detects any Deficiency in the System, in whole or in part, through completion of all Acceptance Testing, including but not limited to, Software/System Acceptance Testing, and any extensions thereof.

For each denial of Acceptance, the Acceptance Period may be extended, at the option of the State, by the corresponding time required to correct the Deficiency, retest or Review.

H-25.7.1 Written Deliverables Review

The State will review the Written Deliverables for an Acceptance Period of five (5) business days after receiving written Certification from the Vendor that the Written Deliverable is final, complete, and ready for Review. The State will notify the Vendor in writing of its Acceptance or Non-Acceptance of a Deliverable by the end of the five (5) day Review Period. If any Deficiencies exist, the State will notify the Vendor in writing of the Deficiency and the Vendor must correct the Deficiency within five (5) business days of receiving notice from the State at no charge to the State. Upon receipt of the corrected Deliverable, the State will have five (5) business days to Review the corrected Written Deliverable and notify the Vendor in writing of its Acceptance or rejection thereof.

H-25.7.2 Software Deliverables Review

Described in Section H-25.9: Testing and Acceptance.

H-25.7.3 Non-Software Deliverables Review

The State will Review Non-Software Deliverables to determine whether any Deficiency exists and notify the Vendor in writing of its Acceptance or non-acceptance of the Non-Software Deliverable. The Vendor must correct the Deficiencies within five (5) business days, or within the period identified in the Work Plan, as applicable. Following correction of the

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Deficiency, the State will notify the Vendor in writing of its Acceptance or rejection of the Deliverable.

H-25.8 Licenses

The State has defined the Software license grant rights, terms and conditions, and has documented the evaluation criteria.

H-25.8.1 Software License Grant

The Software License shall grant the State a worldwide, perpetual, irrevocable, non-exclusive, non-transferable, limited license to use the Software and its associated Documentation, subject to the terms of the Contract.

The State may allow its agents and Vendors to access and use the Software, and in such event, the State shall first obtain written agreement from such agents and Vendors that each shall abide by the terms and conditions set forth herein.

H-25.8.2 Software and Documentation Copies

The Vendor shall provide the State with a sufficient number of hard copy versions of the Software's associated Documentation and one (1) electronic version in Microsoft WORD and PDF format. The State shall have the right to copy the Software and its associated Documentation for its internal business needs. The State agrees to include copyright and proprietary notices provided to the State by the Vendor on such copies.

H-25.8.3 Restrictions

Except as otherwise permitted under the Contract, the State agrees not to:

- a. Remove or modify any program markings or any notice of Vendor's proprietary rights;
- b. Make the programs or materials available in any manner to any third party for use in the third party's business operations, except as permitted herein; or
- c. Cause or permit reverse engineering, disassembly or recompilation of the programs.

H-25.8.4 Title

The Vendor must allow the State to use the Software or hold all title, right, and interest (including all ownership and intellectual property rights) in the Software and its associated Documentation.

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H-25.8.5 Third Party

The Vendor shall identify all third party contracts to be provided under the Contract with the Vendor's Proposal. The terms in any such contracts must be consistent with this RFP and any resulting Contract, including, but not limited to Appendix H: State of New Hampshire Terms and Conditions General Provisions Form P-37.

H-25.9 Testing and Acceptance

The State requires that an integrated and coherent approach to complete System testing, Security Review and Testing, Deficiency correction, Acceptance, and training, and that Warranty Services be provided to ensure a successful Project.

In its Proposal, the Vendor is to include its proposed Test Plan methodology and any scheduling assumptions used regarding the client resource efforts required during testing. After Contract award, the Vendor will be required to customize its proposed Test Plan methodology to reflect the needs of the Project and include the details of its Test Plan methodology in the detailed Work Plan (the first Project Deliverable). A separate Test Plan and set of test materials will be prepared for each Software function or module.

In addition, the Vendor will provide a mechanism for reporting actual test results versus expected results and for the resolution and tracking of all errors and problems identified during test execution. The Vendor will also provide training as necessary to the State staff responsible for test activities.

See Appendix G-1 for Testing Requirements

H-25.9.1 Remedies

If the Vendor fails to correct a Deficiency within the period of time allotted by the State, the Vendor shall be deemed to have committed an Event of Default, pursuant Appendix H Section 8 and H-25.14, and the State Shall have the right, at its option, to pursue the remedies in Section Appendix H-25.14.1 Termination for Default as well as to return the Vendor's product and receive a refund for all amounts paid to the Vendor, including but not limited to, applicable license fees, within ninety (90) days of notification to the Vendor of the State's refund request

Notwithstanding any provision of the Contract, the State's option to terminate the Contract and pursue the stated remedies will remain in

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effect until the Vendor completes the Contract to the satisfaction of the State.

H-25.9.2 System Acceptance

Upon completion of the Warranty Period, the State will issue a Letter of Final System Acceptance.

H-25.10 Warranty

H-25.10.1 Warranty Period

The Warranty Period will initially commence upon the State issuance of a Letter of Acceptance for UAT and will continue for ninety (90) days.

If within the last thirty (30) calendar days of the Warranty Period, the System Software fails to operate as specified, the Warranty Period will cease, the Vendor will correct the Deficiency, and a thirty (30) calendar day Warranty Period will begin. Any further Deficiencies with the Software must be corrected and run fault free for thirty (30) days.

H-25.10.2 Warranties

H-25.10.2.1 System

The Vendor shall warrant that the System must operate to conform to the Specifications, terms, and requirements of the Contract.

H-25.10.2.2 Software

The Vendor shall warrant that the Software is properly functioning within the System, compliant with the requirements of the Contract, and will operate in accordance with the Specifications.

Software shall be archived and or version controlled through the use of Harvest Software.

H-25.10.2.3 Non-Infringement

The Vendor shall warrant that it has good title to, or the right to allow the State to use all Services, equipment, and Software provided under this Contract, and that such Services, equipment, and Software ("Material") do not violate or infringe any patent, trademark, copyright, trade name or other intellectual property rights or misappropriate a trade secret of any third party.

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H-25.10.2.4 Viruses; Destructive Programming

The Vendor shall warrant that the Software will not contain any viruses, destructive programming, or mechanisms designed to disrupt the performance of the Software in accordance with the Specifications.

H-25.10.2.5 Compatibility

The Vendor shall warrant that all System components, including any replacement or upgraded System Software components provided by the Vendor to correct Deficiencies or as an Enhancement, shall operate with the rest of the System without loss of any functionality.

H-25.10.2.6 Professional Services

The Vendor shall warrant that all Services provided under the Contract will be provided in a professional manner in accordance with industry standards and that Services will comply with performance standards.

H-25.10.3 Warranty Services

The Vendor shall agree to maintain, repair, and correct Deficiencies in the System Software, including but not limited to the individual modules or functions, during the Warranty Period at no additional cost to the State, in accordance with the Specifications and terms and requirements of the Contract, including without limitation, correcting all errors, and Defects and Deficiencies; eliminating viruses or destructive programming; and replacing incorrect, Defective or Deficient Software and Documentation.

Warranty Services shall include, without limitation, the following:

- a. Maintain the System Software in accordance with the Specifications, terms, and requirements of the Contract;
- b. Repair or replace the System Software or any portion thereof so that the System operates in accordance with the Specifications, terms, and requirements of the Contract;
- c. The Vendor shall have available to the State on-call telephone assistance, with issue tracking available to the State, twenty four (24) hours per day and seven (7) days a week with an email / telephone response within two (2) hours of request, with assistance response dependent upon issue severity;

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- d. On-site additional Services within four (4) business hours of a request;
- e. Maintain a record of the activities related to Warranty Repair or maintenance activities performed for the State;
- f. For all Warranty Services calls, the Vendor shall ensure the following information will be collected and maintained:
 - 1) nature of the Deficiency;
 - 2) current status of the Deficiency;
 - 3) action plans, dates, and times;
 - 4) expected and actual completion time;
 - 5) Deficiency resolution information;
 - 6) Resolved by;
 - 7) Identifying number i.e. work order number;
 - 8) Issue identified by;
- g. The Vendor must work with the State to identify and troubleshoot potentially large-scale Software failures or Deficiencies by collecting the following information:
 - 1) mean time between reported Deficiencies with the Software;
 - 2) diagnosis of the root cause of the problem; and
 - 3) identification of repeat calls or repeat Software problems; and
- h. All Deficiencies found during the Warranty Period and all Deficiencies found with the Warranty Releases shall be corrected by the Vendor no later than five (5) business days, unless specifically extended in writing by the State, at no additional cost to the State.

If in the Event of Default, the Vendor fails to correct the Deficiency within the allotted period of time (see above), the State shall have the right, at its option: 1) declare the Vendor in default, terminate the Contract, in whole or in part, without penalty or liability to the State; 2) return the Vendor's product and receive a refund for all amounts paid to the Vendor, including but not limited to, applicable license fees within ninety (90) days of notification to the Vendor of the State's intent to request a refund; 3) and to pursue its remedies available at law or in equity.

Notwithstanding any provision of the Contract, the State's option to terminate the Contract and pursue the remedies above will remain in effect until satisfactory completion of the full Warranty Period.

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H-25.11 Ongoing Software Maintenance and Support Levels

The Vendor shall maintain and support the system in all material respects as described in the applicable program documentation for five (5) years of maintenance after delivery and the warranty period of ninety (90) days.

The Vendor will not be responsible for maintenance or support for Software developed or modified by the State.

H-25.11.1 Maintenance Releases

The Vendor shall make available to the State the latest program updates, general maintenance releases, selected functionality releases, patches, and documentation that are generally offered to its customers, at no additional cost.

H-25.11.2 Vendor Responsibility

The Vendor shall be responsible for performing on-site or remote technical support in accordance with the Contract Documents, including without limitation the requirements, terms, and conditions contained herein.

As part of the Software maintenance agreement, ongoing software maintenance and support levels, including all new Software releases, shall be responded to according to the following (see Appendix I for definitions of Deficiency Classes:

a. Class A & B Deficiencies The Vendor shall have available to the State on-call telephone assistance, with issue tracking available to the State, 24 hours per day seven (7) days a week. The Vendor shall provide support on-site or with remote diagnostic Services, within two (2) business hours of a request;

b. Class C Deficiencies The State shall notify the Vendor of such Deficiencies during regular business hours and the Vendor shall respond back within four (4) hours of notification of planned corrective action;

The Vendor shall repair or replace Software, and provide maintenance of the Software in accordance with the Specifications, Terms and Requirements of the Contract;

The Vendor shall maintain a record of the activities related to warranty repair or maintenance activities performed for the State;

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For all maintenance Services calls, the Vendor shall ensure the following information will be collected and maintained: 1) nature of the Deficiency; 2) current status of the Deficiency; 3) action plans, dates, and times; 4) expected and actual completion time; 5) Deficiency resolution information, 6) Resolved by, 7) Identifying number i.e. work order number, 8) Issue identified by; and

The Vendor must work with the State to identify and troubleshoot potentially large-scale System failures or Deficiencies by collecting the following information: 1) mean time between reported Deficiencies with the System; 2) diagnosis of the root cause of the problem; and 3) identification of repeat calls or repeat Software problems.

If the Vendor fails to correct a Deficiency within the allotted period of time Stated above, the Vendor shall be deemed to have committed an Event of Default, pursuant to Appendix H Section H-25.14, and the State shall have the right, at its option, to pursue the remedies in H-25.14, as well as to return the Vendor's product and receive a refund for all amounts paid to the Vendor, including but not limited to, applicable license fees, within ninety (90) days of notification to the Vendor of the State's refund request

If the Vendor fails to correct a Deficiency within the allotted period of time Stated above, the Vendor shall be deemed to have committed an Event of Default, pursuant to Appendix H Section H-25.14, and the State shall have the right, at its option, to pursue the remedies in Appendix H Section H-25.14.

H-25.12 Administrative Specifications

H-25.12.1 Travel Expenses

The State will not be responsible for any travel or out of pocket expenses incurred in the performance of the Services.

The Vendor must assume all travel and related expenses by "fully loading" the proposed labor rates to include, but not limited to: meals, hotel/housing, airfare, car rentals, car mileage, and out of pocket expenses.

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H-25.11.2 Shipping and Delivery Fee Exemption

The State will not pay for any shipping or delivery fees unless specifically itemized in the Contract.

H-25.12.3 Project Workspace and Office Equipment

The State agency will work with the Vendor to determine the requirements for providing all necessary workspace and office equipment, including desktop computers for the Vendor's staff. If a Vendor has specific requirements, they must be included in the Vendor's Proposal.

H-25.12.4 Work Hours

For the purpose of Help Desk Class C Deficiencies and during project implementation Vendor personnel shall work hours between 8:15 am and 4:15 pm, Monday through Friday, excluding State of New Hampshire holidays. Changes to this schedule may be made upon agreement with the State Project Manager.

H-25.12.5 Access/Cooperation

As applicable, and reasonably necessary, and subject to the applicable State and federal laws and regulations and restrictions imposed by third parties upon the State, the State will provide the Vendor with access to all program files, libraries, personal computer-based systems, software packages, network systems, security systems, and hardware as required to complete the contracted Services.

The State will use reasonable efforts to provide approvals, authorizations, and decisions reasonably necessary to allow the Vendor to perform its obligations under the Contract.

H-25.12.6 State-Owned Documents and Data

The Vendor shall provide the State access to all Documents, State Data, materials, reports, and other work in progress relating to the Contract ("State Owned Documents"). Upon expiration or termination of the Contract with the State, Vendor shall turn over all State-owned Documents, State Data, material, reports, and work in progress relating to this Contract to the State at no additional cost to the State. State-Owned Documents must be provided in both printed and electronic format.

H-25.12.7 Intellectual Property

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Upon successful completion and/or termination of the Implementation of the Project, the Vendor shall own and hold all, title, and rights in any Software modifications developed in connection with performance of obligations under the Contract, or modifications to the Vendor provided Software, and their associated Documentation including any and all performance enhancing operational plans and the Vendors' special utilities. The Vendor shall license back to the State the right to produce, publish, or otherwise use such software, source code, object code, modifications, reports, and Documentation developed under the Contract.

In no event shall the Vendor be precluded from developing for itself, or for others, materials that are competitive with, or similar to Custom Software, modifications developed in connection with performance of obligations under the Contract. In addition, the Vendor shall be free to use its general knowledge, skills, experience, and any other ideas, concepts, know-how, and techniques that are acquired or used in the course of its performance under this agreement.

H-25.12.8 IT Required Work Procedures

All work done must conform to standards and procedures established by the Department of Information Technology and the State.

H-25.12.9 Computer Use

In consideration for receiving access to and use of the computer facilities, network, licensed or developed software, software maintained or operated by any of the State entities, systems, equipment, Documentation, information, reports, or data of any kind (hereinafter "Information"), Vendor understands and agrees to the following rules:

- a. Every Authorized User has the responsibility to assure the protection of information from unauthorized access, misuse, theft, damage, destruction, modification, or disclosure.
- b. That information shall be used solely for conducting official State business, and all other use or access is strictly forbidden including, but not limited to, personal, or other private and non-State use and that at no time shall Vendor access or attempt to access any information without having the express authority to do so.

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- c. That at no time shall Vendor access or attempt to access any information in a manner inconsistent with the approved policies, procedures, and/or agreements relating to system entry/access.
- d. That all software licensed, developed, or being evaluated by the State cannot be copied, shared, distributed, sub-licensed, modified, reverse engineered, rented, or sold, and that at all times Vendor must use utmost care to protect and keep such software strictly confidential in accordance with the license or any other Agreement executed by the State. Only equipment or software owned, licensed, or being evaluated by the State, can be used by the Vendor. Personal software (including but not limited to palmtop sync software) shall not be installed on any equipment.
- e. That if the Vendor is found to be in violation of any of the above-stated rules, the User may face removal from the State Contract, and/or criminal or civil prosecution, if the act constitutes a violation of law.

H-25.12.10 E-mail Use

Mail and other electronic communication messaging systems are State of New Hampshire property and are to be used for business purposes only. E-mail is defined as "internal email systems" or "State-funded email systems." Vendors understand and agree that use of email shall follow State standard policy (available upon request).

H-25-12.11 Internet/Intranet Use

The Internet/Intranet is to be used for access to and distribution of information in direct support of the business of the State of New Hampshire according to State standard policy (available upon request).

H-25.12.12 Regulatory/Governmental Approvals

Any Contract awarded under the RFP shall be contingent upon the Vendor obtaining all necessary and applicable regulatory or other governmental approvals.

H-25.12.13 Force Majeure

Neither Vendor nor the State shall be responsible for delays or failures in performance resulting from events beyond the control of such party and without fault or negligence of such party. Such events shall include, but not be limited to, acts of God, strikes, lock outs, riots, and

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acts of War, epidemics, acts of Government, fire, power failures, nuclear accidents, earthquakes, and unusually severe weather.

Except in the event of the foregoing, Force Majeure events shall not include Vendor's inability to hire or provide personnel needed for the Vendor's performance under the Contract.

H-25.13 Pricing

H-25.13.1 Activities/Deliverables/Milestones Dates and Pricing

The Vendor must include, within the fixed price for IT service activities, tasks, and preparation of required Deliverables, pricing for the Deliverables required based on the proposed approach, and methodology and tools. A fixed price must be provided for each Deliverable. Pricing worksheets are provided in Appendix F: Pricing Worksheets.

H-25.13.2 Software Licensing, Maintenance, Enhancements, and Support Pricing

The Vendor must provide the minimum Software support and Services through Software licensing, maintenance, Enhancements, and support as detailed in Section H-25.11: Ongoing Software Maintenance and Support Levels.

For Software licensing, maintenance, and support costs, complete a worksheet including all costs in the table. A worksheet is provided in Appendix F: Pricing Worksheets, under Appendix F-5: Software Licensing, Maintenance, and Support Pricing.

H-25.13.3 Invoicing

The Vendor shall submit correct invoices to the State for all amounts to be paid by the State. All invoices submitted shall be subject to the State's written approval, which shall not be unreasonably withheld. The Vendor shall only submit invoices for Services or Deliverables as permitted by the Contract. Invoices must be in a format as determined by the State and contain detailed information, including without limitation: itemization of each Deliverable and identification of the Deliverable for which payment is sought, and the Acceptance date triggering such payment; date of delivery and/or installation; monthly maintenance charges; any other Project costs or retention amounts if applicable.

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H-25.13.4 Overpayments to the Vendor

The Vendor shall promptly, but no later than fifteen (15) business days, pay the State the full amount of any overpayment or erroneous payment upon discovery or notice from either the Vendor or the State.

H-25.13.5 Credits

The State may apply credits due to the State, arising out of this Contract, against the Vendor's invoices with appropriate information attached.

H-25.13.6 Records Retention and Access Requirements

The Vendor shall agree to the conditions of all applicable State and federal laws and regulations, which are incorporated herein by this reference, regarding retention and access requirements, including without limitation, retention policies consistent with the Federal Acquisition Regulations (FAR) Subpart 4.7 Vendor Records Retention.

The Vendor and its Subcontractors shall maintain books, records, documents, and other evidence of accounting procedures and practices, which properly and sufficiently reflect all direct and indirect costs, invoiced in the performance of their respective obligations under the Contract. The Vendor and its Subcontractors shall retain all such records for three (3) years following termination of the Contract, including any extensions. Records relating to any litigation matters regarding the Contract shall be kept for one (1) year following the termination of all litigation, including the termination of all appeals or the expiration of the appeals period.

Upon prior notice and subject to reasonable time frames, all such records shall be subject to inspection, examination, audit and copying by personnel so authorized by the State and federal officials so authorized by law, rule, regulation or Contract, as applicable. Access to these items will be provided within Merrimack County of the State of New Hampshire, unless otherwise agreed by the State. Delivery of and access to such records shall be at no cost to the State during the three (3) year period following termination of the Contract and one (1) year term following litigation relating to the Contract, including all appeals or the expiration of the appeal period. The Vendor shall include the record retention and review requirements of this section in any of its subcontracts.

The State agrees that books, records, documents, and other evidence of accounting procedures and practices related to the Vendor's cost

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structure and profit factors shall be excluded from the State's review unless the cost or any other Services or Deliverables provided under the Contract is calculated or derived from the cost structure or profit factors.

H-25.13.7 Accounting Requirements

The Vendor shall maintain an accounting system in accordance with generally accepted accounting principles. The costs applicable to the Contract shall be ascertainable from the accounting system and the Vendor shall maintain records pertaining to the Services and all other costs and expenditures.

H-25.14 Termination

This section H-25.14 shall survive termination or Contract conclusion.

H-25.14.1 Termination for Default

Any one or more of the following acts or omissions of the Vendor shall constitute an event of default hereunder ("Event of Default")

- a. Failure to perform the Services satisfactorily or on schedule;
- b. Failure to submit any report required; and/or
- c. to perform any other covenant, term or condition of the Contract

Upon the occurrence of any Event of Default, the State may take any one or more, or all, of the following actions:

- a) Unless otherwise provided in the Contract, the State shall provide the Vendor written notice of default and require it to be remedied within, in the absence of a greater or lesser specification of time, within thirty (30) days from the date of notice, unless otherwise indicated within by the State ("Cure Period"). If the Vendor fails to cure the default within the Cure Period, the State may terminate the Contract effective two (2) days after giving the Vendor notice of termination, at its sole discretion, treat the Contract as breached and pursue its remedies at law or in equity or both.
- b) Give the Vendor a written notice specifying the Event of Default and suspending all payments to be made under the Contract and ordering that the portion of the Contract price which would otherwise accrue to the Vendor during the period from the date of such notice until such time as the State determines that the Vendor has cured the Event of Default shall never be paid to the Vendor.

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- c) Set off against any other obligations the State may owe to the Vendor any damages the State suffers by reason of any Event of Default;
- d) Treat the Contract as breeched and pursue any of its remedies at law or in equity, or both.
- e) Procure Services that are the subject of the Contract from another source and the Vendor shall be liable for reimbursing the State for the replacement Services, and all administrative costs directly related to the replacement of the Contract and procuring the Services from another source, such as costs of competitive bidding, mailing, advertising, applicable fees, charges or penalties, and staff time costs; all of which shall be subject to the limitations of liability set forth in the Contract.

In the event of default by the State, the Vendor shall provide the State with written notice of default, and the State shall cure the default within thirty (30) days.

Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive termination or Contract Conclusion.

H-25.14.2 Termination for Convenience

The State may, at its sole discretion, terminate the Contract for convenience, in whole or in part, by thirty (30) days written notice to the Vendor. In the event of such termination for convenience, the State shall pay the Vendor the agreed upon price, if separately stated, for Deliverables for which Acceptance has been given by the State. Amounts for Services or Deliverables provided prior to the date of termination for which no separate price is stated will be paid, in whole or in part, generally in accordance with Appendix F: Pricing Worksheets.

During the thirty (30) day period, the Vendor shall wind down and cease its Services as quickly and efficiently as reasonably possible, without performing unnecessary Services or activities and by minimizing negative effects on the State from such winding down and cessation of Services.

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H-25.14.3 Termination for Conflict of Interest

The State may terminate the Contract by written notice if it determines that a conflict of interest exists, including but not limited to, a violation by any of the parties hereto of applicable laws regarding ethics in public acquisitions and procurement and performance of Contracts.

In such case, the State shall be entitled to a pro-rated refund of any current development, support and maintenance costs. The State shall pay all other contracted payments that would have become due and payable if the Vendor did not know, or reasonably did not know, of the conflict of interest.

In the event the Contract is terminated as provided above pursuant to a violation by the Vendor, the State shall be entitled to pursue the same remedies against the Vendor as it could pursue in the event of a default of the Contract by the Vendor.

H-25.14.4 Termination Procedure

Upon termination of the Contract, the State, in addition to any other rights provided in the Contract, may require the Vendor to deliver to the State any property, including without limitation, Software and Written Deliverables, for such part of the Contract as has been terminated.

After receipt of a notice of termination, and except as otherwise directed by the State, Vendor shall:

- a. Stop work under the Contract on the date, and to the extent specified, in the notice;
- b. Promptly, but in no event longer than thirty (30) days after termination, terminate its orders and subcontracts related to the work which has been terminated and settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the State to the extent required, which approval or ratification shall be final for the purpose of this Section;
- c. Take such action as the State directs, or as necessary to preserve and protect the property related to the Contract which is in the possession of Vendor and in which State has an interest;

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- d. Transfer title to the State and deliver in the manner, at the times, and to the extent directed by the State, any property which is required to be furnished to State and which has been accepted or requested by the State; and
- e. Provide written certification to the State that Vendor has surrendered to the State all said property.

H-25.15 Limitation of Liability

H-25.15.1 State

Subject to applicable laws and regulations, in no event shall the State be liable for any consequential, special, indirect, incidental, punitive, or exemplary damages. Subject to applicable laws and regulations, the State's liability to the Vendor shall not exceed the total Contract price set forth in Contract Agreement, Appendix H Section 1.8 of the Contract Agreement – General Provisions.

Notwithstanding the foregoing and any provision of this Contract to the contrary, in no event does the State waive its sovereign immunity or any applicable defenses or immunities.

H-25.15.2 The Vendor

Subject to applicable laws and regulations, in no event shall the Vendor be liable for any consequential, special, indirect, incidental, punitive or exemplary damages and the Vendor's liability to the State shall not exceed two times (2X) the total Contract price set forth in the Contract Agreement, Appendix H Section 1.8 of the Contract Agreement – General Provisions. Notwithstanding the foregoing, the limitation of liability shall not apply to the Vendor's indemnification obligations set forth in the Appendix H Contract Agreement - Sections 13: Indemnification and confidentiality obligations in Appendix H 25.12.14: Confidential Information, which shall be unlimited.

H-25.15.3 State's Immunity

Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive termination or Contract conclusion.

H.25.15.4 Survival

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This Contract Agreement, Section H-25.15: Limitation of Liability shall survive termination or Contract conclusion.

H-25.16 Change of Ownership

In the event that the Vendor should change ownership for any reason whatsoever, the State shall have the option of continuing under the Contract with the Vendor, its successors or assigns for the full remaining term of the Contract; continuing under the Contract with the Vendor, its successors or assigns for such period of time as determined necessary by the State; or immediately terminate the Contract without liability to the Vendor, its successors or assigns.

H-25.17 Assignment, Delegation and Subcontracts

The Vendor shall not assign, delegate, subcontract, or otherwise transfer any of its interest, rights, or duties under the Contract without the prior written consent of the State. Such consent will not be unreasonably withheld. Any attempted transfer, assignment, delegation, or other transfer made without the State's prior written consent shall be null and void and may constitute an event of default at the sole discretion of the State.

The Vendor shall remain wholly responsible for performance of the entire Contract regardless of whether assignees, delegates, Subcontractors or other transferees ("Assigns") are used, unless otherwise agreed to in writing by the State and the Assigns fully assumes in writing any and all obligations and liabilities under the Contract from the Effective Date . In the absence of a written assumption of full obligations and liabilities of the Contract, any permitted assignment, delegation, subcontract or other transfer shall neither relieve the Vendor of any of its obligations under the Contract nor shall it affect any remedies available to the State against the Vendor that may arise from any event of default of the provisions of the Contract. The State will consider the Vendor to be the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from the Contract.

H-25.18 Dispute Resolution

Prior to the filing of any formal proceedings with respect to a dispute (other than an action seeking injunctive relief with respect to intellectual property rights or Confidential Information), the party believing itself aggrieved (the "Invoking Party") shall call for progressive management involvement in the dispute negotiation by written notice to the other party. Such notice shall be without prejudice to the Invoking Party's right to any other remedy permitted by this Agreement.

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H-25.19 Venue and Jurisdiction

Any action on the Contract may only be brought in the State of New Hampshire Merrimack County Superior Court.

H-25.20 Project Holdback

The State will withhold 20% of the agreed Deliverables pricing tendered by the Vendor in this engagement until System Acceptance as defined in Appendix H Section 25-9.2: Letter of Final System Acceptance.

H-25.21 Escrow of Code

Vendor will enter into a source and configuration code agreement with a State-approved escrow agent. The proposed escrow agreement shall be submitted with the Vendor's Proposal for review by the State. The escrow agreement requires the Vendor to put the Vendor Software source and configuration code in escrow. The source code shall be released to the State if one of the following events has occurred:

- a) The Vendor has made an assignment for the benefit of creditors; or
- b) The Vendor institutes or becomes subject to a liquidation or bankruptcy proceeding of any kind; or
- c) A receiver, or similar officer, has been appointed to take charge of all or part of the Vendor's assets; or
- d) The Vendor or its subcontractor terminates its maintenance and operations support Services for the State for the Software or has ceased supporting and maintaining the Software for the State, whether due to its ceasing to conduct business generally or otherwise, except in cases where the termination or cessation is a result of the non-payment or other fault of the State; or
- e) Vendor defaults under the Contract; or
- f) Vendor ceases its on-going business operations or that portion of its business operations relating to the licensing and maintenance of the Software.

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Appendix I TERMS AND DEFINITIONS

The following general contracting terms and definitions apply except as specifically noted elsewhere in this document.

Acceptance	Notice from the State that a Deliverable has satisfied Acceptance Test or Review.
Acceptance Letter	An Acceptance Letter provides notice from the State that a Deliverable has satisfied Acceptance Tests or Review.
Acceptance Period	The timeframe during which the Acceptance Test is performed
Acceptance Test Plan	The Acceptance Test Plan provided by the Vendor and agreed to by the State that describes at a minimum, the specific Acceptance process, criteria, and Schedule for Deliverables.
Acceptance Test and Review	Tests performed to determine that no Defects exist in the application Software or the System
Access Control	Supports the management of permissions for logging onto a computer or network
Agreement	A contract duly executed and legally binding.
Appendix	Supplementary material that is collected and appended at the back of a document
Audit Trail Capture and Analysis	Supports the identification and monitoring of activities within an application or system
Breach or Breach of Security	Unlawful and unauthorized acquisition of unencrypted computerized data that materially compromises the security, confidentiality or integrity of personal information maintained by a person or commercial entity
CCP	Change Control Procedures
CR	Change Request
COTS	Commercial Off-The-Shelf Software
CM	Configuration Management
Certification	The Vendor's written declaration with full supporting and written Documentation (including without limitation test results as applicable) that the Vendor has completed development of the Deliverable and certified its readiness for applicable Acceptance Testing or Review.
Change Control	Formal process for initiating changes to the proposed solution or processes once development has begun.
Change Order	Formal documentation prepared for a proposed change in the Specifications.
Completion Date	End date for the Contract

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Confidential Information	Information required to be kept Confidential from unauthorized disclosure under the Contract
Contract	This Agreement between the State of New Hampshire and a Vendor, which creates binding obligations for each party to perform as specified in the Contract Documents.
Contract Conclusion	Refers to the conclusion of the Contract, for any reason, including but not limited to, the successful Contract completion, termination for convenience, or termination for default.
Contract Documents	Documents that comprise this Contract
Contract Managers	The persons identified by the State and the Vendor who shall be responsible for all contractual authorization and administration of the Contract. These responsibilities shall include but not be limited to processing Contract Documentation, obtaining executive approvals, tracking costs and payments, and representing the parties in all Contract administrative activities.
Contracted Vendor	The vendor whose proposal or quote was awarded the Contract with the State and who is responsible for the Services and Deliverables of the Contract.
Conversion Test	A test to ensure that a data conversion process correctly takes data from a legacy system and successfully converts it to form that can be used by the new system.
COTS	Commercial off the Shelf
Cure Period	The thirty (30) day period following written notification of a default within which a contracted vendor must cure the default identified.
Custom Code	Code developed by the Vendor specifically for this project for the State of New Hampshire
Custom Software	Software developed by the Vendor specifically for this project for the State of New Hampshire
Data	State's records, files, forms, Data and other documents or information, in either electronic or paper form, that will be used /converted by the Vendor during the Contract Term
DBA	Database Administrator
Deficiencies/Defects	<p>A failure, deficiency, or defect in a Deliverable resulting in a Deliverable, the Software, or the System, not conforming to its Specifications.</p> <p>Class A Deficiency – Software - Critical, does not allow System to operate, no work around, demands immediate</p>

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	<p>action; Written Documentation - missing significant portions of information or unintelligible to State; Non Software - Services were inadequate and require re-performance of the Service.</p> <p>Class B Deficiency – Software - important, does not stop operation and/or there is a work around and user can perform tasks; Written Documentation - portions of information are missing but not enough to make the document unintelligible; Non Software - Services were deficient, require reworking, but do not require re-performance of the Service.</p> <p>Class C Deficiency – Software - minimal, cosmetic in nature, minimal effect on System, low priority and/or user can use System; Written Documentation - minimal changes required and of minor editing nature; Non Software - Services require only minor reworking and do not require re-performance of the Service.</p>
Deliverable	A Deliverable is any Written, Software, or Non-Software Deliverable (letter, report, manual, book, other), provided by the Vendor to the State or under the terms of a Contract requirement.
Department	An agency of the State
Department of Information Technology (DoIT)	The Department of Information Technology established under RSA 21-R by the Legislature effective September 5, 2008.
Documentation	All information that describes the installation, operation, and use of the Software, either in printed or electronic format.
Digital Signature	Guarantees the unaltered state of a file
Effective Date	The Contract and all obligations of the parties hereunder shall become effective on the date the Governor and the Executive Council of the State of New Hampshire approves the Contract.
Encryption	Supports the encoding of data for security purposes
Enhancements	Updates, additions, modifications to, and new releases for the Software, and all changes to the Documentation as a result of Enhancements, including, but not limited to, Enhancements produced by Change Orders

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Event of Default	Any one or more of the following acts or omissions of a Vendor shall constitute an event of default hereunder ("Event of Default") <ul style="list-style-type: none"> a. Failure to perform the Services satisfactorily or on schedule; b. Failure to submit any report required; and/or c. Failure to perform any other covenant, term or condition of the Contract
Firm Fixed Price Contract	A Firm-Fixed-Price Contract provides a price that is not subject to increase, i.e., adjustment on the basis of the Vendor's cost experience in performing the Contract
Fully Loaded	Rates are inclusive of all allowable expenses, including, but not limited to: meals, hotel/housing, airfare, car rentals, car mileage, and out of pocket expenses
GAAP	Generally Accepted Accounting Principles
Governor and Executive Council	The New Hampshire Governor and Executive Council.
Harvest	Software to archive and/or control versions of software
Identification and Authentication	Supports obtaining information about those parties attempting to log on to a system or application for security purposes and the validation of those users
Implementation	The process for making the System operational for processing the Data.
Implementation Plan	Sets forth the transition from development of the System to full operation, and includes without limitation, training, business and technical procedures.
Information Technology (IT)	Refers to the tools and processes used for the gathering, storing, manipulating, transmitting, sharing, and sensing of information including, but not limited to, Data processing, computing, information systems, telecommunications, and various audio and video technologies.
Input Validation	Ensure the application is protected from buffer overflow, cross-site scripting, SQL injection, and canonicalization
Intrusion Detection	Supports the detection of illegal entrance into a computer system
Invoking Party	In a dispute, the party believing itself aggrieved
Key Project Staff	Personnel identified by the State and by the contracted vendor as essential to work on the Project.
Licensee	The State of New Hampshire

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Non Exclusive Contract	A contract executed by the State that does not restrict the State from seeking alternative sources for the Deliverables or Services provided under the Contract.
Non-Software Deliverables	Deliverables that are not Software Deliverables or Written Deliverables, e.g., meetings, help support, services, other
Normal Business Hours	Normal Business Hours – 8:00 a.m. to 5:00 p.m. EST, Monday through Friday excluding State of New Hampshire holidays. State holidays are: New Year's Day, Martin Luther King Day, President's Day, Memorial Day, July 4 th , Labor Day, Veterans Day, Thanksgiving Day, the day after Thanksgiving Day, and Christmas Day. Specific dates will be provided
Notice to Proceed (NTP)	The State Contract Manager's written direction to the Vendor to begin work on the Contract on a given date and time
Open Data Formats	A data format based on an underlying Open Standard.
Open Source Software	Software that guarantees the user unrestricted use of the Software as defined in RSA 21-R:10 and RSA 21-R:11.
Open Standards	Specifications for the encoding and transfer of computer data that is defined in RSA 21-R:10 and RSA 21-R:13.
Operating System	System is fully functional, all Data has been loaded into the System, is available for use by the State in its daily operations.
Operational	Operational means that the System is operating and fully functional, all Data has been loaded; the System is available for use by the State in its daily operations, and the State has issued an Acceptance Letter.
Order of Precedence	The order in which Contract/Documents control in the event of a conflict or ambiguity. A term or condition in a document controls over a conflicting or ambiguous term or condition in a document that is lower in the Order of Precedence
Project	The planned undertaking regarding the entire subject matter of an RFP and Contract and the activities of the parties related hereto.
Project Team	The group of State employees and contracted Vendor's personnel responsible for managing the processes and mechanisms required such that the Services are procured in accordance with the Work Plan on time, on budget and to the required specifications and quality
Project Management Plan	A document that describes the processes and methodology to be employed by the Vendor to ensure a

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		successful project.
Project Managers		The persons identified who shall function as the State's and the Vendor's representative with regard to Review and Acceptance of Contract Deliverables, invoice sign off, and review and approval of Change Requests (CR) utilizing the Change Control Procedures (CCP)
Project Staff		State personnel assigned to work with the Vendor on the project
Proposal		The submission from a Vendor in response to the Request for a proposal or statement of work.
Regression Test Plan		A plan integrated into the Work Plan used to ascertain whether fixes to defects have caused errors elsewhere in the application/process.
Review		The process of reviewing Deliverables for Acceptance
Review Period		The period set for review of a Deliverable. If none is specified then the review period is five (5) business days.
RFP (Request for Proposal)		A Request For Proposal solicits Proposals to satisfy State functional requirements by supplying data processing product and/or Service resources according to specific terms and conditions
Role/Privilege Management		Supports the granting of abilities to users or groups of users of a computer, application or network
Schedule		The dates described in the Work Plan for deadlines for performance of Services and other Project events and activities under the Contract
SaaS		Software as a Service- Occurs where the COTS application is hosted but the State does not own the license or the code.
Service Level Agreement (SLA)		A signed agreement between the Vendor and the State specifying the level of Service that is expected of, and provided by, the Vendor during the term of the Contract.
Services		The work or labor to be performed by the Vendor on the Project as described in the Contract.
Software		All custom Software and COTS Software provided by the Vendor under the Contract
Software Deliverables		COTS Software and Enhancements
Software License		Licenses provided to the State under this Contract
Solution		The Solution consists of the total Solution, which includes, without limitation, Software and Services, addressing the requirements and terms of the Specifications. The off-the-

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		shelf Software and configured Software customized for the State provided by the Vendor in response to this RFP.
Specifications		The written Specifications that set forth the requirements which include, without limitation, this RFP, the Proposal, the Contract, any performance standards, Documentation, applicable State and federal policies, laws and regulations, State technical standards, subsequent State-approved Deliverables, and other Specifications and requirements described in the Contract Documents. The Specifications are, by this reference, made a part of the Contract as though completely set forth herein.
State		Reference to the term "State" shall include applicable agencies as defined in Section 1: INTRODUCTION of this RFP.
Statement of Work (SOW)		A Statement of Work clearly defines the basic requirements and objectives of a Project. The Statement of Work also defines a high level view of the architecture, performance and design requirements, the roles and responsibilities of the State and the Vendor. The SOW defines the results that the Vendor remains responsible and accountable for achieving.
State's Confidential Records		State's information regardless of its form that is not subject to public disclosure under applicable state and federal laws and regulations, including but not limited to RSA Chapter 106-H
State Data		Any information contained within State systems in electronic or paper format.
State Fiscal Year (SFY)		The New Hampshire State Fiscal Year extends from July 1 st through June 30 th of the following calendar year
State Project Leader		State's representative with regard to Project oversight
State's Project Manager (PM)		State's representative with regard to Project management and technical matters. Agency Project Managers are responsible for review and Acceptance of specific Contract Deliverables, invoice sign off, and Review and approval of a Change Proposal (CP).
Subcontractor		A person, partnership, or company not in the employment of, or owned by, the Vendor, which is performing Services under this Contract under a separate Contract with or on behalf of the Vendor
System		All Software, specified hardware, and interfaces and

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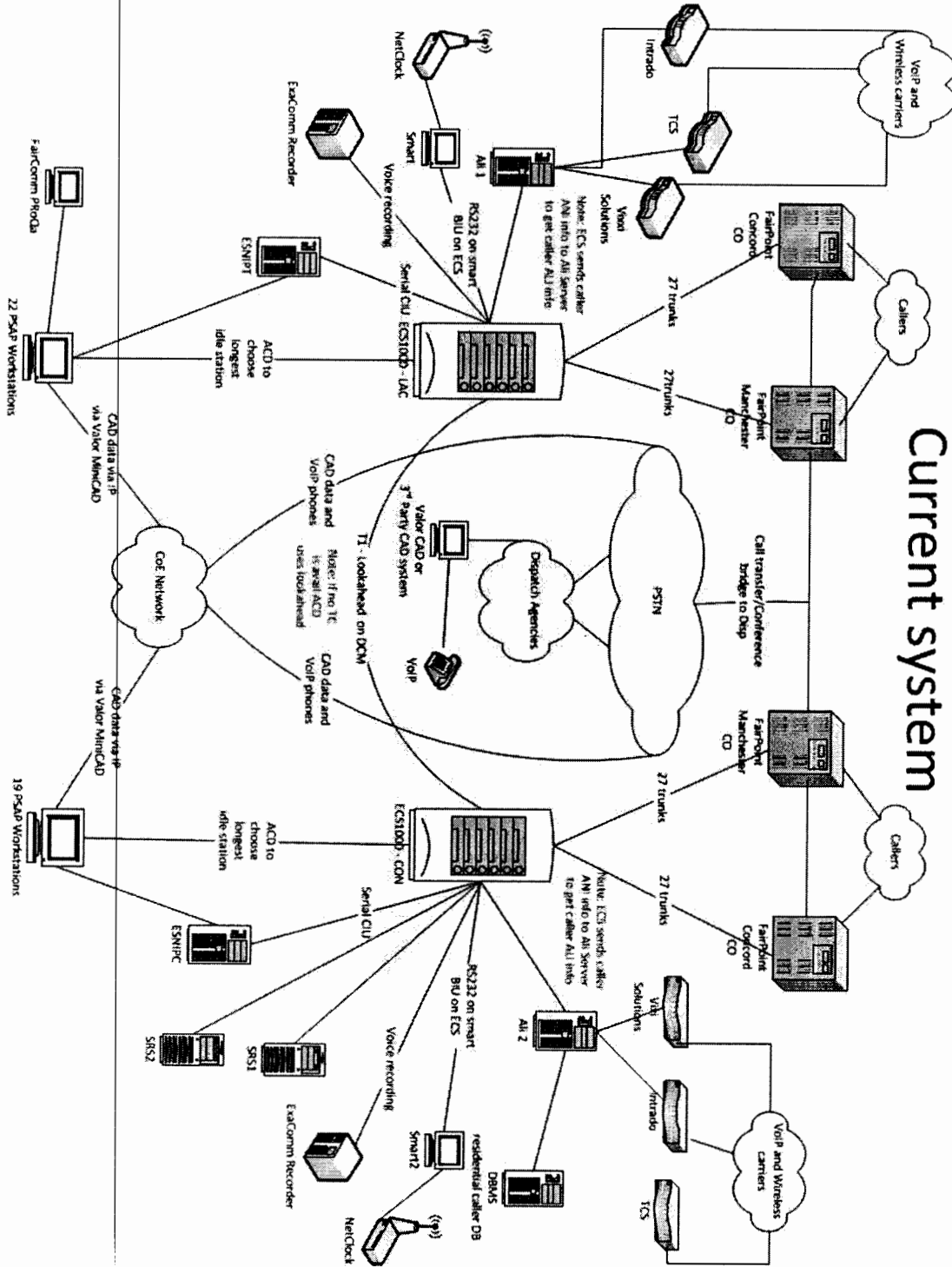
		extensions, integrated and functioning together in accordance with the Specifications.
TBD		To Be Determined
Technical Authorization		Direction to a Vendor, which fills in details, clarifies, interprets, or specifies technical requirements. It must be: (1) consistent with Statement of Work within statement of Services; (2) not constitute a new assignment; and (3) not change the terms, documents of specifications of the SOW.
Test Plan		A plan, integrated in the Work Plan, to verify the code (new or changed) works to fulfill the requirements of the Project. It may consist of a timeline, a series of tests and test data, test scripts and reports for the test results as well as a tracking mechanism.
Term		The duration of the Contract.
Transition Services		Services and support provided when the contracted vendor is supporting system changes.
UAT		User Acceptance Test
Unit Test		Developers create their own test data and test scenarios to verify the code they have created or changed functions properly as defined.
User Acceptance Testing		Tests done by knowledgeable business users who are familiar with the scope of the Project. They create/develop test cases to confirm the System was developed according to specific user requirements. The test cases and scripts/scenarios should be mapped to business requirements outlined in the user requirements documents.
User Management		Supports the administration of computer, application and network accounts within an organization
Vendor/Vendor		The contracted individual, firm, or company that will perform the duties and Specifications of the contract.
Verification		Supports the confirmation of authority to enter a computer system, application or network
Walk Through		A step-by-step review of a specification, usability features or design before it is handed off to the technical team for development
Warranty Period		A period of coverage during which the contracted vendor is responsible for providing a guarantee for products and services delivered as defined in the

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		contract.
Warranty Releases		Code releases that are done during the warranty period.
Warranty Services		The Services to be provided by the Vendor during the Warranty Period.
Work Hours		Vendor personnel shall work normal business hours between 8:00 am and 5:00 pm, eight (8) hour days, forty (40) hour weeks, excluding State of New Hampshire holidays. Changes to this schedule may be made upon agreement with the State Project Manager. However, the State requires an unpaid lunch break of at least thirty (30) minutes be taken after five (5) consecutive hours of work.
Work Plan		The overall plan of activities for the Project created in accordance with the Contract. The plan and delineation of tasks, activities and events to be performed and Deliverables to be produced under the Project as specified in Appendix C. The Work Plan shall include a detailed description of the Schedule, tasks/activities, Deliverables, critical events, task dependencies, and the resources that would lead and/or participate on each task.
Written Deliverables		Non-Software written deliverable Documentation (letter, report, manual, book, other) provided by the Vendor either in paper or electronic format.

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Appendix J EXISTING SYSTEM DIAGRAM



Current system



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Advertised: February 11, 2015

Official RFP Link: RFP DOS 2015-170.
<http://das.nh.gov/purchasing/specRFP.asp?rfpID=9420>

Date of Addendum: 2/18/15
Designator of Addendum: Addendum A

The below addendum, consisting of three (3) paragraphs is to be inserted as identified herein.

1. On page 12, RFP DOS 2015-170, at the end of section 4.1 (Instructions) insert the following:

The Cost Proposal must include one (1) original and four (4) clearly-identified copies. The Cost proposal original and copies shall be in a sealed envelope or other appropriate package which shall prevent any viewing of the material without being deliberately opened and shall be packaged separately from the Proposal original and copies.

The total cost shall include, without limitation, all overhead, burden, profit, taxes, duties, fees, Contractor-acquired permits, licenses, warranties, and other items necessary for the Contractor/Vendor/Bidder to complete the Work. No price escalation will be allowed above the costs described and included in Bidder's Price Proposal.

2. On page 27, RFP DOS 2015-170, section A-2 (a) (Related Documents Required at Contract Time):

Replace the first sentence with the following:

a. Certificate of Good Standing dated after April of the current year and available from the Department of State by calling (603) 271-3244 or (603) 271-3246.

If you have additional questions, please feel free to contact:

Robert Brown, IT Manager
33 Hazen Drive
Concord, NH 03305
(603) 271-6911
rbrown@e911.nh.gov

Robert Brown, IT Manger
Project Manager

2 | 18 | 15

Date of Addendum



State of New Hampshire
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<http://das.nh.gov/purchasing/specRFP.asp?rfpID=9420>

Date of Addendum: 3/17/15
Designator of Addendum: **Addendum B**
RE: **Clarification of Proposal Due Date**

On page 19 of RFP DOS 2015-170, "Next Generation 911 System", "State of New Hampshire Proposal Transmittal Form Letter", under "RE" section, the document states to list "Proposal Due Date and Time: April 20, 2015; 2:30PM" when submitting vendor proposals. This April 20, 2015 date is incorrect. It is in conflict with the date presented in the Schedule of Events.

As stated on the RFP DOS 2015-170 title page (page 1) and Schedule of Events (page 10), the incorrect Final Date for Proposal Submission (received at DESC) is listed as April 1, 2015 at 2:30PM. The April 1, 2015 date was clarified at the March 9, 2015 Vendor Conference, held at the NH Fire Academy facility, but this has been changed.

Explanation: while the April 1, 2015 date was originally the intended submission date, internal delays caused us to make **April 20, 2015 the Final Date for Proposal Submission.**

If you have any additional questions, please feel free to contact:

Robert Brown, IT Manager
33 Hazen Drive
Concord, NH 03305
(603) 271-6911
rbrown@e911.nh.gov



Robert Brown, IT Manager
Project Manager

3/17/15
Date of Addendum B



State of New Hampshire

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Advertised: February 11, 2015

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Date of Addendum: 3/17/15

Designator of Addendum: **Addendum C**

RE: **Appendix E, Sections 2, 3, and 4 (Vendor Information)**

Please place the following on page 61, following section E-1.1.5 "Subcontractor Information":

E-2 Team Organization and Designation of Key Vendor Staff

Provide an organizational chart depicting the Vendor Project team and Project organization. This chart shall identify specific key staff of the Vendor, any Subcontractors, and the Agency roles and shall identify all positions at least one (1) level below key staff.

Define the responsibilities, length of assignment, the percentage of time that the resource will be dedicated to this Project for that length of assignment and whether the resource is local (does not require travel expenses when working on the Project) for each of the roles depicted in the organizational chart. Key staff who must be identified by name include:

- Project Principal;
- Project Manager;
- Quality Assurance Manager;
- Assistant Project Manager;
- Installation Manager; and
- Maintenance Manager.

A single team member may be identified to fulfill the staff requirement in multiple areas, with the exception of Project Manager.

E-2.1 State Staff Resource Worksheet

Append a completed State Staff Resource Worksheet to coverage of organization. The required format follows.

Table E-2: Proposed State Staff Resource Hours Worksheet

State Role	Initiation	Configuration	Implement.	Project Close Out	Total
Project Manager					
Position 1					
Position 2					
Position 3					
Position 4					
Position 5					
State Total					

E-3 Candidates for Project Manager

Qualifications of the Project Manager are particularly critical. Therefore, the Agency requires that the Project Manager be clearly identified.

The Agency requires that the Project Manager and Installation Manager be assigned full time, on site for the duration of installation of the Project. The Maintenance Manager shall be assigned full time, onsite from go live through Provisional Project Acceptance. For the Project Manager candidate, provide a resume not to exceed three (3) pages (does not count towards overall page limit) in length addressing the following:

- The candidate’s educational background;
- An overview of the candidate’s history;
- The candidate’s project experience, including project type, project role and duration of the assignment;
- Any significant certifications held by or honors awarded to the candidate; and
- At least three (3) references, with contact information that can address the candidate’s performance on past projects.

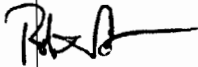
E-4 Candidates for Other Key Vendor Staff Roles

Provide a resume not to exceed two (2) pages (does not count towards overall page limit) in length for each key Vendor staff position on the Project team. Each resume should address the following:

- The individual's educational background;
- An overview of the individual's history;
- The individual's project experience, including project type, project role and duration of the assignment;
- Any significant certifications held by or honors awarded to the candidate; and
- At least three (3) references, with contact information, that can address the individual's performance on past projects.

If you have any additional questions, please feel free to contact:

Robert Brown, IT Manager
33 Hazen Drive
Concord, NH 03305
(603) 271-6911
rbrown@e911.nh.gov



Robert Brown, IT Manager
Project Manager

3/17/15

Date of Addendum



State of New Hampshire

Department of Safety, Division of Emergency Services and Communications

Addendum to RFP 2015-170 "Next Generation 911 (NG9-1-1)"

Advertised: February 11, 2015

Official RFP Link: RFP DOS 2015-170; <http://das.nh.gov/purchasing/specRFP.asp?rfpID=9420>

Date of Addendum: 3/17/15

Designator of Addendum: Addendum D

RE: Schedule of Events

Please replace the Schedule of Events, page 10, with the following dates.

EVENT	DEADLINE / DATE	TIME (E.S.T.)
RFP released to vendors - Advertisement (on or about)	2/11/15	12:00 PM
Vendor Inquiry Period begins (on or about)	2/11/15	4:00 PM
Vendors submit Intent to Bid (via e-mail)	3/2/15	4:00 PM
Public Advertisement Period ends	3/2/15	4:00 PM
Vendor Inquiry Period ends (final written inquiries due)	3/4/15	4:00 PM
RSVP/Notification to the State of the number of representatives attending the Vendor Conference (via e-mail)	3/4/15	4:00 PM
Vendor Conference; location identified in <i>General Instructions, Section 4.3</i>	3/9/15	10:00 AM
Final State Written Responses to Vendor Inquiries distributed to all vendors	3/20/15	4:00 PM
Vendor Inquiry (limited <u>exclusively</u> to Addendum E: DoIT Standards and Addendum C: Appendix E, Sections 2, 3, and 4)	3/27/15	4:00 PM

Final State Written Responses to Vendor Inquiries regarding Addendum E: DoIT Standards and Addendum C: Appendix E, Sections 2, 3, and 4	4/3/15	4:00 PM
Final Date for Proposal Submission (received at DESC)	4/20/15	2:30 PM
Invitations for Oral Presentations extended to vendors that pass minimum Technical Specifications Score	4/29/15	4:00 PM
Vendor Presentations and PSAP tours at Concord IPOC Bldg. Media Room (directions will be provided)	5/12/15	TBD
Proposal Evaluation completed	5/21/15	2:30 PM
Vendor Notification of Selection and Begin Contract Negotiations (on or about)	5/21/15	3:00 PM
Contract to DOS Business Office for Governor and Executive Council (G&C) preparation	6/8/15	4:00 PM
Anticipated G&C Approval	Mid-July 2015	
Anticipated Notice to Proceed (requires G&C approval)	Mid-July 2015 TBD	

Key focus of this addendum: In addition to the date changes, please see the two added events for Vendor inquiries and State written responses pertaining only to Addendum E: DoIT Standards (to be posted 3/20/15) and Addendum C which fills in a missing section- Appendix E, Sections 2, 3, and 4. No other topics of inquiry will be entertained at this time.

If you have any additional questions, please feel free to contact:

Robert Brown, IT Manager
33 Hazen Drive
Concord, NH 03305
(603) 271-6911
rbrown@e911.nh.gov



Robert Brown, IT Manager
Project Manager

3/17/15
Date of Addendum



State of New Hampshire
Department of Safety
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<http://das.nh.gov/purchasing/specRFP.asp?rfplD=9420>

Date of Addendum: 3/19/15

Designator of Addendum: Addendum E

RE: NH Department of Information Technology (DoIT) Standards and Requirements

The following are State of New Hampshire Department of Information Technology standards and requirements.

APPENDIX G-1 Application Security

IT Security involves all functions pertaining to the securing of State Data and systems through the creation and definition of security policies, procedures and controls covering such areas as identification, authentication and non-repudiation.

This shall include but is not limited to

- Develop software applications based on industry best practices and incorporating information security throughout the software development life cycle
- Perform a Code review prior to release of the application to the State to move it into production. The code review may be done in a manner mutually agreeable to the <VENDOR> and the State. Copies of the final, remediated results shall be provided to the State for review and audit purposes
- Follow change control process and procedures relative to release of code
- Develop applications following security-coding guidelines as set forth by organizations such as, but not limited to Open Web Application Security Project (OWASP) Top 10, SANS Common Weakness Enumeration (CWE) Top 25 or CERT Secure Coding.

- Make available to the for review and audit purposes all software development processes and require training for application developers on secure coding techniques.

APPENDIX G-2 TESTING REQUIREMENTS

All testing and acceptance addressed herein shall apply to testing the System. This shall include planning, test scenario development, Data, and System preparation for testing, and execution of unit testing, System integration testing, conversion/migration testing, installation testing, performance, and stress testing, Security review and testing, and support of the State during user Acceptance Testing (UAT).

G-2.1 Test Planning and Preparation

The overall Test Plan will guide all testing. The Vendor provided, State approved, Test Plan will include, at a minimum, identification, preparation, and Documentation of planned testing, a requirements traceability matrix, test variants, test scenarios, test cases, test scripts, test Data, test phases, unit tests, expected results, and a tracking method for reporting actual versus expected results as well as all errors and problems identified during test execution.

It is crucial that client training and testing activities not be abbreviated in order to meet Project Implementation Schedules. Therefore, the State requires that the testing activities be represented both in terms of effort and duration.

Vendors must disclose in their proposals the scheduling assumptions used in regard to the Client resource efforts during testing.

State testing will commence upon the Vendor Project Manager's certification, in writing, that the Vendor's own staff has successfully executed all prerequisite Vendor testing, along with reporting the actual testing results, prior to the start of any testing executed by State staff.

The State will commence its testing within five (5) business days of receiving Certification from the Vendor that the State's personnel have been trained and the System is installed, configured, complete, and ready for State testing. The testing will be conducted by the State in an environment independent from the Vendor's development environment. The Vendor must assist the State with testing in accordance with the Test Plan and the Work Plan, utilizing test and live Data to validate reports, and conduct stress and performance testing, at no additional cost.

G-2.2 Testing

Testing begins upon completion of the Software configuration as required and user training according to the Work Plan. Testing ends upon issuance of a letter of UAT Acceptance by the State.

Vendor must demonstrate that their testing methodology can be integrated with the State standard methodology.

Unit Testing	<p>Application components are tested on an individual basis to verify that the inputs, outputs, and processing logic of each application component functions without errors. Unit Testing is performed in either the development environment or a testing environment.</p> <p>The goal is to find errors in the smallest unit of Software. If successful, subsequent integration testing should only reveal errors related to the integration between application components.</p>
System Integration Testing	<p>a.) Validates the integration between the individual unit application components and verifies that the new System meets defined requirements and supports execution of interfaces and business processes. The Systems Integration Test is performed in a test environment.</p> <p>b.) Emphasizes end-to-end business processes, and the flow of information across applications. It includes all key business processes and interfaces' being implemented, confirms data transfers with external parties, and includes the transmission or printing of all electronic and paper documents.</p> <p>c.) The State will conduct System Integration Testing, utilizing scripts developed, as identified in the Test Plan, to validate the functionality of the System and its interfaces. The State will also use System Integration Testing to validate modifications, fixes and other System interactions with the Vendor supplied Software Solution.</p>
Conversion /Migration Validation Testing	<p>The Conversion/Migration Validation Testing should replicate the entire flow of the converted data through the Software Solution. As the Software Solution is interfaced to legacy or third-party applications, the testing verifies that the resulting converted legacy data performs correctly.</p>
Installation Testing	<p>Application components are installed in the System test environment to test the installation routines and are refined for the eventual production environment. This activity serves as a dry run of the installation steps in preparation for configuring the production System.</p>
User Acceptance Testing (UAT)	<p>The User Acceptance Test (UAT) is a verification process performed in a copy of the production environment. The User Acceptance Test verifies System functionality against predefined Acceptance criteria that support the successful execution of approved business processes.</p> <p>a.) The Vendor's Project Manager must certify in writing, that the Vendor's own staff has successfully executed all prerequisite Vendor testing, along with reporting the actual testing results prior to the start of any testing executed by State staff.</p>

	<p>b.) The State will be presented with a State approved Test Plan, test scenarios, test cases, test scripts, test data, and expected results, as well as written Certification of the Vendor's having completed the prerequisite tests, prior to the State staff involvement in any testing activities</p> <p>c.) UAT will also serve as a performance and stress test of the System. It may cover any aspect of the new System, including administrative procedures such as backup and recovery. The results of the UAT provide evidence that the new System meets the User Acceptance criteria as defined in the Work Plan.</p> <p>d.) Upon successful conclusion of UAT and successful System deployment, the State will issue a letter of UAT Acceptance and the respective Warranty Period shall commence as described in Section H-25.10.1: Warranty Period.</p>
<p>Performance Tuning and Stress Testing</p>	<p>Vendor shall develop and document hardware and software configuration and tuning of System infrastructure as well as assist and direct the State's System Administrators and Database Administrators in configuring and tuning the infrastructure to support the software throughout the project</p> <p>Performance Tuning and Stress Testing</p> <p><u>Scope</u></p> <p>The scope of performance testing shall measure the system level metrics critical for the development of the applications infrastructure and operation of the applications in the production environment. It will include the measurement of response rates of the application for end-user transactions and resource utilization (of various servers and network) under various load conditions. These response rates shall become the basis for changes and retesting until optimum system performance is achieved.</p> <p>The application transactions shall be identified with specific roles and selected transactions shall be recorded for the performance measurements. These will be compared to baselines to determine if object and/or system performance increases as changes are made.</p> <p>Performance testing shall consider the full scope of the application infrastructure with emphasis on the most heavily used or shared transactions. Performance testing of the application will profile the identified user transactions and assist in the identifying performance gaps to improve the most critical parts of the applications.</p> <p>Performance testing and tuning shall occur in the final production environment and shall use a copy of the final production database to provide the best results.</p> <p>Vendor must lead this effort. Responsibilities include identifying appropriate tunable parameters and their default and recommended settings, developing scripts, which accurately reflect business load and</p>

coordinating reporting of results.

Test types

Performance testing shall use two different types of tests to determine the stability of the application. They are baseline tests and load tests

Baseline Tests: Baseline tests shall collect performance data and load analysis by running scripts where the output is broken down into business transactions or functions. The test is like a single user executing a defined business transaction. During baseline testing, each individual script is run to establish a baseline for transaction response time, throughput and other user-based metrics. Usually each business transaction is executed multiple times during a single test run to obtain an average for the user-based metrics required for the performance testing evaluations. It must be noted that changes made to the code after baseline testing is completed will skew the results collected to date. All effort will be made to provide a code test base that is tested in the environment for problems prior to the establishment of the baseline, which are used in future testing and tuning efforts. Any changes introduced into the environment after performance testing has started can compromise the accuracy of the results and will force a decision to be made whether baseline results need to be recreated.

Load Tests: Load testing will determine if the behavior of a system can be sustained over a long period of time while running under expected conditions. Load tests helps to verify the ability of the application environment under different load conditions based on workload distribution. System response time and utilization is measured and recorded.

Tuning

Tuning will occur during both the development of the application and load testing. Tuning is the process whereby the application performance is maximized. This can be the result of making code more efficient during development as well as making tuning parameter changes to the environment.

For infrastructure tuning, parameters will be identified for all components prior to undertaking the load testing efforts. This should include a list of the variables, their definitions, the default settings, range of acceptable settings and the settings as testing begins. This will permit the team to identify the areas of most potential gain and a starting point. Tuning is a process which is repeated until the team feels that the systems are running at or near optimum performance.

Implementing Performance and Stress Test

Performance and Stress test Tools must be provided by the Vendor for this effort. Consideration must be give to licensing with respect to continued use for regression testing. If the Vendor is familiar with open source low/no

cost tools for this purpose those tools should be identified in your response.

Scheduling Performance and Stress Testing

Vendor shall perform test planning. The steps for planning include identification of application functionality as well as what percentage of normal daily use is represented by each function. This information will become the foundation for scripting so that tests closely represent what loads in production will look like.

Vendor shall provide definition and expectations from testing. This definition should include who is in charge of testing and coordinating results, anticipated run times, logs required for tracking, their locations and which technician is responsible to track and provide them following each test to the team.

Initial test runs shall be completed to establish that the tests and data sets can be run to completion without errors. The ratio of types of transactions which makeup the test shall be reviewed prior to the beginning of testing and then again once testing has begun to make sure that testing accurately reflects the system performing in production.

Initial tests shall be used to establish a baseline from which all subsequent tests will be compared. Tests will be considered for baseline status once two of them have been run within 2% of each other in key and overall performance areas. No changes to the test scripts or data sets (with the exception of restores after each test) can be done to the test environment once tuning has begun so as to not damage the comparison to baseline results. The systems must be restarted prior to each test run to assure all cache is cleaned out. All effort will be made to run these tests at a time when system and network infrastructure utilization doesn't impact the results. Tests will be run in close proximity to our infrastructure to eliminate the public network from our environment.

Post-test reporting and result assessment will be scheduled following each test. The team will compare these results to the baseline and a determination must be made to make additional changes to the parameter being tuned or return to the prior configuration and select another parameter to tune while keeping in mind that significant changes to any one parameter may require the retesting of some others. Careful work on identifying dependencies up front should minimize this impact.

If defects are identified in the application during testing, they will be recorded; however, changes to the application code should be avoided if possible so as not to affect baseline comparisons. If a change to the application is required new baselines will be established (and possibly the execution of prior tests to validate changes with the new application) before testing can continue.

When performing capacity testing against a GUI the focus will be on the

	<p>ability of the interface to respond to user input.</p> <p>During stress/load testing the tester will attempt to stress or load an aspect of the system to the point of failure. The goal being to determine weak points in the system architecture. The tester will identify peak load conditions at which the program will fail to handle required processing loads within required time spans.</p> <p>During Performance testing the tester will design test case scenarios to determine if the system meets the stated performance criteria (i.e. A Login request shall be responded to in 1 second or less under a typical daily load of 1000 requests per minute.). In both cases, the tester will determine the capacity of the system under a known set of conditions.</p>
<p>Regression Testing</p>	<p>As a result, of the user testing activities, problems will be identified that require correction. The State will notify the Vendor of the nature of the testing failures in writing. The Vendor will be required to perform additional testing activities in response to State and/or user problems identified from the testing results.</p> <p>Regression testing means selective re-testing to detect faults introduced during the modification effort, both to verify that the modifications have not caused unintended adverse effects, and to verify that the modified and related (possibly affected) System components still meet their specified requirements.</p> <p>a.) For each minor failure of an Acceptance Test, the Acceptance Period shall be extended by corresponding time defined in the Test Plan.</p> <p>b.) The Vendor shall notify the State no later than five (5) business days from the Vendor's receipt of written notice of the test failure when the Vendor expects the corrections to be completed and ready for retesting by the State. The Vendor will have up to five (5) business days to make corrections to the problem unless specifically extended in writing by the State.</p> <p>c.) When a programming change is made in response to a problem identified during user testing, a regression Test Plan should be developed by the Vendor based on the understanding of the program and the change being made to the program. The Test Plan has two objectives:</p> <ol style="list-style-type: none"> 1. validate that the change/update has been properly incorporated into the program; and 2. validate that there has been no unintended change to the other portions of the program. <p>d.) The Vendor will be expected to:</p> <ol style="list-style-type: none"> 1. Create a set of test conditions, test cases, and test data that will validate that the change has been incorporated correctly; 2. Create a set of test conditions, test cases, and test data that will validate that the unchanged portions of the program still operate correctly; and 3. Manage the entire cyclic process.

e.) The Vendor will be expected to execute the regression test, provide actual testing results, and certify its completion in writing to the State prior to passing the modified Software application to the users for retesting.

In designing and conducting such regression testing, the Vendor will be required to assess the risks inherent to the modification being implemented and weigh those risks against the time and effort required for conducting the regression tests. In other words, the Vendor will be expected to design and conduct regression tests that will identify any unintended consequences of the modification while taking into account Schedule and economic considerations.

In their Proposals Vendors must acknowledge their responsibilities for regression testing as described in this section.

Security Review and Testing

IT Security involves all functions pertaining to the securing of State Data and Systems through the creation and definition of security policies, procedures and controls covering such areas as identification, authentication and non-repudiation.

All components of the Software shall be reviewed and tested to ensure they protect the State's hardware and software and its related Data assets.

Service Component	Defines the set of capabilities that:
Identification and Authentication	Supports obtaining information about those parties attempting to log onto a system or application for security purposes and the validation of users
Access Control	Supports the management of permissions for logging onto a computer or network
Encryption	Supports the encoding of data for security purposes
Intrusion Detection	Supports the detection of illegal entrance into a computer system
Verification	Supports the confirmation of authority to enter a computer system, application or network
Digital Signature	Guarantees the unaltered state of a file
User Management	Supports the administration of computer, application and network accounts within an organization.
Role/Privilege Management	Supports the granting of abilities to users or groups of users of a computer, application or network
Audit Trail Capture and Analysis	Supports the identification and monitoring of activities within an application or system
Input Validation	Ensures the application is protected from buffer overflow, cross-site scripting, SQL injection, and unauthorized access of files

and/or directories on the server.

In their proposal, the Vendors must acknowledge their responsibilities for security testing. Tests shall focus on the technical, administrative and physical security controls that have been designed into the System architecture in order to provide the necessary confidentiality, integrity and availability. Tests shall, at a minimum, cover each of the service components. Test procedures shall include Penetration Testing (pen test) or code analysis and review. Prior to the System being moved into production, the Vendor shall provide results of all security testing to the DESC IT staff for review and acceptance. All Software and hardware shall be free of malicious code (malware).

Penetration Testing shall include:

11.3 Implement a methodology for penetration testing that includes the following:

- Is based on industry-accepted penetration testing approaches (for example, NIST SP800-115)
- Includes coverage for the entire CDE perimeter and critical systems
- Includes testing from both inside and outside the network
- Includes testing to validate any segmentation and scope-reduction controls
- Defines application-layer penetration tests
- Defines network-layer penetration tests to include components that support network functions as well as operating systems
- Includes review and consideration of threats and vulnerabilities experienced in the last 12 months
- Specifies retention of penetration testing results and remediation activities results.

11.3.1 Perform *external* penetration testing at least annually and after any significant infrastructure or application upgrade or modification (such as an operating system upgrade, a sub-network added to the environment, or a web server added to the environment).

11.3.2 Perform *internal* penetration testing at least annually and after any significant infrastructure or application upgrade or modification (such as an operating system upgrade, a sub-network added to the environment, or a web server added to the environment).

11.3.3 Exploitable vulnerabilities found during penetration testing are corrected and testing is repeated to verify the corrections.

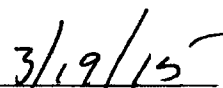
11.3.4 If segmentation is used to isolate the CDE from other networks, perform penetration tests at least annually and after any changes to segmentation controls/methods to verify that the segmentation methods are operational and effective, and isolate all out-of-scope systems from in-scope systems.

If you have any additional questions, please feel free to contact:

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rbrown@e911.nh.gov



Bruce G. Cheney, Director



Date



State of New Hampshire
Department of Safety
Division of Emergency Services and Communications

Addendum to RFP 2015-170 "Next Generation 911 (NG9-1-1)"
Advertised: February 11, 2015

Official RFP Link: [RFP DOS 2015-170](http://das.nh.gov/purchasing/specRFP.asp?rfpID=9420)
<http://das.nh.gov/purchasing/specRFP.asp?rfpID=9420>

Date of Addendum: 3/25/15

Designator of Addendum: Addendum F

RE: Additional Vendor Questions and Responses

The following questions were inadvertently missed when providing the written responses to vendor questions (as posted Friday, March 20, 2015). These were received with all other Vendor questions. They were unintentionally not included and so the DESC, now aware of the omission, is herein providing responses.

Reference: C-2, Table C-2, C-1-G, row 29, page 55

Question: The RFP states "The MIS system shall be designed to be highly reliable and protect data security and integrity." Does DESC require the following from the Vendor?

- a) End point protection
- b) Logging event security
- c) Single sign on from centralized directory service
- d) Two (2) factor authentication
- e) DMZ
- f) Deep Packet Inspection and regularly updated signatures
- g) VPN connectivity between workstations and server equipment
- h) Satisfy requirements of NENA Security for Next-Generation 9 1 1 Standard (NG-SEC, document 75 001 dated February 6, 2010)

Answer: The Bidder should explain how they will provide a successful, integrated MIS component as described in the RFP. Any MIS system should utilize the best practices NH OIT standards provided as an addendum to this RFP.

Reference: C-3, page 57

Question: Please provide instructions for clarification on how Table C-3 should be populated, including clarification on whether our explanation can be provided in the 3rd column of the table if it is not found elsewhere in the proposal response.

Answer: Bidders should insert the page number of their proposal that corresponds to the location of the implementation plan in the vendor's response to this RFP. Bidders may use the third column for explanations.

Reference: F-3, page 63

Question: Customer's period of performance indicated June 30, 2015 start date; assuming an installation period, when will the first year of warranty begin? Table F-3 has a column for initial cost, FY 2015, 2016, 2017, and 2018. Is the initial cost column the first year of warranty after install?

Answer: The first year warranty period will begin after successful completion of installation to include acceptance testing. Yes, the first column shall be interpreted as the first year of maintenance after a successful installation for the system.

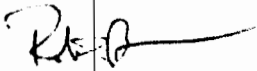
Reference: H-4, page 69

Question: Appendix H, Paragraph 4 seems to suggest that the State could authorize the winning vendor to proceed before the State has secured appropriate funding, or withhold payment until funds become available, and perhaps never pay the vendor if the appropriation is not secured. Is State's authorization to proceed with the work predicated on required funds having been appropriated?

Answer: Yes.

If you have any additional questions, please feel free to contact:

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Robert Brown, IT Manager

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Date

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March 20, 2015

Reference: 1.3 Overview of Project or High Level Statement of Work

1. Question: What does “maintenance of existing system” entail? ESC-1000 and Sentinel 911 CPE solution? Is it the Bureau’s expectation that the successful bidder will obtain a service contract with the current provider of your CPE to cover monitoring and maintenance of the system during the transition period, to include resolving pre-existing issues?

Answer: The DESC expects the winning vendor to either be able to provide support for the current system or to contract out support for the current system after the expiration of the current maintenance contract. The current maintenance contract with Cassidian/AirBus ends on 9/30/15. In the event that there is a gap between the new system going live and the old system being taken offline, the old system will still need to be maintained. DESC wants a single POC to go to for support. Due to fiscal constraints and purchasing requirements, it would be difficult to renew the existing contract with Cassidian/AirBus after signing a contract with the successful Bidder of this RFP.

2. Question: Given that NH maintains their own Exacom Recording system, TCS x Trakker mapping solution, 911 DataMaster ALI Database Platform , Valor CAD system and Medical Priorities ProQA software/Server through separate maintenance contracts with other vendors and stated a strong preference to continue to use those solutions, will the State continue to support these systems through separate contracts with their current vendors, or does the successful bidder also assume maintenance of those systems during the transition period?

Answer: The DESC will continue to support maintenance contracts for the vendors listed. The winning vendor does not need to assume maintenance of these systems.

3. Question: If the CPE implementation is delayed by the Network contract, will the successful bidder be required to maintain the system during the delay?

Answer: Yes, the winning vendor will be required to maintain the current system after the expiration of the current maintenance contract. The current maintenance contract with Cassidian/AirBus ends on 9/30/15. In the event that there is a gap between the new system going live and the old system being taken offline, the old system will still need to be maintained. DESC wants a single point of contact (POC) to go to for support. Due to fiscal constraints and purchasing requirements, it would be difficult to renew the existing contract with Cassidian/AirBus after signing a contract with the successful Bidder of this RFP.

4. Question: Will the Bureau coordinate vendor cooperation in cohabitation testing with the existing software solutions that will reside on the new CPE workstations? Will other vendors be required to have remote administrative access to the workstations?

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Answer: Yes, the DESC will coordinate vendor cooperation for the purposes of testing the winning vendor's solution with existing systems. The DESC will require full administrative access to the workstations and, if necessary, other vendors may need to access these workstations remotely on an 'as-needed' basis. Full administrative access is most likely not required.

5. Question: What support role will [SIC] the Bureau Technical staff be as it relates to not only the solution being provided, but to applications cohabitating on provided positions. Will Bureau Technical staff have administrative access to all systems?

Answer: Yes, DESC Technical Support staff will have full administrative access to all systems.

Reference: 4. Systems owned which are either NENA i3 compliant currently or will be compliant through our existing maintenance contracts at the time of implementation:

From RFP- The DESC currently utilizes microDATA xTrakker for GIS functionality in the PSAP and at the dispatch centers. This software component can be modified to handle NENA i3 data streams and, as such, we would prefer to keep this in place. Alternatives would be considered if they are seen to deliver enhanced functionality or required to function with other systems proposed. As noted above in section 1.2 the xTrakker system is also used at the remote dispatch centers integrated with Valor™ CAD.

6. Question: What handoff does the MicroData xTrakker mapping system require from the new CPE solution?

Answer: xTrakker can receive the ALI via an IP or serial-to-IP connection. Currently in the PSAP it is configured for a DLL from Sentinel to deliver data to IP port 9002. At the remote sites it is configured to be received data from Valor via a DLL over a localport IP port 9002.

Reference: C-1-B System Architecture, 1. Overview

From RFP-"...In addition, the high-end workstations shall be capable of running ancillary software such as supplemental ALI, GIS map display and search functionality, and the transfer of CAD data."

7. Question: Will New Hampshire IT staff and other Vendors require administrative access to these workstations in support of this ancillary software? Will successful bidder be required to support workstation hardware, operating system, cohabitation of third party software and managed services: virus protection, OS updates and Disaster Recovery and also allow other Vendors not under their control and Bureau IT staff administrative access to the workstations?

Answer: Yes, DESC Technical Support will need full administrative access to all systems. The winning vendor will be required to support all CPE functionality on the workstation. The DESC

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expects the successful bidder to ensure compatibility with all software to be installed on the workstations, including virus protection and supporting DESC applications. DESC Technical Support will perform maintenance of the workstation and installation of other software products. DESC Technical Support will also support Operating System issues, virus protection and Disaster Recovery per the winning vendor's specifications.

Reference: 4. Call Transfer

From RFP- All calls must have the ability to be transferred to agencies configured in a pre-defined list as well as with a manual ten-digit dial. "Speed Dial" buttons or Selective Transfer buttons should be populated for Police, Fire and Medical calls automatically based on the location of the 9-1-1 call cross-referenced with the DESC's dispatch center coverage polygons. The DESC will provide an ECRF for the purposes of determining the correct dispatch center if needed for The System. The System must be able to distinguish between agencies that are directly connected to the DESC ESINet and agencies that are not. Calls which are transferred to an agency connected to the ESINet must utilize SIP directly to the agency phone system and may be routed out through the Network Aggregator gateway in the event of a communications failure inside of the ESINet.

8. Question: Is it the successful bidder's responsibility to ensure the dispatch agencies attached to the ESINet have phone systems capable of receiving a SIP call transfer? If yes, how many locations will require this capability and how many IP phones will be required?

Answer: Yes, it is the successful bidder's responsibility to ensure we have the ability to transfer over the ESINet to the local dispatch agency. That should, at a minimum, be into a DESC/Successful Bidder provided IP phone. As an option, if possible, DESC would like to offer the local dispatch agency a demarcation SIP handoff (on-net) to the dispatch agency's phone system accessed via a Session Border Control (SBC) or some facsimile recommended by the successful bidder. There are approximately 80 sites with approximately 200 phone sets needed. DESC would prefer to see the IP phones quoted as a single phone for us to determine the number to be purchased with any price break points identified in the quote.

9. Question: If Selective Transfer Agency (STA) is determined by the FindService Request to the ECRF and the ECRF is responding back with the Primary URI/Tel URI based on the geodetic point provided by the Location object, does the Bureau want the CPE to failover to a secondary predetermined seven digit number on the PSTN if the Agency is not reachable on the ESINet? And by unreachable, does that mean Ring No Answer, Busy and destination unreachable conditions? Or will having a Secondary STA button populated from the ECRF with the FindService Request providing an alternative Secondary Tel URI for transferring to the PSTN when the Primary URI/TEL URI is not available on the ESINet for all conditions above meet this requirement?

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Answer: If the primary dispatch center is unreachable due to a connectivity failure or busy signal, then the CPE should failover to a ten-digit number routed over the PSTN. The Secondary STA buttons will be used in cases where the primary is unable to be reached either by ESINet or PSTN. The purpose of a secondary agency is for the instances where the primary site is down via ESI net and PSTN. The purpose of the PSTN connectivity is to provide a secondary route to the dispatch centers in the event of an ESINet failure or that the agency being transferred to is not on the ESI net.

Reference: 5. Supplemental ALI

From RFP- The System must have the ability to provide Supplemental Information for a caller based on a voluntary sign-up system. The SupALI component must be able to display, at a minimum, several line of additional information such as medical issues, electricity requirements, mobility concerns, etc. This information must be able to be stored on “per-phone-number” basis and it is desired that this information can also be geographically tied to an address for visual display on a map for the purposes of indicating that an issue exists at an address, regardless of the phone used to report the emergency. The SupALI system must have an administration program that allows for new entries, modification of existing entries and deletion of old entries. This administration program must also be able to produce reports on the age of the record, when it was entered, when it was modified and when the data was last verified. A self-registration website is desired for users to be able to submit their supplemental information to the DESC, conditional upon approval of this information by DESC staff.

10. Question: GIS capability must be built into Calltaker Calltaking software?

Answer: GIS functionality for call handling will be provided either by xTrakker or the GIS solution provided by winning vendor. The GIS capability of any Supplemental ALI solution should integrate into either xTrakker or the GIS solution provided by the winning vendor. The GIS capability of the proposed Supplemental ALI system must have, at a minimum, the ability to validate address data using the DESC LVF and the ability to export all Supplemental ALI data into a Shapefile or similar format for inclusion into xTrakker or replacement GIS display application provided by the winning vendor.

11. Question: Can the Self Registration website be an autonomous system or must it be integrated with SUPALI interface allowing for entries to be entered in via Submitter 1, Submitter 2 approval?

Answer: The Supplemental ALI Self Registration may be an autonomous system.

Reference: 7. Questions

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From RFP- Please describe, in detail, your solution to Supplemental ALI in C-1-B-5. Can The System accommodate land lines, VoIP lines and cell phone numbers? Can you link this information to an address? To an x/y location? Can your data be included directly on a map or must it be exported, geocoded and converted to a GIS layer first?

12. Question: Provided the civic location on a wireline call provided by the LDB, civic location/geodetic location provided by the VPC via dynamic ALI and geodetic location provided by the MPC via dynamic ALI are passed on to the XTrakker Map solution (maintained by the Bureau) via NENA standard CAD interface, will the Bureau mapping solution not present a visual presentation of the location on the Map? Does the Bureau want the CPE to present a separate map presentation on the Call taker interface of the CPE for this purpose?

Answer: The DESC desires a Supplemental ALI system that can display life-saving medical information based on both a caller's phone number and a caller's physical location. Given the example of someone with a pacemaker, the DESC would desire that a SupALI solution would display that information in text format regardless of the location of the caller. Given the example of a someone caring for an elderly family member who requires oxygen, the DESC would desire that a SupALI solution would be able to display that information in the GIS so regardless of who calls from that location, that SupALI information is available. The GIS capability of the proposed Supplemental ALI system must have, at a minimum, the ability to validate address data using the DESC LVF and the ability to export all Supplemental ALI data into a Shapefile or similar format for inclusion into xTrakker or replacement GIS display application provided by the winning vendor.

Reference: C-1-C Interfaces 6. Questions

From RFP- 4. Describe in detail any alternate GIS solution that you would recommend with The System. If proposing an alternate GIS solution, please describe in detail how that component will interface with Valor™ CAD, particularly in the remote dispatch centers.

13. Question: Provided the Optional Map interface is sourced for the remote Dispatch Centers, how many Valor CAD implementations (licenses) would be required. Does the Bureau require the Map Interface to have an integrated (Valor CAD) DLL to be developed to display the map on the Valor CAD workstation or can the Map interface display the Map autonomously from the Valor Cad system?

Answer: There are 71 machines deployed at 48 remote sites. The Optional Map interface at the remote Dispatch Centers will need to interface with ValorCAD and ideally will provide the ability to work "stand-alone". The functionality for updating the data remotely over the network should be described in your proposal and ideally minimize interruptions to operation.

Reference: C-1-D Call Handling / CPE 2. Instant Recall Recorder (IRR)

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From RFP- The System shall be equipped with IRRs at each position and interface with a master log recorder. The master log recorder is a Multi-Channel Digital Recorder. The IRRs shall be integrated with the master log recorder.

14. Question: Please expand on what integration is expected between the IRR on the position and the Bureau's Exacom Digital recorder system. In your current Exacom Digital recorder installation, is the "Live" audio on each position recorded on its own channel with an output from the Audio Control Unit of the position? IRR is usually localized on the workstation and saved as a wave file with an expiration either by number of records or specific drive space threshold. How would you want this done differently?

Answer: We require an IRR function locally for the caller to listen to previous calls from their station. We also require the ability to interface/log all calls to the Exacom Digital recorder system. These two functions can be integrated but are not required to be so.

Reference: C-1-H Implementation/Maintenance 1. Training Requirements

From RFP- Training on all system functions shall be provided by the Contractor prior to acceptance of The System. Training will include sufficient information and experience to familiarize personnel (technical staff, telecommunicators and supervisors) with system features and operations for their particular assignments. The training provided by the bidder shall take place at facilities designated by DESC. Training manuals shall be provided to all attendees and the instructor to student ratio will be no greater than 1:8. The course outline and training material should be provided with your proposal. The system implemented CPE software, etc. should be able to be replicated in a fashion to allow the creation of a "Training room" to allow the DESC to facilitate on-going training of existing staff as well as training of new employees.

15. Question: Specifically, what role will Bureau staff have in the maintenance of the system? This is critical in determining the training required. Is it the Bureau's expectation that Bureau Technical staff will have administrative access to the system? If yes, will they require administrative training on all systems? Will the Bureau require Train-the Trainer courses for their own Trainers for on-going new hire training or will the successful bidder be required to perform on-going new hire training on a per course cost?

Answer: The DESC Technical Support staff will provide all hands-on and Tier 1 support for the system as a whole (CPE, workstations, ESINet, etc). The successful bidder shall provide Tier 2 and greater support as needed. As such, DESC technical staff requires administrative access to all components of the system. As Tier 1 Support, the DESC technical support staff shall require Administrative training or vendor required certification deemed adequate by the successful bidder to provide Tier1 support including the thorough understanding of the implemented systems so as to identify and categorize troubles. Train-the-Trainer style course will be

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sufficient, assuming that proper documentation is provided for future training classes. Currently the number of Technical Support Staff to be trained would be 6.

Reference: 3. Maintenance

From RFP- The Bidder shall specify pricing for continuing maintenance of the total system after the expiration of the initial one-year warranty period. Such pricing shall be for Year 2 through Year 5. During implementation the Laconia PSAP will be shut down while the new system is implemented, routing all traffic to the Concord facility. The existing Concord PSAP equipment will need to be maintained during this time period. The bidder shall provide full maintenance service for the existing PSAP equipment located at the Concord PSAP. The maintenance service options shall be for a period of one year at a time and extend through the same time period as the new PSAP CPE and/or the existing equipment is replaced with new equipment. The bidder may submit additional (optional) service plans and pricing.

16. Question: Is it the Bureau's expectation that all bidder's will obtain a service contract with the current provider of your CPE to cover monitoring and maintenance of the system during the transition period to include resolving pre-existing issues?

Answer: The DESC will not require the winning vendor to resolve pre-existing issues with the current system. However, the winning vendor will be required to maintain the current system after the expiration of the current maintenance contract. This may be done by the successful Bidder if they possess the capability or via a sub-contracted vendor who possesses the ability. The current maintenance contract with Cassidian/AirBus ends on 9/30/15. In the event that there is a gap between the new system going live and the old system being taken offline, the old system will still need to be maintained. DESC wants a single POC to go to for support. Due to fiscal constraints and purchasing requirements, it would be difficult to renew the existing contract with Cassidian/AirBus after signing a contract with the successful Bidder of this RFP.

Reference: 6. Questions

From RFP- 1. Can you provide a training simulator software package? If yes, provide a copy with your bid.

17. Question: Is the training simulator software package to be provided as an option separate from the RFP Response pricing? How many positions do you require in your Training simulator?

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Answer: The DESC requires 16 positions plus one supervisor position for the training simulator or training room. The training room is not an option, it is required. Please *Reference: C-1-H Implementation/Maintenance 1. Training Requirements.* Specifically, the system implemented CPE software, etc. should be able to be replicated in a fashion to allow the creation of a "Training room" to allow the DESC to facilitate on-going training of existing staff as well as training of new employees. The DESC is requesting Bidders to provide a copy, if available, for us to preview (*From RFP- 4. How will the DESC be prepared to conduct ongoing training after Implementation is completed?*)

18. Question: Will the Bureau require Train-the Trainer courses for their own Trainers for on-going new hire training or will the successful bidder be required to perform on-going new hire training on a 'per course' cost?

Answer: The DESC will assume all training for new hires (Supervisors and Telecommunicators) once the Train-the-Trainer classes have concluded. We would be interested in a 'per course' cost for our technical staff.

Reference: C-1-B System Architecture

From RFP- 2. The System shall be capable of displaying all current 9-1-1 calls on a map utilizing GIS data provided by the DESC. (i.e. no "Google maps" or similar)

19. Question: Is the Bureau requiring a map display integrated into the Calltaking software or simply that the CPE will provide a NENA Standard interface to their xTrakker mapping system?

Answer: The DESC is requiring that the CPE has a map interface for the purposes of displaying aggregate live call data. DESC is looking for this map display to be at the Supervisor's workstation or possibly on to a wall display.

Reference: C-1-D-2 Call Handling - IRR

From RFP- 2. System must have the ability to record both telephony and radio audio. Recording shall be available for playback during or after a call

20. Question: Is it a requirement of the system to have radio functionality built into the CPE software or only to allow radio arbitration. If only radio arbitration, this is usually recorded on a separate channel on the House recording system and not a function of the IRR. Please clarify this requirement.

Answer: We do not require radio audio recording as we do not do radio dispatch in today's configuration. However, the system should at least be capable of incorporating or integrating with radio function, if at a later date it is needed. The DESC would expect this additional

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function to be at an additional cost later, but, again, the compatibility should be there in the event DESC's future functions expand.

Reference: C-2 DETAILED REQUIREMENTS

21. Question: In Table C-2 "General System Requirements – Vendor Response Checklist" section C-1C-G #27 (et al), we need more detail on the MIS requirements. In particular, they asked for the ability to relate certain calls automatically. What would this be based on, time, distance?

Answer: The DESC is looking for the ability to select several calls for service and designate them as related, manually. Then later be able to automatically retrieve all calls related to a particular event ID or some similar designation. The system should allow filters to display calls based on a time frame or location to assist with relating calls.

Reference: 4.18.9 Section VI: Qualifications of Key Vendor Staff

22. Question: Please provide instructions for E-2, E-3, E-4 in Appendix E.

Answer: 4.18.9 Section VII Cost Proposal (p. 21) refers to Appendix E, sections 2, 3, and 4. Appendix E begins on page 59. RFP is missing these 3 sections in Appendix E. See Addendum C for proper information.

22A. Question:

1. Who is responsible for providing Layer 3 network devices to aggregate, and route all network connectivity being provided by the Network provider? Who is responsible for managing and supporting these Layer 3 devices as it pertains to the ESINet between Concord PSAP and Laconia PSAP: Aggregation routers, PSAP Switches for workstation connectivity; routers, switches and firewalls supporting DMZ for inbound IP connectivity from other carriers or untrusted networks.
2. Same question...but only as it relates to CES ELAN network to the Dispatch centers: Who is responsible for providing Layer 3 network devices to aggregate, and route all network connectivity being provided by the Network provider? Who is responsible for managing and supporting these Layer 3 devices as it pertains to Switches, Routers, Firewalls and SIP capable phones? How many Dispatch Centers would require a router, switch or SIP phone if the Bidder is responsible for providing, managing and supporting this?

Answer: Today, the routers supporting this network are Cisco 891s. These will most likely need to be updated. We are looking for the successful bidder to evaluate this network and specify necessary requirements/upgrades to make the network suitable to serve as the DESC ESINet (NH Statewide) allowing call and data transfer to the local dispatch agencies. The CE network today is a FairPoint network. The successful bidder will be responsible for necessary design,

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configuration, and support beyond Tier 1 support. Once built, tested and deemed adequate, DESC staff will provide Tier 1 coordination with Network provider and hands on support. We would look for Tier 2 and beyond support on routers and other border elements proposed by successful bidder.

Reference: C1A3 – call delivery and handling

23. Question: Does the new system acquire [SIC] SS7 capability given the stated desire to move towards a next generation system? Can an alternative approach such as by i3 call delivery termination be offered?

Answer: No, all call delivery will come in via SIP from the contracted network provider.

Reference: C1B4 – call transfer

24. Question: Can the State provide a list of agency phone system manufacturers and models in use that are capable of direct SIP connections?

Answer: The call transfer over the ESINet would be into a DESC/Successful Bidder provided IP phone connected to successful bidder's/DESC system. As an option, if possible, DESC would like to offer the local dispatch agency a demarcation SIP handoff (on-net) to the dispatch agency's phone system accessed via a Session Border Control (SBC) or some facsimile recommended by the successful bidder.

Reference: C1B5 – supplemental ALI

25. Question: Does the system need to interface to a Supplemental ALI system [sic] such as the Datamaster system in use by the State including the self-registration website or does the State desire something in addition to the Datamaster capabilities to provide this functionality?

Answer: The DESC is currently using a custom-developed SupALI solution and is interested in replacing that system with a new system, as long as it meets the requirements. The SupALI functionality in the Datamaster ALI Server product does not meet the requirements for the DESC so it is not currently in use. The DESC desires a Supplemental ALI system that can display life-saving medical information based on both a caller's phone number and a caller's physical location. Given the example of someone with a pacemaker, the DESC would desire that a SupALI solution would display that information in text format regardless of the location of the caller. Given the example of a someone caring for an elderly family member who requires oxygen, the DESC would desire that a SupALI solution would be able to display that information in the GIS so regardless of who calls from that location, that SupALI information is available. The GIS capability of the proposed Supplemental ALI system must have, at a minimum, the ability to validate address data using the DESC LVF and the ability to export all Supplemental ALI

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data into a Shapefile or similar format for inclusion into xTrakker or replacement GIS display application provided by the winning vendor.

Reference: C1C1 – computer-aided dispatch

26. Question: will the state provide the PCs on which the CPE software and computer-aided dispatch will reside or should the CPE proposer provide PCs for this purpose?

Answer: The Bidder's should provide the cost of purchasing the workstations as an option. The DESC could procure the workstations based on the specification provided by the winning vendor.

Reference: C1C4 – master log recording

27. Question: What level of compatibility is desired with Exacom?

Answer: The system proposed should be fully compatible with Exacom. All calls for service should be recorded.

Reference: C1F4 – system monitoring and administration

28. Question: Does the State desire a monitoring capability that will proactively respond to alerts from the monitoring system? This could involve remote access into the system to analyze and/or resolve the issue. This could also involve providing reporting on alerts and subsequent tracking of issues related to the alerts. This type of service is often referred to as a managed service for monitoring which is more robust than a simple alarm that an issue may exist.

Answer: The DESC does not require monitoring capability. However, if it is a service that is available, the DESC would welcome this service to be described and offered as an optional component.

Reference: IP Connection between PSAPs

29. Question: Will the State supply the required IP connection between PSAPs until the new ESINet is installed, or should the cost of this IP connection be included in the proposal?

Answer: The Carrier-Over-Ethernet connections to the 78 dispatch centers and both PSAPs are currently in operation. The State also has a microwave link between the two sites. And finally, we have available 4 T1 circuits as well.

Reference: Response format

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30. Question: Should a point by point response be provided for Appendix C-1 or should responses only be provided for Sections titled Questions?

Answer: The DESC requires that the specific questions sub-sections be responded to directly. If a vendor wishes to expand upon any topic in Appendix C-1, that may be included at the end of each section's responses. For example, a vendor may respond to section C-1-B first by answering the 6 questions in the questions section and then expand upon any item in C-1-B before answering the questions for C-1-C.

31. Question: Please explain how Appendix C-2 should be completed. Please explain the meaning of the two column titles M/O and Y/M/N. If the column titled M/O represents 'Mandatory and Optional' does the lack of an "M" mean optional (there are not any "O's" in the column).

Answer: M/O is for 'Mandatory or Optional' and all items should be marked 'M' for Mandatory. Items that are not marked should be considered Mandatory. The potential vendor should respond to Appendix C-2 in the Y/M/N column with a 'Y' for Yes if the proposal complies, 'N' for No if the proposal does not comply, or 'M' for Maybe with description of how the proposal may comply.

Reference: Section 1, page 1

32. Question: The Introduction states "the system should implement as many NENA i3 solution components as possible," but the body of the RFP makes no mention of many of these components such as an ESRP. Which specific elements are required?

Answer: We described the functions we are looking for in our system. The successful bidder will utilize the necessary i3 components or other necessary design/equipment to fulfill those requirements. You may choose to use an ESRP to determine how the call transfer may utilize the ESINet for call transfer or the PSTN where another bidder's system may utilize a router to serve the same function.

Reference: Section 4.18.9, page 21

33. Question: Section 4.18.9 of the RFP states, "This Proposal section must be used to provide required information on key Vendor staff. Specific information to be provided is described in Sections: E-2: Team Organization and Designation of key Vendor staff; E-3: Candidates for Project Manager; and E-4: Candidates for key Vendor staff Roles, of Appendix E: Standards for Describing Vendor Qualifications." Please provide E-2, E-3 and E-4.

Answer: 4.18.9 Section VII Cost Proposal (p. 21) refers to Appendix E, sections 2, 3, and 4. Appendix E begins on page 59. RFP is missing these 3 sections in Appendix E. See Addendum C for proper information.

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Reference: Section 4.18.12, page 22

34. Question: Section 4.18.12 of the RFP states, "Section IX: Appendix- This section provided for extra materials as referenced in Appendix D- Topic O-Product Literature,". This referenced information "Topic O" cannot be found in the RFP. Please provide.

Answer: Delete 4.18.12 Section IX: Appendix (p. 22). It will not be used in this RFP.

Reference: C-1-A-2-f, page 30; C-1-A-4, page 31

35. Question: Page 31 states, "The DESC currently utilizes ProQA for emergency medical dispatching and would prefer that this solution is able to integrate fully into any proposed systems." Page 30 states, "We will soon be upgrading to Paramount."

What is the Paramount upgrade timeline, and what integration effort and interface is required?

Answer: Paramount will be deployed prior to the installation and implementation of any successful bidder's solution. Today, the MPDS software is integrated through the Valor CAD system, which will remain; we would want to be made aware of any advantages or additional integration possible for future use with your proposed solution. This is especially true for the vendor's proposed text messaging solution. Our current GEM911 text messaging solution does not integrate with ProQA to allow for easier medical instructions to be sent to texting customers requiring EMD.

Reference: C-1-A-3, page 30

36. Question: The RFP states "Both PSAPs utilize 54 trunks (27 to each) delivered from diverse and redundant COs via SS7."

A: Please provide further details on what equipment these SS7 trunks are currently being terminated to the existing PSAP CPE.

B: At both the Concord and Laconia locations, are the current PSAP systems connected to an administration PBX? If they are, please provide details of the PBX systems such as MFG, model, and version with type and quantity of connection/interface from each Admin PBX to the PSAP CPE system.

Answer: A. The SS7 connects from the carriers to the NH9-1-1 network provider and the "network aggregator" then delivers the calls to each of the PSAPs respective ECS1000 via 27 CAMA trunks from each redundant and diverse CO for a total of 54 CAMA trunks to each PSAP and a total of 108 trunks for both combined.

b. Each PSAP has 10 Centrex analog lines setup in a hunt group, which are terminated directly in to the ECS1000.

Reference: C-1-A-4, page 31

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37. Question: Does the State currently maintain its GIS datasets using either the Next Generation 9-1-1 Data Model or CLDXF? If not, what standards are being used for the GIS data and would the State be open to updating these standards to Next Generation 9-1-1?

Answer: The NG9-1-1 GIS data model has not been approved by the NENA standards body. However, the DESC is able to export all GIS data to match the required elements of the current proposed NG9-1-1 GIS data model.

Reference: C-1-B-1, page 31

38. Question: As the solution is IP based, does DESC have a preferred routing and switching OEM solution?

Answer: No preference, we want to implement what the successful bidder recommends and uses “common” at all of their similar installations. “Similar” means in size and complexity. The DESC employs technicians with Cisco certifications and familiarity with Cisco equipment, but we feel this knowledge and skill base will translate easily to other platforms.

Reference: C-1-B-1, page 31

39. Question: In section one of the system architecture overview you state that the system should have the ability to route with appropriate Border Control Function (BCF) or firewalls at each point of access. Is a BCF at each point of ingress and egress required, per the NENA 08-003 v.2 standard?

Answer: Page 31 of our RFP states - “The System should have the ability for rules-based call routing and include appropriate Border Control Functions (BCF) or firewalls at each point of access.” DESC is not aware if NENA 08-003v.2 has this information but NENA 75-001 v.1 Security for Next-Generation 9-1-1 (NG-SEC) does state on page 57 section 9.1 – “The NG9-1-1 Entity responsible for the network shall identify and classify network segments (e.g., call taker networks, CAD networks, etc...) based on their business and technical functions so that the appropriate levels of protection can be configured for each segment. All boundaries or points in ingress and egress shall be clearly defined for every network. These may include external network connections, dual homed servers or other points of contact with other networks of different classification.”

Reference: C-1-B-1, pages 31-32

40. Question: What is the preferred interface type for the TCS xTrakker? Please detail the physical interface.

Answer: xTrakker can receive the ALI via an IP or serial-to-IP connection. Currently in the PSAP it is configured for a DLL from Sentinel to deliver data to IP port 9002. At the remote sites, it is

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configured to be received data from Valor via a DLL over a localport IP port 9002. **Reference:** C-1-C-3, page 35

41. Question: A. Does the DESC require retrieving ALI data via a landline database through a Legacy Selective Router Gateway (LSRG) and from VPCs and MPCs over the E2 circuits?

B. Will the DBMS serve the role of Location Database (LDB) in this configuration in compliance with NENA 08-003 requirements?

C. Does the DESC require interfaces with the multiple LDB servers located in Concord and Laconia and with other carriers?

Answer:

A. If the winning solution requires PIDF-LO, yes. However, given that there are no current carriers or providers that are offering PIDF-LO natively at this time, the DESC will accept a solution that is "PIDF-LO" capable without actually implementing that at this time.

B. Yes

C. Yes

Reference: C-1-C-4, page 35

42. Question: Is the existing Exacom Hindsight system compliant with NENA 08-003 Logging System requirements? If not, should we include necessary upgrades?

Answer: Necessary upgrades will be done through existing maintenance contracts with Exacom directly through the State. If your proposed system requires additional integration beyond Exacom's standard interfaces, then this should be provided.

Reference: C-1-C-5, page 35

43. Question: A. Is the existing Spetracom Netclock model 9483 compliant with NENA 08-003 and NENA 04-002 requirements?

B. Can the State provide the currently Spetracom Netclock model 9483 configuration?

C. How many spare ports are there?

Answer: These are the Netclocks currently in operation. If they are not deemed compliant or not part of the vendor's recommended solution, then that vendor should include necessary equipment to ensure accurate times. If they are deemed suitable, the DESC would want to reconfigure the Netclocks to a configuration recommended by the vendor so that we are in line with their typical installation for ease of support. Current configuration -

4 – 10/100/1000 Ethernet ports

- Eth0 configured to Concord PSAP network via cat 5 to VLAN 107 Port IP:

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- Eth1 configured to Concord Admin Network via Cat 5 to VLAN 105 Port IP:
- Eth2 configured to Carrier Network Port IP:
- Eth3 not configured – TBD

1 – RS-232 Serial Port

- To SMART terminal on Com Port 2
- Baud Rate: 9600 Parity: None Stop Bits: 1 Data Format: NTCL#0 (configured through the SMART CLI)

Reference: C-1-D-4, page 37

44. Question: The requirements list an ALI Retrieval System Interface (C-1-D-4). Since DESC requests NENA i3 solutions, do you prefer to use Next Generation 9-1-1 data streams including PIDF-LO and Additional Data served by an LDB or similar?

Answer: It is our understanding that no carriers today are using a LIS or delivering PIDF-LO. We want to ensure the system implemented has the ability to adapt and utilize PIDF-LO natively when readily available from the service providers. However, the DESC is open to utilizing PIDF-LO internally if required by the successful bidder's solution.

Reference: C-1-D-23, page 40

45. Question: The console shall provide an audio management device allowing the connection of up to three headsets, a long term recorder, a radio console call director and auxiliary audio inputs. Could you explain in more detail this requirement?

Answer: The console should allow three headsets to connect for training purposes and supervisory function to listen to a call at the console regardless of Supervisor function or 'barge in' function from Supervisor's console. The system needs IRR function and interface with Exacom as previously described. We do not require radio audio recording as we do not do radio dispatch in today's configuration. However, the system should at least be capable of incorporating or integrating with radio function, if at a later date it is needed. The DESC would expect this additional function to be at an additional cost later, but, again, the compatibility should be there in the event DESC's future functions expand.

Reference: C-1-D-26, page 41

46. Question: The RFP states "Headsets should be compatible with current standards and as an option have the ability to use wireless headsets." "Current standards" can possibly be misinterpreted. Please provide further details or provide examples or headset model(s) preferred or being used for reference. Also, please provide quantities as some customers prefer one headset per dispatcher and some even with spare headsets.

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Answer: Compatible headsets should be easily attained via typical outlets and not be proprietary. Pricing should be listed as (1)ea with any price break points identified. As an approximation, we believe 100 to start but, this is somewhat of a consumable given employee turnover and wear and tear.

Reference: C-1-E-4, page 44

47. Question: A. Will the DESC providing the external display unit or requesting contractor to provide?

B. If DESC will be providing the unit, please provide details of the display unit and physical interface.

C. If contractor is to propose the display unit, please specify size and type of the external display unit desired.

Answer: This requirement states that the system “shall be capable” of interfacing or displaying the listed data on to a wall display not to provide one. As an option, please include bidder’s recommendation for an external LCD display at a minimum of 60 inch and necessary mounting equipment.

Reference: C-1-H-2, page 47

48. Question: Should the Vendor provide an additional 24x7 security monitoring service integrated with the remote maintenance and management?

Answer: Yes, as an option.

Reference: C-1-H-3, page 47

49. Question: Should the Vendor provide maintenance of all existing systems between the time the contract is awarded and the time that cut-over to the new system is accomplished for equipment listed in Appendix C-1-A, paragraph 2?

Answer: The winning vendor will be required to maintain the current CPE system after the expiration of the current maintenance contract. This may be done by the successful Bidder if they possess the capability or via a sub-contracted vendor who possesses the ability. The current maintenance contract with Cassidian/AirBus ends on 9/30/15. In the event that there is a gap between the new system going live and the old system being taken offline, the old system will still need to be maintained. DESC wants a single POC to go to for support. Due to fiscal constraints and purchasing requirements, it would be difficult to renew the existing contract with Cassidian/AirBus after signing a contract with the successful Bidder of this RFP.

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Reference: C-2, page 48

50. Question: Please provide instructions for clarification on how Table C-2 should be populated including definitions for the column headers “M/O” and “Y/M/N.”

Answer: M/O is for ‘Mandatory’ or ‘Optional’ and all items should be marked ‘M’ for Mandatory. Items that are not marked should be considered Mandatory. The potential vendor should respond to Appendix C-2 in the Y/M/N column with a ‘Y’ for Yes if the proposal complies, ‘N’ for No if the proposal does not comply, or ‘M’ for Maybe with description of how the proposal may comply.

Reference: C-2, Table C-2, C-1-B, row 1, page 49

51. Question: The RFP states “The System components shall be i3 compliant.” Per the NENA 08-003 revision 2 document, does the State require that the solution include LSRG, ESRP, and PRF?

Answer: We described the functions we are looking for in our system the successful bidder will utilize the necessary i3 components or other necessary design/equipment to fulfill those requirements. You may choose to use an ESRP to determine how the call transfer may utilize the ESINet for call transfer or the PSTN where another bidder’s system may utilize a router to serve the same function. However, if the vendor chooses a solution that does not utilize an ESRP, the vendor must demonstrate how the solution is capable of incorporating an ESRP in the future.

Reference: C-2, Table C-2, C-1-G, row 28, page 55

52. Question: As part of the MIS events and reporting requirements, does DESC require the Vendor to provide the following network monitoring and management capability:

- A. Network Performance Report?
- B. Network Traffic Report?
- C. IP Address Report?
- D. Server and Application Status Report?
- E. Network Configuration Management Report?

Answer: Any additional reports that can be offered or provided that are believed to be beneficial to the maintenance or management of the solution proposed should be included.

Reference: RFP page 33, paragraph 4.

Question 53: “The System must be able to distinguish between agencies that are directly connected to the DESC ESINet and agencies that are not”. This suggests that DESC is requesting a Geo-Spatial Router to meet the RFP specifications. Please confirm whether this is correct and,

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if so, will would [SIC] DESC entertain splitting the RFP into routing and CPE controller requirements?"

Answer: The DESC is not specifically requesting a Geo-Spatial Router, however, a NENA-complaint ESRP could be used to perform this functionality. The DESC will not entertain splitting this RFP into two components.

Reference: 3.1 Complete On-Site Solution

Question 54: Will the State consider a partial response from a proposer that addresses a specific area of the overall solution, provided the specific response is capable of meeting the stated requirement(s) and is compatible with the selected call taking solution?

Answer: No.

Reference: C-1-G second paragraph & C-2 Detailed Requirements item 35 – “It shall be an onsite solution...”

Question 55: Is there a state or local regulation that prohibits cloud based analytical systems? If not, is there a particular concern that can be addressed within the RFP response?

Answer: The DESC is unaware of any regulation prohibiting cloud-based systems. However, the DESC is requiring an on-site solution.

Reference: C-1-G subsection 2. Call Detail Records – “The PSAP equipment shall have the ability to provide call detail records after every terminated 9-1-1 call. The record should include, but should not be limited to, ANI, seizure time, position answered, answer time, disconnect time, incoming trunk number, etc. These should be in a report format, as opposed to raw data format.”

Question 56: Typically CDR data is presented in a raw data format and then parsed. Is request that the final reports generated by the system be in report format?

Answer: Yes.

Reference: C-1-G subsection 3. Questions item 3

Question 57: Is the responsibility of solution integration for reporting purposes that of the originating technology vendor?

Answer: The winning vendor must work with the other technology vendors in order to complete the requirements of the MIS system.

Reference: C-1-G subsection 3. Questions item 5

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Question 58: Does the State of NH expect to migrate existing data to new platforms? If so, how many years of data do you anticipate migrating?

Answer: No.

Question 59: What is your total annual call volume (911 and Admin)?

Answer: Please see the chart provided in the Bidder's Conference section.

Question 60: *We would like to request that the State grant a thirty (30) day time extension to respond.*

Answer: All responses are due April 1st. We are adhering to the Schedule of Events.

Reference: *Pages 10 and 19*

Question 61: There seems to be a conflict of due dates. Is the correct due date April 20, 2015 at 2:30pm?

Answer: All responses are due April 1st. Please see addendum B found at the same State website where the original RFP was posted.

Reference: *Page 6 – Section 1*

Question 62: What traffic does the CE Network carry today (i.e. CAD data only, voice calls, etc.)?

Answer: CAD data with occasional VoIP traffic for backup purposes to IP phones at the dispatch centers.

Reference: *Page 8 – Section 1.3*

Question 63: Responsibility includes Maintenance of the existing system. What level of maintenance is required; Tier 1 which includes responding to routine troubles or Tier II and above as a support arm to the State's technical staff?

Answer: The DESC requires Tier II support of the system.

Reference: *Page 25 – Section 5.4.1*

Question 64: The last sentence is incomplete missing the last word or statement.

Answer: Please replace the last sentence as follows: "These points will include, but not be limited to, the following sub-factors for the Solution: Overall Fit, features and Optional Features and Usability."

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Reference: Page 30 – Section C-1-A Item # 2c

Question 65: Regarding the statement “The other half receive the CAD spill into their own CAD system via a standard NENA ANI/ALI spill over TCP/IP”. Please describe the physical interface between the existing Sentinel 9-1-1 system and these other CAD systems (i.e. is there an individual ALI spill sent to each location from the Sentinel system or does the Sentinel spill to a host/server that then distributes the ALI to the appropriate end site?)

Answer: The Valor Mini-CAD application on the PSAP workstations will send an IP ALI Stream to the appropriate dispatch center with a one-click transfer.

Reference: Page 30 – Section C-1-A Item # 2e

Question 66: Does the MicroData mapping solution utilize an ALI spill directly from the Sentinel system today or does it take ALI from the CAD system?

Answer: xTrakker can receive the ALI via an IP or serial-to-IP connection. Currently in the PSAP it is configured for a DLL from Sentinel to deliver data to IP port 9002. At the remote sites it is configured to be received data from Valor via a DLL over a localport IP port 9002.

Reference: Page 30 – Section C-1-A Item # 2f

Question 67: Does the Medical Priority Dispatch system require an ALI spill of its own?

Answer: No.

Reference: Page 31 – Section C-1-B Item #1

Question 68: The statement reads “The system should also utilize an IP based VoIP network for call transfer/delivery to local dispatch centers (ESI Net)...” Is there an IP network in place today to support this ESI Net functionality? If not, is the State expecting this ESI Net to be included in this RFP response or will the State procure that separately?

Answer: There is a 50 mbps Carrier-over-Ethernet network connecting Laconia and Concord PSAPs and a 1 mbps connection out to each dispatch center. It is the responsibility of the winning vendor to evaluate this network and establish if it is suitable as a backbone for an ESINet. See other listed questions previously answered on this topic for additional information.

Reference: Page 34– Section C-1-C Item # 1

Question 69: The statement reads “The bidder’s CPE software shall run on the same workstation as the DESC Valor CAD system software.” Are you asking that the CPE software be

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loaded on existing CAD workstations or do you require new workstations with this procurement?

Answer: New workstations are required for this system. The DESC would like an optional quote for workstations should the Division choose to purchase the workstations through the RFP process. At a minimum, the bidders should respond with minimum required workstation specifications for their proposed solution.

Reference: Page 41 – Item # 26

Question 70: How many headsets do you require?

Answer: Please provide a per-unit cost with any price break points available. We consider these consumable due to turnover and wear and tear, we anticipate purchasing approximately 100 ea.

Reference: Page 44 –Item # 4

Question 71: Will the State provide the electronic wallboard(s) or do you require them to be included with the bid and if so how many for each site?

Answer: The DESC requires the ability to display a status map on the wall of both the Laconia and Concord PSAPs.

Reference: Page 45 – Section C-1-G

Question 72: What is the annual call volume for both 9-1-1 and administrative calls?

Answer: Please see the chart provided in the Bidder's Conference section.

Reference: Page 46 – Section C-1-H Item # 1

Question 73: Please provide the quantity of people in each personnel group for training purposes. Do you prefer direct training of each call-taker/dispatcher or are train-the-trainer sessions preferable?

Answer: End-user training will be a train-the-trainer class of approximately 5 people. Technical training will be for all DESC Technical Support staff and should be both ongoing during installation and formally once the system has been completed for 6 people.

Reference: C-1-B System Architecture

Question 74: In for example, Section C-1-B System Architecture, there are number of subsections. Do you only require the vendor to respond to the specific questions at the end of

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the sections? Such as in the case of C-1-B, the vendor would respond to the questions in sub-section 7.

Answer: Yes.

Reference: 4.18.9 Section VI: Qualifications of Key Vendor Staff

Question 75: Section E-2 Team Organization and Designation of Key Vendor Staff is referenced, but there doesn't appear to be a Section E-2 in the appendices. Was it omitted?

Answer: 4.18.9 Section VII Cost Proposal (p. 21) refers to Appendix E, sections 2, 3, and 4. Appendix E begins on page 59. RFP is missing these 3 sections in Appendix E. See Addendum C for proper information.

Reference: RFP page 21, Section 4.18.9, Section VI: Qualification of Key Vendor Staff,

Question 76: "Specific information to be provided is described in Sections: E-2: Team Organization and Designation of key Vendor staff; E-3: Candidates for Project Manager; and E-4: Candidates for key Vendor staff Roles, of Appendix E: Standards for Describing Vendor Qualifications". RFP Appendix E does not contain sections E-2, E-3, or E-4. Please provide the missing requirements.

Answer: 4.18.9 Section VII Cost Proposal (p. 21) refers to Appendix E, sections 2, 3, and 4. Appendix E begins on page 59. RFP is missing these 3 sections in Appendix E. See Addendum C for proper information.

Reference: RFP page 59, Appendix D

Question 77: contains a table with a Topic entitled "PSAP Management Features" and indicates the Scope of Work location for the response is section C-1-E-13. Scope of Work Section C-1-E ends at C-1-E-7. Should vendors substitute C-1-E-7 for C-1-E-13?

Answer: Yes.

Reference: On RFP page 48, Table C- General System Requirements

Question 78: Vendor Response Checklist, the table heading for column 4 reads "Y/M/N (SEE ABOVE)". As the RFP provides no explanation of this, please provide explicit instructions. In addition, please confirm whether vendors can expand the Vendor Comments column width in order to accommodate the required narrative responses

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Answer: M/O is for 'Mandatory' or 'Optional' and all items should be marked 'M' for Mandatory. Items that are not marked should be considered Mandatory. The potential vendor should respond to Appendix C-2 in the 'Y/M/N' column with a 'Y' for Yes if the proposal complies, 'N' for No if the proposal does not comply, or 'M' for Maybe with description of how the proposal may comply. The vendor may expand the Comments column.

Reference: RFP page 21, Section 4.18.12, Section IX

Question 79: Appendix, states "This section provided for extra materials as referenced in Appendix D- Topic O-Product Literature". Appendix D does not contain a Topic O. Please provide details regarding the required content.

Answer: Delete 4.18.12 Section IX: Appendix (p. 22). This will not be used in this RFP.

Reference: On RFP page 57, Table C-3 Deliverables

Question 80: Vendor Response Checklist, it is unclear how vendors are to respond to the table. For example, the table contains a column titled "Explain how your solution meets the requirements. Cite the page of your proposal". One of the rows to respond to is "Implementation Plan", but there is no requirement in the RFP for an implementation plan. Please clarify exactly how vendors should respond to Table C-3.

Answer: In the above example, vendors should insert the page number of their proposal that corresponds to the location of the implementation plan in the vendor's response to this RFP.

Reference: RFP page 20, Section 4.18.6, Section III:

Question 81: Responses to Detailed Requirements and Deliverables, states "Using the response tables in Appendix C, the Vendor must document the ability to meet the Requirements and Deliverables of this RFP". RFP page 21, Section 4.18.7, Section IV: Narrative Responses, states "Section IV solicits narrative responses describing the Software, Technical, Services and Project Management topics defined for this RFP Project. Appendix D: Topics for Mandatory Narrative Responses is organized into sections, which correspond to the different deliverables or aspects of the scoring process of the Proposal. Discussion of each topic must begin on a new page". Please confirm that vendors are expected to respond to Tables C-2 and C-3 and the Topics noted in Appendix 4 only and that DESC is not expecting a line-by-line response to all the requirements listed in C-1 Scope of Work

Answer: The DESC is not expecting a line-by-line response to C-1. The DESC is expecting a line-by-line response to C-2. Appendix D was designed to point the vendor to the specific sections of C-1 that need to be responded to directly.

Reference: RFP page 9, Section 2 Schedule of Events

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Question 82: Vendor Selection and Contract Negotiations will begin on or about 5/1/15. RFP page 16, Section 4.15 Required Contract Terms and Conditions states that “Appendix H: State of New Hampshire Terms and Conditions shall form the basis of any Contract resulting from this RFP. In the event of any conflict between the State’s terms and conditions and any portion of the Vendor’s Proposal, the State’s terms and conditions shall take precedence and supersede any and all such conflicting terms and conditions contained in the Vendor’s Proposal”.

Please confirm whether the State is open to negotiating the contract to include clarifications and/or additional language including but not limited to mutual terms for protection of confidential information and termination due to material breach; indemnification and limitation of liability; warranties; and software license provisions

Answer: We cannot negotiate the terms and conditions as these are set to facilitate the P-37 NH Standardized Contract format and is established by the AG’s office.

Reference: *RFP page 33, paragraph 4.*

Question 83: Call Transfer, states “The System must be able to distinguish between agencies that are directly connected to the DESC ESINet and agencies that are not”. This suggests that DESC is requesting a Geo-Spatial Router to meet the RFP specifications. Please confirm whether this is correct, and, if so, will would DESC entertain splitting the RFP into routing and CPE controller requirements

Answer: The DESC is not specifically requesting a Geo-Spatial Router, however a NENA-complaint ESRP could be used to perform this functionality. The DESC will not entertain splitting this RFP into two components.

Reference: *Section 1.2*

Question 84: The RFP requires the vendor to commence work by June 30, 2015. How does the State define “commence work”?

Answer: Kickoff Meeting.

Reference: *Section 1.3*

Question 85: Maintenance of the existing system would seem more appropriately available through the incumbent provider. This requirement may preclude other vendors apart from the incumbent from being able to assume that responsibility. Is that what the State intends or can this requirement be reconsidered?

Answer: Yes, the winning vendor will be required to maintain the current system after the expiration of the current maintenance contract. This may be done by the successful Bidder if

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they possess the capability or via a sub-contracted vendor who possesses the ability. The current maintenance contract with Cassidian/AirBus ends on 9/30/15. In the event that there is a gap between the new system going live and the old system being taken offline the old system will still need to be maintained. DESC wants a single POC to go to for support. Due to fiscal constraints and purchasing requirements it would be difficult to renew the existing contract with Cassidian/AirBus after signing a contract with the successful Bidder of this RFP.

Reference: Section 1.6

Question 86: The RFP indicates that the details of a Contractor's proposal are last in order of precedence in the event of conflict or ambiguity among the Contract materials. However, if details of a proposal do not take priority over the terms of the RFP, the purpose of responding to the RFP will be negated. The State can assess the details of the proposal in making its determination of the acceptability of such details in selecting the successful proposal for the project. Please confirm whether the potential order of precedence can be negotiated and/or adjusted.

Answer: This is non-negotiable.

Reference: Section 4.1, 4.2

Question 87: The RFP indicates that the details of a Contractor's proposal are last in order of precedence in the event of conflict or ambiguity among the Contract materials. However, if details of a proposal do not take priority over the terms of the RFP, the purpose of responding to the RFP will be negated. The State can assess the details of the proposal in making its determination of the acceptability of such details in selecting the successful proposal for the project. Please confirm whether the potential order of precedence can be negotiated and/or adjusted.

Answer: This is non-negotiable.

Reference: Section 4.1

Question 88: The RFP states that the electronic copy should be in Microsoft Word and PDF format. Are any pieces of the proposal required to be submitted in Word format, or can we submit the entire proposal in PDF format?

Answer: It is acceptable to submit the entire proposal and pricing material in PDF format.

Reference: Section 4.3

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Question 89: The RFP states that answers to inquiries and any requested changes to terms and conditions will be posted to the website. Please confirm the URL of the website is <http://das.nh.gov/purchasing/specrfp.asp?rfpID=9420>.

Answer: Yes, the official link to the RFP and addenda is:

<http://das.nh.gov/purchasing/specRFP.asp?rfpID=9420>

Reference: Section 4.15

Question 90: The RFP indicates that the details of a Contractor's proposal are last in order of precedence in the event of conflict or ambiguity among the Contract materials. However, if details of a proposal do not take priority over the terms of the RFP, the purpose of responding to the RFP will be negated. The State can assess the details of the proposal in making its determination of the acceptability of such details in selecting the successful proposal for the project. Please confirm whether the potential order of precedence can be negotiated and/or adjusted.

Answer: This is non-negotiable.

Reference: Section 4.18.2

Question 91: If we cannot make any clarifications to the Terms and Conditions, how should we incorporate standard license terms and conditions?

Answer: Special provisions can be agreed to and included in the final contract.

Reference: Section 4.18.9

Question 92: The RFP states that Section VI of the proposal should include information described in Sections E-2, E-3, and E-4 of Appendix E. Appendix E does not appear to contain these sections. Please provide the requirements.

Answer: 4.18.9 Section VII Cost Proposal (p. 21) refers to Appendix E, sections 2, 3, and 4. Appendix E begins on page 59. RFP is missing these 3 sections in Appendix E. See Addendum C for proper information.

Reference: Section 4.18.12

Question 93: The RFP states that Section IX of the proposal should include extra materials as referenced in Appendix D - Topic O - Product Literature. There does not appear to be a Topic O in Appendix D. Please provide the description or requirement for these extra materials.

Answer: Delete 4.18.12 Section IX: Appendix (p. 22). It will not be used in this RFP.

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Reference: Section 5.4.1

Question 94: The paragraph ends with “and”. Please confirm the sub-factors for the proposed solution are overall fit, features and optional features, and usability.

Answer: Please replace the last sentence as follows: “These points will include, but not be limited to, the following sub-factors for the Solution: Overall Fit, features and Optional Features and Usability.”

Reference: Section C-1-H.3

Question 95: Maintenance of the existing system would seem more appropriately available through the incumbent provider. This requirement may preclude other vendors apart from the incumbent from being able to assume that responsibility. Is that what the State intends or can this requirement be reconsidered?

Answer: The winning vendor will be required to maintain the current system after the expiration of the current maintenance contract. This may be done by the successful Bidder if they possess the capability or via a sub-contracted vendor who possesses the ability. The current maintenance contract with Cassidian/AirBus ends on 9/30/15. In the event that there is a gap between the new system going live and the old system being taken offline the old system will still need to be maintained. DESC wants a single POC to go to for support. Due to fiscal constraints and purchasing requirements it would be difficult to renew the existing contract with Cassidian/AirBus after signing a contract with the successful Bidder of this RFP. This is what the DESC intends and this requirement cannot be reconsidered.

Question 96: The table in Appendix D lists the Scope of Work section for Topic 4 as C-1-E-13. Please confirm that the correct section is C-1-E-7.

Answer: The correct section should read C-1-E-7.

Question 97: The table in Appendix D lists the Scope of Work section for Topic 5 as C-1-F-7. Please confirm that the correct section is C-1-F-6.

Answer: The correct section should read C-1-F-6.

Question: Referencing Table C-3 on page 57, some of the deliverables listed (for example, coordination with network provider) are difficult to assess a specific payment amount. We typically have specific payment milestones for projects such as this (i.e., milestones for hardware delivery, installation, and system acceptance). Would the State consider these milestones and deliverables for Table F-1?

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Answer: Yes, the deliverables and milestone referenced in Table C-3 (p. 57) should be included in Table F-1 along with any other pertinent deliverables and milestones to be included in the firm fixed price.

Question 98: Please confirm we can add rows to table F-2.

Answer: Vendors may add rows to Table F-2.

Question 99: The RFP references positions identified in the Proposed Position Worksheet. Where can we find this worksheet?

Answer: See Addendum C, Table E-2 Proposed State Staff Resources Hours Worksheet.

Reference: Table F-3

Question 100: Does the State want third-party hardware costs and professional services included in this table?

Answer: Yes.

Reference: Appendix H

Question 101: It is understood that a definitive contract must be agreed upon and entered into by the parties for the project. Will the State agree to negotiate the terms of the State-proposed form of contract with the selected vendor?

Answer: We cannot negotiate the terms and conditions as these are set to facilitate the P-37 NH Standardized Contract format and is established by the AG's office.

Reference: 6.3

Question 102: Will the State agree that access to books and records can be limited to only those records that are relevant to the inquiry for compliance, that other records may be redacted (or will be held in strict confidence by the State), and that any access should only be upon reasonable notice, not more frequently than once a year, and during regular business hours in a manner so as not to unreasonably interfere with the Contractor's normal business operations?

Answer: 6.3 of the P-37, states that "If this Agreement is funded in any part by monies of the United States, the Vendor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Vendor further agrees to permit the State or United States access to any of the Vendor's books, records

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and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.”

The State, for itself or on behalf of the United States, cannot agree to limit the scope of access of any of the Vendor’s books, records and accounts for the purpose of ascertaining compliance with all applicable rules, regulations and orders, and covenants, terms and conditions of the resulting Contract.

Reference: 8.2.4

Question 103: Typically a Contractor would have notice and a reasonable opportunity to cure any breach before it is deemed an event of default. Will the State entertain notice and cure for the Contractor before possible termination?

Answer: Sections H-25.14 “Termination” (pp. 92-95) covers termination procedures and includes notice and cure specifications.

Reference: 14.1.2

Question 104: Fire and extended coverage insurance for customer locations might significantly affect solution cost. Is this what the State intends or can this requirement be reconsidered?

Answer: The amount of coverage may be agreed to and specified in Appendix C. However, it is not likely that a decrease in coverage will be agree do by the State (p. 73).

Reference: H-25.5, H-25.6

Question 105: Fire and extended coverage insurance for customer locations might significantly affect solution cost. Is this what the State intends or can this requirement be reconsidered?

Answer: The amount of coverage may be agreed to and specified in Appendix C. However, it is not likely that a decrease in coverage will be agree do by the State (p. 73).

Reference: H-25.10.2.2

Question 106: Does the software need to be archived and/or version controlled through Harvest Software, or is an equivalent archival and version control solution acceptable?

Answer: An equivalent solution is acceptable.

Reference: H-25.8

Question 107: Does the software need to be archived and/or version controlled through Harvest Software, or is an equivalent archival and version control solution acceptable?

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Answer: An equivalent solution is acceptable.

Reference: H-25-10

Question 108: Our solution includes standard warranty terms and conditions, which do not fully align with this section. Will the State entertain negotiating these details?

Answer: Warranty features must meet or exceed the minimum specifications as presented in the RFP.

Reference: H-25.11.2

Question 109: These paragraphs appear somewhat duplicative. Can the State please confirm which paragraph should apply?

Also, typically a Contractor would have notice and a reasonable opportunity to cure any breach before it is deemed an event of default. Will the State entertain notice and cure for the Contractor before possible termination?

Answer: On page 86, delete the paragraph that immediately precedes section H-25.12 Administrative Specifications, beginning with the words "If the Vendor fails to correct a Deficiency..." The paragraph immediately before this one, beginning with the same words more fully covers the same material.

Sections H-25.14 "Termination" (pp. 92-95) covers termination procedures and includes notice and cure specifications.

Reference: H-25.12.5

Question 110: This paragraph appears to suggest that the State is looking to own all "materials" under the Contract. Please confirm that it is not the intent of the State to own proprietary technology/software provided by Contractors, as the State should only be receiving a license to such Contractor-owned or provided proprietary materials.

Answer: It is not the intent of the DESC to own the proprietary software. The DESC will be receiving licenses to any software provided in the solution.

Reference: H-25.12.7

Question 111: The language of the RFP refers to the State receiving a "right to produce, publish, or otherwise use ... software, source code, modifications..." Such rights are broader than are typically granted for software licenses. Please confirm that it is not the intent of the State to receive rights to source code or rights to modify Contractor-owned or provided proprietary materials.

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Answer: It is not the intent of the DESC to receive rights to the source code.

Reference: H-25.12.8

Question 112: Please confirm what standards and procedures of the Department of Information Technology and the State are specifically intended to be referenced.

Answer: An addendum to the RFP will be published shortly with these standards.

Reference: H-25.14

Question 113: These provisions seem to be duplicative of Section 8 (on Page 71). Can the State please confirm which set of termination provisions it intends to have apply.

Answer: On page 86, delete the paragraph that immediately precedes section H-25.12 Administrative Specifications, beginning with the words "If the Vendor fails to correct a Deficiency..." The paragraph immediately before this one, beginning with the same words more fully covers the same material.

Reference: H-25.14.2

Question 114: Early termination can result in other costs apart from work completed (for example, for contractual commitments made to other suppliers). Will the State agree to cover such other possible costs for an early termination of the Contract made for its convenience?

Answer: H-25.14.2 "Termination for Convenience" (p. 93) discusses the State's obligation to pay for Deliverables for which Acceptance has been provided prior to the date of termination for which no separate price is stated to be paid. Please see this section for a more full explanation.

Reference: H-25.14.3

Question 115: Typically a Contractor would have notice and a reasonable opportunity to cure any breach before it is deemed an event of default. Will the State entertain notice and cure for the Contractor before possible termination?

Answer: Sections H-25.14 "Termination" (pp. 92-95) covers termination procedures and includes notice and cure specifications.

Reference: H-25.14.4

Question 116: The language of the RFP in this section suggests that upon any termination of the Agreement the State should be delivered software related to the Contract. Typically, rights to use of software only vest upon payment in full from the licensee. Please confirm that condition

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precedent of payment in full is consistent with the State's understanding as to its rights to use of software in the event the Contract is terminated.

Answer: The provisions as stated in the RFP stand.

Reference: *H-25.15.1*

Question 117: Will the State agree to negotiate reasonable, reciprocal exclusions from possible liability for the Contractor?

Answer: No

Reference: *H.25.1*

Question 118: Please confirm that the non-waiver of defenses or immunities does not apply to the rights of the Contractor to enforce the terms of the Contract against the State.

Answer: Contractor's contract rights are set by the State.

Reference: *H-25.15.3*

Question 119: Please confirm that the non-waiver of defenses or immunities does not apply to the rights of the Contractor to enforce the terms of the Contract against the State.

Answer: Contractor's contract rights are set by the State.

Reference: *H-25.16*

Question 120: Certain Contractors may be public companies whose stock is traded on public stock exchanges. For such companies, certain ownership accordingly can change in any given day. Please confirm that it is intended that restrictions on changes in ownership should apply only to actual changes in control.

Answer: This provision is not targeted toward publicly traded stock "ownership changes". Instead it is focused on change of controlling interest. So, if sufficient stock changed whereby the controlling interest or balance of power changed, this provision would be in effect.

Reference: *H-25.21*

Question 121: Generally the escrow agent has their own Escrow Agreement, which would be a three party agreement between the State, the Vendor and the escrow agent. Please confirm that the State will agree to negotiate with the Vendor in good faith to limiting the triggering event for any release of source materials from escrow to the Vendor materially breaching its maintenance and support obligations for the software when such breach is not cured within a mutually agreed upon period after written notice of the breach is provided.

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If so, please confirm that the escrow agreement is not required to be submitted with the proposal but will be mutually agreed upon award.

Answer: The escrow agreement is to be provided with the Vendor's proposal (p. 97)

Reference:

Question 122: With the insertion of the paragraphs to section 4.1 on page 12, will the State also be revising section 4.17 on page 17 and section 4.18.10 on page 21?

Answer: Addendum A is incorporated by reference in 4.17, section VIII (p. 17) and 4.18.11, section VIII (p. 22) where the text "Copy of the RFP and any signed Addendum(a)..."

Question 123: What is the total yearly call volume between Concord and Laconia?

Answer: Please see the call-stats chart under Bidder's Conference Questions.

Question 124: Does DESC wish to provide the call taker workstations or is the vendor to price and include call taker workstations for this bid? If Vendor is providing workstations, can DESC provide a list of all applications and current software revisions that will reside on the same workstation as the CPE?

Answer: New workstations are required for this system. The DESC would like an optional quote for workstations should the Division choose to purchase the workstations through the RFP process. At a minimum, the bidders should respond with minimum required workstation specifications for their proposed solution. Specs for current workstations are listed in Bidder's Conference Question.

Question 125: How many total call taker positions are requested for this solution, Concord and Laconia?

Answer: 20 workstations and 1 supervisor workstation for 21 at each PSAP for a total of 42 stations between each PSAP.

Question 126: Does DESC wish to provide the workstation monitors or is the vendor to price and include monitors for this bid?

Answer: New workstations are required for this system. The DESC would like an optional quote for workstations should the Division choose to purchase the workstations through the RFP process. At a minimum, the bidders should respond with minimum required workstation specifications for their proposed solution. Specs for current workstations are listed in Bidder's Conference Question.

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Question 127: How many Administrative lines are there in Concord and Laconia?

Answer: Each PSAP has 10 Centrex analog lines setup in a hunt group, which are terminated directly in to the ECS1000.

Question 128: What is the current connectivity of the Administrative Lines? If T-1/PRI, how many circuits? Does DESC have any near future plans to change this Admin connectivity? Are there any other Analog circuits at Concord or Laconia?

Answer: Each PSAP has 10 Centrex analog lines setup in a hunt group, which are terminated directly in to the ECS1000. The DESC has no plans to change this in the near future.

Question 129: How many Train the Trainer students will require training? How many separate classes are required? How many system admin students will require training? How many separate classes are required?

Answer: End-user training will be a train-the-trainer class of approximately 8 people. Technical and administrative training will be for all DESC Technical Support staff and should be before (if needed), during installation and formally once the system has been completed. 6 people total for Technical training. If the vendor feels any manufacturer certifications are required for our staff to perform Tier1 support that should be included.

Question 130: Does DESC have any current network connectivity between Laconia and Concord? What is DESC plan for WAN connectivity?

Answer: There is a 50 mbps Carrier-over-Ethernet network connecting Laconia and Concord PSAPs and a 1 mbps connection out to each dispatch center. It is the responsibility of the winning vendor to evaluate this network and establish if it is suitable as a backbone for an ESINet. See other listed questions previously answered on this topic for additional information.

Bidder's Conference Questions:

1001. Question: Are you looking for any of these components to be managed or monitored by the provider or are you just looking for installation and maintenance?

Answer: The DESC Technical Support staff will provide all hands-on and Tier 1 support for the system as a whole, CPE, workstations, ESINet, etc. The successful bidder shall provide Tier 2 and greater support as needed for all components of the proposed solution.

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1002. Question: In the RFP, you mentioned the number of trunks as part of your current redundancy system for each PSAP. You don't mention any Administrative Lines. Are there any?

Answer: Each PSAP has 10 Centrex analog lines setup in a hunt group, which are terminated directly in to the ECS1000.

1003. Question: What is the expectation of the winning vendor to maintain the current system? Are you expecting this to be natively maintained by the vendor or can we sub-contract? Are you open to the idea that the current vendor maintain the equipment until it is decommissioned?

Answer: Yes, the winning vendor will be required to maintain the current system after the expiration of the current maintenance contract. This may be done by the successful Bidder if they possess the capability or via a sub-contracted vendor who possesses the ability. The current maintenance contract with Cassidian/AirBus ends on 9/30/15. In the event that there is a gap between the new system going live and the old system being taken offline the old system will still need to be maintained. DESC wants a single POC to go to for support. Due to fiscal constraints and purchasing requirements it would be difficult to renew the existing contract with Cassidian/AirBus after signing a contract with the successful Bidder of this RFP.

1004. Question: Can you tell us what the existing services contract is on the current CPE? Do you have a service contract for Tier 2? Does the Bureau intend to support Tier 1? To maintain the existing system, are we only talking support Tier 1? To maintain the existing system, are we only talking about the CPE ECS 1000?

Answer: The current maintenance contract with Cassidian/AirBus ends on 9/30/15. We are talking about Tier 2 and above for the Sentinel workstations, the ECS1000, and the ancillary equipment used to support both.

1005. Question: Can you provide an expiration date for your maintenance contract with AirBus?

Answer: The current maintenance contract with Cassidian/AirBus ends on 9/30/15.

1006. Question: Are you looking for 21 call handling stations and 1 supervisor station in each PSAP?

Answer: 20 workstations and 1 supervisor workstation for 21 at each PSAP for a total of 42 stations between each PSAP.

1007. Question: Is the Carrier Ethernet connection in your network for secondary sites described in more detail in the network RFP? Can you provide more information on what that connection looks like today? Is the bandwidth at different speeds? Is this a FairPoint network

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or someone else's? Is this strictly for CAD data or are you running VoIP conductivity on this today?

Answer: The CE Network and potential ESINet is not part of the Network RFP DOS2015-171. The CE network used today for CAD data transfer and backup VoIP connectivity. The CE network is an ELAN with each PSAP host circuit at 50mb and each local dispatch agency node at 1mb. Today the routers supporting this network are Cisco 891s, these will most likely need to be updated. We are looking for the successful bidder to evaluate this network and specify necessary requirements/upgrades to make the network suitable to serve as the DESC ESINet (NH Statewide) allowing call and data transfer to the local dispatch agencies. The CE network today is a FairPoint network. The successful bidder will be responsible for necessary design, configuration, and support beyond Tier 1 support. Once built, tested and deemed adequate, DESC staff will provide Tier 1, coordination with Network provider, and hands on support we would look for Tier 2 and beyond support on routers and other border elements proposed by successful bidder. At some point later DESC may look into interconnectivity with Border States via the ESINet.

1008. Question: Are you looking to maintain VoIP handsets in the PSAP's ?

Answer: No, ideally the PSAP communications would all be done through the console/workstation.

1009. Question: What type are the VoIP handsets today and what are they hanging on?

Answer: Currently Cisco 7941 Handsets running on Cisco CallManager 7.1 over a Cisco 891 router.

1010. Question: Referring to page 85 (section H-25 11.2) in the RFP, can you clarify whether the two hour response is met by work being done remotely or do you require it to be done on-site?

Answer: The two hour response window requirement can be met by connecting remotely.

1011. Question: Are you looking to have IP phone sets deployed to all dispatch centers or looking to leverage your current PBX and use that for receiving SIP calls to dispatch centers? Some of the dispatch centers don't have the capability to receive a SIP call. Could you clarify what you want to use to be able to transfer SIP calls out to the dispatch centers? Are you looking for a price on a phone set that could be deployed to the dispatch centers?

Answer: Yes it is the successful bidder's responsibility to ensure we have the ability to transfer over the ESINet to the local dispatch agency. That should at a minimum be into a DESC/Successful Bidder provided IP phone. As an option if possible DESC would like to offer the local dispatch agency a demarcation SIP handoff (on-net) to the dispatch agency's phone system accessed via a Session Border Control (SBC) or some facsimile recommended by the

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successful bidder. There are approximately 80 sites with approximately 200 phone sets needed. DESC would prefer to see the IP phones quoted as a single phone for us to determine the number to be purchased with any price break points identified in the quote.

1012. Question: In the RFP, the requirements for ESI Net and the requirements for call handling are discussed. Will all the equipment reside in the same location for your network and call handling for the PSAP's? Are you looking to have the network control equipment hosted outside of the State locations? Are you looking to have the network switch equipment in the two PSAP's?

Answer: All CPE equipment, servers, etc... is required to reside at either the Concord or Laconia DESC locations. Equipment required for the Network contract should reside in the State of New Hampshire but outside of DESC facilities.

1013. Question: The service provider will aggregate all the telephone service provider traffic in the State and deliver via SIP to the PSAP's. Are you eliminating all the SS7 trunks?

Answer: We are eliminating all SS7 trunks directly into the DESC Concord and Laconia offices. The network provider/ aggregator may still have SS7 traffic delivered to them from the carriers but it will be delivered to the PSAPs as SIP.

1014. Question: Do you have any call volume numbers, by type, for each of the PSAP's?

Answer: For both PSAPs, 485,558 9-1-1 calls in 2014.

CALL STATS 2014

Month	Wireline	Wireless	VOIP	TTY	Aband	Serviced	Unserviced	911	admin
Jan	6255 (17.9%)	28751 (82.1%)	4433	926 (2.6%)	3507	2239	375	40048	1281
Feb	5325 (17.3%)	25530 (82.7%)	3631	856 (2.8%)	3110	1952	311	34583	1009
Mar	5,889 (19.1%)	24937 (80.9%)	3670	903 (2.9%)	3370	2038	309	34501	1000
Apr	6031 (18.9%)	25873 (81.1%)	3582	993 (3.1%)	3394	2158	338	36299	1079

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RFP 2015-170 | Division of Emergency Services and Communications

May	6204 (17.6%)	29,123 (82.4%)	3981	1107 (3.1%)	3524	2255	297	39581	1130
Jun	6640 (17.1%)	32081 (82.90%)	3971	1471 (3.8%)	3497	2288	381	43440	1150
July	7221 (17.%)	34361 (82.6%)	4346	1653 (4.0%)	4012	2615	431	46689	1416
Aug	6708 (16.7%)	33529 (83.3%)	4159	1463 (3.6%)	4042	2497	409	45332	1261
Sept	6306 (15.83%)	29745 (74.65%)	3795 (9.52%)	1224 (3.07%)	3654	2321	340	40428	1312
Oct	7233 (17.79%)	29425 (72.32%)	4027 (9.90%)	1114 (2.74%)	3703	2243	419	41002	1268
Nov	6395 (14.73%)	32495 (75.25%)	4295 (9.95%)	892 (2.07%)	3567	2135	397	44952	1178
Dec	6568 (17.20%)	27579 (72.21%)	4046 (10.59%)	900 (2.36%)	3481	2061	368	38703	1308
Total	76,775	353,429	47,936	13,502	42,861	26,802	4,375	485,558	14,392

2013

Total	85,152	349,405	46,062	13,795	42,338	27,317	4,260	523,494	12,734
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1015. Question: There are conflicting dates on the cover sheet for the response date. Can you verify the correct response date?

Answer: April 1st, please see addendum B found at the same State website where the original RFP was posted.

1016. Question: You mentioned 80 additional dispatch centers. How many phone sets would that represent?

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Answer: We queried the local dispatch centers and the total was 185 but to allow for growth system should be sized for at least 200 phone sets.

1017. Question: xTrakker is providing mapping to all positions. Is this also needed for the dispatch centers?

Answer: xTrakker is currently installed at all positions in both PSAPs as well as 71 positions in 48 dispatch centers.

1018. Question: When you provide your written responses, can you give us the total number of map positions and their locations?

Answer: 41 positions between Concord and Laconia and 71 positions at local dispatch centers.

1019. Question: Should the vendors include pricing for termination of the TI cut-over once the SIP delivery is available?

Answer: No, because the new CPE will not be installed in Laconia until the SIP is available so your initial installation will be to SIP in Laconia.

1020. Question: On page 34 of the RFP, you want the CPE software to be loaded on the same workstation as Valor CAD. Is that correct? Can you provide the specs on the type of workstations you currently have?

Answer: Yes it is correct. Current workstations are :

PSAP - Dell Optiplex 960

- X86 based; Intel Dual Core E8500 3.16Ghz Processor
- 4gb DDR2 PC2-6400 400Mhz RAM
- 320gb HDD
- NVIDIA GeForce 9300 GE 512Mb Memory Video
- Windows XP Professional SP 3 – 32 bit

Remote Site CAD - Dell Optiplex 980

- x64; Intel Core i7 CPU Processor 2.93GHz
- 3Gb DDR3 dual channel RAM,
- 500gb HDD
- ATI Radeon HD 4550
- Windows 7 Professional SP 1 – 64 bit

1021. Question: What OS is running on xStore and Valor CAD servers?

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Answer: Windows Server 2008 (xStore) and 2003 (Valor CAD).

1022. Question: Are all those applications co-habiting on the console positions today?

Answer: Yes

1023. Question: Will the State purchase the new workstations?

Answer: Yes, we would like as part of the cost proposal an option for buying the workstations for each PSAP and the training room through this proposal. We may however opt to purchase workstation from other sources that meet or exceed the specification denoted by the bidder in their proposal.

1024. Question: Is the CAD testing done in-house?

Answer: Yes

1025. Question: What is the connectivity today between the two PSAP's outside of the Carrier Ethernet network? Is the equipment that terminates part of this proposal?

Answer: Carrier-over-Ethernet 50 mbps connection with a 300 mbps microwave backup, as well as 4 T1s available on hot standby. This is what is there today but the successful bidder can opt to leverage existing facilities if they meet the need or note requirements if they are deemed not sufficient. Yes, if the current router for the ESINet (Cisco 891s) are deemed inadequate.

1026. Question: Is there any flexibility on the terms and conditions for negotiation on the contract?

Answer: No.

1027. Question: Should the pricing on the workstations be broken out separately so that the option for the Bureau to purchase those workstations is available?

Answer: Yes.

1028. Question: You made a statement about the CAD system that half of remote sites are on the Valor CAD and the other half receives a CAD spill into their own CAD system. What is the connectivity providing that spills to those other CAD systems?

Answer: The DESC's Carrier-over-Ethernet network connects Concord and Laconia to all 78 local dispatch centers.

1029. Question: Is it an IP connection for the Valor CAD?

Answer: The DESC's Carrier-over-Ethernet network connects Concord and Laconia to all 78 local dispatch centers via TCP/IP.

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1030. Question: Is the 1 MB for all the remotes being shared by other State business or is it dedicated for just E9-1-1? Is it managed with priority routing for VoIP calls or is just bandwidth?

Answer: Dedicated for 9-1-1. The routers at the dispatch centers cannot handle SIP trunks but they are capable and configured for QoS.

1031. Question: Will all the 3 layer devices continue to be maintained by the Bureau or will they to be replaced? Are they a requirement for this bid?

Answer: Today the routers supporting this network are Cisco 891s, these will most likely need to be updated. We are looking for the successful bidder to evaluate this network and specify necessary requirements/upgrades to make the network suitable to serve as the DESC ESINet (NH Statewide) allowing call and data transfer to the local dispatch agencies. The CE network today is a FairPoint network. The successful bidder will be responsible for necessary design, configuration, and support beyond Tier 1 support. Once built, tested and deemed adequate, DESC staff will provide Tier 1, coordination with Network provider, and hands on support we would look for Tier 2 and beyond support on routers and other border elements proposed by successful bidder.

1032. Question: Do you need a UPS quoted in the bid?

Answer: No. Both Laconia and Concord have whole-building UPS devices that are managed by the DESC.

1033. Question: Do you want us to use the old workstation wiring or do you want new wiring installed for the call taking stations?

Answer: The winning vendor will be responsible for testing the existing wiring to see if the existing connections are sufficient. If they are not, the winning vendor will be responsible for new wiring to all of the workstations.

1034. Question: After the PSAP's are shut down to do the wiring, is this the vendor's responsibility or will the State do the wiring?

Answer: If new wiring is required, the winning vendor will be responsible.

1035. Question: Does the building that houses the ECS 1000 have AC or DC?

Answer: The building utility power runs on AC as well as a UPS and generator. The ECS1000 utilizes DC power.

1036. Question: Regarding the training requirements, how many call takers and administrators would the vendors be training? Could you please clarify the training specs you want so that the

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vendors can have the correct pricing? Do you want "train the trainer," or training from the manufacturer? What type of training do you need or want?

Answer: End-user training will be a train-the-trainer class of approximately 8 people. Technical and administrative training will be for all DESC Technical Support staff and should be before (if needed), during installation and formally once the system has been completed. 6 people total for Technical training. If the vendor feels any manufacturer certifications are required for our staff to perform Tier1 support that should be included.

1037. Question: Are you looking to self-maintain the new system or do you want the vendor to put in pricing for Tier 1 support?

Answer: The DESC Technical Support staff will maintain the new system at a Tier 1 level.

1038. Question: You stated you have 20 call taking and 1 supervisor stations in each PSAP. Do you have any other workstations you want for testing?

Answer: The DESC will require 16 training workstations and 1 training supervisor station for the DESC Training Room. These positions will be used only for new-hire training and new software update testing. Of course most new version testing should be completed prior to deployment by bidder then on site and integration testing by DESC technical support staff.

1039. Question: How many SIP connections per site do you want us to plan on for today and future growth?

Answer: A total of 2 redundant and diverse SIP connections capable of 27 call setups (adequate bandwidth) each. Totaling 108 call setups for the combined PSAP systems.

1040. Question: With your CPE currently with Airbus, do you test any new software versions before rolling it out for production into your current environment? Are you looking for a third CPE for lab testing? For testing, where would we roll it out to test it in your environment? Do we put it in a change window and run a software version on CPE equipment before rolling it out? What are you expecting?

Answer: Due to the age of the system, we do not currently install new updates for the CPE. For supporting applications, we test them on isolated workstations. For the proposed system, the DESC would like to use the Training Room positions to install and test any updates to the CPE and supporting applications. If the training room as proposed will not suffice for this testing then the bidder's proposal should include a plan for this. Only one PSAP at a time could enter a change window status allowing for call handling functionality to continue with affect at the other PSAP.

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1041. Question: Your integration between IR and Exacom recorders have a current connection for each position from your audio to the control unit on a separate channel. Are you looking for the same type of handoff for the recording positions? What is your preference for the handoff on recording? Can the IRRbe separate on the workstations as long as Exacom is getting everything they need?

Answer: Yes it can separate. We require an IRR function locally for the caller to listen to previous calls from their station. We also require the ability to interface/log all calls to the Exacom Digital recorder system. These two functions can be integrated and work together but are not required to.

1042. Question: For the critical data you would like to capture for call handling, do you want a large monitor with the information that gives you the call volume or do you want this to reside at the supervisor's station?

Answer: Both.

AK Proposal to RFP 2015-170, dated April 20, 2015.

See included binder labelled AK Associates Response to DOS, DESC RFP 2015-170 Next Generation 9-1-1 System.

DUPLICATE



Where Technology, Creativity, & Quality Service Meet

STATE OF NEW HAMPSHIRE
Department of Safety, DESC

RESPONSE TO DOS, DESC RFP 2015-170
NEXT GENERATION 9-1-1 SYSTEM

Kraus Associates, Inc. d/b/a AK Associates
7 Independence Ave, Derry, NH 03038
POC: Julie Chase
T: (603) 432-5755
E: jchase@akassociates911.com
F: (603) 432-0900

326 Porta Rosa Circle, St. Augustine, FL 32092

State of New Hampshire Proposal Transmittal Form Letter

Company

Name Kraus Associates, Inc d/b/a AK Associates

Address 326 Porta Rosa Circle, St. Augustine, FL, 32092

To: NH Department of Safety DESC State Point of Contact:

Robert Brown, IT Manager

DOS, DESC

33 Hazen Drive

Concord, New Hampshire, 03305

Telephone: (603) 271-6911

Email: rbrown@e911.nh.gov

RE: Proposal Invitation Name: Next Generation 9-1-1 System

Proposal Number: DOS DESC 2015-170

Proposal Due Date and Time: April 20, 2015; 2:30PM

Dear Sir:

Company Name: Kraus Associates, Inc hereby offers to sell to the State of New Hampshire the Services indicated in RFP NH DOS DESC RFP 2015-170 Next Generation 9-1-1 System at the price(s) quoted in Vendor Response Section VII: *Cost Proposal*, and Appendix F: *Pricing Worksheets*, in complete accordance with all conditions of this RFP and all Specifications set forth in the RFP and in the State of New Hampshire Terms and Conditions outlined in RFP Appendix H: *State of New Hampshire Terms and Conditions*.

Company Signor: Julie Chase is authorized to legally obligate

Company Name: Kraus Associates, Inc.

We attest to the fact that:

The company has reviewed and agreed to be bound by all RFP terms and conditions including but not limited to the *State of New Hampshire Terms and Conditions* in Appendix H, which shall form the basis of any Contract resulting from this RFP; No new terms and conditions have been added and no existing terms and conditions have been deleted in this RFP Proposal.

The Proposal is effective for a period of 180 days or until the Effective Date of any resulting Contract.

The prices quoted in the Proposal were established without collusion with other eligible Vendors and without effort to preclude the State of New Hampshire from obtaining the best possible competitive price; and

The Vendor has read and included a copy of RFP 2015-170 and any subsequent signed Addendum (a).

Our official point of contact is

Julie Chase

Title VP of Sales & Marketing

Telephone (603) 860-8473 or (603) 432-5755

Email jchase@akassociates911.com

Authorized Signature Printed

Julie Chase

Authorized Signature

Julie Chase

Section I: Executive Summary

AK Associates is excited about the opportunity to respond to the State of New Hampshire RFP 2015-170 “Next Generation 911 (NG 9-1-1)”. It has been our pleasure to have had a long history of working with the State of New Hampshire’s 9-1-1 system. We were the company contracted to get the State’s first ECS-1000 system installed and operational. Some years later we were once again hired to install your second ECS-1000, as well as numerous upgrades to both ECS-1000’s through the years. This familiarity with the State’s 9-1-1 systems and operation, uniquely qualifies us to recommend a Solacom solution. We are very confident that our proposed Solacom solution will meet or exceed all of your needs now and into the future.

This solution provides the State of New Hampshire with all of the features and functionality that are stated throughout the RFP, as well as additional features and functionality that can be turned on at any time without additional cost to the State.

With the industry heading towards an i3 standard, our proposal will ensure the most seamless transition from your existing system into your new 9-1-1 system. Included in our proposal at no additional cost is a traditional trunk based selective router that allows the State to configure your system similarly to your existing configuration. It also provides NextGen features that would allow enhancements such as ESRP capabilities which will give you the ability to migrate to a true i3 configuration and selective router. This feature provides the State the ability to take full control of its 9-1-1 system without having to rely on a telephone company for traditional and next generation selective routing and network infrastructure. Our proposal offers New Hampshire the option to purchase its own servers and workstations which may help to reduce the overall cost. Moving ahead to SMS text to 9-1-1, AK Associates and Solacom have included an integrated SIP MSRP feature with the proposed system. The only cost to New Hampshire is for the network and firewall connections from the TCC to the 9-1-1 equipment. Considering your existing PSAP configuration, AK and Solacom will allow other software packages to cohabitate on the same CPU, as we did with the New York State Police where we have the **Solacom Guardian, Valor CAD, GeoComm Map** and Zetron Radio all on the same CPU. We are open to helping New Hampshire establish the most cost effective, reliable and functional 9-1-1 system for the state today and into the future.

AK Associates’ objective is to help key clients like State of New Hampshire succeed in their mission. Over the past several years, Kraus Associates, Inc., dba AK Associates, a certified minority business enterprise by the State of Florida, has experienced national recognition for our expertise in the evolution of the existing Enhance 9-1-1 infrastructure for Wireless Phase I and II as well as VoIP. We attribute our continued growth to our ability to understand and respond to the many challenges our clients face in acquiring feature rich and reasonably cost efficient 9-1-1 systems. Not only will there be savings on the initial purchase, this proposed system will provide additional savings on maintenance and network charges year after year.

AK Associates’ highly skilled specialty staff is suited to work efficiently in the public safety arena. We have worked extensively with numerous government agencies, assisting them in the development of technical and operational standards, 9-1-1 Addressing and Geographic

Information Systems (GIS) solutions and engineering, installation and maintenance of 9-1-1 networks, databases and CPE. Our specialists quickly provide valuable assistance to our clients with public safety applications because they have experience in law enforcement, fire, and EMS systems, as well as in-depth knowledge of data issues, telecommunications, and information technology. AK Associates is sub-contracted by several of the biggest 9-1-1 equipment manufacturers to provide installation and training around the country due to the high quality and reliable services they provide.

Field proven, time tested

Solacom has engineered a solution that will provide an unprecedented level of redundancy and survivability which will meet or exceed State of New Hampshire's requirements as specified. Upon completing the geo-diverse Guardian installation between Concord, NH and Laconia, NH, the Solacom solution will provide State of New Hampshire with combined redundancy and reliability between each location, each capable of fully supporting all dispatch positions from all PSAP locations. Our proposal considers the request to allow the state to provide the servers and PCs and we are certainly willing to accommodate this request.

Next Generation 9-1-1, ready when you are

The Solacom Guardian platform is flexible, scalable, easily managed and capable of supporting both local and remote positions. The fault-tolerant configuration contains no single point of failure. This system has low bandwidth requirements between the geo-diverse host locations and remote PSAP positions. This was achieved within the engineered design of the system which will provide State of New Hampshire with additional cost savings on your network expense, month after month, for as long as the system is operational. In addition, the system is highly configurable with virtually unlimited conferencing capability, enhanced audio control, multi-PSAP capability, along with many other 9-1-1 centric features, making the Guardian NG9-1-1 Controller the premier choice for a Next Generation 9-1-1 System.

The modular design provides backward compatibility with legacy PSAP systems and telecommunications networks, and allows State of New Hampshire to set the timetable for transitioning to Next Generation 9-1-1.

The Guardian system has a very sophisticated and flexible ACD feature set that can meet the current ACD call flow used by the County. Guardian has been developed to exceed features required and used by other former Meridian PBX and ECS-1000 customers.

Built on Standards and Interoperability

The Solacom Guardian family of products has been developed according to i3 NENA 08-003 providing a simplified means of integration with any NENA compliant software. Solacom is a recognized leader in emerging standards for NG9-1-1 and dedicated to ensuring compliance with industry standards.

Solacom is committed to open standards and interoperability, and is helping to define Next Generation 9-1-1 through NENA initiatives such as Proof of Concept and Industry Collaboration Events (ICE) – as well as demonstrating new capabilities such as SMS/IM/emergency messaging prototypes at industry conferences.

This commitment is carried through to our product engineering to allow for straight forward integration with other standards-compliant systems in the PSAP and data center. This ensures that our customers aren't locked into a proprietary corner – our customers retain the option to select the most cost effective 'off-the-shelf' components to build their PSAP.

Solacom is a member of numerous professional organizations including NENA and APCO, and has actively participated in the advance of Next Generation 9-1-1 standards and technologies and is an active participant in the NENA sponsored Industry Collaboration Events.

Strong local experience

AK Associates will provide expert, local, ongoing technical support for this project after completion. Both Solacom and AK Associates have extensive experience in transitioning users from the ECS-1000 / Sentinel platform to the Solacom Guardian platform. In addition, AK Associates a preferred business partner of **911 Datamaster, Exacom and Valor CAD Systems**. This experience will ensure the transition for users is smooth, while at the same time, allowing State of New Hampshire to take advantage of the advances offered by the Guardian system.

AK Associates is confident that we can provide the most appropriate and qualified PSAP maintenance service for your existing wireline, wireless and VoIP 9-1-1 equipment and into the future as you move into an i3 environment. When comparing AK Associates with other service providers, the AK model sets itself apart. Unlike the typical LEC, every AK technician is dedicated strictly to 9-1-1. We specialize in providing installation and maintenance to public safety agencies just like State of New Hampshire, and pride ourselves in being the best. Our Executive Vice President, Mr. Arthur Kraus, is nationally recognized as a 9-1-1 SME (subject matter expert) and is a preeminent authority in New England, New York and Florida for Enhanced 9-1-1 solutions. Our Executive Director, Mr. Kerry McCarthy, has years of experience, formerly one of CML's top service technicians. We have a record of accomplishments implementing and maintaining various wireline and wireless solutions for municipalities, counties and states that will be highlighted in this proposal. Our solution will allow State of New Hampshire to grow and increase the number of 9-1-1 trunks to handle the increasing population without having to spend money for additional wireless, VoIP and landline 9-1-1 trunks.

AK Associates provides professional installation and maintenance support throughout the Northeast, Kentucky and Florida. AK Associates and Solacom have a strong and growing presence in New England and in counties in surrounding states and have successfully deployed Next Gen ready systems in the State of Maine, New York State Police; Sussex County, NJ and Pike County, PA. In addition, Solacom and AK are in the process of the installation and training of a statewide system for the State of Rhode Island and Vermont.

Proven NG9-1-1 and ESInet solutions

Solacom and AK Associates have deployed both large and small PSAPs. Some of these are standalone systems while others are hosted.

Our proposal contains a turnkey solution that will equip State of New Hampshire with the ability to address the immediate need for processing, answering and directing all voice and future text calls placed to the 9-1-1 emergency number, as well as integrated administrative telephone lines, where applicable. We have included an option for portable call taker answering positions which will permit near identical call taking capabilities beyond the walls of the PSAP.

A project of this size and scope not only require highly qualified people, it requires the processes and systems to ensure a timely and high quality implementation. AK will incorporate a program and implementation team to support this effort starting with the assignment of a Project Manager who will act as the single point of contact throughout the project. We will assign our most experienced Project Manager, Mr. Kerry McCarthy to this project.

It is our firm belief that the experience we've gained deploying systems of this nature uniquely qualify us to meet the needs of State of New Hampshire. We look forward to the opportunity to provide additional information during the oral presentation phase of the RFP process.

Smooth Transition

At both AK Associates and Solacom, our passion is public safety. Our mission is to ensure that State of New Hampshire's initial installation and ongoing equipment upgrades are a complete success. AK will ensure that the installation and cutover plan for the Guardian solution will cause minimal interruptions during the installation and transition period. We want to be your long-term partner in critical communications. The solution we have proposed, which includes AK Associate's maintenance support, will provide State of New Hampshire with one of the most technologically advanced deployments in the country.

- Solacom and AK Associates have a proven track record of transitions from CML systems to Solacom systems
- Strong local support from AK Associates
- Knowledge of State of New Hampshire's existing system allows for a better tailoring of a new Solacom system
- Solacom Guardian workstation software looks and feels like a CML workstation for low risk, minimal disruption and assured continuity
- AK and Solacom a business preferred business partner of Exacom, 911 Datamaster and Valor

Seasoned Support Team

AK Associates to provide Tier 1 support as outlined.

AK Associates is a service-oriented company focusing exclusively on public safety technology customers, providing highly-trained, dedicated service personnel. We have more certified, trained technicians on the ECS-1000 and Solacom Guardian than anyone else. We can ensure your support of your existing system and new 9-1-1 equipment will be supported with the most experienced technical staff.

In addition, Solacom will provide Tier 2 support through its 24 hour Network Operations Centers located in Chicago, IL and Ottawa, Canada which are capable of detecting many issues before they become problems. When a technician is required onsite, AK Associates' will be there to support your staff with trained technicians.

If you have any questions or require any additional information, please contact:

AK Associates
T 603.432.5755 ext. 2
info@akassociates9-1-1.com

Mailing Address:
AK Associates
7 Independence Avenue
Derry, NH 03038

The following terms, acronyms and abbreviations are used in the Proposal.

<u>Term</u>	<u>Definition</u>
ACD	Automatic Call Distributor: Equipment or feature of 9-1-1 Systems that automatically distributes incoming calls to available PSAP attendants in the order the calls are received, or queues calls until an attendant becomes available.
ALI	Automatic Location Identification: The automatic display at the PSAP of the caller's telephone number, the address/location of the telephone, and, if enabled, supplementary emergency services information of the location from which a call originates.
ANI	Automatic Number Identification: The telephone number associated with the access line from which a 9-1-1 call originates.
ARM	Active Remote Monitoring: A service offered by Solacom that ensures optimum system and network performance by providing 24X7X365 monitoring of a customer's system by certified technicians. This service is a higher level of service than simple alarming.
BCF	Border Control Function: Provides a secure entry into the ECI net for emergency calls presented to the network. The BCF incorporates firewall, admission control, and may include the anchoring of session and media as well as other security mechanisms to prevent deliberate or malicious attacks on PSAPs or other entities connected to the ESInet.
CAD	Computer Aided Dispatch: a computer based that aids PSAP Telecommunicators by automating selected dispatching and records keeping activities.
COTS	Commercial Off the Shelf : Computer components that are not proprietary to any one particular manufacturer, but are based on open standards.
CPU	Central Process Unit: The core processor of a computer.
DBMS	Data Base Management System: A system of manual procedures and computer systems used to create, store and update the data required to provide the Selective Routing and Automatic Location Identification for an E9-1-1 system.
ECRF	Emergency Call Routing Function: A functional element of an ESInet that determines the proper routing of an emergency call using mapping.
ESInet	Emergency Services IP network: A managed IP network that is used for emergency services communications and which can be shared by all public safety agencies.
ESN	Emergency Service Number: A 3-5 digit number that represents one or more ESZs. An ESN is defined as one of two types: Administrative ESN and Routing ESN.
ESP	Emergency Services Platform - Solacom's portfolio of public service appliances and applications.
ESRP	Emergency Services Routing Proxy: An i3 functional element which is a SIP proxy server that selects the next hop routing within the ESInet based on location and policy.
ESZ	Emergency Service Zone: A geographical area that represents a unique combination of emergency service agencies (e.g. Law Enforcement, Fire, and Emergency Medical Service) that are within a specified 9-1-1 governing authority's jurisdiction. An ESZ and be represented by and Emergency Service Number (ESN) to identify the ESZ.
Guardian Map	Guardian Map: A feature of Solacom's Guardian System that allows call handling from a map. Guardian Map is built upon the integration of GeoLynx, a product of GeoComm, Inc., with the Guardian system of Solacom.
Guardian Mobile Position	A mobile computer providing the functions of a Guardian Work Station.
Guardian Responder Position	The fully functional intelligent work station provided for PSAPs by Solacom in its NG9-1-1 system.
HeLD	HTTP Enabled Location Delivery: A protocol that can be used to acquire Location Information (LI) from a LIS within an access network as defined in IETF RFC 5985.

HTTP	Hypertext Transport Protocol:A protocol typically used between a web client and a web server tht transport HTML and or XML. HTML:Hypertext Markup Language is the standard markup language used to create web pages. XML is a markup language that defines a set of rules for encoding documents in a format which is both human readable adn machine readable.
ICE	Industry Collaboration Events
ICMP	ICMP:The Internet Control Message Protocol (ICMP) is one of the main protocols of the Internet Protocol Suite. It is used by network devices, like routers, to send error messages indicating, for example, that a requested service is not available or that a host or router could not be reached.
IM	Instant Messaging:a means to communicate over a computer or mobile text-enabled device to someone sharing in the service.
IP	Internet Protocol:The method by which data is sent from one computer to another on the Internet or other networks.
IRR	Instand Recall Recorder-A device that allow sthe user to instantly play back all (or portions of) a call for service to clarify or validate what was heard by the operator to what was said bythe caller.
IWS	Intelligent Work Station:Computer based 9-1-1 answering position equipment that includes computer telephony integration.
KVM	Keyboard Video Mouse:a component in a multiple monitor computer system that allows for switching between monitors.
LCD	Liquid Crystal Display:a type of mechanism to display information on a computer or hand-held device
LIS	The Location Information Server is a funtional element that provides locations of endpoints. A LIS can provide Location by Reference or Location by Value, and if the latter, then either in geodata or civic forms. A LIS can be queried by an endpoint for its own location or by another entity for the location of an endpoint. In either case, the LIS receives a unique identifier that represents the endpoint, such as an IP address and returns the location associated with that identifier.
LNG	Legacy Network Gateway:A signalling and media interconnection point between callers in legacy originating networks and the i3 architecture, so that i3 PSAPs are able to receive emergency calls from such legacy networks
LoST	Location-to Service Translation Protocol:A protocol that takes location informatino and a service URN and returns a URI. This is used generally for location based call routing. In NG9-1-1, it is used as the protocol for the ECRV and the LVF
MSRP	Message Session Relay Protocol - used for the transmission of SMS calls
NCIC	National Crime Information Center:A national database containing information on criminals and criminal activity that can be accessed by authorized users, herein being PSAP personnel.
NIC	Network Interface Card:A system component that serves as the communications interface between the connecting network and an application server or other component.
NOC	Network Operations Center:a staffed and equipped facility connected to a network such that the staff can monitor and manage the network, as well as react to mitigate service impairments by troubleshooting and repair.
NTP	Network Time Protocol:A utility for synchronizing system clocks overa TCP/IP netowrk. This protocol is similar to NTP and is used when the ultimate performance of the full NTP implementation is not needed.
PAC	Position Audio Controller:The PAC supports multiple input and output ports to monitor and control audio devices. It activates and disables auxiliary audio inputs in response to the detected state of the console (e.g. incoming telephone call, radio audio is switched from headset to speakers).
PIDF-LO	Presence Informtion Data Format-Location Object:In 9-1-1 communications a means to provide a flexible and versatile way to repreanst the location information in a SIP header using an XML schema.
PSTN	Public Switched Telephone Network:The network of equipment, lines, and controls assembeld to establish communications paths between calling and called parties in North America.
RAM	Random Access Memory:That part of a computer system containing the memory used to operate it and store data.
RTP	Real Time Protocol:An IP protocol used to transport media (i.e. voice, video, text) which has a real time constraint.
SBC	Session Border Controller:a component deployed on the edge of the ESInet that provides access for authorized communications as well as protocol conversion.
SBC	
SIP	Session Internet Protocol:An IETF defined protocol (RFC3261) that defines a method for establishing multimedia sessions of the Internet. Used as the call signalling protocol in VoIP i2 and i3
SMS	Short Messaging Service: Text-to-911

SNMP	Simple Network Management Protocol:A protocol defined by the IETF used for managing devices on an IP network
STA	Selective Transfer Agency:STA buttons on the screen enable the calltaker to transfer a call to the most appropriate dispatch point.
TDD/TTY	Telecommunications for the Deaf/Teletype:aspects/components of 9-1-1 communications systems that allow hearing or speech impaired people to communicate about emergencies they are involved in.
TTT	Train-the-Trainer
VoIP	Voice over Internet Protocol:A means of telecommunications transmission using IP networking as opposed to traditional methods such as CAMA and SS7

Section III: Responses to Detailed Requirements and Deliverables

C-1 SCOPE OF WORK

C-1-A Existing System and Background

1. Description of existing system see Appendix J

2. Systems Utilized:

- a) Cassidian Sentinel system utilizing 2 ECS1000's and 42 workstations across the two PSAPs, connected for redundancy and load balancing via ACD
- b) Exacom Hindsight G2 system – 2 systems each with dual decks
- c) Valor TM Mini-CAD at the 42 workstations sending ANI/ALI data to 70+/- dispatch agencies around the State of New Hampshire via a Carrier over Ethernet Network. At those sites half are utilizing complete Valor TM CAD provided by the State of NH DESC integrated with MicroData xTrakker. The other half receive the CAD spill into their own CAD system via a standard NENA ANI/ALI spill over TCP/IP.
- d) 911Datamaster DBMS system with redundant ALI servers
- e) MicroData xTrakker mapping solution at 42 workstations with 2 Xstore servers which also additionally serve the 80+/- dispatch agencies
- f) Medical Priority Dispatch - current version is ProQA 3.4.3; however, we will soon be upgrading to Paramount

3. Call Delivery and Handling

Both PSAPs utilize 54 trunks (27 to each) delivered from diverse and redundant COs via SS7. Each carrier-providing service within the State of New Hampshire is required to interconnect redundantly and ideally diversely to the network provider. The system and network has a high degree of fault tolerance with multiple paths to ensure call delivery. This includes a fail-safe allowing one or both PSAPs to activate a mechanical 'make busy' system directing all calls away from a particular PSAP to the other PSAP or potentially to default routing if both are enabled. Default routing routes the emergency calls to a previously designated local dispatch center in that calling party's municipality. Any system presented should include a similar or greater degree of fault tolerance.

All 9-1-1 calls placed in New Hampshire are distributed to one of the DESC's 2 PSAPs. The call is answered at one of these and when the nature of the emergency is determined, data is transferred to the appropriate local dispatch center for the caller's location and emergency type utilizing Valor TM MiniCAD. This data is passed via TCP/IP over the DESC's CE Network. The voice is then transferred separately to the appropriate local dispatch agency via the PSTN.

Additional resources may be notified as required. Those callers in need of medical assistance receive Emergency Medical Dispatch instructions from a DESC PSAP call taker.

4. Systems owned which are either NENA i3 compliant currently or will be compliant through our existing maintenance contracts at the time of implementation:

- The DESC currently utilizes microDATA xTrakker for GIS functionality in the PSAP and at the dispatch centers. This software component can be modified to handle NENA i3 data streams and, as such, we would prefer to keep this in place. Alternatives would

be considered if they are seen to deliver enhanced functionality or required to function with other systems proposed. As noted above in section 1.2 the xTrakker system is also used at the remote dispatch centers integrated with Valor™ CAD.

- The DESC currently utilizes 911DataMaster's ALI and DBMS Database solutions. These solutions can be adapted for NENA i3, specifically the LDB, LIS and ECRF/LVF functions. It is our strong preference to continue to use these solutions; however, alternatives will be considered if they are demonstrated to deliver improved functionality or are required to function with other systems proposed.
- The DESC currently utilizes ProQA for emergency medical dispatching and would prefer that this solution is able to integrate fully into any proposed systems.
- The DESC currently has a robust GIS maintenance solution that was built on-site that authors all of the 9-1-1 GIS data. The DESC does not require GIS maintenance tools or SIF functionality.

Solacom has incorporated the information provided by the State about the existing system into the design of the proposed solution and the transition to it. The proposed solution will replace the existing two ECS-1000's and 42 workstations with a geo-diverse Guardian Next Generation ANI/ALI Controller ("Guardian") and 42 Guardian Intelligent Workstations ("IWS").

ESI net

The Guardian solution will interface to the existing Exacom Hindsight G2, Valor Mini-CAD, 911DataMaster and MicroData XTrakker systems. The State has indicated that it will be upgrading to a Paramount medical dispatch system prior to the installation of the new system. Solacom will conduct cohabitation testing to confirm that the Paramount application can reside on the Guardian Intelligent Workstation without impacting call processing capability.

Guardian map is offered optionally. The Guardian map is sourced from GeoComm and is based on the GeoLynx product. The Guardian map version of GeoLynx will provide all the mapping functionality of GeoLynx but adds the ability to answer and manage calls from the map. The added capability of managing calls from the map permits 'on the fly' answering of calls by operators based on caller location and caller clusters.

A detailed implementation plan is provided with the proposal; a critical design goal is to minimize the amount of disruption in the PSAPs during the transition to the new system. Solacom has recently completed State wide NG9-1-1 implementations in Maine and Vermont and has perhaps the most expertise in delivering large complex projects.

C-1-B System Architecture

1. Overview

The System shall be an IP-based system that supports a distributed architecture, utilizing a Legacy Network Gateway (LNG) if needed and where needed. The System should have the ability for rules-based call routing and include appropriate Border Control Functions (BCF) or firewalls at each point of access. The System should also utilize an IP based VoIP network for call transfer/delivery to local dispatch centers (ESI Net), while also being able to connect to the PSTN as needed for redundancy and call delivery for those not on the ESI Net.

The System must be built on open standards, secure, so that interoperability with other industry standard systems and networks is assured. It shall be compatible with our existing vendors and systems. Those systems are Valor™ CAD, 911 Datamaster DBMS and ALI products, the master recording solution Exacom, and TCS xTrakker. The DESC is interested in alternative GIS or map solution to the xTrakker product and recommendations, if provided, should be listed in your proposal as an option only. The DESC may or may not choose to stay with this product. The System should, to the greatest extent possible, leverage the most current technologies such as server virtualization, latest operating system versions, etc.

The Answering Positions shall consist of a high-end workstation running Call Processing Software (CPE) that is capable of answering and processing both emergency and administrative calls. The CPE software shall be responsible for all call -related functionality such as call answering, call transfers, ANI/ALI display and other call processing functions on both 911 and administrative circuits.. In addition, the high-end workstations shall be capable of running ancillary software such as supplemental ALI, GIS map display and search functionality, and the transfer of CAD data. The high-end workstations must be capable of processing these applications and must include multiple displays.

All relevant portions of the proposed solution shall conform to the applicable NENA i3 standards. The System must at a minimum provide call-handling capabilities to support the current volume of call traffic as the current system at peak as well as demonstrate the ability to accommodate potential future growth, if demands required.

2. Redundancy

The architecture of The System shall be such that the failure of any one component or module will not result in system failure, but only the loss of the equipment associated with that module. All vital system modules must have redundant modules configured in an active-active configuration to protect against any single point of failure. It is mandatory that any central processor and audio switching matrix shall be fully duplicated in an active-active configuration. Failover shall be automatic, lossless and shall not require manual intervention. The Bidder shall describe their system architecture with respect to the major components or modules, and describe how The System will react to a failure of each major component or module.

All major components proposed in The System should be geographically redundant allowing for dual-locality of all mission-critical components of the System. No single major component failure shall disable more than 50% of The System capacity. The System shall provide the ability to 'make busy' or manually shut down one PSAP forcing all requests for service to be directed to the other PSAP. This will allow for troubleshooting, training, and maintenance as required.

Response (for roll-up below)

3. Call Delivery

The calls will be provided via SIP by the individual carrier where possible and by the 9-1-1 Telephone Network Aggregator, also via SIP, where not possible. Call delivery shall be configurable for routing calls based on geography or availability or both. The DESC will provide an ECRF for the purposes of geographic call delivery decisions if needed for the System. All incoming traffic will be in SIP format. However, if the system requires a location object, an LNG or similar component should be utilized to perform the ALI request and build the Location Object before passing the call to the CPE.

4. Call Transfer

All calls must have the ability to be transferred to agencies configured in a predefined list as well as with a manual ten-digit dial. 'Speed Dial' buttons or Selective Transfer buttons should be populated for Police, Fire and Medical calls automatically based on the location of the 9-1-1 call cross-referenced with the DESC's dispatch center coverage polygons. The DESC will provide ECRF for the purposes of determining the correct dispatch center if needed for The System. The System must be able to distinguish between agencies that are directly connected to the DESC ESINet and agencies that are not. Calls which are transferred to an agency connected to the ESINet must utilize SIP directly to the agency phone system and may be routed out through the Network Aggregator gateway in the event of a communications failure inside of the ESINet.

5. Supplemental ALI

The System must have the ability to provide Supplemental Information for a caller based on a voluntary sign-up system. The SupALI component must be able to display, at a minimum, several line of additional information such as medical issues, electricity requirements, mobility concerns, etc. This information must be able to be stored on 'per-phone-number' basis and it is desired that this information can also be geographically tied to an address for visual display on a map for the purposes of indicating that an issue exists at an address, regardless of the phone used to report the emergency. The SupALI system must have an administration program that allows for new entries, modification of existing entries and deletion of old entries. This administration program must also be able to produce reports on the age of the record, when it was entered, when it was modified and when the data was last verified. A self-registration website is desired for users to be able to submit their supplemental information to the DESC, conditional upon approval of this information by DESC staff.

6. Instant Messaging

The System must have the ability to provide Instant Messaging between telecommunicators and between supervisors and all telecommunicators. The Instant Messenger must be small, efficient and be able to be configured so as to not interrupt a live call. Users should have the option to message a specific position, all staffed positions, and/or an electronic display/message board. Messages should be able to be deleted, or made 'sticky' for important messages so they stay on top of the list.

7. Questions

- I. Describe in detail how your solution will meet the requirements listed above?

Response to C-1-B.1:

Overview

The proposed Solacom solution is the implementation of a Guardian Next Generation ANI/ALI Controller ("Guardian") for the State of New Hampshire. The Guardian is a powerful and flexible public safety solution, designed to open standards and is IP from the core to the dispatcher user interface. The Guardian is a modular and scalable platform, designed specifically for public safety, which provides a seamless migration from legacy emergency communications to NENA i3 standards, on the State's own schedule. The proposed Guardian solution will be deployed in a geographically diverse configuration to maximize disaster recovery capabilities by adding an additional layer of redundancy to the Guardian controller. The Guardian NG9-1-1 controller is provisioned with standardized interfaces to external systems including CAD systems, logging recorders, existing PBXs, ALI databases and other ancillary systems.

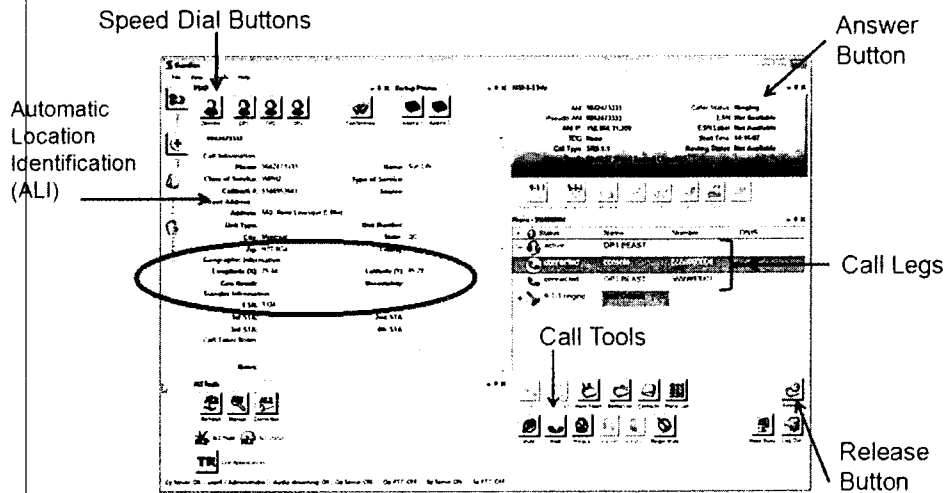
All calls are transported as VoIP across the ESInet between the Guardian controller and the Guardian workstations. All emergency and non-emergency calls are delivered to and from the carriers as VoIP, back-up analog admin lines are also in place should a problem be encountered with the ESInet.

The system design is shown in Attachments.

Solacom uses a Side A - Side B architecture to provide redundancy, support geo-diversity, allow training and to remove the requirement for system downtime for system maintenance (including upgrades). Side A (Laconia) of the proposed system is shown at the left side of the diagram and Side B (Concord) is shown at the right. Each side of the system has an application server, administration server and MIS server. At the processing core of the proposed solution are the two application servers configured in active/active mode. Data is replicated between the two servers, ensuring equal data availability. Either server is capable of supporting all system call processing; failure of a server does not result in a loss of calls or system functionality.

The Guardian Intelligent Workstation is an extremely powerful next generation 9-1-1 call taking position designed to maximize the effectiveness of call taking. The intuitive user interface allows call takers to quickly assess, prioritize and handle landline, wireless and VoIP calls. The layout of the application is very flexible and completely customizable. Assigned role privileges determine the windows and other resources that are available to each user, as well as how they're laid out in the application space. Two sample screen shots are shown below to demonstrate the tremendous versatility of the application. The screen layout will be designed and developed in consultation with the PSAPs to ensure that specific requirements are met.

Figure 1- Easy to use and completely customized to meet DESC requirements.



The screen layout show above is configured to display ALI at the upper left; geographical coordinate information is shown in the red ellipse, call handling tools at the lower right and has a large answer button at the upper right.

The call taker interface is constructed with a number of information windows which can be positioned on the screen in the location chosen by the County. In addition to the information windows are toolbars containing actionable icons, for example: answer; mute and dial pad. The toolbars are customized using a toolbar editor and, like the information windows can be positioned anywhere on the screen. Windows and toolbars can be configured to auto-hide when not in use.

The Guardian solution is under continual development to leverage new technologies and to ensure compliance with new standards.

The Guardian IWS is shown below.

The diagram shows the workstations major components:

1. Guardian Workstation (high-end workstation running call processing software)
2. 2 High Definition Monitors (one displaying the Guardian application, the second displaying ancillary applications including Valor CAD, xTrakker map and others).
3. Position Audio Control (PAC II) module enhances audio functionality. It supports multiple input and output ports to monitor and control audio devices and allows one headset to be used for both radio and telephone communication).
4. Instant Record Recall (IRR) hasp (enables the IRR application on the workstation).
5. Ancillary devices:
 - a. jackboxes/headsets
 - b. mouse/keyboard

Each workstation requires only a single low bandwidth LAN/connection – bandwidth requirements do not change regardless of the number of active calls or conference calls in progress at a workstation.

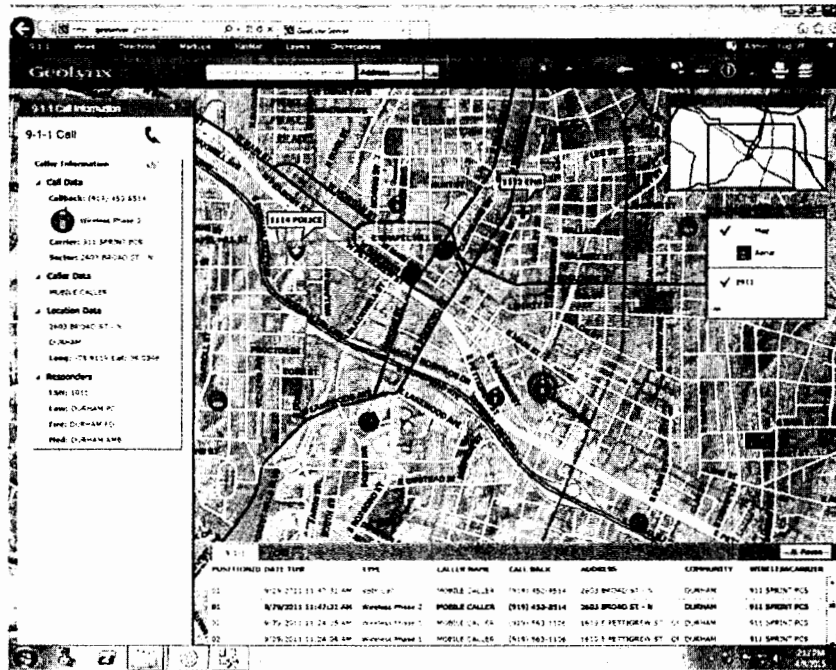
Interface to Existing Systems

The proposed solution will interface to DESC’s existing systems including:

- 1. Valor CAD
- 2. 911Datamaster DBMS and ALI
- 3. Exacom recorder,
- 4. xTrakker map

Both the Valor CAD and the xTrakker map will cohabitate with the Guardian application.

Guardian map is offered optionally. It will provide call mapping capability and will add the ability to answer and manage calls from the map. This permits ‘on the fly’ answering of calls by telecommunicators based on caller location and caller clusters.



NENA Compliance

The proposed Guardian solution is compliant with NENA Technical Standard 08-003, Detailed Functional and Interface Specification for the NENA i3 Solution) and accepts NENA i2 (VoIP) and NENA i3 (VoIP with location conveyance) calls natively. The Guardian solution is under continual development to ensure compliance with new standards and to leverage new technologies.

Response to C-1-B.2:

Redundancy

The proposed solution does not contain a single point of failure and will deliver 99.999% availability. The system uses demonstrated best practices of replication, redundancy and diversity to deliver mission-critical levels of system availability:

1. Redundancy: All vital modules are deployed redundantly to ensure that the failure of a module does not result in system downtime or loss of system functionality.
2. Replication: At the core of the proposed solution are two application servers configured in active/active mode. Data is replicated between the two servers, ensuring equal data availability. Either server is capable of supporting all system call processing; failure of a server does not result in a loss of calls or system functionality.
3. Diversity: Telecommunication circuits are distributed across multiple interface modules, ensuring that if an interface module fails there is only a minor and temporary (until it is replaced) decrease in system capacity.

Solacom uses a Side A - Side B architecture to provide redundancy, support geo-diversity, allow training and to remove the requirement for system downtime for system maintenance (including upgrades). At the core of the proposed solution are two application servers configured in active/active mode. Data is replicated between the two servers, ensuring equal data availability. Either server is capable of supporting all system call processing; failure of a server does not result in a loss of calls or system functionality. Under normal operations, call takers are logged in to Side A of the system. If the system detects a problem or impending problem with Side A, all call takers are automatically switched over to Side B without a loss of calls or system functionality.

Major Components/Failure Scenarios

The system's architecture is client/server based and is composed of the following major components:

1. Application Servers (quantity 2): commercial grade servers running the system software. Either server is capable of supporting the required call processing capacity for both locations. Failure of a server does not result in a loss of calls or system functionality.
2. VoIP Audio Switching Modules (quantity 2): provides the audio switching capability.
3. IQ500 Chassis (quantity 2): each chassis houses one VoIP Audio Switching Module. The chassis has redundant, hot-swappable power supplies.
4. Session Border Controller (quantity 2) – Border Control Functional element which provide the interfaces to SIP calls.
5. Administration Server (quantity 2): used for routine, non-critical system administrative tasks.
6. MIS Server (quantity 2): hosts the Management Information System application.
7. Guardian Intelligent Workstation (quantity 42): PC-based call taker interface.
8. Media Gateway (quantity 4): signaling and media interconnection point between the legacy PSTN networks and the IP-centric Guardian system administrative lines.
9. Ethernet Switches (quantity 4): provides interfaces for the system's IP components.

The system's Side A – Side B architecture is designed such that failure of a major component does not result in system downtime. The system's reaction to the failure of a major component is described below:

1. Application Servers: The Side A – Side B architecture ensures that failure of an application server does not result in the loss of active calls or system functionality. Either server is capable of supporting all system call processing; failure of a server does not result in a loss of calls or system functionality. If the system detects a problem with the Primary side's application server, call taker positions will automatically be moved over to the Secondary side.
2. VoIP Switching Modules: The Solacom solution is configured with a redundant pair of VoIP Audio Switching Modules. One VoIP module can support the system entire audio switching requirements. Failure of a VoIP module does not result in loss of calls or system functionality. If the system detects a problem with the Primary side's VoIP Module, call taker positions will automatically be moved over to the Secondary side.
3. IQ500 Chassis: The Solacom solution is configured with a redundant pair of chassis. Failure of a chassis does not result in loss of calls or system functionality. If the system detects a problem with the Primary side's chassis, call taker positions will automatically be moved over to the Secondary side.
4. Session Border Controller: Each SBC is configured as a high availability redundant pair, failure of one pair in one unit has no effect on call delivery. Failure of the entire unit is unlikely but would result in a temporary decrease in call capacity but no loss of system functionality. Back-up analog admin lines are available for use during the temporary outage.
5. Administration Server: Failure of an administration server does not have an impact on call processing, however, system administrative capability can be conducted from the second administrative server.
6. MIS Server: Failure of the MIS server does not have an impact on call processing, MIS data continues to be collected by the second MIS server.
7. Guardian Intelligent Workstation: The failure of a call taker position results in a minor and temporary reduction in system capacity i.e. one less call taker position but does not result in the loss of active calls or system functionality. Calls that are active at a call taker

workstation will not be lost, instead they will be maintained by the system and returned to the call queue.

8. Media Gateway: The system will be configured with multiple gateways distributing administrative circuits – Media gateways offer the best survivability strategy for traditional circuits. By diversifying circuits across multiple gateways, the potential impact of a failed gateway is minimized. In the event of a gateway failure, there will be an isolated loss of capacity, affecting only those legacy circuits associated with that particular gateway, until the gateway is replaced. There will be no loss of system functionality.
9. Ethernet Switch: The system will be configured with multiple diversified Ethernet switches to minimize the impact of a failure. The precise impact of a switch failure is dependent upon the devices connected to a particular switch. All critical redundant components will be connected to two switches. Failure of one switch will not result in the loss of call processing capability.

Make Busy

Solacom uses a Side A Side B architecture to provide redundancy, support geo-diversity and to remove the requirement for system downtime for system maintenance (including upgrades). At the core of the proposed solution are two application servers configured in active/active mode. Data is replicated between the two servers, ensuring equal data availability. Either server is capable of supporting all system call processing; failure of a server does not result in a loss of calls or system functionality. Under normal operations, call takers are logged in to Side A of the system. Side B can be taken out of service (i.e. “Make Busy”) to perform maintenance without any loss of system functionality. Call takers can then be gracefully moved over to Side B; Side A can then be taken out of service for its maintenance requirements.

Response to C-1-B.3:

Call Delivery

The proposed system can process both standard SIP (NENA i2) calls and NG9-1-1 SIP (NENA i3 – SIP with location) calls simultaneously. The ability to operate in both modes simultaneously is a critical capability that allows for the efficient transitions from E9-1-1 to NG9-1-1 operation. No ‘flash cut’ is required to complete the transition to NG9-1-1.

The system achieves this by having an integrated LNG functionality built into the Solacom Emergency Services Routing Proxy (ESRP) platform. This inclusion of the LNG Functional Element with the ESRP Functional Element provides the most cost effective solution for the State of New Hampshire, and insures no ‘fork lift’ upgrades or system reconfiguration will be required as the transition from E9-1-1 to NG9-1-1 is executed.

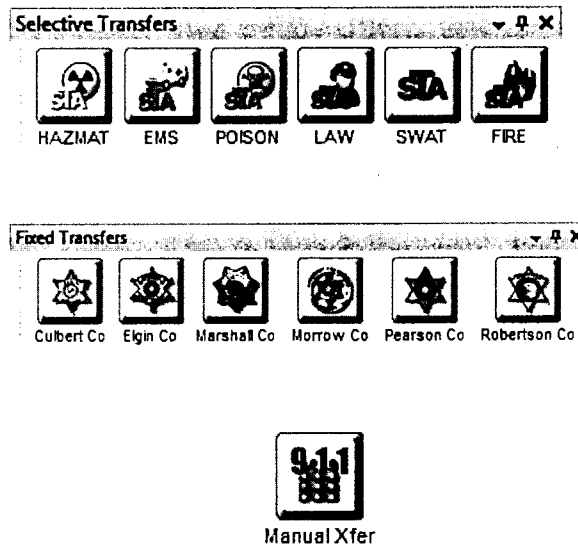
The proposed system includes a Border Control Capability in the form of two redundant, High Availability Session Border Controller (SBC) units which will provide the interface to all SIP calls (standard SIP or NG9-1-1 SIP). One high availability SBC is located each of the two PSAPs. The

BCF sits between external networks and the ESInet and between the ESInet and Dispatch Centers and incorporates firewall, admission control, and may include anchoring of session and media as well as other security mechanisms to prevent accidental or deliberate attacks on call delivery, PSAPs or other entities connected to the ESInet.

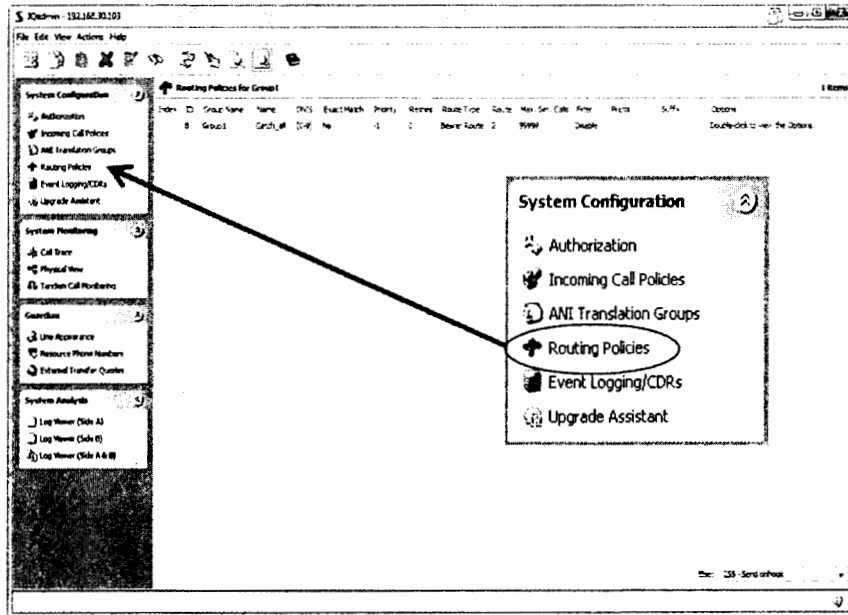
Response to C-1-B.4:

Call Transfer

The system allows for the definition on the call taker screen layout of Selective, Fixed and Manual transfer buttons.



When a State-supplied Emergency Call Routing Function (ECRF) is available, the system will query the ECRF for the identity of the agency to which the call should optimally be transferred to. Once the targeted agency is identified the system then determines the available routes to that agency and selects the route based on pre provisioned routing rules, as determined by the PSAPs. The provisioned routes allow for a primary route to be direct SIP to an agency or should that route be unavailable, the transfer would use the identified alternative route which could be a gateway to the PSTN. Multiple alternative routes can be defined. The provisioning of the routing rule is executed via the 'Routing Policies' provisioning.



Routing rules will apply to all selective, fixed and manual transfers as they are driven by the targeted agency.

- Identify all hardware (type, manufacturer, model, and the function it supports.) necessary to support the proposed system. The listing should differentiate equipment provided by the vendor under the proposal and the equipment to be provided by the DESC.

Vendor Supplied Hardware:

Quantity	Type	MFG	Model	Function
2.00	Enhanced Admin Server 5YS	Dell	PowerEdge R320	System administration
2.00	Superior Application Server	Dell	PowerEdge R320	Call processing
2.00	42U Cabinet Kit with Sides	APC/Dell	AR3300	Dell branded deep cabinet
2.00	KVM (Keyboard,Video,Mouse) Switch 4Ports	StarTech	RACKCONV1701	KVM for administration of servers across single interface.
2.00	8-Ports Serial to 100BT Converter	Perle	IOLAN STS4-D	IP to serial interface
4.00	20Amp Vertical Power Bar (NEMA L5-20P)	Tripp Lite	PS7224-20	20 amp power bar
2.00	IQ500 Chassis Kit	Pinnacle Data	IQ-500	PCI chassis to house High Density VoIP Card
2.00	High Density 512 Port VoIP Card	Solacom	HD512 VoIP Module	RTP stream and conference control
2.00	Enhanced MIS Server	Dell	PowerEdge R320	Statics gathering and generation
2.00	Ethernet Switch Kit (11 + 2E) – Dlink	Dlink	DGS-3120	Ethernet switch - interface to all IP devices
4.00	Gateway to Legacy POTS Line (4 FXO)	AudioCodes	MP-114-FXP	Gateways converts analog POTS lines to IP

2.00	Enhanced Simplex Firewall Package	SonicWall	TZ-215	Hardware Firewall - security
2.00	Oracle 1100 High Availability SBC	Oracle	\$1,100.00	Sessioni Border Control - security
59.00	Position Audio Controller II w/ Jack Box	Solacom	PAC-II	Audio Interface
101.00	Dual Prong Mono Headset	Plantronics	Encore Pro HW291N	Call taker headset
59.00	Supplemental/Supervisor Jackbox	Solacom	SV Jackbox	Second jackbox for second participant (supervisor) to physically connect headset/handset to workstation
59.00	Ancillary SW and HW for customer PC-PCIe	ASUS	Xonar DX	ASUS Xonar Soundcard for customer provided workstations.
17.00	Genovation Keypad- 24 Buttons, 6' Cable	Genovation	\$683.00	Programmable keypad
17.00	Ancillary SW and HW for customer PC-PCIe	ASUS	Xonar DX	ASUS Xonar Soundcard for customer provided workstations.
1.00	Position Audio Controller II w/ Jack Box	Solacom	PAC-II	Audio Interface
1.00	Gateway to Legacy POTS Line (4 FXO)	AudioCodes	MP-114-FXP	Gateways converts analog POTS lines to IP

DESC Supplied Hardware:

Quantity	Type	MFG	Model	Function
1.00	Netclock	Spectracom	9483 or equivalent	Legally traceable NTP time source.

3. Describe how your system will recover from a failover or manual shutdown of 1 PSAP.

Solacom uses a Side A - Side B architecture to provide redundancy, support geo-diversity, allow training and to remove the requirement for system downtime for system maintenance (including upgrades). Under normal operations, call takers are logged in to Side A of the system. If the system detects a problem or impending problem with Side A, all call takers are automatically switched over to Side B without a loss of calls or system functionality. Maintenance personnel will then troubleshoot, diagnose and resolve the problem with Side A. When Side A is proven to functioning to specifications again, maintenance personnel will gracefully move all call takers back to Side A.

Either side of the system in either PSAP can also be manually shutdown. Under normal operations, call takers are logged in to Side A of the system. Side B can be taken out of service to perform maintenance without any loss of system functionality. Call takers can then be gracefully moved over to Side B; Side A can then be manually taken out service for its maintenance requirements.

4. What operating system does your solution require for servers and for workstations?

Current Operating Systems:

Servers: Microsoft Windows Server 2008

Workstations: Microsoft Windows 7

5. Please describe, in detail, your solution to Supplemental ALI in C-1-B-5. Can The System accommodate land lines, VoIP lines and cell phone numbers? Can you link this information to an address? To an x/y location? Can your data be included directly on a map or must it be exported, geocoded and converted to a GIS layer first?

The proposed system contains two Supplemental ALI capabilities. The default Supplemental ALI feature, which is included in the system as quoted, allows authorized PSAP individuals to enter supplemental data against a Directory Number, and have that information approved. Once approved the information is displayed automatically to the call taker if the system determines that supplemental ALI information exists for the ANI of the caller. Administrators can run reports showing all Supplemental ALI information by Directory Number. The information can also have an expiry date

The optional Supplemental ALI data system has a self-registration website. The SupALIData application would be configured as a New Hampshire specific services.

SupALIData enhances public safety entities ability to provide service for emergency call situations. Whether decreasing time to respond or knowing health issues before arriving, SupALIData increases the quality of care responders can provide when they are needed most. SupALIData also increases the safety of responders by arming them with additional knowledge; for example, protective dog in home or in case of fire, awareness of oxygen tank in home.

SupALIData collects and disseminates enhanced information about a caller and a location. This information will be collected from individuals who opt in using a web portal and stored in a supplemental data server. The PSAP CPE can be configured to use each incoming ANI to check for supplemental information and, if present, display this information for the call taker.

Within the software, customers can add the information that they feel will be the most beneficial for emergency responders. Default fields include:

Multiple Address locations	Phone Numbers
Occupant details	Vehicle details
Emergency Contacts	Pet Details

Additional information field can list information such as:

Relevant medical conditions	Gate codes for home access
Language spoken	Wheelchair bound
Known allergies	Current Medications
Oxygen tank in home	DNR

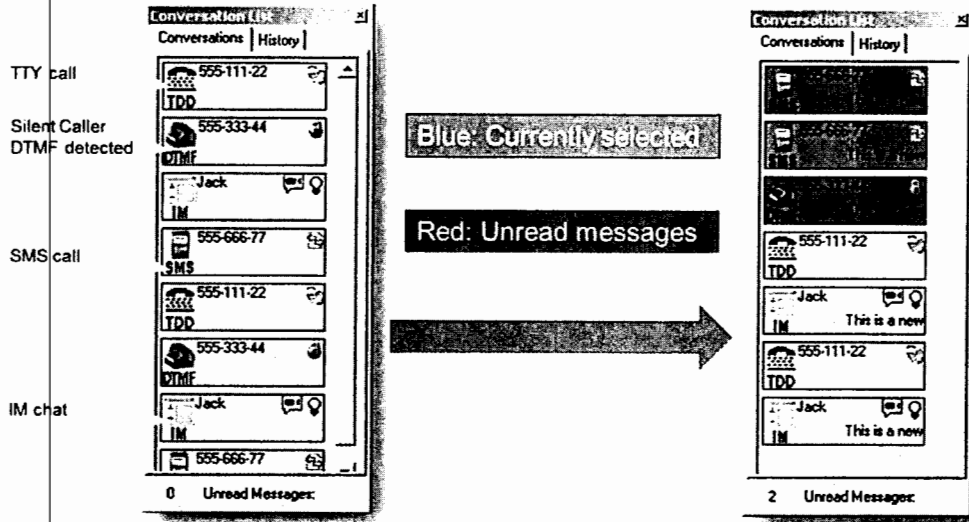
SupALIData provides industry standard https security, and sends data update requests to customers every 6 months to help maintain data accuracy. The web portal is compatible with most browsers and operable on non-PC platforms. Additional SupALIData features include:

- User friendly web interface for individual data entry
- DESC configure system so approval of all data is required prior to its use
- Visual prompt to notify call taker of additional information
- Address information located in LVF(location validation function) where available
- Integrated with 911Datamaster's ALI
- 6 month reminders for data update
- Provides SMS and voice verification of phone numbers using a system generated key specific to a user's sign up activities.
- Customer maintains password control over their profile
- Supplemental data stored using NENA's NG9-1-1 vision as specified in NENA 08-003 and upcoming standards for "additional data".
- With the decrease of landline telephones, SupALIData's ability to link cell phones with home addresses may decrease response times especially in the event that the caller cannot speak.

The SupALIData will also be enhanced so that it can send location based data to the DESC's xTrakker map application (or to Guardian Map should that Map option be selected).

6. Please describe, in detail, your solution to Instant Messaging in C-1-B-6.

The user interface includes a multi-media panel which will be used for all text calls (text-to-911, TDD/TTY and Instant Messaging). The Solacom solution will support Instant Messaging (IM) between telecommunicators and supervisors. Once IM 9-1-1 calls are taking place the same IM system will be extended to receive the 9-1-1 IM calls. The telecommunicator's interface for all text based calls TDD/TTY, SMS and IM is a multi-media panel which is fully integrated into the Guardian client. The panel is designed to allow for chat (text), video, and data transfer.



With appropriate permissions, supervisors can create ticker message broadcasts to the call taker positions. The call taker user interface includes a ticker message bar that displays text scrolling horizontally across the screen. The text consists of one or multiple broadcast messages contained in a single text line. The speed that the message scrolls and the length of time that the message continues to scroll are configurable by the supervisor. The message can be made “sticky” and continue to scroll for as long as deemed appropriate.

Storm Alert for NCR Until 6:00pm

C-1-C Interfaces

1. Computer Aided Dispatch (CAD)

The System shall have an interface to the Valor™ Computer Aided Dispatch (CAD) system. The bidder’s CPE software shall run on the same workstation as the DESC Valor™ CAD system software. The CPUs will be equipped with at a minimum quad monitor cards and two monitors. There shall be only one keyboard and mouse for the call answering and CAD software. It shall provide interface to multiple CAD servers using a standard NENA CAD spill. The System shall provide CAD spill update when ALI is rebid.

2. GIS Capabilities

Any GIS solution should be compatible with Valor™ CAD software. The System should be compatible with MicroData’s™ Xtrakker solution in the event the DESC does not select the proposed map solution. These should be listed as options within your cost proposal.

3. Database

The System shall be able to interface with the 911Datamaster™ DBMS solution for the purposes of retrieving ALI data via a land-line database and from VPCs and MPCs over the E2 circuits. DBMS will serve the role of Location Database (LDB) in this configuration. It must be able to interface with the multiple LDB servers located in Concord and Laconia and must be able to query both servers in the event of a failure at one location.

4. Master Log Recording

The System shall be compatible with Exacom™ Hindsight master call recorders.

5. External Clock

All components provided in this proposal should have the ability to synchronize with a net clock. The state currently owns two Spetracom Netclock model 9483 to be leveraged if deemed suitable.

6. Questions

1. Describe how The System will meet the requirements of C-1-C-1

The proposed Guardian Intelligent Workstations (IWS) support quad monitors and co-habitation with Valor CAD. The Guardian and Valor applications are currently running on the same workstation at other PSAP locations so the co-habitation is a proven solution. This includes the use of a single keyboard and mouse.

DESC has the option of supplying the workstation PCs, minimum specifications are shown in Table 2.

Table 2 – Minimum PC specifications

Item Number	Item Description
210-ACQM	Dell Precision Tower 5810 CTO Base
370-ABTJ	8GB (2x4GB) 2133MHz DDR4 RDIMM ECC
619-AFLK	Win 7 Pro,SP1,No Media,64bit,Opti,ENG
400-AAWR	500GB 3.5inch Serial ATA (7,200 Rpm) Hard Drive
403-BBGV	Integrated Intel AHCI chipset SATA controller (6 x 6.0Gb/s) - SW RAID 0/1/5/10
429-AAPE	8x Slimline DVD+/-RW Drive
470-AAKG	US 125V Power Cord
490-BBWW	DUAL 512MB NVIDIA Quadro NVS 310 (2cards w/ 2DP each) (4DP-DVI adapter)

520-AADM	Internal Speaker
570-AACW	Dell MS111 USB Optical Mouse
580-AADG	US English (QWERTY) Dell KB212-B QuietKey USB Keyboard Black
934-7327	Dell Limited Hardware Warranty Plus Service Initial Year
994-8100	ProSupport 4-hour, 7x24 Onsite Service After Remote Diagnosis, Initial Year
994-8180	ProSupport : 7x24 Technical Support , Initial
932-5004	ProSupport 4-hour, 7x24 Onsite Service After Remote Diagnosis, 4 Year Extended
932-5044	ProSupport : 7x24 Technical Support , 4 Year Extended
938-3758	Dell Limited Hardware Warranty Plus Service Extended Year(s)
329-BCGL	Dell Precision Tower 5810 425W Chassis
338-BFJN	Intel Xeon Processor E5-1607 v3 (Four Core, 10MB Cache, 3.1GHz)
412-AADM	Heatsink for single CPU T5810
449-BBEF	C1 SATA 3.5 Inch, 1-2 Hard Drives
480-ABMH	Dell 23 Monitor - P2314H
520-AADW	AX210 USB Stereo Speakers
658-BBIH	Dell Applications for Windows 7

The system supports NENA-compliant CAD spills with the ability to adjust the format of the spill to the Valor CAD if required. The system can be provisioned to send all ALI information with rebids or to only send the final ALI data. The ability to reformat the ALI and adjust the rebid updates will allow the Guardian system to interface with the Valor CAD so as to maintain the current CAD operation.

The Guardian system can also provide a NG9-1-1 Logging Service interface to the Valor CAD when the CAD is upgraded to NG9-1-1 operation.

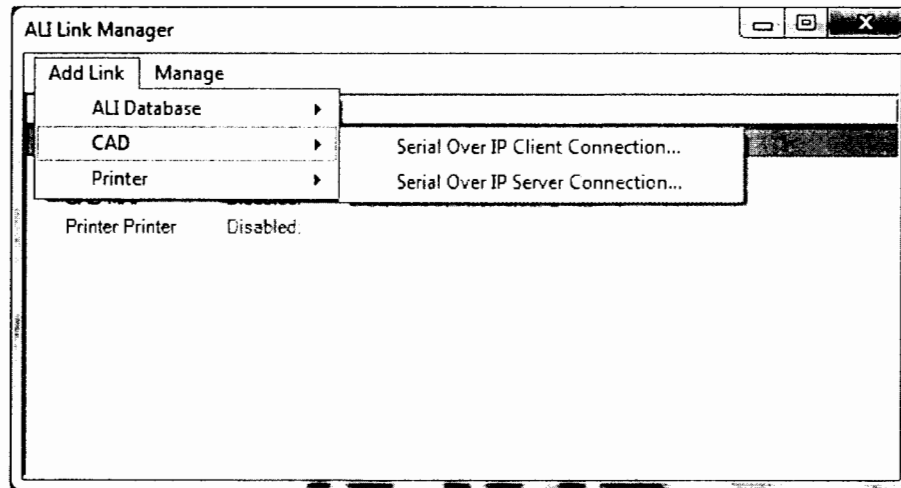
2. Describe in detail how The System will interface with Valor™ CAD.

The interface to the Valor CAD can be serial, or IP - both options are available. The system supports NENA-compliant CAD spills with the ability to adjust the format of the spill to the Valor CAD if required. The system can be provisioned to send all ALI information with rebids or to only send the final ALI data. The ability to reformat the ALI and adjust the rebid updates will allow the Guardian system to interface with the Valor CAD so as to maintain the current CAD operation. The Valor CAD will cohabitate the Guardian IWS with the Guardian and xTrakker applications.

The Guardian system can also provide a NG9-1-1 Logging Service interface to the Valor CAD when the CAD is upgraded to NG9-1-1 operation.

3. Describe how the System will interface with xTrakker if required? Please describe in detail the GIS or mapping capabilities and options of your solution.

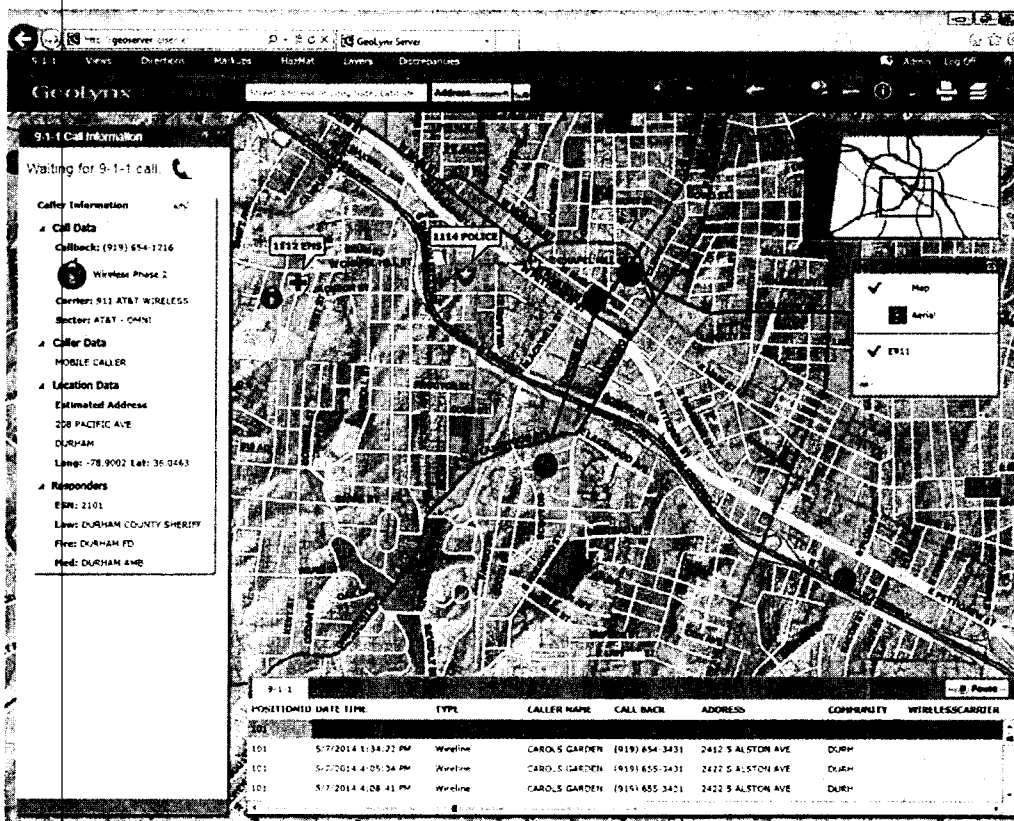
The proposed system will interface to the xTrakker via existing NENA defined CAD/MAP interfaces that provide the map system information on a call that can be used to map calls. This NENA CAD/MAP data will also be upgraded to include SMS 91-1 calls handled in the same way as TTY information is provided to the CAD/MAP. Solacom will provide cohabitation testing to confirm that the xTrakker application can reside on the Guardian Intelligent Workstation PC without impacting call processing capability. The system has the capability to format the CAD/MAP spill to align with the NENA-compliant formats used by the xTrakker and Valor applications.



The interface with the xTrakker can be upgraded to a NG9-1-1 Logging Service Functional Element (FE) interface so that the xTrakker can access all NG9-1-1- location event information and track ongoing changes to caller locations. The Logging Service will include SMS 9-1-1 call events.

4. Describe in detail any alternate GIS solution that you would recommend with The System. If proposing an alternate GIS solution, please describe in detail how that component will interface with Valor™ CAD, particularly in the remote dispatch centers.

Guardian map is offered optionally. The Guardian map is sourced from GeoComm and is based on the GeoLynx product. The Guardian map version of GeoLynx will provide all the mapping functionality of GeoLynx but adds the ability to answer and manage calls from the map. The added capability of managing calls from the map permits ‘on the fly’ answering of calls by operators based on caller location and caller clusters.



The optional Guardian Map can utilize the same source GIS data currently used by xTrakker and will cohabitate on the Guardian IWS with Valor CAD.

5. Describe how The System will interface with 911Datamaster LDB and DBMS products.

An IP interface to the Datamaster system is proposed. The IP interface, using NENA defined queries, is a proven reliable configuration and currently in operation at shared customer locations. The use of an IP interface will also facilitate the transition from E9-1-1 to full NG9-1-1 operation.

The proposed Solacom system is currently co-deployed with Datamaster at many locations. The tested/in-operations interfaces to the Datamaster include their existing ALI/DBMS, using various serial or direct IP connections, and the Datamaster NG9-1-1 LDB, LIS, and ECRF/LVF.

It is important to note that Solacom and Datamaster have field proven experience in migrating from an E9-1-1 ALI database to a full NG9-1-1 solution, with no service interruptions to system servers.

6. Describe how The System will interface with Exacom™

The Guardian system can provide analog interfaces per the States existing controller but Solacom and Exacom recommend that these be upgraded to IP. The ability to support IP recording is supported by the Hindsight recorder equipment currently being in uses by the State.

Solacom is a current partner of Exacom, the Hindsight recorders are in operation with the Solacom Guardian system at shared customer locations.

The Guardian system can provide all the existing analog and digital, record points utilized by the Hindsight system to the existing controller. However, Solacom and Exacom propose that the State utilize the existing capability of the Hindsight system to convert all record points to SIP based on the NG9-1-1 NENA specifications. The SIP would provide for full redundant recording and the capture of required metadata associated with the call. To facilitate the deployment of the solution Exacom and Solacom will execute pre-install testing between the systems.

The Exacom unit can accept an i3 logging stream for the Metadata. Solacom and Exacom will conduct testing prior to deployment of the system to ensure correct operation. Please see compatibility letter in the appendix.

7. Describe how The System will synchronize with a net clock.

The solution is configured with an administration server at each data center. The administration servers synchronize directly with the time source via an IP connection and use the Network Time Protocol (NTP) to synchronize other system components.

C-1-D Call Handling / CPE

All calls shall be presented and include all standard call-handling features. Handling of a wireless call should be transparent to the telecommunicator in that all telephony features and functions at the telecommunicator position are the same as that of a wireline call. Single step ring-back is mandatory as the telecommunicator shall not be required to perform a manual ANI ring-back for wireless calls.

1. ACD (Automated Call Distribution (ACD))

The PSAP equipment shall contain an on-site intelligent call distribution system. The ACD shall contain the ability to provide seamless integration between the two primary PSAPs in Concord and Laconia. The ACD should combine both PSAP's agents into one virtual ACD. The DESC requires the seamless integration to do 'look ahead' before a request for emergency services is presented to an agent to ensure their availability. This feature should not be done using 'No answer call forward' technology. The incoming request for emergency services queue, in conjunction with the selected ACD scheme, presents the incoming request for emergency services to the next call-taker in the same order that the incoming request for emergency services was received. In the event of a failure or interruption of service for the 'Virtual ACD' both PSAP's ACDs should have the ability to operate independently. PSAP managers shall have the ability to customize voice messages and select from several different 9-1-1 call ACD schemes, including:

- Longest idle
- Longest idle with alerting chime
- Predetermined Priority
- Ring All Calltakers
- No ACD
- Skill or Role-based call routing

All five ACD schemes ensures that no two calls with the same ANI are placed in the call waiting queue at the same time, thereby assuring that hang-ups and crank calls do not tie-up incoming trunks. A separate series of ACD queues, which are First-In First-Out (FIFO), shall be available for incoming administration calls.

2. Instant Recall Recorder (IRR)

The System shall be equipped with IRRs at each position and interface with a master log recorder. The master log recorder is a Multi-Channel Digital Recorder. The IRRs shall be integrated with the master log recorder.

3. ANI/ALI Controller

The System may include an ANI/ALI controller as needed by the proposed solution to ensure functionality required in this proposal. The ANI/ALI controller shall comply with current protocols recommended by NENA.

4. ALI Retrieval System Interface

The System shall have the capability to interface to multiple ALI Retrieval systems. It must have at least two output interfaces for transmission and receipt of data to act as an interface between each database provider's ALI (Automatic Location Information) computers and the customer's premises equipment to display location information at the answering position handling the call.

5. Automatic Number Identification

The System shall be capable of providing visual display of the emergency caller's telephone number at the PSAP location. The System must be able to process a minimum of a 20-digit spill for wireless calls.

6. Automatic Location Identification

The System shall be capable of providing visual display of the calling party's street address information based on the ANI or Phase I/II wireless location. It must be capable of extracting geographical coordinate information from the ALI file received and transmitting this information to geographical mapping software.

7. Calltaker Console and Function

The console shall provide the ability to display the Calling Party Number and Location Information of an incoming 9-1-1 or emergency call before the call has been answered. It shall provide the ability to request the System to rebid the location of the caller and update the location in the call information display. The console shall provide the ability to perform a manual ALI request whereby the agent enters a phone number and The System performs an ALI query and displays the results on the console. This manual ALI query can be performed while the agent is idle or on a call.

8. Reverse ALI

The answering positions shall allow for reverse ALI lookups for 9-1-1 emergencies, testing and quality assurance if authorized by the Director of the DESC. The reverse ALI lookups shall be authorized by security within The System. Only a duty supervisor will have access to perform a reverse ALI look-up. It is also required that a report is generated daily for all reverse ALI lookups performed that captures the logged-on supervisor, the position, the time of day and telephone number of the reverse ALI lookup. The automated reverse ALI report will be reconciled with a manual form to ensure compliancy of system requirements.

9. TTY Communication

The PSAP equipment shall be capable of automatically detecting emergency calls originating from Baudot-type and ASCII2-type teletypewriters (TTY), and indicating to the telecommunicator the presence of the TTY call. The System must allow telecommunicators to communicate with TTY callers directly from their 9-1-1 answering position keyboard, without requiring the use of any external device. Telecommunicators must also be capable of manually connecting to emergency calls originating from ASCII2-type TTY equipment, as well as originating both Baudot and ASCII calls from their answering position. The answering position shall allow users to store and access (send) pre-programmed TTY messages, as well as to print the previous TTY conversations. The pre-programmed messages should be grouped under separate event type tabs for quick reference, such as Police, Fire, EMS and General. The telecommunicator shall also have the ability to create a conference between the TTY caller and up to seven (7) non- TTY parties either in 9-1-1 call-taking mode or administrative call-taking mode.

10. Dialing

The console shall provide a user interface where contacts can be displayed in an array of buttons for one-click dialing. One-click dialing will be based on the incoming ESN and shall be able to display at least 6 one-click options, for police, fire, and medical transfers to primary and secondary agencies. Multiple layers of these buttons must be able to be organized so that a call taker may be able to navigate to the appropriate button quickly.

11. Abandoned Call Handling

The console shall provide the ability to notify the agent of any abandoned calls. The notification shall be in the form of a visual indicator showing the quantity of abandoned calls as well as an audible indicator specific to abandoned calls.

12. Call Transfers and Conference Abilities

The PSAP equipment shall have the ability to route a call to an on-site or remote location using a single keystroke. The transfer must be capable of transferring ALI information of the original caller. It must provide the telecommunicator the ability to remain on a call and add a new party to the conversation. Any party shall be able to drop out of the conference, leaving the others talking as long as at least one of the other parties possesses supervision on their connection. Conferences should be set up using a single keystroke without putting the caller on hold - the caller must remain on-line at all times. The System shall allow for up to 10 parties to be placed in a conference simultaneously.

13. Administrative and 9-1-1 Hold

Any administrative call shall be able to be placed on hold by selecting the hold button. Once the call is placed on hold, selecting the line button shall pick it up. The answering position shall allow the telecommunicator to place up to eight (8) 91-1 calls on hold. To assist in retrieving the proper call, telecommunicators shall be presented with a list of calls on hold, showing the ANI, the ESN, the trunk number, the time and date at which each call was placed on hold. Telecommunicators shall also have the capability of retrieving 9-1-1 calls that have been placed on hold at another telecommunicator's position.

14. Monitor

A supervisor shall have the ability to silently listen to any telecommunicator's telephone conversation from their answering position. Such action shall not cause any audio or visual disturbance at the monitored answering position. The supervisor can listen in on the call and optionally barge in to the call and establish a two way audio path with all participants in that call.

15. Join

The supervisor shall have the ability to enter a telecommunicator conversation, either from the click-free monitor mode or initially from an idle state. The telecommunicator, supervisor and caller are then part of a three-way conference.

16. Forced Disconnect

Telecommunicators shall be capable of releasing an existing 9-1-1 call at any time, regardless of whether the calling party has hung up.

17. Privacy

The telecommunicator shall have the ability to block the caller from hearing any conversation from the remaining parties in the conference. The caller's conversation shall continue to be heard by the remaining parties.

18. Muting

The telecommunicator shall have the ability to block the caller from hearing and talking with the remaining parties in the conference.

19. Main Screen Requirements

The main screen shall consist at a minimum of the following components: Menu Bar, Toolbar, Status Bar, Call Information Window, Conference Window, Static Page Window, Multiple Page Window, Keypad, Volume Control Window, Selective Transfer Agencies Window, Texting Window and TTY Interface Window.

The keypad shall be used to dial telephone numbers or to input numbers as required. The keypad shall also provide access to the speed dial list and offer a redial function. The telecommunicator shall have the capability to select a redial number from a drop down list on the keypad. The list shall contain the last numbers dialed at the answering position with the most recent number appearing at the top of the list.

20. Call / Line Indicators

The answering position shall indicate incoming emergency and non-emergency calls by both audible and visual means. 9-1-1 trunks shall have a different audible and visual signal from other lines. The answering position shall also have the ability to visually display the status (idle, busy, ringing, on hold and out of service) of each emergency and non-emergency line. How does your system meet this requirement?

21. Comment Field Associated with the Call (Notes)

The system should allow the telecommunicator to enter comments and pertinent information about the call.

22. Print Capabilities

The answering position shall provide an interface port for automatically printing the ALI and the TTY conversation upon call release. The telecommunicator shall also have the capability to print on demand.

23. Audio and IO Management

The console shall provide an audio management device allowing the connection of up to three headsets, a long term recorder, a radio console call director and auxiliary audio inputs.

24. Text Messaging

The System shall accept text messaging integrated to the call taker's station. When the call taker is presented with a text message emergency service request they will now be unavailable to any other form of requests for service such as voice calls. Vice versa if they are currently active with a voice call they will not be presented with a text message. The System shall have similar abilities to handle a text message request for emergency assistance as it does for a voice request such as GIS functionality. All other normal call handling functions supported for voice calls should also be supported for text messaging such as the ability to join the call or monitor the call, previous call history, reporting, etc.

25. Interface Capabilities

The console shall provide the ability to include a shared call appearance resource for any inbound line or trunk of The System that will show the status of the line, pre-answer ALI of the caller, ability to pick up that line or join the call. The console shall provide pre-answer ANI and ALI to any shared call appearance.

The console shall provide the ability to include a multi-call appearance that queues multiple calls from assigned line groups and rings multiple positions. The multi-call appearance, if mapped to the current console UI layout, shall indicate the number of calls queued on that appearance as well as the waiting time for the oldest call.

26. Console Accessories – Headset

The headset shall be high quality, lightweight and equipped with a headset earpiece speaker, a microphone, a 10-foot coiled cord with quick disconnect and a microphone pre-amplifier with volume control. Headsets should be compatible with current standards and as an option have the ability to use wireless headsets. They should support an inline mute, a noise cancelling microphone and have options for 1 ear or 2 ears.

27. Questions

1. Describe how you will meet the requirements listed in Section C-1-D-1 of both the Scope of Work and in the Requirements.

The system will be configured such that the two PSAPs are configured as a virtual PSAP. Call takers in either PSAP will be able to see the activity in both PSAPs using Tenant Status windows which display real time information about call queues and operator status. System wide intelligent ACD will present calls to call takers in both PSAPs based on queue configurations. Call takers in each PSAP can be members of common queues extending across both PSAPs or alternatively each PSAP can have individual queues with overflow from the other queue or multiple queues as needed. As an example, you could have PSAP 1 handle administrative calls provided they have operators available and only have those calls present at PSAP 2 if no operators were available at the PSAP 1. There is tremendous flexibility in setting up the call flow to meet the specific needs of New Hampshire.

The system's "look ahead" parameters are configurable on a queue by queue basis, dictating how overflow will be implemented. The system looks ahead for the following conditions: operator busy, busied out (not ready) and logged out. For ACD type queues the system will advance to next choice without waiting for ring no answer when the conditions are met; e.g. based on configuration when all operators logged into the queue are busy or busied out then the overflow route will be attempted immediately. For Ring all type queues only the busied out and logged out take effect sine for this type of queue it is normal to present calls to all idle or operators on a call. Ring no answer time outs call also be configured on a queue basis to complement the overflow functionality.

In the event the PSAP are isolated from each other on the network, each continues to process calls in a standalone mode with the ACD adapting to the temporary situation, routing calls only to local call takers in each of the isolated PSAPs.

The proposed Solacom solution offers 3 types of automatic call distribution in addition to ringing all dispatcher workstations simultaneously:

- Sequential Priority – rings the highest priority member first. If the call is not answered within a pre-defined ring time, the second dispatcher in the group rings and so on.
- Longest Idle – rings the dispatcher that has not answered a call for the longest period of time.
- Round Robin – rings the next available dispatcher starting with the first available member on the list.

The system also supports skills based distribution - based on login (user, role or role group).

The Guardian includes advanced ACD features which allow calls to be routed based on a variety of variables as follows:

- Queues can be established, each with a unique call presentation priority level, allowing for individual users, entire roles, or role groups to be members of the queue.
- Calls can cascade to different queues based on timers or the availability of agents in the queue.
- Agents have the flexibility to log in and log out of various queues, based on permissions assigned at the role level.
- Multiple visual indications are available in the system to alert dispatchers to queued calls.
- Thresholds are configurable for different call conditions, i.e. ringing and on hold.
- Multiple thresholds can be configured for varying levels of call volume.
- Ticker messages can be configured to scroll across the dispatchers screen when certain variables are met, which may require immediate attention, for example, a high volume of calls in a queue.
- Relay closures and a tri-color light pole are configurable to generate audible and visible alerts for different thresholds (not included in our proposal but optional and available for future consideration).
- The system supports recorded announcement functionality for ACD groups.
Two audio announcements can be played to the queue, an initial greeting and then a second follow-up announcement that can be configured to loop at a prescribed interval.

2. Specifically please explain in detail how your system will comply with our requirement for Call Overflow to do a 'look ahead'.

The system's "look ahead" parameters are configurable on a queue by queue basis, dictating how overflow will be implemented. The system looks ahead for the following conditions: operator busy, busied out (not ready) and logged out. For ACD type queues the system will advance to next choice without waiting for ring no answer when the conditions are met; e.g. based on configuration when all operators logged into the queue are busy or busied out then the overflow route will be attempted immediately. For Ring all type queues only the busied out and logged out take effect since for this

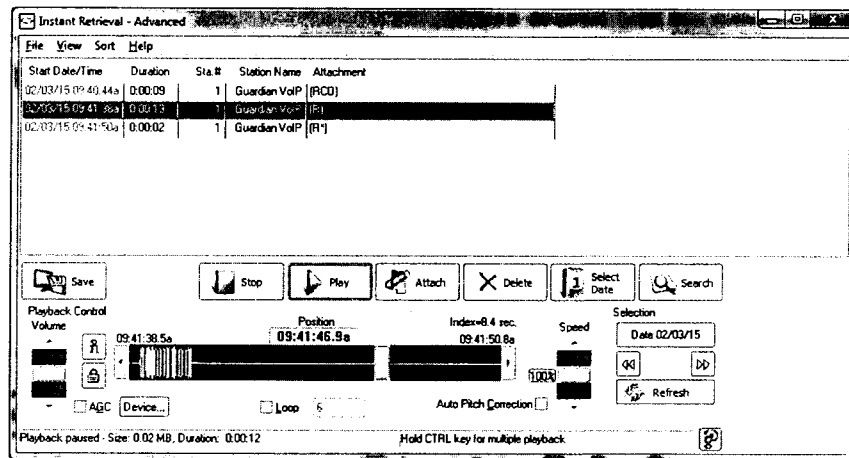
type of queue it is normal to present calls to all idle or operators on a call. Ring no answer time outs call also be configured on a queue basis to complement the overflow functionality.

3. How many call queues does your system support?

The system supports an unlimited number of call queues.

4. Describe how you will meet the requirements listed in C-1-D-2 of both the Scope of Work and in the Requirements.

The system includes an integrated IRR application which runs in the background on the dispatcher’s workstation and can be invoked for replay at any time. Calls are shown sequentially and can be recalled for review at any time as shown in the following illustration:



Dual IRR is installed on each workstation to record both the telephone audio and future radio audio.

The use of the recording application is very intuitive – start, stop, fast forward and other common audio controls. The IRR is configurable to delete calls after a certain period of time or after a certain amount of hard space has been used to file recordings.

5. What is the limit for the number of calls or length of time of recordings for the IRR?

The limit for the number of the call or length of time recording is dynamic and configurable. The IRR provides 182 hours of recording per one GB of hard drive allocated to the application. The system can be configured to record all calls at a position for a shift or a day before purging or archiving them.

6. Describe how you will interface with the Exacom™ Hindsight recorder.

The Guardian system can provide analog interfaces per the States existing controller but Solacom and Exacom recommend that these be upgraded to IP. The ability to support IP recording is supported by the Hindsight recorder equipment currently being in uses by the State.

7. Describe how you will meet the requirements listed in C-1-D-3 of the Scope of Work.

The proposed solution is the implementation of a Guardian Next Generation ANI/ALI Controller ("Guardian") for the State of New Hampshire. The Guardian is a powerful and flexible public safety solution, designed to open standards and is IP from the core to the dispatcher user interface. The Guardian is a modular and scalable platform, designed specifically for public safety, which provides a seamless migration from legacy emergency communications to NENA i3 standards, on the State's own schedule. The proposed Guardian solution will be deployed in a geographically diverse configuration to maximize disaster recovery capabilities and add an additional layer of redundancy to the NG 9-1-1 system. The Guardian NG9-1-1 system is provisioned with standardized interfaces to external systems including the Valor CAD system, xTrackker mapping system, Exacom recorder, 911Datamaster databases, ALI databases and other ancillary systems.

8. Describe how you will meet the requirements listed in Section C-1-D-4 of both the Scope of Work and in the Requirements.

An IP interface to the 911Datamaster system is proposed. The IP interface, using NENA defined queries, is a proven reliable configuration and currently in operation at shared Solacom/911Datamaster customer locations. The use of an IP interface will also facilitate the transition from E9-1-1 to full NG9-1-1 operation.

9. Describe how you will meet the requirements listed in C-1-D-5 of the Scope of Work.

The caller's telephone number is displayed in the Caller Information window; the system processes all standard digit string lengths including 20-digit spills for wireless calls.

10. Describe how you will meet the requirements listed in Section C-1-D-6 of both the Scope of Work and in the Requirements.

The Guardian Intelligent Workstation is an extremely powerful next generation 9-1-1 call taking position designed to maximize the effectiveness of call taking. The intuitive user interface allows call takers to quickly assess, prioritize and handle wireline, wireless and VoIP calls. All calls, regardless of network of origin, are transported and processed as VoIP calls within the Guardian system - with identical speed and accuracy.

The layout of the application is very flexible and completely customizable. Assigned role privileges determine the windows and other resources that are available to each user, as well as how they're laid out in the application space. Call takers can quickly create conferences, transfer calls, determine the location of wireless callers and recall recently recorded conversations. The sample screen shot shown below shows the ability of the system to provide a visual display of the caller's location based on the ANI or Phasel/II wireless location.

Query/5125110000

Call Information

Name: AT&T MOBILITY

Call Back #: (210) 867-1111

Class of Service: WPH2

Telco: ATTMO

ALT #: 512-511-0000

Street Address

Address 1: 202 W SECTOR - AT&T MOBILITY

Address 2: WIRELESS CALLER

City: Bastrop **State:** TX

Zip: **County:**

MSAG Comments:

Geographic Information

Longitude (X): -0000097.315736 **Latitude (Y):** +0000030.135541

Axis (Z): **Uncertainty:** 3

Confidence: 68

Transfer Information

ESN: 051 **FIRE:** VERIFY CALLER'S NUME

LAW: WIRELESS CALLER **EMS:** VERIFY LOCATION

The system extracts and displays geographical information about the caller's location and transmits this information to mapping systems.

- Describe how you will meet the requirements listed in Section C-1-D-7 of both the Scope of Work and in the Requirements.

The Caller Information window displays one or more forms containing caller information retrieved from the ALI or Presence Information Data Format - Location Objects ("PIDF-LO" i.e. i3 call) databases as each incoming 9-1-1 call is received or answered. Each current call is associated with its own tab; the tab corresponding to the active call is highlighted in yellow. Call takers "tab" between the Call information windows to view the full ALI of ringing or abandoned calls, allowing them to quickly view ALI of calls in queue and thus quickly assess and prioritize calls. Operators click on the next tab to view the ANI/ALI data of the next call.

The Guardian system supports manual rebids for ALI. Call takers simply click on the "Manual ALI" icon, enter the desired telephone number, desired ALI database, and then click the query button. The ALI information is then displayed in the Caller Information window.

The system is configured to automatically query the ALI databases at predetermined intervals and to a maximum number of queries. The rebids are logged in the ALI Status window which allows call takers to quickly determine the "freshness" of the current ALI information.

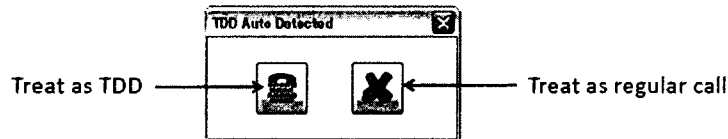
12. Describe how you will meet the requirements listed in C-1-D-8 of the Scope of Work.

The system supports reverse ALI lookups by authorized users. Authorized users have a Manual ALI button mapped to their call taker screen layouts, all other users do not have the button mapped to their screens and are thus unable to execute a reverse ALI lookup.

Daily reverse ALI reports are not currently supported by the system.

13. Describe how you will meet the requirements listed in C-1-D-9 of the Scope of Work.

The Guardian auto-detects incoming Baudot-type TDD calls (neither NENA nor ADA requires support for ASCII2). When a TDD call is detected, a pop-up window appears when the call has been answered offering the telecommunicator call treatment options.



The TDD/TTY functionality is fully integrated into the user interface's Multi-media panel, external devices are not required.

Administrator can create pre-programmed messages for call takers to use when communicating with a TDD caller. Pre-programmed messages offer a quick, alternative way of entering text from a drop-down list or custom button, and the messages can be further modified before sending. The pre-programmed messages accessed via categorized tabs (e.g. Police) in the Multi-media panel.

The proposed solution allows the telecommunicator to create a conference call with seven or more non-TTY parties plus the caller, while non-TTY parties would be able to communicate with each other. They will hear only Baudot tones originating from the caller's TTY device.

14. Does your system meet all of the ADA requirements pertaining to section C-1-D-9? If not, explain in detail.

Yes.

15. Describe how you will meet the requirements listed in Section C-1-D-10 of both the Scope of Work and in the Requirements.

The system supports the presentation of Selective Transfer Agency (STA) speed dials to users based on the emergency services zone (ESZ and associated ESN) that the caller is identified being located in. The selective transfer agency buttons are the recommended primary transfer locations for callers in the ESZ, for example the police, fire and EMS response agencies having jurisdiction in that ESZ.

Call takers simply click on the desired STA button presented with the 9-1-1 call to conference in the agency having jurisdiction in the ESZ.

16. Describe your system wide speed-calling feature?

Every resource in the system can be added to the Contact's List and mapped as a speed dial on the call taking screen layout. This allows call takers to quickly contact any PSAP, agency or other contact from the Contact's list for via speed dial.

17. Describe your telecommunicator speed-calling feature? What options are available to the telecommunicator?

Customized speed dial buttons can be created for any contact. Direct access toolbars can be created for ring groups, line appearances, IP phones, workstations, and roaming users. Each direct access toolbar can contain any number of speed dial buttons within each toolbar. Endless numbers of direct access toolbars can be created and assigned to an individual PSAP, all PSAPs or any subset of PSAP groups. Each button on the toolbar can be assigned its own label and have its own representative icon (which can be a simple color or a complex graphic) assigned. Direct access toolbars, once created, can be placed anywhere in the application window - they can be placed in other windows which can be created as tabbed groups or even set to auto-hide until the mouse pointer brings the tab into focus. This feature provides the opportunity to have a tremendous amount of resources available to a dispatcher while keep the call taking screen very neat and organized for optimum performance. Examples of speed dial buttons are shown below.

18. Describe how you will meet the requirements listed in Section C-1-D-11 of both the Scope of Work and in the Requirements.

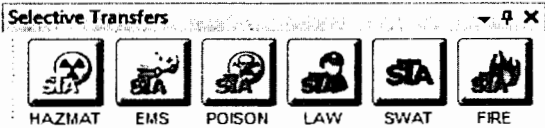
The system is configurable to route abandoned calls to an abandoned call queue. Agents can view abandoned calls from the Abandoned Emergency Calls window which displays a detailed line item for each abandoned call plus overall abandoned call statistics including: count, longest and average.

When an abandoned call is routed to a call taker through the ACD scheme in place, a visual and an audible alert are generated at the position.

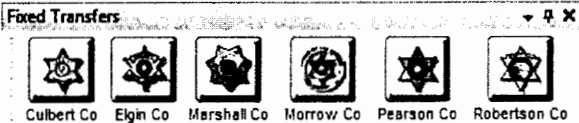
19. Describe how you will meet the requirements listed in Section C-1-D-12 of both the Scope of Work and in the Requirements.

The system supports the following types of single keystroke 9-1-1 call transfers.

Selective Transfer Agency (STA). The selective transfer agency speed dials are the recommended primary transfer locations for callers in the ESZ, for example the police, fire and EMS response agencies having jurisdiction in that ESZ. Call takers simply click on the desired STA button presented with the 9-1-1 call, to conference in the agency having jurisdiction in the ESZ. ANI is delivered with the call, allowing the receiving agency to execute an ALI query.



Fixed Transfers. Fixed transfers are preconfigured speed dials for transferring calls via the E9-1-1 tandem. ANI is delivered with the call, allowing the receiving agency to execute an ALI query.



System wide speed dials. Any position on the Guardian system can be mapped as a speed dial on the call taking screen layout. Call takers click on the speed dial to transfer the call, the system presents the ALI to call takers presented with the call.

The Guardian offers a unique and patented conference capability. All interface ports on the system have a built in audio mixing capability. All callers and users on all trunks and lines, both internal and external can be joined in one large conference or numerous simultaneous smaller conferences. There is no degradation of audio as the number of conferences or participants increases due to the built-in, per-port audio mixing feature. Participants are not placed on hold as new parties are added to the conference.

The call taker who initiates the conference has full control and can mute, apply privacy or disconnect any other participant. The call "leg" of each call can be displayed on the screen, allowing call takers to see all participants. Call takers can select any call leg and take action which affects only that leg of the call. For example, a leg of conference can be muted simply by highlighting the leg and then clicking the mute button.

20. Describe how you will meet the requirements listed in C-1-D-13 of the Scope of Work.

Telecommunicators can place as many calls on hold as desired. The call can be retrieved by hold by clicking selecting it from the Phone window or clicking on the line appearance if one has been mapped to the call taking screen layout.

All calls on hold are shown in the Emergency Calls On Hold window and the Admin Calls On Hold window. The windows display a detailed line item for each abandoned call plus overall abandoned call statistics including: count, longest and average. With appropriate permissions, any user can pick up any on hold call regardless of the position that placed it on hold.

21. Describe how you will meet the requirements listed in C-1-D-14 of the Scope of Work.

The supervisor selects the desired call from the Current Emergency Calls window or Current Admin Calls window and clicks on Monitor to listen to the conversation without being detected by the caller or the telecommunicator. The supervisor clicks on Join to barge into the call, creating a conference. The supervisor is presented with ALI for emergency calls.

22. Describe how you will meet the requirements listed in C-1-D-15 of the Scope of Work.

The supervisor selects the desired call from the Current Emergency Calls window or Current Admin Calls window and clicks on Join to create a three-way conference. The supervisor is presented with ALI for emergency calls.

23. Describe how you will meet the requirements listed in C-1-D-16 of the Scope of Work.

Telecommunicators can release a call at any time by clicking on the Release button.

24. Describe how you will meet the requirements listed in C-1-D-17 of the Scope of Work.

Each call leg (representing a participant) of a conference call is shown in the Phone window of the telecommunicator's user interface. Each call leg is clearly labelled with the party's name and phone number. The telecommunicator can select any call leg and take action that only affects that leg of the conference call. The telecommunicator blocks the caller from hearing conference audio by selecting the call leg representing the caller in the Phone window and clicking on the Privacy button. Two way audio continues for all other participants.

25. Describe how you will meet the requirements listed in C-1-D-18 of the Scope of Work.

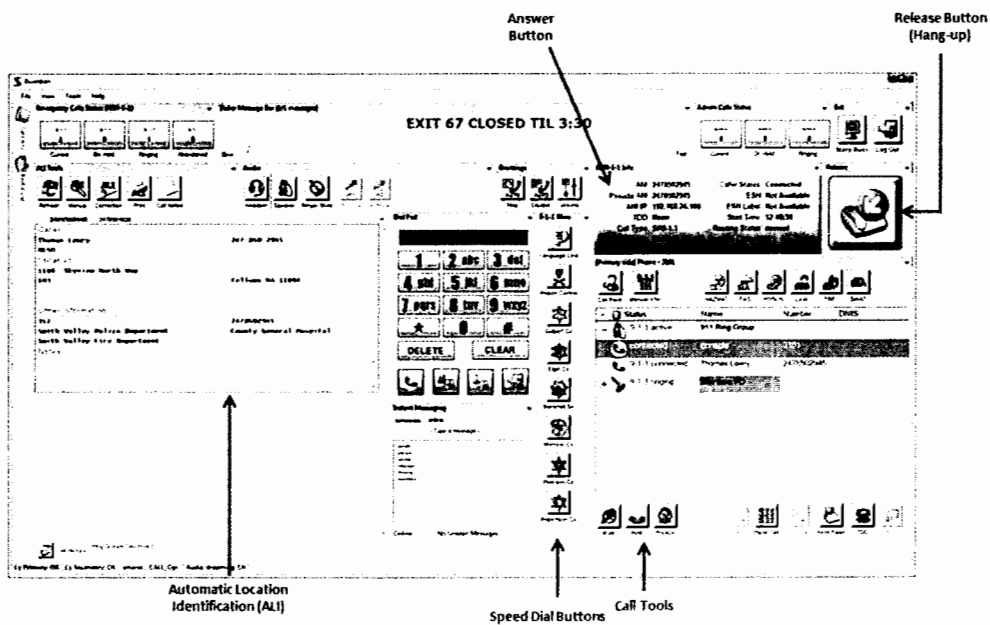
Each call leg (representing a participant) of a conference call is shown in the Phone window of the telecommunicator's user interface. Each call leg is clearly labelled with the caller's name and phone number. The telecommunicator can select any call leg and take action that only affects that

leg of the conference call. The telecommunicator blocks the caller from hearing conference audio by selecting the call leg representing the caller in the Phone window and clicking on the Privacy button and then the Mute button. This blocks the caller from hearing and talking with the remaining parties in the conference.

26. Describe how you will meet the requirements listed in Section C-1-D-19 of both the Scope of Work and in the Requirements.

The Solacom Guardian Intelligent Workstation (IWS) running the Guardian client is Microsoft Windows based and has the look and feel of typical Windows applications. The application has a menu bar at the top of the application that offers four pull down menus: File; View; Tools and Help similar to other Windows based applications.

The call taker interface is constructed with a number of information windows which can be positioned on the screen in the location chosen by the City. In addition to the information windows are toolbars containing actionable icons, for example: answer; mute and dial pad. The toolbars are customized using a toolbar editor and, like the information windows can be positioned anywhere on the screen. Windows and toolbars can be configured to auto-hide when not in use.



A sample screen shot of a main screen layout is shown above and includes:

- Menu Bar – top left
- Status Bar – bottom left
- Call Information Window – center left
- Conference (Phone) Window – center right
- Keypad (Smart Pad) – center

- Selective Transfer Agencies –upper right (above Phone window)

Not shown, but fully supported:

- Static Page Window
- Multiple Page Window (toolbars containing speed dials created as tabbed groups or set to auto-hide)
- Volume Control Window
- Texting window (The application includes a Multi-media Panel which supports text, TTY and IM text calls).

The screen layout is entirely configurable and will be customized to meet DESC's requirements.

Telecommunicators use the Smart Pad to make a call, conference a party to an active call, quick transfer an active call to another party or navigate through interactive menus on an Interactive Voice Response (IVR) call. Solacom's implementation of Redial is from the Redial window rather than from the Smart Pad. The Redial list contains more information than could be shown on the Smart Pad allowing telecommunicators to ensure that they care redialing the number actually desired. The Redial List displays up to the last 150 calls dialed and received by each individual call taker. The list is maintained by account and is cleared when the call taker logs out. Call takers click on the "Call" button to call back any caller on the list.

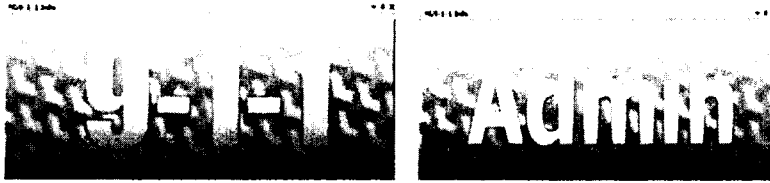
27. Describe how a telecommunicator would go back to review previous call history stored on their work position? How long is the data stored on each call taking position?

The Redial List displays up to the last 150 calls dialed and received by each individual call taker. The list is maintained by account and is cleared when the call taker logs out. Call takers click on the "Call" button to call back any caller on the list.

Telecommunicators may also access a Call History window to view previous emergency calls received in the PSAP. The Call History window displays the last 999 emergency calls received. The telecommunicator can filter the Call History view to show only the calls they've handled.

28. Describe how you will meet the requirements listed in C-1-D-20 of the Scope of Work.

The Solacom solution offers separate ring tones for 9-1-1 calls, administrative calls as well as abandoned 9-1-1 calls. Furthermore, ring groups (or call queues) can be configured with their own unique ring tone and associated call icon to easily identify the type of incoming call both audibly and visibly. The NG9-1-1 Information window is also an intuitive indication of which call type is ringing at the dispatcher workstation, i.e. 9-1-1 or Admin. The image and color of each call indicator displayed will identify whether the incoming call is a 9-1-1 or Admin call.



Each individual legacy telephone circuit can be mapped as a line appearance on the call taking screen layout. The line appearance buttons offer an indication of the current state of the telephone circuit by means of the button color:

- White – in service/no call present on the line
- Light Red – the line has an incoming call
- Green – the line is in use with an active call
- Yellow – the line is on hold
- Gray – the line is out of service

29. Describe how you will meet the requirements listed in C-1-D-21 of the Scope of Work. How is the data stored and retrieved? How long is the information retained? Is or can the information printed in the call log?

Telecommunicators can take notes while on a call to record important information that might not be captured in the ALI or voice recordings. Notes are associated with a single call, so all telecommunicators who have the call active on their position or to whom a call is transferred, can add a note to the incident. Notes can be added collaboratively back and forth (like chat) and can continue even after the caller has been released, as long as the call is still active. The system stores the notes temporarily along with the call history. Call notes can be:

- Viewed in the Call Information window during an active call
- Accessed from the Call History window after the call is terminated
- Automatically sent with the Call Detail Record
- Sent to the CAD system

The information is retained temporarily in the first two examples and for longer periods of time in the latter two examples – depending on CDR and CAD retention policies.

30. Describe how you will meet the requirements listed in C-1-D-22 of the Scope of Work.

The system is configured to automatically print ALI and TTY conversations at the conclusion of a call. Telecommunicators can click on the Print ALI button at any time to print the ALI. TTY conversations can be printed at any time during a call or after the call.

31. Describe how you will meet the requirements listed in Section C-1-D-23 of both the Scope of Work and in the Requirements.

Each Guardian Intelligent Workstation (IWS) is provisioned with a Position Audio Control (PAC) module that enhances audio functionality at operator positions. It supports multiple input and output ports to monitor and control audio devices. The PAC activates and disables auxiliary audio inputs in response to the detected state of the console (e.g. incoming telephone call, radio audio is switched from headset to speakers).

The PAC provides interfaces to the Exacom recorder, future radio console call director, any desired auxiliary audio inputs and two headsets (a third headset can be brought on line by conferencing the call to another workstation).

32. Describe how you will meet the requirements listed in Section C-1-D-24 of both the Scope of Work and in the Requirements.

The system supports native Text to 9-1-1 using SIP MSRP as per FCC recommendations and NENA standards. In addition, handling of Text Messaging has been integrated into the normal call handling call flow of the system to provide a seamless experience to the call taker. A Text to 9-1-1 call is distributed and handled like a normal voice call thus offering all of the current ACD and transfer functionality in the Concord/Laconia virtual PSAP as well as barge-in (join), call history and reporting . For Ring all type queues the operators busy themselves out to prevent receiving another call, voice or text. PSAP operators may be assigned to roles that will either include or exclude text calls being presented at their position in the event they are not trained or certified to handle text based calls. Text calls will be uniquely identified throughout the system including the ability to have a unique ring, clearly viewable as a text call and status monitors, call history and other tools that present call information to the operator.

Text-to-911 Calls

The system supports native Text to 9-1-1 using SIP MSRP as per FCC recommendations and NENA standards. In addition, handling of Text Messaging has been integrated into the normal call handling call flow of the system to provide a seamless experience to the call taker. A Text to 9-1-1 call is distributed and handled like a normal voice call thus offering all of the current ACD and transfer functionality in the Concord/Laconia virtual PSAP as well as barge-in (join), call history and reporting . For Ring all type queues the operators busy themselves out to prevent receiving another call, voice or text.

PSAP operators may be assigned to roles that will either include or exclude text calls being presented at their position in the event they are not trained or certified to handle text based calls. Text calls will be uniquely identified throughout the system including the ability to have a unique

ring, clearly viewable as a text call and status monitors, call history and other tools that present call information to the operator.

The proposed Solacom system will utilize a single text interface at the dispatch position, for SMS 9-1-1, TTY, Silent Caller and IM. Figure 3 illustrates an idle dispatcher text interface. Figure 4 shows the interface with a variety of multi-media calls and Figure 5 shows an example dialogue window. The interface will also provide a dispatcher with the ability to issue pre-canned text messages stored in the system. The system will automatically send pre-canned messages to a 9-1-1 caller using the correct connection type, i.e. TTY, SMS or IM. This allows the pre-canned messages to be structured for quick response and not require a dispatcher to take different action, based on the type of text call, in order to issue a canned message. This is intended to improve the speed of a dispatcher's response.

Figure 3– text interface window

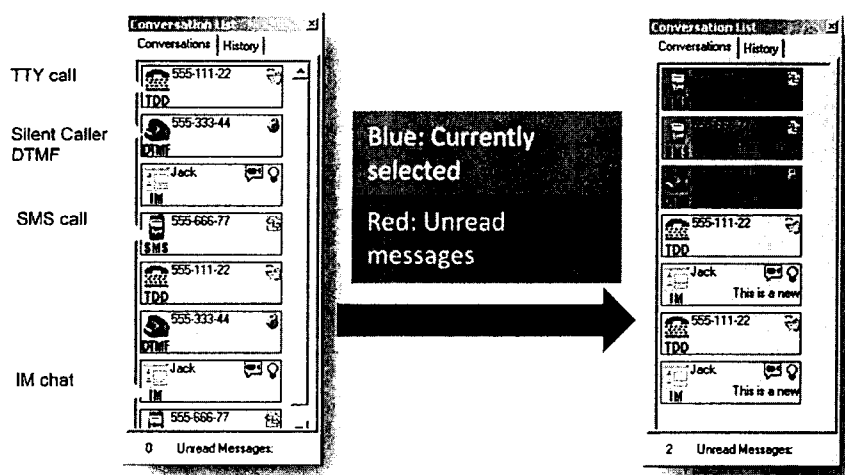


Figure 4 – multi-media calls presented at the workstation

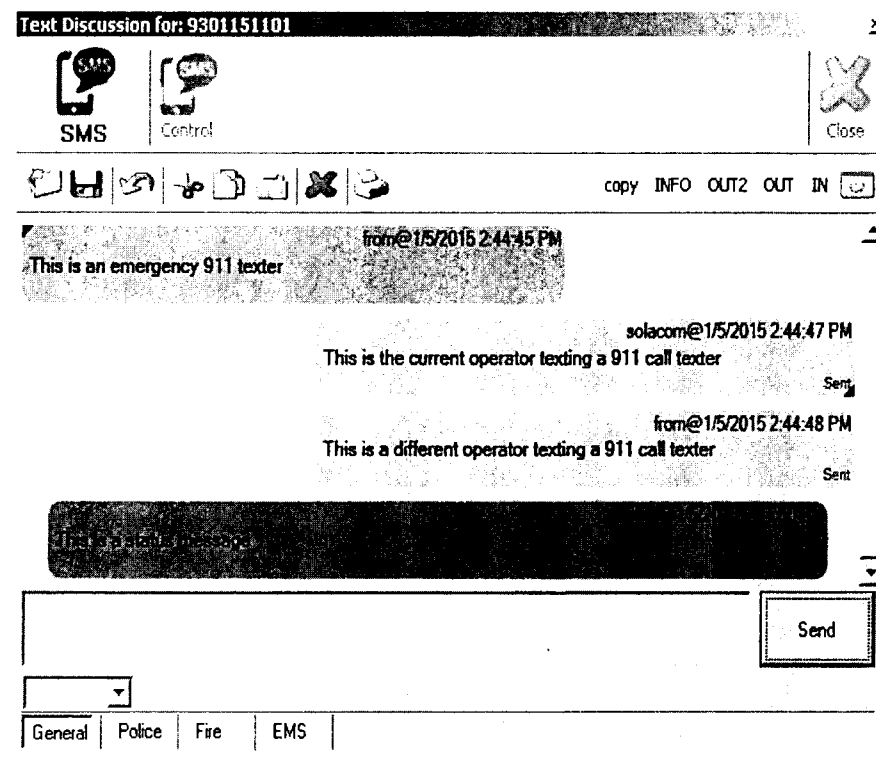


Figure 5 – dialogue window at the workstation

33. Does The System support transferring or conferencing text messages to another PSAP? If not when will you and what is plan for doing so?

The system allows transfer and conferencing to another call taker or to another PSAP as long as they operate on the same controller. In the virtual PSAPs texts can be transferred back and forth between Concord and Laconia. The call taker can also conference non-text capable third party as voice participant. This allows the system to bring in a secondary agency and act as a text relay for secondary agencies that do not have texting capabilities. Currently there is no standard for conferencing of SIP MSRP calls which prevents the implementation of transfers or conference between disparate systems. Once the standard is defined Solacom will implement the feature as per specification.

34. Does The System have the ability to translate foreign languages that are sent via text message? If not when will you and what is plan for doing so?

The system has a built-in protected/secure Web browser component that allows specific Web pages to be added to the position layout. One of these windows can be configured to point to a public service such as Google translate and the call-taker can cut and paste between the two applications.

35. Describe how you will meet the requirements listed in C-1-D-25 of the Scope of Work.

Each individual legacy telephone circuit can be mapped as a line appearance button on each Guardian IWS position. The color of the line appearance button indicates the state of the circuit (idle, busy, and other), telecommunicators can answer or join a call by clicking on the line appearance button.

The shared call appearances do not display pre-answer ANI/ALI however the Caller Information window displays one or more forms containing caller information retrieved from the ALI database. Each current call is associated with its own tab; the tab corresponding to the active call is highlighted in yellow. The tabs can be arranged within the Caller Information window. Call takers “tab” between the Call information windows to view the full ALI of ringing or abandoned calls, allowing them to quickly view ALI of calls in queue and thus quickly assess and prioritize calls. Telecommunicators click on the next tab to view the ANI/ALI data of the next call.

A line appearance representing a queue can be mapped to the call taking screen layout of those members of the ring group to which the calls are queued. Any call that enters the queue will trigger the line appearance to change state. In instances where a queue regularly receives many calls the use of a line appearance to manage it may be less than optimal. As an alternative solution, Solacom’s user interface includes a Ring Group (Queue) Dashboard which provides real-time information and statistics on call traffic.

36. Describe how you will meet the requirements listed in C-1-D-26 of the Scope of Work.

Solacom has tested and certified for use on the Guardian system Plantronics headsets and pre-amplifiers including model Vista M22 which matches the requirements defined in C-1-D-26.

37. Does your system comply with the Print Capabilities requirements described in C-1-D Call Handling, #22 (‘Print Capabilities’)?

Yes.

C-1-F Remote Maintenance and Alarm

1. Maintenance / Supervisor Position

A Maintenance/Supervisor Position shall be provided with The System. The position shall have different security levels, protected by separate passwords. The position shall be capable of running diagnostics and reports. The console shall provide a window showing all agents logged currently into the agency including information such as their name, the name of their position, their current role, their call status and the name of the line if they are on a call.

2. Module Testing

Each of the systems modules shall be easily selected and tested individually.

3. Alarms

Describe how every module within the PSAP equipment shall carry out certain tests on a continual basis and report any observed failures.

4. System Monitoring and Administration

The System shall be equipped with a monitoring capability that can be located with the Central Communications equipment and/or in a remote location.

5. System Monitor

The System shall be equipped with monitoring capability located at the PSAP. It shall provide a digital display format with audible tone and monitor system alarms. Upon a failure condition, it will display an alarm message.

6. Questions

1. Describe in detail how your proposal meets the requirements put forward in section C-1-F

DESC indicated in Addendum #6 that it does not require monitoring capability. If monitoring capability is not implemented, maintenance and alarm viewing will be conducted at the common equipment housed in cabinets at the Laconia and Concord PSAPs. The Guardian system will include a KVM maintenance terminal that provides a keyboard, video and mouse control point which installs neatly into only 1U of rack space. The KVM integrates a 17 inch LCD monitor, full 105-key keyboard and touchpad. When the terminal is not in use, the monitor is folded down and slid back into the cabinet on sturdy steel rails. DESC Tier 1 support personnel can review diagnostic and run maintenance related reports.

The KVM can be used to display information messages, as well as to program and configure the system using a hierarchical menu structure designed to facilitate configuration and administrative tasks.

Supervisors can view the Active Operators window from any Guardian Intelligent Workstation. The window displays a scrollable and sortable list of all operators currently logged in. It provides the name, position, status (e.g., ringing), role name and logged in time for each operator.

The Solacom solution uses a modular approach to system monitoring. Each module parenting a child module is responsible to constantly verify and ensure proper sanity of the child modules. Heart beat mechanism and internal data exchange ensure each module are responding appropriately. Any non-responsive module will trigger the parent module to raise an alert and activate the contingency plan for this sub module (Restart or switch over to back up module if available) The Solacom alerts are collected by the IQprobe module, categorized with priority and detailed

description and can be reviewed with the IQadmin interface. The Solacom alerts can also be reported externally to be distributed to an email server and or sent to a Network Monitoring System via SNMP (Simple Network Management Protocol).

The Solacom NOC solution monitors every IP device in the system and collects such as data as temperature, voltage and device-specific data.

The constant monitoring of each module allows for timely response to alarm conditions. Monitoring also uses trending analysis and can alert before a problem occurs. Disc capacity, Memory availability, CPU usage, Network bandwidth utilization are a few examples to detect future issue and allow service team to react before the customer is impacted.

2. Explain how remote access/support and alarm monitoring works in your solution

The solution is configured with a secure remote IP access port which allows authorized support personnel to access the system via a secure VPN connection. Solacom will access the system to provide Tier 3 support and to apply software upgrades.

Active Remote Monitoring (ARM), a reliable real-time system monitoring and response service is offered optionally in accordance with the instructions provided in Addendum #6. ARM provides cost effective monitoring 7/24 from Solacom's Network Operation Center (NOC) and ensures quick response to critical alarms on the system components.

ARM uses several different means and protocols to provide comprehensive monitoring of the system and IP devices.

SNMP (Simple Network Management Protocol) query is used to monitor different Object Identifiers (OID's) to watch over devices. SNMP Traps are captured and generate different alert levels based on pre-defined templates built specifically to monitor the Solacom system.

The monitoring also raises preventive triggers that initiate verification before problems occur. Memory, CPU (Central Processing Unit), hard disk, fan, temperature and processes are all examples of functions and components monitored by the ARM service. Servers are monitored via IPMI (Intelligent Platform Management Interface).

Constant presence is monitored via ICMP (Internet Control Message Protocol) to alert on any communication delays that are abnormal. The Network Interface Cards (NICs) of IP devices are monitored to detect abnormally high incoming or outgoing traffic, or traffic with errors.

Individual lines on analog gateways are monitored to detect abnormal usage or Central Office line status change (Disconnect/Reconnect). Network switches, and optionally routers, are monitored at the port level to identify abnormal delays, errors, or high bandwidth usage, including RAM (Random-Access Memory) and CPU usage

ARM goes beyond simply responding to events. Trend analysis looks for vulnerabilities in the system, seeking to predict required maintenance prior to failure. On the security front, the network management system is monitored and guarded against unauthorized access, intrusion attacks and hacking. The Solacom ARM also provides a monthly system health report to optimize performance by taking a pro-active approach to maintaining the critical communications infrastructure. The service automatically generates daily, weekly, and monthly statistical reports. Report formats include graph, bar chart, distribution, and summary.

In summary, Solacom will plan to configure a secure remote access port on the system to meet its requirements to provide Tier 3 support and to provide upgrades. DESC can access the system locally or remotely to review diagnostics and conduct Tier 1 troubleshooting and problem resolution. Remote monitoring is offered optionally and recommended – it allows potential problems to be identified before they become real problems.

3. Describe how you monitor the emergency trunk activities, 9-1-1 call queuing, and 9-1-1 console activities in a real-time mode.

The system offers Tenant Status windows which display real-time information about Ringing calls, Active Calls, Calls on Hold, Abandoned Calls and Operator status) at the Tenant level. A tenant is typically a single PSAP but we note the requirement described in C-1-D-1 that the ACD should combine both PSAP's agents into one virtual ACD. The system fully supports this and in this configuration of the Tenant Status windows will show activity in both PSAPs not just one. The two PSAPs will be a single tenant.

The system also offers a Queues dashboard that shows information such as number of call takers logged in, number of operators idle, longest waiting time, averages and other critical parameters. Thresholds can be set based on counts (number of calls) and/or duration and alarms will be raised when thresholds are exceeded.

We note the requirement described in C-1-D-1 that the ACD should combine both PSAP's agents into one virtual ACD. The system fully supports this and in this configuration the Tenant Status windows will show activity in both PSAPs not just one.

C-1-G Management Information System

The Bidder shall provide a Call Management Information System that will track the incoming calls and provide the PSAP management personnel with real time information and strategic management reports. It should be user friendly and capable of generating reports for varying time periods. Reports shall be available on an as needed basis or scheduled for specific intervals. A detailed list of mandatory reports can be found in the Detailed Requirements section (Table C-2).

The Bidder shall provide a comprehensive Management and Reporting (MIS) solution which will provide PSAP management and other authorized personnel historical information. It shall be an onsite solution, user customizable and capable of generating reports for varying time periods. In addition to static reporting capabilities, the MIS solution should provide a dynamic reporting capacity with would allow for custom groups, filters and unique totals for defined reports. The MIS solution should have traditional management and reporting capabilities that are industry standard but should also be forward focused and have an enterprise capability.

1. MIS Seamless Integration

The reporting capability shall be in its entirety as well as by individual PSAP, individual position, shift, or a specific calltaker.

2. Call Detail Records

The PSAP equipment shall have the ability to provide call detail records after every terminated 9-1-1 call. The record should include but should not be limited to ANI, seizure time, position answered, answer time, disconnect time, incoming trunk number, etc. These should be in a report format, as opposed to raw data format. This information should automatically be saved as an electronic file in daily and/or monthly formats for permanent storage. Call Detail Records should be retrievable by the ANI or any other „key-word“ search in the record.

3. Questions

1. Provide a description of the standard reports and capabilities in the MIS system. Include a list of the available reports.

The Solacom solution incorporates i3 logging, the next generation evolution of the legacy Call Detail Record (CDR). i3 logging collects significantly more call information elements than was previously available in a traditional CDR feed. The i3 logging service is sent via HTTP Post to the MIS application – it can also be bridged or “forked” to feed the additional devices accepting the information such as CAD, mapping, logging recorders and others.

i3 Logging and reporting encompasses several different elements of any given call processed by the Guardian solution and could include:

- Operator actions (hold, mute, busy out and others)
- ALI response information from an ALI provider
- Call recordings
- Call records (start of call, call answered, call released and others)
- HELD (HTTP-Enabled Location Delivery Protocol)

- LOST (Location to Service Translation)
- Attachments (Operator Screen Captures and others)

The Solacom MIS solution incorporates these elements in a way that can link these details together to represent a single call. Default reports are delivered with the MIS package. These can be modified or used as a template to build tailored reports for each PSAP.

Default reports include:

1. 911Calls By Hour Of Day
2. 911Calls By Hour Period
3. 911Calls By Day Single
4. 911Calls By Day
5. 911Calls By Day Period
6. 911Calls By Day Of Week
7. 911Calls By Week Start Date
8. 911Calls By Week Period
9. 911Calls By Week Current
10. 911Calls By Month Current
11. 911Calls By Month Name
12. 911Calls By Call Taker
13. 911Calls Single Call Trace
14. 911Calls Answered versus Abandoned
15. 911Calls Overflowed and Answered
16. 911Calls Overflowed and Answered By PSAP
17. 911 Calls Overflowed and Redirected
18. 911 Callbacks by PSAP
19. All Operator Logouts
20. 911Calls Uninitialized Wireless Calls
21. 911Call Transferred To PSAP
22. 911Call Transferred From PSAP
23. 911Calls By Location
24. 911 TTY Calls
25. 911 Calls Answered by City
26. 911 Calls Answered by ESN
27. 9111 Calls Answered by Class of Service
28. AdminCalls By Hour
29. AdminCalls By Day
30. AdminCalls By Week
31. AdminCalls By Month
32. AdminCalls By Line
33. AdminCalls By Call Taker
34. AdminCalls Abandoned
35. CallTaker Statistics – all 9-1-1 calls sorted by Division and Call Taker
36. ACD Statistics – queue statistics (how many calls reached each queue and was answered or unanswered)
37. Specific Call Details (about a single 9-1-1 call)

2. State of the art technology shall be used for the MIS solution. Describe what technology is used.

The MIS is designed based on i3 logging events. All events for every calls are captured and can be reported on; from start of the call to call tear down, including Next Generation queries/responses such as location (HeLD query) and routing/transfer (LoST query) and also legacy queries and responses for example, those to and from an ALI database. The MIS is designed with built in redundancy to provide high availability. One MIS server is provisioned at each PSAP. Each MIS server can accept all i3 logs. The two MIS servers replicate data back and forth to ensure equal data availability and retention.

The system has also been designed to protect data and provide data integrity The MIS reporting ability is based on the assigned user level and only allow the person generating reports to see call data from agencies or users that they are assigned to see. Only certain levels of user can save reports/recordings for external use.

3. Describe what capabilities the MIS solution has regarding integration and support for next generation media types.

The MIS system is designed to receive metadata and media for voice, text and video and all forms of media can be attached to a specific incident. Currently voice and text have been implemented. Video is on the roadmap and will be implemented when origination networks can support these new media types.

4. The MIS system should be able to incorporate reporting data and transfer times from the other integrated systems such as the Valor™ CAD associated with the call. This will allow for a more all-encompassing look at a call for service from the moment it was presented to the point the call was completed. How does your solution handling this problem?

The system supports an i3 Log feed as well as a separate CAD type feed over IP. A Serial to IP converter is used in instances where the CAD does not support IP communication. Each call is assigned a unique identifier to allow users to track the progress of a call through the system.

5. Describe how your system will allow the archiving of older data. How can this archived data be retrieved if necessary?

The MIS servers are normally sized to provide online access to seven years of data. The database is backed up daily and older backups can be archived in order to preserve data for periods longer than

seven years. A procedure exists to merge an older backup with the current database in order to bring back data that is no longer be available online, i.e. older than seven years.

C-1-H Implementation/Maintenance

1. Training Requirements

Training on all system functions shall be provided by the Contractor prior to acceptance of The System. Training will include sufficient information and experience to familiarize personnel (technical staff, telecommunicators and supervisors) with system features and operations for their particular assignments. The training provided by the bidder shall take place at facilities designated by DESC. Training manuals shall be provided to all attendees and the instructor to student ratio will be no greater than 1:8. The course outline and training material should be provided with your proposal. The system implemented CPE software, etc. should be able to be replicated in a fashion to allow the creation of a 'Training room' to allow the DESC to facilitate on-going training of existing staff as well as training of new employees.

Response:

Training is a critical component of the implementation. Training will take place after installation of the system and prior to cutover to provide end-users and support staff with a real-world training experience.

The proposed training courses are based on a core set of documents tailored to meet the specific needs of the State of New Hampshire. All students will be thoroughly tested as part of the training program and receive certificates upon successful completion of each course. Our professional training staff will work closely with all students. Solacom will recommended a training schedule and provide an outline for the training program, to be evaluated and approved by the State, at least two weeks prior to training.

Solacom will train using live system equipment and provide each student with hands-on training on the use and function of the applicable system features. Positions can be temporarily installed in a facility provided by New Hampshire on the premises to allow for a training room environment to be created using the live system.

Solacom will provide two training courses to DESC training staff:

1. Train-the-Trainer Training Course (allows successful students to provide training to end-users and administrators)
2. Installation and Management Training Course (allows successful students to provide Tier 1 support for the system)

Train-the Trainer Training Course

Duration: 2 days

Maximum Number of Students: 5

Course Overview:

The Train-the-Trainer course is a compilation of Guardian Administration and Guardian Operator Training Courses with the emphasis placed on preparing students to be responsible to provide effective training to PSAP staff. The first part of the course is spent with the students describing and explaining the configuration and call flow options available within the Guardian system so they can work with future administrators on configuring and making configuration changes to their Guardian system. The second part of the course is spent with the students describing and using, the Guardian IWS to answer incoming calls, transferring calls, making calls, retrieving recordings, so that all system features are explained in a call taking simulation. The last part of the training session is a review and question period in which students can ask the trainer to demonstrate call procedures relevant to their operating environment.

Course Objectives:

Upon successful completion of the Train-the-Trainer course, the student can demonstrate ability to:

- work with future administrators to configured and make configuration changes to their Guardian system: and
- train future Guardian telecommunicators

Student Prerequisites:

Students should have:

- knowledge of written and spoken English;
- fundamental telecom/IT experience;
- familiarity with 9-1-1 Public Safety systems

Course Material:

A Guardian Train-the-Trainer Guide is provided to each student.

Please refer to the Solacom Training Course Catalog for details regarding the Guardian Administration and Guardian Operator Training Course that success students of the TTT course will be providing to end-users.

Installation and Maintenance Course

Duration: 3 days

Maximum number of students per course: 8

Course Overview:

The Level 1 Installation and Maintenance training course provides an introduction to all tasks needed to install, configure, and maintain the Guardian Enhanced 9-1-1 Controller and the Guardian Intelligent Workstation. The course consists of theory as well as hands-on exercises to ensure that students learn about the various components and are able to perform the necessary tasks to install, administer and maintain the system. The course also includes a course completion examination addressing all features covered during class.

Course Objectives:

Upon successful completion of the Level I: System Maintenance course, the student can demonstrate ability to:

- Name, state the purpose of, and operate each operator module and feature;
- Configure incoming and outgoing call policies;
- Configure routing and alternate route policies;
- Manage system resources;
- Diagnose problems; and
- Conduct repairs.

Student Prerequisites:

- Knowledge of written and spoken English;
- Fundamental telecom/IT experience; and
- Familiarity with 9-1-1 Public Safety systems.

Course Material:

An Installation and Maintenance Training Guide is provided to each student.

2. System Testing

The Vendor must thoroughly test the entire system prior to conversion. A comprehensive test plan must be included with the proposal for approval by the DESC and may be altered or negotiated prior to contract award. The test plan should be thoroughly comprehensive and include, at a minimum, Unit Test Plans for each component, System Integration Test Plans for The System's interface with each existing DESC system, a Stress Test Plan, and a Security Test Plan for any component that allows access from an outside network. During the testing of the E-9-1-1 equipment prior to cutover, the Vendor shall log all troubles found and make any necessary repairs or adjustments at their cost. These reports shall be submitted to the DESC showing all errors found and corrective action taken to resolve troubles.

Testing is an integral activity in every major stage of a project's implementation, from first staging in our lab to the final acceptance conducted on site at the time of go-live. The series of test plans is based on Solacom's template and is dependent on the software release shipped with the system. Testing begins during factory staging with our factory acceptance testing: component connectivity and interoperability between sub-systems is tested prior to shipping. Then we conduct testing during the field installation stage—initially for proper network connectivity and integration and then for overall end to end testing. Moreover, testing covers more than “normal” operating conditions. Solacom works with our channel partners to test the full range of possible failovers or otherwise service impeding conditions that may arise.

The Solacom acceptance testing procedures are designed to exercise individual component and the overall system itself in order to validate functionality and confirm that the system is performing to specifications. Test results are documented using the following codes (comments are also added if appropriate):

TP - Test Passed

TF - Test Failed

RTP - Retest Passed

RTF - Retest Failed

NA - Feature not applicable to customer's final configuration.

Use of these codes provides a clear, concise and measurable analysis of the system's performance and allows us to focus on any corrective action efforts which are required for acceptance.

Documentation of the test results and corrective actions taken ensures that all necessary pre-work for a successful cutover is carried out. We will provide the State with the proposed acceptance test plan for review and approval and will work collaboratively with the State to make any mutually agreed upon modifications to the plan. A sample acceptance test plan based on Solacom's template is provided as an attachment to our proposal.

For additional information on Solacom's approach to testing please refer to our response in the Appendix.

3. Maintenance

The Bidder shall specify pricing for continuing maintenance of the total system after the expiration of the initial one-year warranty period. Such pricing shall be for Year 2 through Year 5.

During implementation the Laconia PSAP will be shut down while the new system is implemented, routing all traffic to the Concord facility. The existing Concord PSAP equipment will need to be maintained during this time period. The bidder shall provide full maintenance service for the existing PSAP equipment located at the Concord PSAP. The maintenance service options shall be for a period of one year at a time and extend through the same time period as the new PSAP CPE and/or the existing equipment is replaced with new equipment. The bidder may submit additional (optional) service plans and pricing.

Comprehensive (software/hardware and tiered support services) are offered optionally for Year 2 through 5.

AK Associates has provided pricing to maintain the existing Concord PSAP equipment.

4. Software Updates

The Vendor must provide within a software support program all software releases designed to enhance The System and to keep The System state-of-the-art. The Vendor must describe the support offered as well as the availability and costs related. The Vendor must provide any specific constraints, terms, or conditions in detail. All software updates or enhancements must be accomplished without taking The System out of service.

The Solacom platform is under continual development to deliver new features and to ensure compliance with new standards. Solacom typically delivers 1 major release and 1 minor release per year. Major and minor release upgrades do not require system downtime and can often be done remotely. All upgrades are scheduled with DESC and each includes a contingency roll back plan. The State will be provided with all software upgrades as long as it remains current with Solacom software maintenance program. Software maintenance is offered optionally, year by year, after the expiration of the 1 year warranty period.

All new releases and or patches are subjected to rigorous testing prior to release including regression testing.

5. Future Expansion

The System shall provide an upgrade path to emerging and new NG9-1-1 i3 capabilities utilizing component upgrades, if required, instead of hardware replacement.

The System described in these specifications shall be capable of meeting today's needs, as well as future expansion in order to meet anticipated future growth. The System should be installed with adequate processor and hardware to meet this growth.

1. Describe any additional features and/or hardware/software and/or processes that in your opinion will facilitate or enhance the operation of the 9-1-1 system?

The features contained in the quoted system, and were not requested in the RFP, will enhance the operation of the NG9-1-1 proposed system should DESC choose to use them:

- 1) Virtual Positions- allows the system to be configured so that operators can move between PSAP sites and always operate as if they were at their 'Home' PSAP.

- 2) Conferencing – call takers and or supervisors can establish conferences for up to 50 attendees and greater. The limitation is only based on the number of trunks connected to the system.

The following items that are optional additions to the quoted system, and were not requested in the RFP, would enhance the operation of the NG9-1-1 proposed system:

- 1) Outbound SMS – allows operators to initiate a SMS message to a cellular phone. This can be used to, as an example, to send messages to Responders; to send ‘callback SMSs’ to abandon call to verify caller does not require assistance.
 - 2) Answering Calls from the MAP – a feature of the optional proposed MAP system that allows call takers to answer calls from the map, manage the calls, and originate transfers.
 - 3) Light towers at call taking positions that allow for a visual indicator of the status of each call taker.
2. Describe any alternatives that would increase performance and/or reduce costs to the DESC?

The proposed solution is engineered to meet the requirements defined by the DESC, there are not any alternatives that would lead to an increase in system performance or produce any cost reductions without impacting system performance.

6. Questions

1. Can you provide a training simulator software package? If yes, provide a copy with your bid.

Yes, Solacom will provide a training simulator software package at the time of the system’s implementation at no cost for the software. There are various options for hardware, number of positions and operating system software cost that New Hampshire would need to purchase or provide. The training simulator software package will mirror the production software. Installation and training on the simulator software package requires technical support, we propose to demonstrate the training simulator software at the oral presentation.

2. What equipment of software will be needed to facilitate a training room? This equipment should be list as an option in your proposal.

An operational Guardian E9-1-1 Controller is mandatory; New Hampshire will have the option of directly using the production system or an additional dedicated Controller can be shipped. A laptop

or PC with network access to the Guardian ESP is required for each student/pair. The trainer will present course material via a projector and will require access to a whiteboard.

3. What manuals will be provided to end-users and support staff? Will manuals be updated in conjunction with software updates?

Each end-user and the support staff will receive hard copies of training manuals. DESC is providing all end-user training; Solacom will provide all training material in electronic format so that DESC can make copies for distribution at the end-user training courses.

Support staff will receive Installation and Maintenance training directly from the Vendor. Students who successfully complete the course are certified to provide Tier 1 support for the system.

Training material is tied directly to the software release of the system at the time of implementation. As major software updates are released and implemented on the system, training material is updated and will be provided to DESC for use in future end-user training courses.

4. How will the DESC be prepared to conduct ongoing training after Implementation is completed?

DESC staff will be provided with Train-The-Trainer sessions. Students who successfully complete the training sessions are certified to train end-users on the system. As major software updates are released and implemented on the system, training material is updated and will be provided to DESC for use in future end-user training courses.

Solacom can provide refresher training in subsequent years if deemed appropriate by DESC.

5. Describe any additional features and/or hardware/software and/or processes that in your opinion will facilitate or enhance the operation of the 9-1-1 system?

The features contained in the quoted system, and were not requested in the RFP, will enhance the operation of the NG9-1-1 proposed system should DESC choose to use them:

- l) Virtual Positions- allows the system to be configured so that operators can move between PSAP sites and always operate as if they were at their 'Home' PSAP.

1. 9-1-1 SIP trunks – increase by 217 (this is a maximum and assumes no increase in the number of answering positions)
2. Answering positions – increase by 40 (this is a maximum and assumes no increase in the number of 9-1-1 SIP trunks)
3. Analog telephone lines – system will have capacity for up to 16 lines at the time of implementation – expansion capability is dependent on the number of analog telephone lines the DESC chooses to interface to the system.

The number of 9-1-1 SIP trunks and answering positions can both be increased, the expansion capabilities of each are dependent on the mix of trunks and answering positions.

- 7) If equipment is needed to accommodate this request, provide a brief description of each piece of equipment and the expansion capability it provides? Also, provide the amount the DESC would expect to pay for the equipment and installation. Describe how you would ensure the DESC there VA will be no future changes to your answer?

Equipment is not required to increase the quantity of 9-1-1 trunks, professional services will need to be procured to configure the system to accommodate the new trunks.

Increasing the quantity of answering positions requires the procurement of answering position hardware/software, network cabling and professional services to install the new positions.

Increasing the quantity of analog telephone lines beyond 16 requires the procurement of one or more media gateways and professional services to install and configure the gateways.

C-2 DETAILED REQUIREMENTS

Table C-2 General System Requirements -Vendor Response Checklist

REQ #	REQUIREMENT/DELIVERABLE	M/O	Y/M/E (SEE ABOVE)	VENDOR COMMENTS
	BUSINESS REQUIREMENTS			
C-1-B	System Architecture			

1	The System components shall be i3 compliant.		Y	The proposed solution is compliant with NENA Technical Standard 08-003, Detailed Functional and Interface Specification for the NENA i3 Solution – Stage 3.
2	The System shall be capable of displaying all current 9-1-1 calls on a map utilizing GIS data provided by the DESC. (i.e. no 'Google maps' or similar)		Y	<p>The Solacom system is capable of displaying all current calls on a map utilizing GIS data provided by DESC. Solacom's Guardian Map is offered optionally. Guardian Map is a feature of Solacom's Guardian System that allows call handling from a map. Guardian Map is built upon the integration of GeoLynx, a product of GeoComm, Inc., with the Guardian system of Solacom. It uses Automatic Location Identification information received with legacy 9-1-1 calls, or from caller location data in an i3 architecture with PIDF-LO formatted and encapsulated location data in compliance with NENA NG9-1-1 standards, to</p> <p>clearly indicate the location and status of 9-1-1 calls on a map – allowing you to quickly answer and manage calls directly from the display of your Guardian Intelligent Workstation.</p>

<p>3</p>	<p>The System shall be able to dynamically route calls to a PSAP or workstation 'on the fly' based on a GIS polygon for applications such as a highway accident.</p>		<p>Y</p>	<p>The proposed Solacom system is already in operation with various ECRFs, including the one supplied by DataMaster, and could therefore provide 'on the fly' routing as soon as the ECRF is operational. The determination of where calls are sent, in an NG9-1-1 system, is done by the Emergency Call Routing Function (ECRF). Therefore, once the State implements an ECRF the ability to overlay a GIS polygon onto the PSAP boundary map and use that 'layer' to determine call destination is the method recommended by the NENA committee addressing the ECRF/LVF/SIF.</p> <p>In the interim the proposed optional Guardian Map capability can be used by call takers to execute effective 'on the fly' call answering as the calls will be mapped to the positions and calls can be answered from the Map. This would allow designated call takers to handle calls by geographic area. The geographic areas could be identified as required.</p>
<p>4</p>	<p>The CPE application shall automatically take priority over any other application running on the workstation upon an incoming 9-1-1 call.</p>		<p>Y</p>	<p>The call taker is alerted to an incoming 9-1-1 call by a distinctive ring tone on the device selected by configuration; headset or speaker. The keyboard and keypad focus is on the Guardian application regardless of the application that the call taker may have on the screen.</p>

5	The System shall provide the ability to 'make busy' or manually shut down one PSAP forcing all requests for service to be directed to the other PSAP. This will allow for troubleshooting, training, and maintenance as required.		Y	Solacom uses a Side A - Side B architecture to provide redundancy, support geo-diversity, allow training and to remove the requirement for system downtime for system maintenance (including upgrades). At the core of the proposed solution are two application servers configured in active/active mode. Data is replicated between the two servers, ensuring equal data availability. Either server is capable of supporting all system call processing; failure of a server does not result in a loss of calls or system functionality. Under normal operations, call takers are logged in to Side A of the system. Side B can be taken out of service to perform maintenance without any loss of system functionality. Call takers can then be gracefully moved over to Side B; Side A can then be taken out service for its maintenance requirements.
C-1-D-1	Call Handling – ACD			
1	The System shall provide the ability to assign multiple roles to an agent.	M	Y	The system provides the ability to create various levels of access through the use of roles and privileges. Infinite numbers of roles can be created on the system with different assigned privileges. Each agent logs on with unique username/password credentials and is then presented with a list of roles to select from. The roles are preconfigured in the system by an administrator or supervisor and are saved as configuration files. The agent selects the role associated with the upcoming shift responsibilities and is presented with that role's preconfigured screen layout. The layout offers the agent access to the resources, permissions and functionality associated with the role.

2	An agent shall be able to choose any of their assigned roles during their login with the ability to quickly login with their default role.	M	Y	. Each call taker logs on with unique username/password credentials and is then presented with a list of roles to select from or, if multiple roles have not been created for the agent, the default role is presented.
3	The System shall be configurable to allow Call Takers to bypass ACD assignment and answer any ringing 9-1-1 call directly, based on configured layout.	M	Y	The Guardian application includes tenant status windows which provide live monitoring of ringing, active, on hold and abandoned calls. Call takers can view all ringing 9-1-1 calls in the Emergency Ring Calls tenant status window and with appropriate permissions can answer any ringing 9-1-1 call (bypassing ACD).
4	The System shall be configurable to allow Call Takers to bypass ACD assignment and answer any ringing 9-1-1 call directly, based on configured layout.	M	Y	The Guardian application allows for this capability by using tenant status windows which provide live monitoring of ringing, active, on hold and abandoned calls. Call takers can view all ringing 9-1-1 calls in the Emergency Ring Calls tenant status window and with appropriate permissions can answer any ringing 9-1-1 call (bypassing ACD).
5	The ACD shall provide the configurable ability to provide postcall-processing time for giving the agent time to wrap up the previous call prior to becoming available for new ACD calls.	M	Y	<p>The system offers two wrap-up (post call –processing time) options:</p> <p>Fixed duration in seconds; the wrap-up lasts for a fixed amount of time after which the operator is made available, a “get ready zip” tone shall be provided. A zip tone shall be played 3 seconds just prior to the Busy out condition being removed. This Zip tone will be different from the “Auto answer Zip” tone.</p> <p>Manual duration; the operator automatically enters the Busy out state after a call is released and must use the Make Busy button to remove himself from the Busy out condition.</p> <p>The post-call processing time options can be customized for each queue.</p>

6	The ACD shall requeue a call when the call is presented to an agent and not answered in a configured amount of time.	M	Y	Calls are re-queued after a preconfigured Ring No Answer time period is exceeded.
7	The ACD shall re-queue a call when a workstation failure is encountered during the call.	M	Y	Active calls at a workstation are not lost if the workstation fails. The system maintains the calls and returns them to the queue.
8	The ACD shall provide routing based on console positions and/or based on agent role.	M	Y	The system supports the following ACDs: Longest Idle, Round Robin, Sequential Priority. The system also supports skills based routing based on agent's roles.
9	The System shall support the ability to transfer a call from a console to any ACD queue in The System.	M	Y	The queues are configured as direct access (speed dial) buttons in the screen layout. Call takers click the speed dial to transfer a call to the desired queue.
10	The System shall support multiple skills/roles per agent and allowing the ACD to distribute calls based on the active role for each agent.	M	Y	Each call taker logs on with unique username/password credentials and is then presented with a list of roles to select from.
11	The console shall provide the ability for an agent to refuse an ACD call presented to the workstation and whereby the refused call is re-queued to the ACD.	M	Y	The system provides this capability through the use of a Make Busy feature which blocks incoming calls from being routed to the console while allowing the agent to continue any current call(s), for example, in the case of a "hot call" and make outgoing calls.
12	The console shall provide the ability for an agent to change their state to and from ready and not ready to receive an ACD call.	M	Y	The Guardian application meets this requirement through the use of a Make Busy button. It behaves as a toggle, click it one to busy out the position, click it a second time to rejoin the ACD.

13	The console shall provide the ability to automatically answer incoming ACD calls.	M	Y	The system is configurable to auto-answer incoming calls. When a call arrives at the console, the system plays a short tone in the headset to notify the agent that the caller will be connected shortly. All remaining call handling functionality remains the same as for manually answered calls.
C-1-D-2	Call Handling – IRR			
1	A telecommunicator shall have the capability to go back and listen to a call while the original party and /or the responding agency is still on the line.	M	Y	The system includes an integrated Instant Recall Record (IRR) application which runs in the background and can be invoked for replay at any time, including while the original party and/or responding agency is still on the line.
2	The System must have the ability to record both telephony and radio audio. Recording shall be available for playback during or after a call	M	Y	The IRR application records both telephony and radio audio and can be invoked for replay at any time during or after a call.
C-1-D-4	Call Handling – ALI Retrieval System Interface			
1	The System shall have the capability to interface to multiple ALI Retrieval systems based on an incoming 9-1-1 trunks or a trunk group.	M	Y	The system is configurable to query multiple ALI databases based on incoming trunks, for example wireless versus wireline.
2	The System shall provide the ability to configure multiple ALI links associated to specific trunk group.		Y	The system is configurable to query multiple ALI databases based on specific trunk groups.
3	Each ALI group shall be configurable for a specific ALI protocol and assignable to individual trunks.	M	Y	The system is configurable to support standard ALI protocols.
4	The System shall support ALI parsing to extract Class of Service, ESN and CPN (Calling Party Number).	M	Y	The system uses ALI parsing to extract critical call details and presents them in a consistent manner on the screen.

5	The System shall support multiple ALI request schemes across dual redundant ALI links including Priority, Simultaneous and Alternating ALI requests.	M	Y	The system supports the NENA ALI specification to query simultaneously and to take the first response received. The proposed solution is designed and built to open standards; it is NENA compliant. With special programming and depending upon the ALI provider, Solacom can support multiple request schemes as stated in the RFP.
6	The System shall provide the ability to create an incorrect location information report and send it to a printer or e-mail or written to another electronic file to be exported.	M	Y	Call takers can make corrections to the ALI record directly on the screen by clicking on the ALI Correction button to unlock the ALI fields. The button is clicked a second time to save and lock the ALI. Both the original ALI data and corrections can be printed on the same printout.
C-1-D-6	Call Handling – ANI			
1	The System must be capable of requesting Phase II location repeatedly in order to update the geographic location of a wireless caller.	M	Y	The system supports repeated manual rebid requests. The system can also be configured to rebid automatically.
C-1-D-7	Call Handling – Calltaker Console			
1	The console shall support the selective display of ALI for past recent calls.	M	Y	The Guardian application includes a Call History window which displays historical information about 9-1-1 calls received at the PSAP. Call takers select a call, click on the ALI button and are then presented with the last queried ALI for the selected call.
2	The console shall support the selective display of ALI for past recent calls.	M	Y	The Guardian application includes a Call History window which displays historical information about 9-1-1 calls received at the PSAP. The Call History window includes a filter than can be used to filter out all but the most recent calls. Call takers select a call, click on the ALI button and are then presented with the last queried ALI for the selected call.

3	The console shall support the ability to print current or saved ALI.	M	Y	<p>The Guardian application includes Print ALI button which allows Call takers to print the current ALI if they have been given system permissions to do this.</p> <p>Saved ALI can be retrieved, displayed and printed from the Call History window.</p>
C-1-D-10	Call Handling – Dialing			
1	The console shall provide a search capability of all contacts whereby the search results are narrowed and displayed as the agent enters characters in the search field	M	Y	The Guardian application supports suggested auto-completion as characters are entered.
2	The search capability shall provide a simple search of the contact name or an advanced search where the agent can enter additional search criteria for other fields in the contact record.	M	Y	The Guardian application includes a Contacts window that contains a combined list of global and personal telephone numbers. The list can be searched, filtered and sorted to help locate contacts.
3	The System shall provide a list of recent incoming and outgoing calls for at least the last 100 calls. The list shall show detailed information about the call including the date and time, ANI, ALI, CPN, incoming circuit, and ESN.		Y	<p>The Redial List displays up to the last 150 calls dialed and received by each individual call taker. The list is maintained by account and is cleared when the call taker logs out. The Redial list is displayed when the call taker clicks on the Redial List button.</p> <p>ANI, ALI, CPN, incoming circuit and ESN are displayed when the call is placed back into service.</p> <p>Call takers can also filter calls in the Call History window to display the most recent calls they have answered or placed.</p>
4	The console shall provide a one button callback for the most recent emergency call.	M	Y	The Guardian system includes a one button call back feature. The button can be mapped anywhere in the screen layout. Clicking the button places the most recent call back into service.

5	The console shall provide a one button redial of the last outgoing call.	M	Y	Call takers select the last outgoing call from the Call History window or Redial List and click the “Call” button to redial the number.
C-1-D-11	Call Handling – Abandoned Call Handling			
1	The console shall provide the ability to automatically distribute the callback of the abandoned calls to individual agent positions.	M	Y	The system is configurable to place abandoned calls in a separate queue. The queue’s ACD presents the calls to individual agents based on the ACD configured for the queue.
2	The console shall provide the ability to allow agents to selectively perform callback of abandoned call from the agency’s abandoned call list.	M	Y	The system is configured to place abandoned calls in an abandoned emergency call queue. The calls are displayed chronologically, call taker select the desired abandoned call and click the Call Back button to initiate the call.
3	The ring-back of emergency TTY and wireless calls should be performed in the same manner.	M	Y	All abandoned calls including wireline, wireless and TTY are placed in the abandoned call queue, call takers select the desired call and click on the Call Back button to initiate the call.
4	The PSAP equipment shall allow to program the ANI callback format to meet the requirements for toll calls and access PBX / Centrex™ lines. The callback format shall be defined on a per NPA-NXX basis.	M	Y	The system supports different call back formats depending on the called number.
C-1-D-12	Call Handling – Call Transfers and Conference Abilities			
1	The console shall provide the ability to perform a supervised transfer, a blind transfer, or a supervised blind transfer.	M	Y	The system supports supervised, blind and supervised blind transfers. The system will keep the original call taker in the call until the transfer agency answers the call in a supervised blind transfer.
2	The console shall provide the ability to perform a no-hold conference where the existing parties on the call are not put on hold when conferencing in a new party.	M	Y	Existing parties in a conference continue to be able to converse while a call taker is conferencing in a new party (unless they have been placed on mute or have had privacy applied).

3	The console shall provide the ability to perform a conference, or transfer to any contact in the contact list with one click.	M	Y	<p>Call takers select the contact from the Contacts List and click Quick Transfer button to transfer the call to the entry selected. The Call taker is automatically released from the call when the selected contact answers the call.</p> <p>Call takers select the contact from the Contacts List and click the Conference button and the contact is automatically joined to the call after answering.</p>
4	The console shall provide the ability to perform a hold conference where the existing parties on the call are put on hold when conferencing in a new party.	M	Y	Call takers control each call leg of a conference. A call leg is a graphical representation in the Phone window of an individual participant in the conference. The call taker can place existing parties on hold when conferencing in a new part by selecting the call legs and applying the on hold.
5	The console which initiated a conference shall support the ability to selectively drop, hold and un-hold individual parties of a conference call.	M	Y	<p>Call takers control the audio of all participants in a conference. The call take can select any or all parties in a conference call and modify the party's call state:</p> <ul style="list-style-type: none"> • Release from the conference (drop) • Place on hold, • Un-hold,
6	The console shall support the ability to drop the last party added to the conference call.	M	Y	The call taker selects the call leg in the Phone window that represents the last party added to the conference and then clicks on the Release button to drop the party from the conference.
C-1-D-19	Call Handling – Main Screen Requirements			

1	The menu bar shall contain drop down menus or a ribbon interface that provide access to all of the answering position features.	M	Y	Administrators access menu bar drop down menus to configure screen layouts. Call takers do not have to access menu bar drop down menus – answering position features are presented across the screen to allow quick access and to minimize the number of keystrokes necessary for call handling.
2	The screen layout shall allow a high degree of customization to meet the needs of the PSAP.	M	Y	The Guardian Intelligent Workstation is an extremely powerful next generation 9-1-1 call taking position designed to maximize the effectiveness of call taking. The intuitive user interface allows call takers to quickly assess, prioritize and handle landline, wireless and VoIP calls. The layout of the application is very flexible and completely customizable. Assigned role privileges determine the windows and other resources that are available to each user, as well as how they're laid out in the application space.
3	The call information window shall display the ANI/ALI information of an active 9-1-1 call. It should also provide additional information on the call such as the ESN, the circuit name, the status of the 9-1-1 caller (on line or hung up) and call statistics (number of emergency calls waiting in the ACD queue and on hold).	M	Y	The Caller Information window displays one or more forms containing caller information retrieved from the ALI databases. Queue statistics (number of emergency calls waiting in the ACD queue and on hold) can be viewed in the Current Emergency Calls and Emergency Calls On Hold information windows.
4	The conference window shall contain a way to view and identify each party involved in the conference beside the call taker. It also shall provide the following indications: supervised circuit, privacy mode, mute mode and TTY.	M	Y	Each call leg (representing a participant) of a conference call is shown in the Phone window of the telecommunicator's user interface. All call legs (circuits) are supervised by the telecommunicator. Each call leg is clearly labelled with the party's name, phone number and an icon to show if the party has been placed on mute, privacy or on hold, or if the caller is using TTY.

5	The System shall have a window group together in one location, for the feature and line buttons that the call takers use most often (police, fire, rescue, language line, etc.).	M	Y	Direct access toolbars containing speed dials that are commonly used can be created and place on the call taking screen layout at the location(s) deemed optimal by DESC. Each button on the toolbar can be assigned its own label and have its own representative icon (which can be a simple color or a complex graphic) assigned to allow telecommunicators to make a quick visual association with the agency.
6	Feature and line buttons arranged by task or frequency of use. Each page shall be properly identified with a descriptive tab such as General, State, Police, Fire, EMS, Administrative, etc. The telecommunicator shall simply click on the page tab in order to select the corresponding page.	M	Y	Direct access toolbars containing speed dials that are commonly used can be created and place on the call taking screen layout at the location(s) deemed optimal by DESC. The direct access toolbars (speed dials) can be placed in other windows which can be created as tabbed groups (e.g. as General, State, Police, Fire, EMS, Administrative) or even set to auto-hide until the mouse pointer brings the tab into focus.
7	The volume control window shall be used to control the incoming call volume at the answering position's headset/handset.	M	Y	Using the volume control window and the volume meter window, a call taker can set input and output volume levels to an optimal range. Call takers can control the volume of their headset, microphone and speakers independently of each other.
8	The selective transfer agencies (STA) window at a minimum shall provide the six emergency response agencies associated with the emergency service zone of the 9-1-1 caller. The buttons in the STA window shall change according to the 9-1-1 caller's ESN. As an option, the STA window shall automatically appear when an emergency call is answered.	M	Y	<p>The system supports the presentation of Selective Transfer Agency (STA) speed dials to users based on the emergency services zone (ESZ and associated ESN) that the caller is identified being located in. The selective transfer agency buttons are the recommended primary transfer locations for callers in the ESZ, for example the police, fire and EMS response agencies having jurisdiction in that ESZ.</p> <p>Call takers simply click on the desired STA button presented with the 9-1-1 call to conference in the agency having jurisdiction in the ESZ.</p>

9	The TTY interface window shall display the caller and the telecommunicator's conversation separately as it takes place (real-time). It shall also contain all the pre-programmed messages grouped into related categories such as police, fire, EMS and general.	M	Y	<p>The Guardian application includes a Multi-media Panel which supports text, TTY and IM in the same window. Conversations are shown chronologically (the caller and the telecommunicator's text communications are shown as separate messages sequentially.</p> <p>Administrator can create pre-programmed messages for call takers to use when communicating with a TDD caller. Pre-programmed messages offer a quick, alternative way of entering text from a drop-down list or custom button, and the messages can be further modified before sending. The pre-programmed messages accessed via categorized tabs (e.g. Police) in the Multi-media panel.</p>
C-1-D-24	Call Handling – Audio and IO Management			
1	The auxiliary audio inputs shall provide the ability to be automatically activated when the console is idle and disabled when the console is active in a call.	M	Y	Each Guardian Intelligent Workstation (IWS) is provisioned with a Position Audio Control (PAC) module that enhances audio functionality at operator positions. It supports multiple input and output ports to monitor and control audio devices. The PAC activates and disables auxiliary audio inputs in response to the detected state of the console (e.g. incoming telephone call, radio audio is switched from headset to speakers).
2	The console shall provide the ability to individually control the volume of each headset, the IRR playback and the auxiliary audio input ports.	M	Y	Call takers can control the volume of their headset, microphone and speakers independently of each other. Call takers access the volume control window and drag "sliders" for each device to set the volume.
3	The console shall provide the ability to manually mute attached headset microphones individually or all simultaneously at the click of one button.	M	Y	Headset microphones can be muted individually or simultaneously from the Phone window of the user interface.

4	The console shall provide the ability to manually control a relay output included in the audio management device.	M	Y	Relays can be mapped to the call taking screen layout allowing telecommunicators to control, for example, a door to a secure area.
C-1-D-25	Call Handling – Text Messaging			
1	The System should have the ability to choose canned or predefined messages to expedite the text handling process.	M	Y	Canned messages are categorized (e.g., Police) and accessed via tabs in the Multi-media Panel.
2	The System should have the ability to 'free form' text message sent.	M	Y	Each telecommunicator can create their own free form text messages to address the specifics of a call.
3	The System should have the ability to administratively deny messages from coming in.	M	Y	This is supported and set-up in the system's incoming call policies configuration.
4	The System should integrate with Medical Priority dispatch protocols auto populating the messages for sending medical instructions to the requesting party.	M	Y	ProQA integration is on Solacom roadmap based on recent user requests. Solacom will provide ProQA integration 6 months after contract award.
C-1-E	PSAP Management Features			
1	The System administrator shall have the capability to assign single or multiple keystrokes to common functions on the answering position (e.g. F2 to release a call).	M	Y	The system supports the use of shortcut keys to allow call takers to perform a single task by pressing a single key. The following keys can be set as shortcuts: F1 to F12 A to Z space bar 0 to 9

2	The screen layout shall have the ability to be customized administratively system wide or personally for individual calltakers.	M	Y	<p>The screen layout is completely customizable – windows, buttons and other screen components are dragged and dropped into optimal positions. The call taker user interface will be customized in consultation with the State to ensure it meets their needs in terms of layout, features, queues, line types and other features.</p> <p>The call taker interface is constructed with a number of information windows which can be positioned on the screen in the location chosen by the State. In addition to the information windows are toolbars containing actionable icons, for example: answer; mute and dial pad. The toolbars are customized using a toolbar editor and, like the information windows can be positioned anywhere on the screen. Windows and toolbars can be configured to auto-hide when not in use.</p>
3	The call taking console shall permit customization of the user interface, including window and button layout, window sizes, control element sizes and properties, font size and types on a per console UI layout basis.	M	Y	A virtually unlimited number of screen layouts can be created allowing for layouts to be precisely customized for each agent role. Screen layouts are saved as configuration files, the supervisor can select and restore the original screen layout while making modifications.
4	The console shall support the assignment of one or multiple console UI layouts and configuration based on the agent role within an agency.	M	Y	Administrators create different screen layouts for different roles; agents login with a unique username/password combination, select from a list of roles that have been created for each user and are presented with the screen associated with the role.
5	The supervisor shall have the capability to modify The System sounds and button icons.	M	Y	Authorized supervisors can add, modify and delete icons. System sounds, including emergency and non-emergency audible alerts are configurable. Buttons can be customized with crest or logos of response agencies to allow call takers to make a quick visual association.

6	The supervisor shall have the capability to restore the original screen layout while making modifications.	M	Y	Screen layouts are saved as configuration files, the supervisor can select and restore the original screen layout while making modifications.
7	The console shall provide a window showing all agents logged currently into the agency including information such as their name, the name of their position, their current role, their call status and the name of the line if they are on a call.	M	Y	The application includes an Active Operators window which displays a scrollable and sortable list of all operators currently logged in. The window provides the name, position, status (e.g., ringing), role name and logged in time for each operator.

<p>8</p>	<p>The System shall support a wall display panel configurable to show the number of calls in queue, longest call waiting time, number of active calls and number of available agents.</p>	<p>M</p>	<p>Y</p>	<p>A large LCD monitor wall display unit is offered optionally (in accordance with the instructions provided in Addendum #6).</p> <p>There is a Tenant Status bar for emergency calls and a Tenant Status bar for administrative calls.</p> <p>The information is presented with two levels of details:</p> <ol style="list-style-type: none"> 1. Concise - real-time counts (e.g. number of calls currently on hold) per category on the Tenant Status bar. 2. Detailed - an information window displays critical call parameters for each category on the Tenant Status bar. <p>Tenant Status bar displays real-time status information about the number of current calls, calls on hold, calls ringing, calls abandoned and users who are logged in and available to take calls.</p> <p>The Tenant Status bar and the Tenant Status windows are displayed on the LCD.</p> <p>Clicking on any button on the Tenant Status bar pulls up the information window associated with the category, for example, Current Emergency Calls.</p>
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<p>9</p>	<p>The System shall support a wall display panel configurable to show the number of calls in queue, longest call waiting time, number of active calls and number of available agents.</p>	<p>M</p>	<p>Y</p>	<p>A large LCD monitor wall display unit is offered optionally (in accordance with the instructions provided in Addendum #6).</p> <p>There is a Tenant Status bar for emergency calls and a Tenant Status bar for administrative calls.</p> <p>The information is presented with two levels of details:</p> <ol style="list-style-type: none"> 1. Concise - real-time counts (e.g. number of calls currently on hold) per category on the Tenant Status bar. 2. Detailed - an information window displays critical call parameters for each category on the Tenant Status bar. <p>Tenant Status bar displays real-time status information about the number of current calls, calls on hold, calls ringing, calls abandoned and users who are logged in and available to take calls.</p> <p>The Tenant Status bar and the Tenant Status windows are displayed on the LCD.</p> <p>Clicking on any button on the Tenant Status bar pulls up the information window associated with the category, for example, Current Emergency Calls.</p>
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<p>10</p>	<p>All calls shall be presented and include all standard call handling features. Handling of a wireless call should be transparent to the telecommunicator in that all telephony features and functions at the telecommunicator position are the same as that of a wireline call. Single step ring-back is mandatory as the telecommunicator shall not be required to perform a manual ANI ring-back for wireless calls.</p>	<p>M</p>	<p>Y</p>	<p>The Guardian application includes all standard call handling features (e.g., hold, mute, release, others) as well as specialized features for handling emergency calls.</p> <p>Call handling is identical for all calls regardless of network of origin.</p> <p>Telecommunicators click on the Callback button to automatically place back into service the most recent call.</p> <p>The system is configured to automatically query the ALI databases at predetermined intervals and to a maximum number of queries removing the requirement for telecommunicators to perform manual ALI queries.</p>
<p>11</p>	<p>The System shall support the creation of up to 20 contact lists for dialing, with each contact list assignable based on the role or agency of the users</p>	<p>M</p>	<p>Y</p>	<p>The Contacts window contains a combined list of system wide and personal contacts.</p> <p>Each contact is assigned a classification to allow contacts to be quickly sorted. 20 or more lists can be created.</p>
<p>12</p>	<p>The contact list shall support the ability to define up to 10 custom fields for each contact list.</p>	<p>M</p>	<p>Y</p>	<p>Call takes can define custom fields for each contact list.</p>
<p>13</p>	<p>The System shall provide the ability to assign any contacts to a group to be used by an agent for selective transfer based on the ESN. The contacts associated to a caller's ESN can then be accessed with one click of the mouse or button.</p>	<p>M</p>	<p>Y</p>	<p>Contacts can be assigned to a group sharing a common classification (e.g. ESN 5). Telecommunicators sort on ESN 5 to pull up the contacts for selective transfer based on the ESN.</p>
<p>14</p>	<p>The System shall support dialing rules based on different contexts including the line type and the state of the console.</p>	<p>M</p>	<p>Y</p>	<p>Dialing rules are configurable to accommodate line type and state of the console.</p> <p>For example, the system can be engineered in such a way the need for "1+" can automatically be injected into a call back without the need for call taker intervention.</p>

15	A contact's dialing instructions can be programmed to also include call control commands such as transfer and conference.	M	Y	Dialing instructions can be programmed to include call control commands including conference and transfer depending on the context of the call.
16	The System shall support the ability to import and/or export the contact list data utilizing standard data formats.	M	Y	Contacts can be imported and exported in standard data formats including from Microsoft Outlook.
C-1-F	Remote Maintenance and Alarm			
1	A Maintenance/Supervisor Position shall be provided with The System.	M	Y	<p>Comments: The Guardian system will include a KVM maintenance terminal that provides a keyboard, video and mouse control point which installs neatly into only 1U of rack space. The KVM integrates a 17 inch LCD monitor, full 105-key keyboard and touchpad. When the terminal is not in use, the monitor is folded down and slid back into the cabinet on sturdy steel rails.</p> <p>The KVM can be used to display information messages, as well as to program and configure the system using a hierarchical menu structure designed to facilitate configuration and administrative tasks.</p>
2	The System shall allow supervisors and/or call-takers to view real time, concise ALI information of all 9-1-1 calls in queue at the PSAP.	M	Y	The Caller Information window displays one or more forms containing caller information retrieved from the ALI database. A new form is created each time a call is routed to a workstation. Each current call form is tabbed; the tab corresponding to the active call is highlighted in yellow. Call takers "tab" between the Call information windows to view the full ALI of ringing or abandoned calls, allowing them to quickly view ALI of calls in queue and thus quickly assess and prioritize calls. Operators click on the next tab to view the ANI/ALI data of the next call.

3	The System shall be equipped to run self-diagnostic programs and to automatically report any error via audible and visible alarms.	M	Y	The system will continually monitor individual system components and the system's overall health. Alarms will be generated when predetermined performance thresholds have been exceeded. Results will be presented in the alarm viewer application for review by support personnel. Relay boxes are used to trigger audible and visible alarms.
4	All server maintenance and administration functions shall be accessed via a browser based application.	M	Y	Support personnel can use WebAdmin, a web-based interface for server maintenance and administration.
5	The System shall allow supervisors and/or call-takers to view real time, concise ALI information of all 9-1-1 calls in queue at the PSAP.	M	Y	The Caller Information window displays one or more forms containing caller information retrieved from the ALI database. A new form is created each time a call is routed to a workstation. Each current call form is tabbed; the tab corresponding to the active call is highlighted in yellow. Call takers "tab" between the Call information windows to view the full ALI of ringing or abandoned calls, allowing them to quickly view ALI of calls in queue and thus quickly assess and prioritize calls. Operators click on the next tab to view the ANI/ALI data of the next call.
C-1-G	Required Reports for the Management Information System			
1	Abandoned Call Percentages	M	Y	Can be reported on.
2	Average Calls by Telecommunicator	M	Y	Can be reported on.
3	Breakdown of Call Statistics	M	Y	Can be reported on.
4	Call Count by Day	M	Y	Can be reported on.
5	Call Count by Day of Week	M	Y	Can be reported on.

6	Call Count by Day by Telecommunicator	M	Y	Can be reported on.
7	Call Count for Telecommunicator by Shift/Supervisor Group	M	Y	<p>Reports can be made by Shift date range, there is a system wide Shift setting that can be edited to set the time for 3 shifts. These settings would affect the shift reports for all PSAPs.</p> <p>Defaults are: 4am to 12pm 12p to 8pm 8pm to 4am</p>
8	Hold Count by Range	M	Y	Currently Hold time Average is available, but not by range.
9	Hold Time by Range	M	Y	Currently Hold time Average is available, but not by range.
10	Response Time by Telecommunicator	M	Y	<p>There is another column that identifies the amount of time a call was ringing in queue - showing the time the call was presented to a particular queue until the call was answered.</p> <p>Average response time is available as a column total.</p> <p>Date ranges can be set to limit the requested data.</p> <p>Single button date settings include: Last Hour, Today, Yesterday, This Week, Last Week, This Month, Last Month, 2 Months ago, Last Weekday, Last 2 Weeks, Last 2 Days, Last 24 hours</p> <p>Or date ranges: On a specific day. Between 2 dates and times. Before a specific date and time. After a specific date and time.</p>

11	Response Time by Range	M	Y	<p>There is another column that identifies the amount of time a call was ringing in queue - showing the time the call was presented to a particular queue until the call was answered.</p> <p>The Ranges are system wide and affect all PSAPs so should be agreed upon before deployment.</p>
12	Call Count by type of call (TTY, Wireless, text, etc.)	M	Y	Can be reported on.
13	Telecommunicator Daily Activity	M	Y	<p>A report encompassing all activity that a Telecommunicator was involved with can be made. This would list events like when the telecommuter: logged in; logged out; busied out, answered a call; placed a call on hold, transferred a call or conducted other activities.</p>
14	Top 10, 25 and 50 Callers by ANI	M	Y	<p>A report on frequency of a Caller ANI is available. There is currently no ability to limit it to be a specific number of callers.</p>
15	Total Call Statistics by Trunk/Line Number	M	Y	All Inbound Calls can be broken down by Trunk/Line Number.
16	Total Call Statistics by Selected Time Period	M	Y	Can be reported on.
17	Total Call Statistics by Telecommunicator	M	Y	Can be reported on.
18	Total Calls by Month	M	Y	Can be reported on.
19	Total Calls by Shift	M	Y	Can be reported on.
20	Total Calls by Type	M	Y	Can be reported on.

21	Total Calls Transferred to Municipality by date range	M	Y	<p>All transferred calls can be reported upon by transfer phone number.</p> <p>This could be a single destination number or multiple numbers that may then be sorted/tallied by number.</p> <p>Date ranges can be set to limit the requested data.</p> <p>Single button date settings include: Last Hour, Today, Yesterday, This Week, Last Week, This Month, Last Month, 2 Months ago, Last Weekday, Last 2 Weeks, Last 2 Days, Last 24 hours</p> <p>Or date ranges: On a specific day. Between 2 dates and times. Before a specific date and time. After a specific date and time.</p>
22	Total Calls Transferred to ESN by date range	M	Y	<p>All transferred calls can be reported upon by the callers ESN.</p> <p>This could be a single ESN or multiple ESNs that may then be sorted/tallied by each individual ESN.</p> <p>Date ranges can be set to limit the requested data.</p> <p>Single button date settings include: Last Hour, Today, Yesterday, This Week, Last Week, This Month, Last Month, 2 Months ago, Last Weekday, Last 2 Weeks, Last 2 Days, Last 24 hours</p> <p>Or date ranges: On a specific day. Between 2 dates and times. Before a specific date and time. After a specific date and time.</p>

23	Total Calls Transferred to Responding Agency by date range	M	Y	<p>All transferred calls can be reported upon by transfer phone number.</p> <p>This could be a single destination number or multiple numbers that may then be sorted/tallied by number.</p> <p>Date ranges can be set to limit the requested data.</p> <p>Single button date settings include:</p> <p>Last Hour, Today, Yesterday, This Week, Last Week, This Month, Last Month, 2 Months ago, Last Weekday, Last 2 Weeks, Last 2 Days, Last 24 hours</p> <p>Or date ranges:</p> <p>On a specific day.</p> <p>Between 2 dates and times.</p> <p>Before a specific date and time.</p> <p>After a specific date and time.</p>
24	Total Calls Transferred to Municipality and/or Speed Dial Listing by date range	M	Y	<p>All transferred calls can be reported upon by transfer phone number.</p> <p>This could be a single destination number or multiple numbers that may then be sorted/tallied by number.</p> <p>Date ranges can be set to limit the requested data.</p> <p>Single button date settings include:</p> <p>Last Hour, Today, Yesterday, This Week, Last Week, This Month, Last Month, 2 Months ago, Last Weekday, Last 2 Weeks, Last 2 Days, Last 24 hours</p> <p>Or date ranges:</p> <p>On a specific day.</p> <p>Between 2 dates and times.</p> <p>Before a specific date and time.</p> <p>After a specific date and time.</p>
25	The System must be able to be configured to print information for only 9-1-1 calls or to also include administrative calls.	M	Y	Printing parameters are configurable.

26	The System shall be configurable to print the ALI record and the TTY/TDD/text message conversation for TTY/TDD/text message calls.	M	Y	Printing parameters are configurable.
27	The desired solution must also contain a capability which automatically associates related calls, to allow for evidence organization.	M	Y	If an administrator knows that 2 calls events are associated then the administrator may access the MIS and link the 2 call events. When 1 call event is searched all events for both calls will be returned.
28	The System also shall be able to auto-schedule the generation of predefined reports.	M	Y	Reports can be scheduled to print at specific times.
29	The MIS system shall be designed to be highly reliable and protect data security and integrity.	M	Y	The MIS system is highly reliable – one enhanced MIS server is located at Laconia and a second at Concord. In the event of a network interruption, MIS data continues to be collected at both locations. Access to the MIS application is password protected. The MIS data can be backed up to a secure location on a regular basis.
30	The MIS system shall contain near real-time information (shortly after call completion) and allow users to search for recently completed events and event details.	M	Y	The MIS data is near real-time, users can search for information about any call that has recently completed.
31	The MIS system shall allow users to associate related events.	M	Y	If an administrator knows that 2 calls events are associated then the administrator may access the MIS and link the 2 call events. When 1 call event is searched all events for both calls will be returned.
32	The MIS solution shall include the ability to build ad hoc reports. An ad hoc report shall mean the ability to build a report template from scratch; not select filtered items from a list.	M	Y	Rather than building ad hoc reports from scratch, the MIS application presents users with an easy to use template. Users select the parameters they wish to report on and apply filters as required.

33	Real time ACD statistics and information available on screen as well to be reported on such as longest idle agent, agents availability, etc.	M	Y	<p>The MIS application includes a near real time dashboard that provides a graphical view of PSAP performance.</p> <p>The Guardian Tenant Status bar provides real time statistics and information on calls in queue, calls on hold, abandoned calls and operator status.</p> <p>The combination of the two provides a real time view of PSAP operations.</p>
34	Report on the time difference from presentation of call to the system and time answered (how long was it ringing)	M	Y	<p>There is a column available in the MIS that identifies the time each call entered the system until the moment that each call was answered.</p> <p>There is another column that identifies the amount of time a call was ringing in queue - showing the time the call was presented to a particular queue until the call was answered.</p> <p>Averages of these columns are available.</p>
35	MIS solution is on site not cloud based	M	Y	<p>The MIS solution is installed on two servers – one at the Concord PSAP and one at the Laconia PSAP.</p>

C-3 DELIVERABLES

Table C-3 Deliverables Vendor Response Checklist

Activity, Deliverable or Milestone	Deliverable Type	Explain how your Solution meets the requirement. Cite the page of your Proposal.	Comments
Conduct Project Kickoff meeting	Non Software	AK Associates will conduct Project Kick Off Meeting	

Status Meetings	Non Software	AK Associates will schedule all Status Meetings	
Implementation Plan	Written	AK Associates will provide the State with an Implementation Plan p.120	
Coordination with Network Provider	Non Software	AK Associates will coordinate with the Network Provider	
Coordination with Vendors for existing systems	Non Software	AK Associates will coordinate with vendors of existing systems p.10	
Maintenance of Existing Systems at Concord PSAP during implementation	Non Software	AK Associates will provide maintenance of the existing systems at the Concord PSAP during implementation. AK has great knowledge of the current system and has helped the State with Maintenance and Upgrades in the past. p.121	
Feasibility analysis of existing CE Network for ESI Net/ retest as needed	Non software	AK Associates will conduct a feasibility analysis of the existing CE network for ESI Net and retest as needed	
ESI Net Analysis results/Requirements report	Written	AK Associates will provide the State with the ESI Net Analysis results per the required report	
Systems Installation	Non software /Software	The system will be installed in phases with one side of the geo-diverse solution in Laconia and the second side in Concord. p.123	Response to Appendix C-1-H

<p>Systems Documentation (standard & 'As-Built')</p>	<p>Written</p>	<p>A detailed system configuration manual is delivered as part of the system acceptance process. It includes a list of all hardware and software components and contains many as-built diagrams, for example, rack layouts, IP Schema and power circuits. The manual is updated at the Solacom Customer Support Center whenever a component is changed in the system and a new electronic version is provided to the State. The system configuration manual provides support personnel with the system-specific information required to troubleshoot, repair, reconfigure or expand the system. p.20</p>	
<p>Technical Training/ knowledge transfer & relevant documentation</p>	<p>Non Software / Written</p>	<p>Comprehensive Tier 1 training will be provided to DESC Technical Support Staff. Training will occur on the new system after installation but before cutover to give support staff real world experience. All staff are provided with training manuals during training sessions. Students who successfully complete the course are certified to provide Tier 1 support. p.55</p>	
<p>Supervisor/ Telecommunicator 'Train the Trainer' training & relevant documentation</p>	<p>Non Software / Written</p>	<p>Train-the-Trainer courses will be provided to DESC staff who will be responsible for training end users on an ongoing basis. The training material is provided in electronic format, DESC may reproduce the material as often as required for future courses. P.55</p>	

<p>Acceptance Testing</p>	<p>Non Software</p>	<p>An Acceptance Test Plan (ATP) will be provided to the State for approval. The ATP. The acceptance testing procedures are designed to exercise individual component and the overall system itself in order to validate functionality and confirm that the system is performing to specifications. p.120</p>	
<p>System Acceptance and Payment of Holdback upon completion of Warranty</p>	<p>Non Software</p>	<p>AK Associates understands this requirement and complies. p.120</p>	

Section IV: Narrative Responses to Scope of Work Questions

Vendors must limit narrative responses describing the Software, Technical, Services and Project Management topics defined for this Project. The following table identifies specific topics for narratives. Please refer to the Scope of Work Section for a complete list of narrative questions for the listed topic.

Topic	Scope of Work Section
Topic 1 – System Architecture	C-1-B-7
Topic 2 - Interfaces	C-1-C6
Topic 3 – Call Handling / CPE	C-1-D-27
Topic 4 – PSAP Management Features	C-1-E-7
Topic 5 – Remote Maintenance and Alarm	C-1-F-6
Topic 6 - Management Information System	C-1-G-3
Topic 7 - Implementation, Testing and Maintenance	C-1-H-7

D-1 PROPOSED SOLUTION

Please reference the grid above and respond to the question sections that are listed, which can be found in the appropriate sections of the Scope of Work.

Topic 1 – System Architecture C-1-B-7

The proposed Solacom solution is the implementation of a Guardian Next Generation ANI/ALI Controller ("Guardian") for the State of New Hampshire. The Guardian is a powerful and flexible public safety solution, designed to open standards and is IP from the core to the dispatcher user interface. The Guardian is a modular and scalable platform, designed specifically for public safety, which provides a seamless migration from legacy emergency communications to NENA i3 standards, on the State's own schedule. The proposed Guardian solution will be deployed in a geographically diverse configuration to maximize disaster recovery capabilities and add an additional layer of redundancy to the Guardian NG9-1-1 communication system. The Guardian NG9-1-1 communication system is provisioned with standardized interfaces to external systems including CAD systems, logging recorders, existing PBXs, ALI databases and other ancillary systems. A Border Control Function is included in the solution. The BCF provides secure entry into the Guardian for emergency calls presented by the ESInet by incorporating firewall and

admission control functions and other security mechanisms to prevent deliberate or malicious attacks on the system.

Solacom uses a Side A - Side B architecture to provide redundancy, support geo-diversity, allow training and to remove the requirement for system downtime for system maintenance (including upgrades). Side A (Laconia) of the proposed system is shown at the left side of the diagram and Side B (Concord) is shown at the right. Each side of the system has an application server, administration server and MIS server. At the processing core of the proposed solution are the two application servers configured in active/active mode. Data is replicated between the two servers, ensuring equal data availability. Either server is capable of supporting all system call processing; failure of a server does not result in a loss of calls or system functionality. Under normal operations, call takers are logged in to Side A of the system. If the system detects a problem or impending problem with Side A, all call takers are automatically switched over to Side B without a loss of calls or system functionality.

The proposed solution does not contain a single point of failure that will result in any loss of functionality and will deliver 99.999% availability. The system uses demonstrated best practices of replication, redundancy and diversity to deliver mission-critical levels of system availability:

1. Redundancy: All vital modules are deployed redundantly to ensure that the failure of a module does not result in system downtime or loss of system functionality.
2. Replication: At the core of the proposed solution are two application servers configured in active/active mode. Data is replicated between the two servers, ensuring equal data availability. Either server is capable of supporting all system call processing; failure of a server does not result in a loss of calls or system functionality. The application servers are commercial grade and feature RAID hard drive and hot-swappable dual power supplies for maximum reliability.
3. Diversity: Telecommunication circuits are distributed across multiple interface modules, ensuring that if an interface module fails there is only a minor and temporary (until it is replaced) decrease in system capacity.

The Guardian Intelligent Workstation is an extremely powerful next generation 9-1-1 call taking position designed to maximize the effectiveness of call taking. The intuitive user interface allows call takers to quickly assess, prioritize and handle landline, wireless and VoIP calls. The layout of the application is very flexible and completely customizable. Assigned role privileges determine the windows and other resources that are available to each user, as well as how they're laid out in the application space. Two sample screen shots are shown below to demonstrate the tremendous versatility of the application. The screen layout will be designed and developed in consultation with DESC to ensure that specific requirements are met.

The proposed solution will interface to DESC's existing systems including:

5. Valor CAD
6. 911Datamaster DBMS and ALI
7. Exacom recorder (See letter in Appendix)
8. xTrakker map

Both the Valor CAD and the xTrakker map will cohabitate with the Guardian application on the same PC.

Guardian map is offered optionally. It will provide call mapping capability and will add the ability to answer and manage calls from the map interface as well as the Guardian application. This permits 'on the fly' answering of calls by telecommunicators based on caller location and caller clusters. When a State-supplied Emergency Call Routing Function (ECRF) is available, the system will query the ECRF for the identity of the agency to which the call should optimally be transferred to. Once the targeted agency is identified the system then determines the available routes to that agency and selects the route based on pre provisioned routing rules, as determined by the PSAPs.

The proposed system contains two Supplemental ALI capabilities. The default Supplemental ALI feature, which is included in the system as quoted, allows authorized PSAP individuals to enter supplemental data against a Directory Number, and have that information approved. Once approved the information is displayed automatically to the call taker if the system determines that supplemental ALI information exists for the ANI of the caller. Administrators can run reports showing all Supplemental ALI information by Directory Number. The information can also have an expiry date

The optional Supplemental ALI data system has a self-registration website. The SupALIData application would be configured as a New Hampshire specific services. SupALIData enhances public safety entities ability to provide service for emergency call situations. Whether decreasing time to respond or knowing health issues before arriving, SupALIData increases the quality of care responders can provide when they are needed most. SupALIData also increases the safety of responders by arming them with additional knowledge; for example, protective dog in home or in case of fire, awareness of oxygen tank in home.

SupALIData collects and disseminates enhanced information about a caller and a location. This information will be collected from individuals who opt in using a web portal and stored in a supplemental data server. The PSAP CPE can be configured to use each incoming ANI to check for supplemental information and, if present, display this information for the call taker.

Within the software, customers can add the information that they feel will be the most beneficial for emergency responders. Default fields include:

Multiple Address locations	Phone Numbers
Occupant details	Vehicle details
Emergency Contacts	Pet Details

Additional information field can list information such as:

Relevant medical conditions	Gate codes for home access
Language spoken	Wheelchair bound
Known allergies	Current Medications
Oxygen tank in home	DNR

SupALIData provides industry standard https security, and sends data update requests to customers every 6 months to help maintain data accuracy. The web portal is compatible with most browsers and operable on non-PC platforms. Additional SupALIData features include:

- User friendly web interface for individual data entry
- DESC configure system so approval of all data is required prior to its use
- Visual prompt to notify call taker of additional information
- Address information located in LVF(location validation function) where available
- Integrated with 911Datamaster's ALI
- 6 month reminders for data update
- Provides SMS and voice verification of phone numbers using a system generated key specific to a user's sign up activities.
- Customer maintains password control over their profile
- Supplemental data stored using NENA's NG9-1-1 vision as specified in NENA 08-003 and upcoming standards for "additional data".
- With the decrease of landline telephones, SupALIData's ability to link cell phones with home addresses may decrease response times especially in the event that the caller cannot speak.

The SupALIData will also be enhanced so that it can send location based data to the DESC's xTrakker map application (or to Guardian Map should that Map option be selected).

The Solacom Guardian platform is flexible, scalable, easily managed and capable of supporting both local and remote positions. The fault-tolerant configuration contains no single point of failure. Low bandwidth requirements, configurability, virtually unlimited conferencing with enhanced

audio control, along with many other 9-1-1 centric features, make the Guardian NG9-1-1 Controller the premier choice for a Next Generation 9-1-1 System for the State of New Hampshire.

The modular design provides backward compatibility with legacy PSAP systems and telecommunications networks, and allows the State to set the timetable for transitioning to Next Generation 9-1-1.

Topic 2 - Interfaces

C-1-C-6

Solacom delivers an innovative approach to NG9-1-1 by offering a versatile and easy to use Guardian platform. The ESP is a portfolio of public safety appliances and applications that has been developed according to i3 NENA 08-003 providing a simplified means of interfacing with any NENA compliant system. The architecture is flexible to adapt and scale to new functionality that will be implemented and standardized in the future.

The Solacom solution manages IP calls end to end while supporting legacy interfaces to allow for a phased migration from legacy to new IP technology solutions. In New Hampshire all calls will be delivered as IP by the Carriers to the Guardian solution – all calls are transmitted across the ESInet as VoIP. The call delivery connection from the Carriers to the Guardian Intelligent Workstations is IP end-to-end. The Guardian's interface to the ESInet is a pair of high availability Session Border Controllers (one at each host location) which provide the system's Border Control Function (BCF). The BCF sits between external networks and the ESInet and between the ESInet and Dispatch Centers and incorporates firewall, admission control, and may include anchoring of session and media as well as other security mechanisms to prevent accidental or deliberate attacks on call delivery, PSAPs or other entities connected to the ESInet. Solacom specifically qualifies any device used to ensure the unit supports the NENA NG9-1-1 interfaces which the BCF must handle, i.e. SIP/VoIP with location (PIDF-LO) calls, standard SIP/VoIP, and SMS9-1-1 calls using SIP/MSRP.

The proposed solution also includes a number of backup analog circuits that can be used if a portion of the ESInet becomes unusable. The analog circuits are supported in all the various signaling formats in use by telephone service providers and use industry standard interfaces for connectivity.

Solacom is a leader in using IP-based interfaces between its NG9-1-1 controller and other 9-1-1 systems. Solacom has all the required serial interfaces to CAD, ALI, Map, etc., but has also implemented these interfaces over direct IP links. In addition to having both serial and IP interface options, Solacom can manipulate the data being sent over these links. Manipulation of the ANI/ALI and location information format allows the Solacom system to adjust to any specific requirements of CAD/Map systems. This dual capability of flexible connection type with data manipulation will insure the system interfaces optimally with DESCs existing and future sub-systems.

The proposed solution will interface to DESC's existing systems:

1. Valor CAD, via a serial interface -- an upgrade to an IP interface is supported by the Guardian solution.

2. 911 Datamaster DBMS and ALI, via an IP interface. The IP interface, using NENA defined queries, is a proven reliable configuration and currently in operation at shared Solacom/911 Datamaster customer locations. The use of an IP interface will also facilitate the transition from E9-1-1 to full NG9-1-1 operation.
3. Exacom recorder, via an analog interface - upgrade to an IP interface is proposed (the existing Exacom recorder supports an IP interface). Exacom and Solacom have tested the proposed IP interface. In addition Exacom is capable of accepting the i3 Logging Service stream from the Solacom Guardian system. The use of the Logging Service interface will provide the Exacom system with significantly more detailed call record data that can be used to more accurately identify events associated with recordings, including the ability to know the transfer party's identity. This additional data will increase the Exacom's systems ability to manage voice recordings. Exacom and Solacom have agreed that if Solacom is awarded the New Hampshire RFP that further lab to lab testing will be carried out prior to deployment of the solution to insure a seamless deployment.
4. xTrakker map, via serial interface - an upgrade to a NG9-1-1 functional logging service interface is supported by the Guardian system. The Solacom solution incorporates i3 logging, the next generation evolution of the legacy Call Detail Record (CDR). i3 logging collects significantly more call information elements than was previously available in a traditional CDR feed.

Both the Valor CAD and the xTrakker map will cohabitate with the Guardian client on Guardian Intelligent Workstations (DESC has the option to supply the workstation PCs, minimum specifications are identified in the response to C-1-C.6.1). Valor CAD is currently operating on Guardian workstations at other customer sites, Solacom will conduct cohabitation testing to confirm that the xTrakker application can reside on the Guardian Intelligent Workstation without impacting call processing capability.

Guardian Responder positions (ALI on an IP telephone set) are offered optionally for the 78 Dispatch Centers. Guardian Mobile positions are also offered optionally. The Guardian Responder positions and the Guardian Mobile positions interface to the Guardian controller over the ESInet. The ESInet and ESInet access devices are supplied by others under a different procurement process. Solacom will collaborate with the ESInet provider to ensure that the Guardian Responder positions and Guardian Mobile positions are provisioned correctly on the network to ensure optimal operation of the devices. All traffic between Guardian Responder positions at the Dispatch Centers and Guardian Mobile positions at any location with a broadband Internet connection and the Guardian controller is via Session Border Controllers which deliver the system's SIP security and other network control functions as described above.

The Guardian solution is delivered to the State with NENA specified interfaces to NG9-1-1 Functional Elements built in that can be activated at a later date. Upon implementation, calls are

delivered to the Guardian solution as NENA i2 (SIP) calls. A query of the 911Datamaster ALI determines each caller's location. When the telephone service providers are able to deliver NENA i3 calls (SIP with location conveyance) the built in NG9-1-1 interfaces to the State supplied Emergency Call Routing Function (ECRF) and the 911Datamaster LIS will enable calls to be routed geo-spatially.

The ECRF is the database which identifies the responsible agency when supplied with the location of the caller. The interface to the ECRF is via a protocol known as LoST. The specification of the LoST protocol are contained in the NENA 08-003 specification. To further insure that implementations of the interface are correct, Solacom helped to establish the NENA Industry Collaboration Event (ICE) testing events. The ICE events allow multiple ECRF and ESRP vendors to test their products and ensure correct adherence to the specifications. Solacom has tested the Guardian Controller (ESRP) at ICE events and plans to continue to test at future events as NENA NG9-1-1 specifications evolve. Solacom is currently NENA NG9-1-1 i3 compatible networks and each has a different vendor's ECRF unit.

When a State-supplied Emergency Call Routing Function (ECRF) is available, the system will query the ECRF for the identity of the agency to which the call should optimally be transferred to. Once the targeted agency is identified the system then determines the available routes to that agency and selects the route based on pre provisioned routing rules, as determined by the PSAPs. The provisioned routes allow for a primary route to be direct SIP to an agency or should that route be unavailable, the transfer would use the identified alternative route which could be a gateway to the PSTN. Multiple alternative routes can be defined. The provisioning of the routing rule is executed via the 'Routing Policies' provisioning.

The interoperability between NENA NG9-1-1 Functional Elements is a critical capability. The specifications are relatively new and continue to evolve. To insure interoperability, Solacom was one of founders of the NENA ICE events. The ICE events allow manufacturers to test all the interfaces specified in NENA 03-008 specifications and verify operations. Interfaces such as HELD, LoST, and SIP (with PIDF-LO) have all been tested at ICE events. Solacom has taken part in these events and has been able to track the evolution of the interfaces to insure our systems continue to incorporate accurate changes to the NENA specifications.

Since the first ICE event in 2009, Solacom has been able to track and incorporate all of the relevant NENA specifications without requiring hardware replacement to accommodate the new interfaces. All changes have been achieved by software additions to the Solacom designed and owned call control software. Solacom has not had to rely on 3rd party PBX or other entities to incorporate the latest specifications. Solacom's ongoing involvement in the writing of the NENA specifications means we have a good forward view of the evolution of the specification and we continue to see that our system architecture and the use of COTS components with virtualization, will allow us to continue without the need to replace outdated equipment in the near future. The current addition of SMS 9-1-1 call capability is an example of gracefully adding a new interface to the system in a very cost effective manner.

The last area of interoperability is to online services. These services are a growing reality within public safety and are now well beyond National Crime Information Center (NCIC) applications. New online services such as Supplemental ALI are emerging and growing in acceptance. The IP connectivity to support online services are known and established but security is an issue. Solacom is addressing this security requirement by innovating features, such as secure browser access that restricts which call takers can access specific sites from their call taker positions. The Solacom system then provides browser access to the online service through several mechanisms which include firewalls, secure relay, and session border control devices. The knowledge of how to create the connections to allow interoperability with these services in a secure manner is a key value add that Solacom will bring to the State of New Hampshire.

Solacom believes that our current demonstrated ability to interface with legacy systems and NG9-1-1 Functional elements coupled with our proven track record of incorporating new capabilities in a timely and cost effective manner will provide the State with a system that interoperates with all required systems and components in the ESInet now and in the future.

Topic 3 – Call Handling / CPE

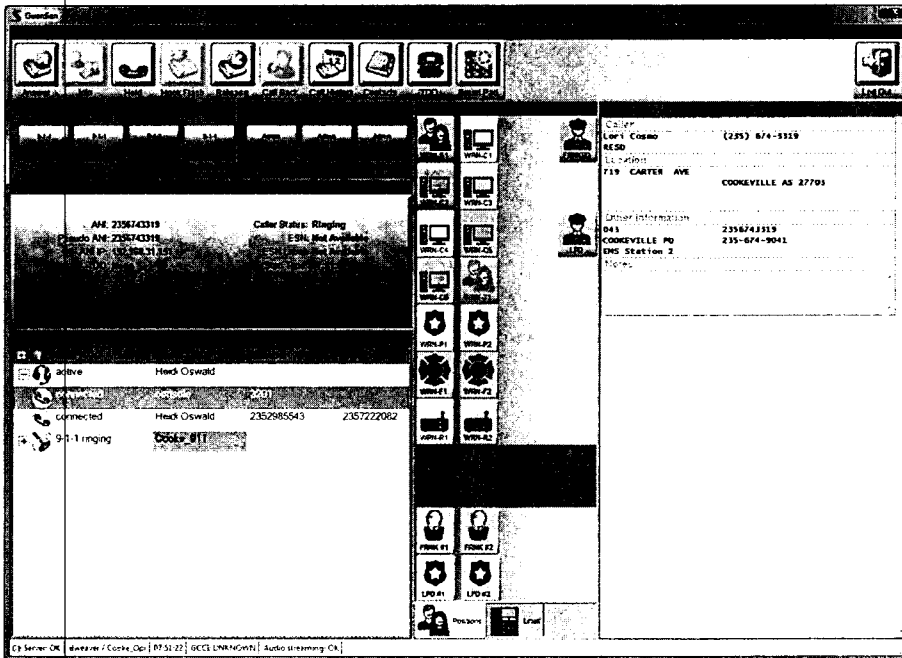
C-1-D-27

Overview

The proposed solution is the implementation of a Guardian Next Generation ANI/ALI Controller ("Guardian") for the State of New Hampshire. The Guardian is an easily managed and flexible public safety solution, designed to open standards and is IP from the core to the telecommunicator user interface. The Guardian is a modular and scalable platform, designed specifically for public safety, which provides a seamless migration from legacy emergency communications to NENA i3 standards, on the State's own schedule.

The Guardian Intelligent Workstation is an extremely powerful next generation 9-1-1 call taking position designed to maximize the effectiveness of call taking. The intuitive user interface allows call takers to quickly assess, prioritize and handle wireline, wireless and VoIP calls. All calls, regardless of network of origin, are transported and processed as VoIP calls within the Guardian system - with identical speed and accuracy.

The layout of the application is very flexible and completely customizable. Assigned role privileges determine the windows and other resources that are available to each user, as well as how they're laid out in the application space. Call takers can quickly create conferences, transfer calls, determine the location of wireless callers and recall recently recorded conversations.



The screen layout shown above displays:

1. ALI information at the upper right
2. Phone window at the lower left
3. Large Answer button above the Phone window
4. Queue count information (e.g. number of ringing calls) above the Answer button
5. Call control and transfer buttons in the middle.

The system extracts the geographical coordinate information from the ALI record and transmits it to the mapping and CAD systems.

The Caller Information window displays one or more forms containing caller information retrieved from the ALI or Presence Information Data Format - Location Objects ("PIDF-LO" i.e. i3 call) databases as each incoming 9-1-1 call is received or answered. Each current call is associated with its own tab; the tab corresponding to the active call is highlighted in yellow. Call takers "tab" between the Call information windows to view the full ALI of ringing or abandoned calls, allowing them to quickly view ALI of calls in queue and thus quickly assess and prioritize calls. Operators click on the next tab to view the ANI/ALI data of the next call.

Call Handling Features

The Guardian IWS provides all standard call handling features plus those specifically required for 9-1-1:

- Answer
- Mute
- Hold
- Privacy
- Release (forced disconnect)
- Transfer
- Conference
- Make Busy
- Monitor
- Join
- Dial (Smart Pad)
- Speed Dial
- Auto Answer calls
- Auto Greeting
- Contacts window
- Redial List
- Call History window
- Instant Record Recall
- Wrap up time

- Answer call from the map (optional Guardian map)
- View Tenant Status:
 - Tenant Status Bar (call counts)
 - Current Emergency/Admin Calls
 - Emergency/Admin Calls on Hold
 - Ringing Emergency/Admin calls
 - Abandoned Emergency Calls
 - Active Operators
- Operator Status
- Line Appearances
- Shared call appearances
- Phone window
- Ring group (queue) assignments
- Ticker Message bar
- Multi-media panel (text based calls):
 - TDD
 - SMS (text-to-911)
 - Instant Messaging (between telecommunicators and to 9-1-1)
- Selective Transfer Agencies
- Fixed Transfers
- ALI
 - View ALI/PIDF-LO
 - Auto Rebid
 - Manual Rebid
 - Print ALI
 - ALI correction
 - Fax ALI
 - Call Notes
- Volume control (headset, handset, speakers, microphone)
- Auxiliary audio (e.g. TV)
- TDD automatic detection
- One button Callback
- System status
- On screen help menu

All telecommunicators will receive comprehensive training on Guardian IWS features and functionalities. While the list of features may seem long, a 4 hour training course has proven to be sufficient training to allow telecommunicators to go live on the new system. Administrators configure the telecommunicator's screen layouts (each telecommunicator can have more than one role/screen layout to select from). All configuration is done from within the Guardian client application and can be conducted from any Guardian IWS position. Administrators are shown how to create layouts and assign resources and permissions during a 1 day course.

Automatic Call Distribution

The system will be configured such that the two PSAPs are configured as a virtual PSAP. Call takers in either PSAP will be able to see the activity in both PSAPs using Tenant Status windows

which display real time information about call queues and operator status. System wide intelligent ACD will present calls to call takers in both PSAPs based on queue configurations. Call takers in each PSAP can be members of common queues extending across both PSAPs or alternatively each PSAP can have individual queues with overflow from the other queue or multiple queues as needed. The system supports a virtually unlimited number of call queues, the practical limit will be exceeded far before any system limit is approached.

In the event the PSAP are isolated from each other on the network, each continues to process calls in a standalone mode with the ACD adapting to the temporary situation, routing calls only to local call takers in each of the isolated PSAPs.

The system's "look ahead" parameters are configurable on a queue by queue basis, dictating how overflow will be implemented. The system looks ahead for the following conditions: operator busy, busied out (not ready) and logged out. For ACD type queues the system will advance to next choice without waiting for ring no answer when the conditions are met; e.g. based on configuration when all operators logged into the queue are busy or busied out then the overflow route will be attempted immediately.

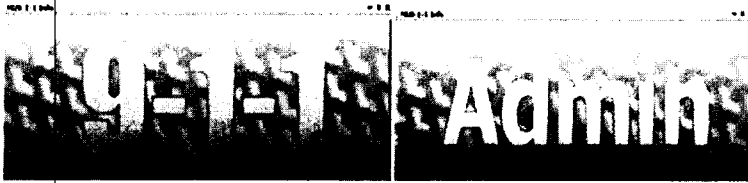
The proposed Solacom solution offers 3 types of automatic call distribution in addition to ringing all dispatcher workstations simultaneously:

- Sequential Priority – rings the highest priority member first. If the call is not answered within a pre-defined ring time, the second dispatcher in the group rings and so on.
- Longest Idle – rings the dispatcher that has not answered a call for the longest period of time.
- Round Robin – rings the next available dispatcher starting with the first available member on the list.

The system also supports skills based distribution - based on login (user, role or role group).

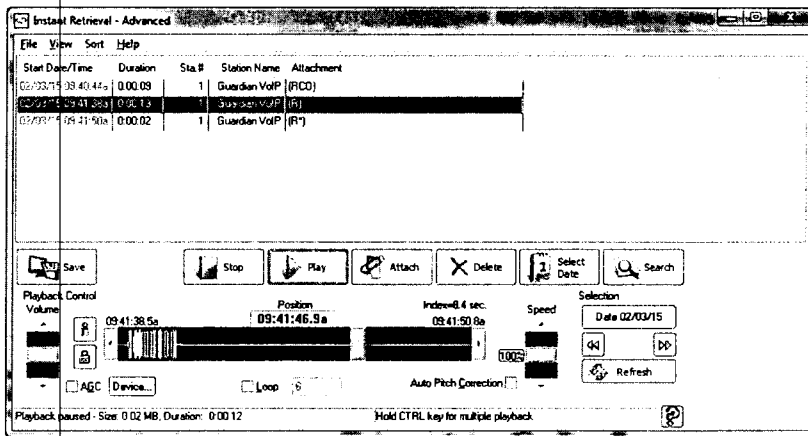
Incoming Call Alerts

The Solacom solution offers separate ring tones for 9-1-1 calls, administrative calls as well as abandoned 9-1-1 calls. Furthermore, ring groups (or call queues) can be configured with their own unique ring tone and associated call icon to easily identify the type of incoming call both audibly and visibly. The NG9-1-1 Information window is also an intuitive indication of which call type is ringing at the dispatcher workstation, i.e. 9-1-1 or Admin. The image and color of each call indicator displayed will identify whether the incoming call is a 9-1-1 or Admin call.



Instant Recall Record

The system includes an integrated IRR application which runs in the background on the dispatcher’s workstation and can be invoked for replay at any time. Calls are shown sequentially and can be recalled for review at any time as shown in the following illustration:



Dual IRR is installed on each workstation to record both the telephone audio and future radio audio.

The use of the recording application is very intuitive – start, stop, fast forward and other common audio controls. The IRR is configurable to delete calls after a certain period of time or after a certain amount of hard space has been used to file recordings.

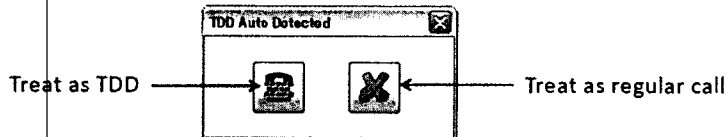
ALI Queries

The system is configured to automatically query the ALI databases at predetermined intervals and to a maximum number of queries. The rebids are logged in the ALI Status window which allows call takers to quickly determine the "freshness" of the current ALI information.

The system supports reverse ALI lookups by authorized users. Authorized users have a Manual ALI button mapped to their call taker screen layouts, all other users do not have the button mapped to their screens and are thus unable to execute a reverse ALI lookup.

TDD/TTY

The Guardian auto-detects incoming Baudot type TDD calls. When a TDD call is detected, a pop-up window appears when the call has been answered offering the telecommunicator call treatment options.

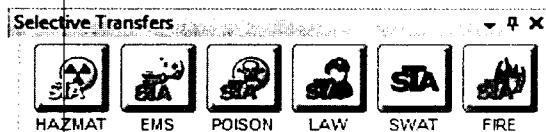


The TDD/TTY functionality is fully integrated into the user interface's Multi-media panel, external devices are not required.

Administrator can create pre-programmed messages for call takers to use when communicating with a TDD caller. Pre-programmed messages offer a quick, alternative way of entering text from a drop-down list or custom button, and the messages can be further modified before sending. The pre-programmed messages accessed via categorized tabs (e.g. Police) in the Multi-media panel.

Call Transfer

Selective Transfers. The system supports the presentation of Selective Transfer Agency (STA) speed dials to users based on the emergency services zone (ESZ and associated ESN) that the caller is identified being located in. The selective transfer agency buttons are the recommended primary transfer locations for callers in the ESZ, for example the police, fire and EMS response agencies having jurisdiction in that ESZ.



Call takers simply click on the desired STA button presented with the 9-1-1 call to conference in the agency having jurisdiction in the ESZ.

Fixed Transfers. Fixed transfers are preconfigured speed dials for transferring calls via the E9-1-1 tandem. ANI is delivered with the call, allowing the receiving agency to execute an ALI query.

Manual Transfer. Call-takers can transfer emergency and non-emergency calls by using the Smart Pad (Key pad). The Smart Pad supports tandem transfers using hook flash/star code signaling.

Conferencing

The Guardian offers a unique and patented conference capability. All interface ports on the system have a built in audio mixing capability. All callers and users on all trunks and lines, both internal and external can be joined in one large conference or numerous simultaneous smaller conferences. There is no degradation of audio as the number of conferences or participants increases due to the built-in, per-port audio mixing feature. Participants are not placed on hold as new parties are added to the conference.

The call taker who initiates the conference has full control and can mute, apply privacy or disconnect any other participant. The call “leg” of each call can be displayed on the screen, allowing call takers to see all participants. Call takers can select any call leg and take action which affects only that leg of the call. For example, a leg of conference can be muted simply by highlighting the leg and then clicking the mute button.

Call Control

Each call leg (one representing the caller, another the telecommunicator plus additional call legs if there are a number of participants in conference) is shown in the Phone window of the telecommunicator’s user interface. Each call leg is clearly labelled with the party’s name and phone number. The telecommunicator can select any call leg and take action that only affects that leg of the call. The telecommunicator blocks any party from hearing call audio by selecting the call leg representing the party in the Phone window and clicking on the Privacy button. Similarly a call leg can be selected and the party muted, placed on hold or released from the call.

View Previous Calls

The Redial List displays up to the last 150 calls dialed and received by each individual call taker. The list is maintained by account and is cleared when the call taker logs out. Call takers click on the “Call” button to call back any caller on the list.

Telecommunicators may also access a Call History window to view previous emergency calls received in the PSAP. The Call History window displays the last 999 emergency calls received. The telecommunicator can filter the Call History view to show only the calls they’ve handled.

Abandoned Calls

The Guardian system decodes ANI digits immediately after seizure of the 9-1-1 trunk is detected and then processes an ALI query regardless of whether or not the caller stays on the line or disconnects.

Abandoned 9-1-1 calls can be configured with a unique ring tone and call icon to easily distinguish them audibly and visually among all 9-1-1 calls. Abandoned calls can also be configured in a special ringing queue for abandoned calls only. All telecommunicators can easily access abandoned calls in the Emergency Abandoned Calls window and initiate a call back using the single-click call back button from the queue window.

Text-to-911 Calls

The system supports native Text to 9-1-1 using SIP Message Session Relay Protocol (MSRP) as per FCC recommendations and NENA standards. In addition, handling of Text Messaging has been integrated into the normal call handling call flow of the system to provide a seamless experience to the call taker. A Text to 9-1-1 call is distributed and handled like a normal voice call thus offering all of the current ACD and transfer functionality in the Concord/Laconia virtual PSAP as well as barge-in (join), call history and reporting . For Ring all type queues the operators busy themselves out to prevent receiving another call, voice or text.

PSAP operators may be assigned to roles that will either include or exclude text calls being presented at their position in the event they are not trained or certified to handle text based calls. Text calls will be uniquely identified throughout the system including the ability to have a unique ring, clearly viewable as a text call and status monitors, call history and other tools that present call information to the operator.

The proposed Solacom system will utilize a single text interface at the dispatch position, for SMS 9-1-1, TTY, Silent Caller and IM. Figure 7 illustrates an idle dispatcher text interface. Figure 8 shows the interface with a variety of multi-media calls and Figure 9 shows an example dialogue window. The interface will also provide a dispatcher with the ability to issue pre-canned text messages stored in the system. The system will automatically send pre-canned messages to a 9-1-1 caller using the correct connection type, i.e. TTY, SMS or IM. This allows the pre-canned messages to be structured for quick response and not require a dispatcher to take different action, based on the type of text call, in order to issue a canned message. This is intended to improve the speed of a dispatcher's response.

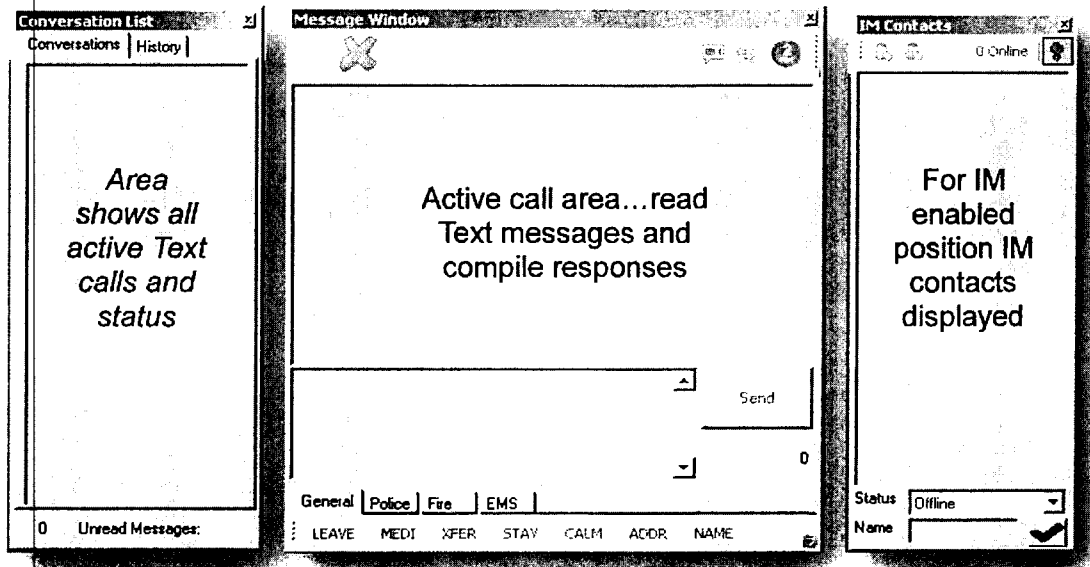


Figure 7 – text interface window

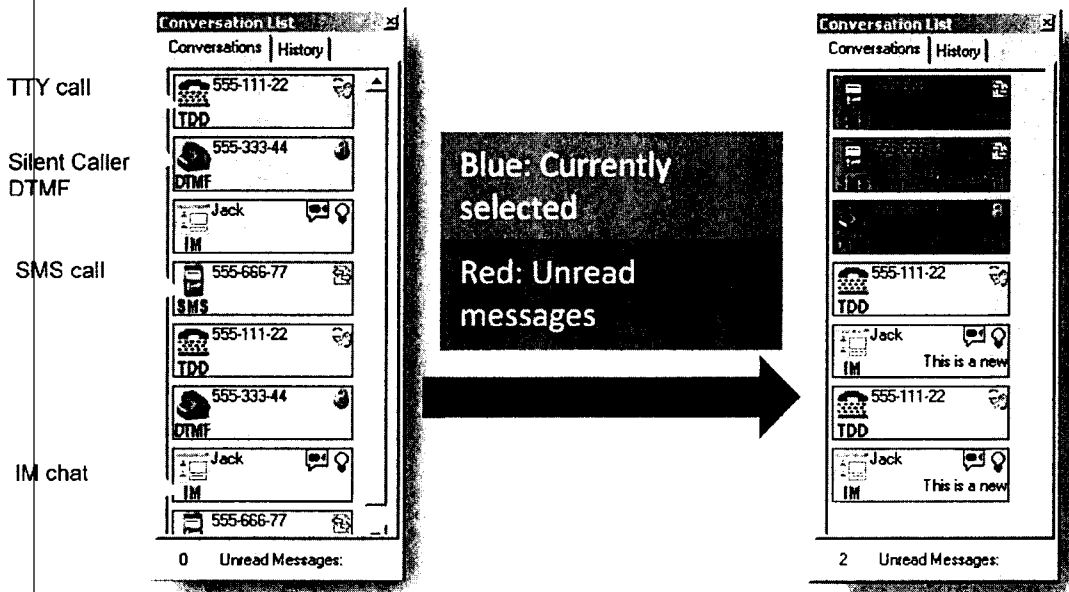


Figure 8 – multi-media calls presented at the workstation

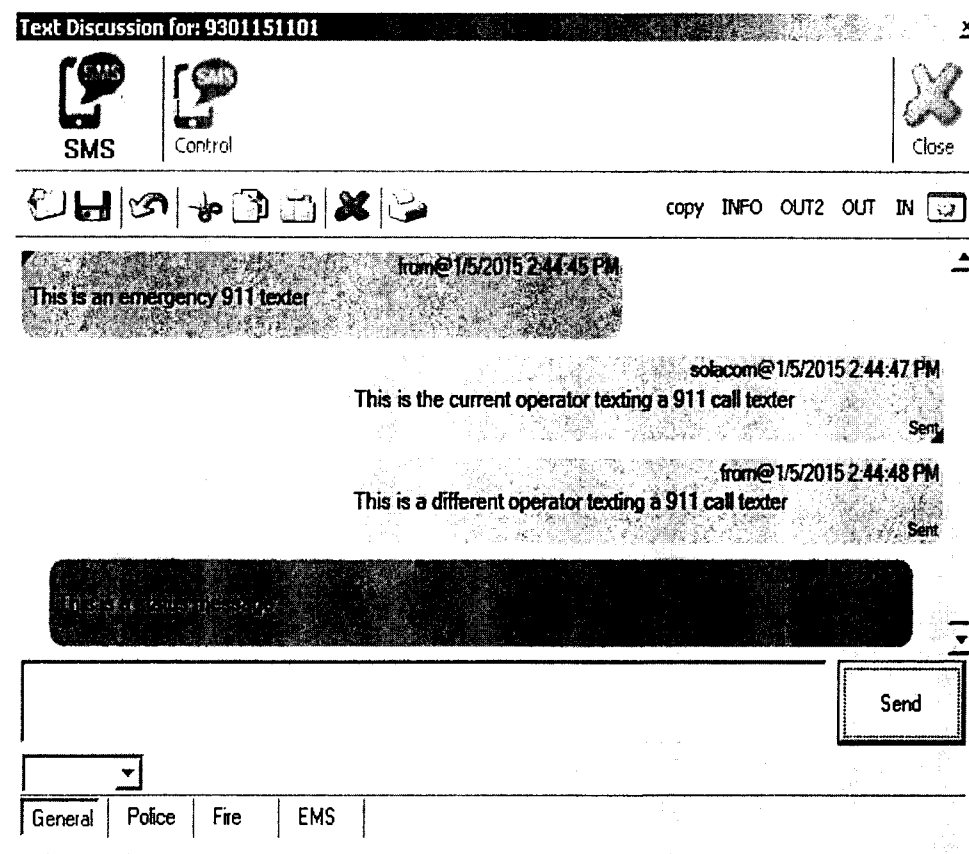


Figure 9 – dialogue window at the workstation

The Guardian solution is engineered to allow telecommunicators to quickly and efficiently handle emergency and non-emergency calls. The screen layout is completely customizable and in many instances can be designed to closely mirror customer's existing layouts to ease the transition to the new Solacom solution. Solacom will collaborate with DESC and its designates to design and implement screen layouts for telecommunicators, supervisors and administrators that will optimize their operating environment.

Topic 4 – PSAP Management Features **C-1-E-7**

User Interface Configuration

The user interface is completely customizable, windows toolbars and buttons can be placed anywhere in the screen layout. The size of windows, toolbars and buttons can be adjusted to create a pleasing, functional layout. The call taker interface is constructed with a number of information windows which can be positioned on the screen in the location chosen by the State. In addition to the information windows are toolbars containing actionable icons, for example: answer; mute and dial pad. The toolbars are customized using a toolbar editor and, like the information windows can be positioned anywhere on the screen. Windows and toolbars can be configured to auto-hide when not in use.

The call taker user interface screen layouts will be customized in consultation with the State to ensure they meet PSAP requirements in terms of layout, features, queues, line types and other features.

Administrators create different screen layouts for different roles; agents login with a unique username/password combination, select from a list of roles that have been created for each user and are presented with the screen associated with the role.

A virtually unlimited number of screen layouts can be created allowing for layouts to be precisely customized for each agent role. Screen layouts are saved as configuration files, the administrator supervisor can select and restore the original screen layout while making modifications.

Train-the-Trainer (TTT) courses will be provided to DESC personnel. The Train-the-Trainer course is a compilation of Guardian Administration and Guardian Operator Training Courses. Students who successfully complete the TTT course will be able to provide the Guardian Administration Training Course to administrators/supervisors and the Guardian Operator Training Course to telecommunicators.

The Guardian Administration Training Course is 1 day in length, administrators receive training on the following subjects:

- Introduction to Guardian Call Processing Client and Administration
- Guardian Configuration Overview and Description
- Guardian Administration Objects
- Roles and Privileges Creation
- User Accounts Creation
- 9-1-1 Selective and Fixed Transfer Code Assignments

- Threshold Setting Configuration
- Create and Configure Auto Greetings
- Configuration of Shortcut keys
- Intelligent Contacts
- Layout Creation including Speed Dial Buttons
- Tenant Status Accessibility
- Ring Groups Dashboard
- Ticker Message Configuration
- Import and Export of Contacts
- Preference Template Configuration
- Ringer Mode Management
- Interactive System Configuration
- Export contacts for backup purposes;
- Configure ringers for different call types;
- Record and apply auto greetings;
- Configure speed dials; and
- Use tenant status to garner real-time statistics

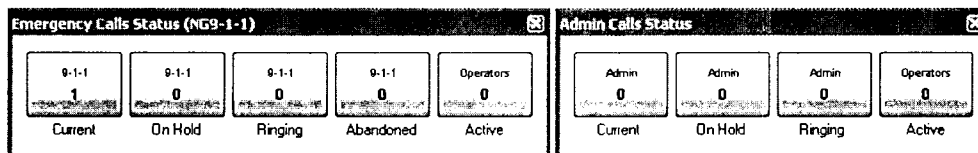
After successful completion of the Guardian Administration Training Course provided by the DESC trained personnel, administrators can create screen layout customized for each telecommunicator and or role in the PSAP. Creation of screen layout is simple and intuitive, resources (e.g. Manual ALI button) are selected, dragged and dropped into the location on the screen deemed optimal by the administrator. Administrators can update screen layouts at any time, adding new resources or simply modifying the layout.

Wall Display

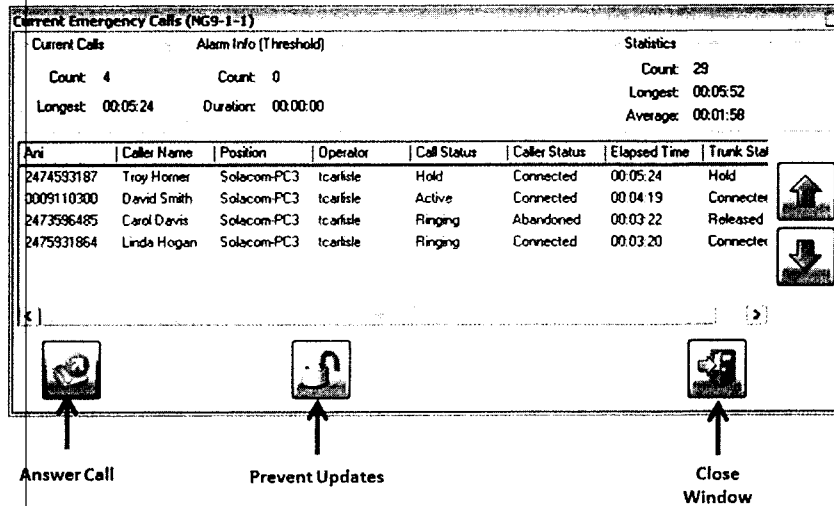
The user interface includes a Tenant Status bar which displays real-time status information about the number of current calls, calls on hold, calls ringing, calls abandoned and users who are logged in and available to take calls. There is a Tenant Status bar for emergency calls and a Tenant Status bar for administrative calls.

The information is presented with two levels of details:

1. Concise - real-time counts (e.g. number of calls currently on hold) per category on the Tenant Status bar.



- Detailed - an information window displays critical call parameters for each category on the Tenant Status bar. Clicking on any button on the Tenant Status bar pulls up the information window associated with the category, for example, Current Emergency Calls.



A large liquid crystal display (LCD monitor) wall display unit is offered optionally (in accordance with the instructions provided in Addendum #6). The Tenant Status bar and the Tenant Status windows are displayed on the LCD.

Contact Management and Dialing

The Contacts window contains a combined list of system wide and personal contacts. Telecommunicators click on the Contact button to open the Contacts window. The list can be searched, filtered and sorted to quickly locate a desired contact. The Contacts window has a search field, entries can be searched based on their name or number. This list filters matching results as characters are typed in (auto completion). Each contact can be given a classification and search results can be filtered using the Classification drop-down list. For example, setting the classification to Fire will list only the entries that have been classified as fire. Once a contact has been selected telecommunicators can use a single buttons to call or conference the Contact or to transfer a call to the Contact.

Portable Consoles

The Solacom system supports fully functional, portable answering positions for mobile and command post operations. The Guardian Mobile position is offered as an option, it is a fully functional portable call taker answering positions packaged in ruggedized carrying case. The Guardian Mobile position requires only a broadband Internet connection for connectivity to the Guardian controller. The mobile user interface is identical to the standard Guardian static

workstation interface, thus minimizing the learning curve required to set up and operate the position.



The mobile solution includes:

- Ruggedized, widescreen Dell laptop with Guardian Mobile position software preloaded and configured
- Over-the-head, professional-quality binaural headset with microphone
- USB-to-headset adapter, designed specifically for business-critical applications that utilize VoIP softphone technology
- Ruggedized carrying case
- Discounted software license in recognition that Guardian Mobile is typically used 7/24 like static positions.

Topic 5 – Remote Maintenance and Alarm

C-1-F-6

Overview

The Solacom system will continuously monitor individual system components as well as the system's overall "health". Alarms will be generated when predetermined performance thresholds are exceeded. Results are presented in the alarm viewer application for review by support personnel.

The Solacom solution uses a modular approach to system monitoring. Each module parenting a child module is responsible to constantly verify and ensure proper sanity of the child modules. Heart beat mechanism and internal data exchange ensure each module are responding appropriately. Any non-responsive module will trigger the parent module to raise an alert and activate the contingency plan for this sub module (Restart or switch over to back up module if available) The Solacom alerts are collected by the IQprobe module, categorized with priority and detailed description and can be reviewed with the IQadmin interface. The Solacom alerts can also be reported externally to be distributed to an email server and or sent to a Network Monitoring System via SNMP (Simple Network Management Protocol).

DESC indicated in Addendum #6 that it does not require monitoring capability. If monitoring capability is not implemented, maintenance and alarm viewing will be conducted at the common equipment housed in cabinets at the Laconia and Concord PSAPs. The Guardian system will include a KVM maintenance terminal that provides a keyboard, video and mouse control point which installs neatly into only 1U of rack space. The KVM integrates a 17 inch LCD monitor, full 105-key keyboard and touchpad. When the terminal is not in use, the monitor is folded down and slid back into the cabinet on sturdy steel rails. DESC Tier 1 support personnel can review diagnostic and run maintenance related reports.

The KVM can be used to display information messages, as well as to program and configure the system using a hierarchical menu structure designed to facilitate configuration and administrative tasks.

Remote Monitoring and Alarm

The solution is configured with a secure remote IP access port which allows authorized support personnel to access the system via a secure VPN connection. Solacom will access the system to provide Tier 3 support and to apply software upgrades.

Active Remote Monitoring (ARM), a reliable real-time system monitoring and response service is offered optionally in accordance with the instructions provided in Addendum #6. ARM provides

cost effective monitoring 7/24 from Solacom's Network Operation Center (NOC) and ensures quick response to critical alarms on the system components.

ARM uses several different means and protocols to provide comprehensive monitoring of the system and IP devices.

SNMP (Simple Network Management Protocol) query is used to monitor different Object Identifiers (OID's) to watch over devices. SNMP Traps are captured and generate different alert levels based on pre-defined templates built specifically to monitor the Solacom system.

The monitoring also raises preventive triggers that initiate verification before problems occur. Memory, CPU (Central Processing Unit), hard disk, fan, temperature and processes are all examples of functions and components monitored by the ARM service. Servers are monitored via IPMI (Intelligent Platform Management Interface).

Constant presence is monitored via ICMP (Internet Control Message Protocol) to alert on any communication delays that are abnormal. The Network Interface Cards (NICs) of IP devices are monitored to detect abnormally high incoming or outgoing traffic, or traffic with errors.

Individual lines on analog gateways are monitored to detect abnormal usage or Central Office line status change (Disconnect/Reconnect). Network switches, and optionally routers, are monitored at the port level to identify abnormal delays, errors, or high bandwidth usage, including RAM (Random-Access Memory) and CPU usage

ARM goes beyond simply responding to events. Trend analysis looks for vulnerabilities in the system, seeking to predict required maintenance prior to failure. On the security front, the network management system is monitored and guarded against unauthorized access, intrusion attacks and hacking. The Solacom ARM also provides a monthly system health report to optimize performance by taking a pro-active approach to maintaining the critical communications infrastructure. The service automatically generates daily, weekly, and monthly statistical reports. Report formats include graph, bar chart, distribution, and summary.

In summary, Solacom will plan to configure a secure remote access port on the system to meet its requirements to provide Tier 3 support and to provide upgrades. DESC can access the system locally or remotely to review diagnostics and conduct Tier 1 troubleshooting and problem resolution. Remote monitoring is offered optionally and recommended – it allows potential problems to be identified before they become real problems.

Topic 6 - Management Information System

C-1-G-3

Overview

The Solacom solution incorporates i3 logging, the next generation evolution of the legacy Call Detail Record (CDR). i3 logging collects significantly more call information elements than was previously available in a traditional CDR feed. The i3 logging service is sent via HTTP Post to the MIS application – it can also be bridged or “forked” to feed the captured information to additional devices such as CAD, mapping, logging recorder system.

The MIS is designed with built in redundancy to provide high availability. One MIS server is provisioned at each PSAP. Each MIS server can accept all i3 logs. The two MIS servers replicate data back and forth to ensure equal data availability and retention.

The system has also been designed to protect data and provide data integrity. The MIS reporting ability is based on the assigned user level and only allow the person generating reports to see call data from agencies or users that they are assigned to see. Only certain levels of user can save reports/recordings for external use.

The MIS system is designed to receive metadata and media for voice, text and video and all forms of media can be attached to a specific incident. Currently voice and text have been implemented. Video is on the roadmap and will be implemented when origination networks can support these new media types.

i3 Logging and reporting encompasses several different elements of any given call processed by the Guardian solution and could include:

- Operator actions (hold, mute, busy out and others)
- ALI response information from an ALI provider
- Call recordings
- Call records (start of call, call answered, call released and others)
- HELD (HTTP-Enabled Location Delivery Protocol)
- LOST (Location to Service Translation)
- Attachments (Operator Screen Captures and others)

The MIS system is designed to receive metadata and media for voice, text and video and all forms of media can be attached to a specific incident. Currently voice and text have been implemented. Video is on the roadmap and will be implemented when origination networks can support these new media types.

The MIS servers are normally sized to provide access to seven years of data. Older data can be archived for longer periods of time, for example on a State network storage device.

Default Reports

The Solacom MIS solution incorporates these elements in a way that can link these details together to represent a single call. Default reports are delivered with the MIS package. These can be modified or used as a template to build tailored reports for each PSAP.

Default reports include:

38. 911Calls By Hour Of Day
39. 911Calls By Hour Period
40. 911Calls By Day Single
41. 911Calls By Day
42. 911Calls By Day Period
43. 911Calls By Day Of Week
44. 911Calls By Week Start Date
45. 911Calls By Week Period
46. 911Calls By Week Current
47. 911Calls By Month Current
48. 911Calls By Month Name
49. 911Calls By Call Taker
50. 911Calls Single Call Trace
51. 911Calls Answered versus Abandoned
52. 911Calls Overflowed and Answered
53. 911Calls Overflowed and Answered By PSAP
54. 911 Calls Overflowed and Redirected
55. 911 Callbacks by PSAP
56. All Operator Logouts
57. 911Calls Uninitialized Wireless Calls
58. 911Call Transferred To PSAP
59. 911Call Transferred From PSAP
60. 911Calls By Location
61. 911 TTY Calls
62. 911 Calls Answered by City
63. 911 Calls Answered by ESN
64. 9111 Calls Answered by Class of Service
65. AdminCalls By Hour
66. AdminCalls By Day
67. AdminCalls By Week
68. AdminCalls By Month
69. AdminCalls By Line
70. AdminCalls By Call Taker
71. AdminCalls Abandoned
72. CallTaker Statistics – all 9-1-1 calls sorted by Division and Call Taker

73. ACD Statistics – queue statistics (how many calls reached each queue and was answered or unanswered)
74. Specific Call Details (about a single 9-1-1 call)

Call Tracking

Each call is assigned a unique identifier to allow the MIS to track the progress of a call through the system. The system supports an i3 Log feed as well as a separate CAD type feed over IP. A Serial to IP converter is used in instances where the CAD does not support IP communication insuring that data can be delivered to legacy CAD, mapping and logging recorder systems.

Topic 7 - Implementation, Testing and Maintenance C-1-H-7

Implementation

We will collaborate with the DESC and other stakeholders to develop and maintain an implementation plan that will lead to the successful completion of the defined milestones, on the required timelines with minimal disruption to the PSAPs.

The PM will ensure consistent execution of our field proven project methodology:

- Scope Management - Identifying, validating and documenting the scope of the purchased solution
- Quality Management - Ensuring the work performed meets acceptable predetermined standards
- Contract/procurement management - Purchasing of compliant equipment, documenting progress and coordinating the issue of invoices
- Time Management - Scheduling all work to ensure that the project is completed on time
- Risk Management - Identifying risks, developing contingency plans, loss prevention
- Human Resources Management - Overseeing effort provided by project human resources
- Communication Management - Ensuring every aspect of project communication, whether verbal, written, email, or other forms is effective and complete
- Project Integration Management - Plan development, execution and change control

We are confident that the project methodology will ensure that the implementation is carried out with the attention to detail required to meet the DESC's expectations.

A Gantt chart is included as part of our proposal; it details our approach to the implementation of the proposed Guardian solution. The Gantt chart is representative of the proposed implementation's major tasks, timelines and dependencies. It is a baseline document that will be refined as the project requirements are refined and validated.

The Gantt Chart is provided in the appendix of the proposal.

Testing

Testing is an integral activity in every major stage of a project's implementation, from first staging in our lab to the final acceptance conducted on site at the time of go-live. The series of test plans is based on Solacom's template and is dependent on the software release shipped with the system.

Testing begins during factory staging with our factory acceptance testing: component connectivity

and interoperability between sub-systems is tested prior to shipping. Then we conduct testing during the field installation stage—initially for proper network connectivity and integration and then for overall end to end testing. Moreover, testing covers more than “normal” operating conditions. Solacom works with our channel partners to test the full range of possible failovers or otherwise service impeding conditions that may arise.

The Solacom acceptance testing procedures are designed to exercise individual component and the overall system itself in order to validate functionality and confirm that the system is performing to specifications. Test results are documented using the following codes (comments are also added if appropriate):

TP - Test Passed

TF - Test Failed

RTP - Retest Passed

RTF - Retest Failed

NA - Feature not applicable to customer's final configuration.

Use of these codes provides a clear, concise and measurable analysis of the system's performance and allows us to focus on any corrective action efforts which are required for acceptance. Documentation of the test results and corrective actions taken ensures that all necessary pre-work for a successful cutover is carried out. We will provide the State with the proposed acceptance test plan for review and approval and will work collaboratively with the State to make any mutually agreed upon modifications to the plan.

Maintenance

AK Associates will maintain the ECS1000 in Concord during the Laconia implementation. We will also be providing ECS1000 trained and certified technicians. Our spares depot has a full complement of spares for the existing system. We understand that a successful implementation includes having a very clear understanding of the configuration and layout today. The AK Associates project plan will full describe our endeavor in detail.

The proposed solution incorporates a tiered approach to system maintenance.

Term	Definition	Entity
------	------------	--------

Tier 1 Support	First line of support services including initial troubleshooting, fault verification/ resolution and on-site response.	DESC
Tier 2 Support	Second line of support services to further analyze incident data and resolve issue when Tier 1 support is unable to identify the cause of a problem.	AK Associates (until acceptance)
Tier 3 Support	Third line of support services involve core competencies and profound product knowledge to correct problems that Tier 2 support is unable to resolve.	Solacom

The tiered approach to system maintenance ensures that problems are escalated in an orderly manner so that issues are addressed by the appropriate entity for resolution. . Solacom uses the following classifications to prioritize Tier 2 and Tier 3 support:

Critical - Entire system or entire subsystem is unusable. Prevents use of capability. No work-around. Immediate safety and/or significant financial impact. Affects both primary and the redundant back-up of a system. Under 1 hour Problem will be addressed 24 hours/day until the system is restored to a functional and mutually agreeable state pending a permanent fix.

Severe - Restricts use of a capability. No workaround. Operation can be recovered by a manual intervention. High risk of reoccurrence. No immediate safety and/or financial impact. A redundant component failure has occurred. System is still operational. Under 1 hour Problem will be addressed 24 hours/day until the system is restored to a functional and mutually agreeable state pending a permanent fix.

High - Restricts use of a capability. Acceptable workaround exists. Non-critical function affected or critical function affected, a workaround is identified. System is still operating. Business hours Problem will be addressed during business hours until resolution.

Low - Prevents or restricts use of a non-essential capability. Minor nuisance. Business hours Problem will be addressed during business hours until resolution.

The proposal includes yearly options for software and/or hardware support after the expiration of the warranty period. Solacom’s hardware support offers an unprecedented level of hardware coverage as it’s designed to cover all hardware excluding the servers and PCs which is covered under the manufacturer’s umbrella (DESC also has the option of supplying the PCs). This will cover gateways, switches, position audio control modules, IP phones, cabinet and other system components. The one exception is headsets which are subject to damage beyond the control of the manufacturer.

Solacom's Software Maintenance and Support Policy and Hardware Maintenance and Support Policy are included in the appendix of the proposal.

Vendor qualifications are important factors in selecting a NG9-1-1 system and follow-on support Services. To facilitate evaluation of Vendor qualifications, the State seeks information about:

(1) corporate qualifications of each Vendor proposed to participate in the Project,

This appendix identifies specific information that must be submitted.

E-1 Required Information on Corporate Qualifications

Information is required on all Vendors who will participate in the Project. Vendors submitting a Proposal must identify any Subcontractor(s) to be used.

E-1.1 Vendor and Subcontractors

The Vendor submitting a Proposal to this Project must provide the following information:

E-1.1.1 Corporate Overview (5 page limit)

Identify the proposed role of the firm on the Project. Describe the major business areas of the firm. Provide a high-level description of the firm's organization and staff size. Discuss the firm's commitment to the public sector, experience with this type of Project Implementation and experience in New Hampshire.

Overview of AK Associates

The main reason for AK Associates' success and reputation is that we focus and are dedicated strictly to 9-1-1. We know our technical and business strengths, as well as we make it easy to do business with us. AK Associates has an experienced 9-1-1 staff that is trained on various CPE manufactures' equipment and certified on numerous ALI/DBMS Systems. We are very familiar with the database and system processes used by the large telephone companies and Intrado and TCS. We also have one of the best GIS specialists in the country. Our Executive Vice President, Mr. Arthur Kraus while in the position as Nynex's database/system manager, designed and implemented many of processes now used by Verizon and Intrado.

AK Associates is a cutting-edge 9-1-1 solutions company with a 14-year history, an impressive client portfolio, and an enviable success record. Today, after 14 years of existence, AK Associates and our key partnerships can boast about our track record. AK Associates is extremely proud to point out that we engineered, installed and maintain the complete 9-1-1 solution for (Lexington KPEN) LFUCG and this system is considered the model 9-1-1 system. Our proposed solution will provide New Hampshire with the ability to increase the redundancy and diversity of your existing 9-1-1 system by providing a Next Generation call delivery platform to the State's PSAPs. Our proposed system provides call takers the ability to log on any terminal within the state (no matter which PSAP) and begin answering 9-1-1 calls (for any of the PSAPs in the state) without waiting for a telephone service provider to manually transfer calls from one PSAP to another PSAP. Each PSAP will be equipped to answer all of the 9-1-1 trunks no matter which PSAP they are initially routed.

The value we bring to our customers includes proven practices and methodologies and a desire to always deliver the leading edge of technology. We have talented, committed people and a breadth of 9-1-1 solutions - not just glitz and glitter, but cost-effective alternatives.

Our Technology

We have some of the most exceptional talent in the world. Our experts in 9-1-1 networks, databases and CPE (customer premise 9-1-1 call answering equipment) literally set the standards that others can only follow. That is why we have received national recognition as the leader in deploying new technologies and increasing PSAP functionality in the country.

- Our people. Project management, creative design and engineering, technology, communications, online help. We're the best in our respective fields. Plain and simple.
- Our processes. We have a powerful framework of evolutionary methodologies that we call the AK Associates Roadmap to the Future.
- Our accessibility. We have 9 offices in 7 cities in the United States and 1 office in Canada and our key partners have additional offices across the United States. Take advantage of our geographically diverse teams, or we can assemble a customized team and travel to your office tomorrow.

Not only do we have proven development expertise to meet the New Hampshire goals, but AK Associates is also the leading GIS and ALI data synchronization solutions provider. We offer inventive solutions for the 9-1-1 caller-to-PSAP, PSAP -to- PSAP and PSAP to other government-agencies.

Our Value

Our small, but exceptionally talented company, and our key partnerships' financial strength and range of services, make us the most comprehensive and professional company to provide engineering, installation and maintenance services for your 9-1-1 system. Through all of our efforts, AK Associates maintains a solid commitment to fair and honest business practices, without compromise. We take great pride in our top-notch, customized services. While many of our clients face similar 9-1-1 challenges, we create targeted solutions to each specific situation so our clients get the help they need.

AK Associates provides the entire range of 9-1-1 skill sets and services required for any situation. We have 9-1-1 professionals representing developers, engineers, project leaders and managers with skill sets including 9-1-1 networks including wireless phase I and II, VoIP, database and CPE. In addition, we offer a full continuum of project support services and solutions including contract, on-site services and project and vendor management.

Our Talent

In times like these, with an extremely high demand for quality 9-1-1 professionals, coupled with the demand to implement wireless Phases II, VoIP and (SMS) Text Messaging, in-depth knowledge is needed to consistently deliver clients the highest caliber of 9-1-1 specialists. Because AK Associates is committed to service we only respond to selected customers to ensure that we exceed their expectations.

E-1.1.2 Financial Strength

Provide at least one of the following:

1. The current Dunn & Bradstreet report on the firm; or
2. The firm's two most recent audited financial statements; and the firm's most recent un-audited, quarterly financial statement; or
3. The firm's most recent income tax return. For example, either a copy of the IRS Form 1065, U.S. Return of Partnership Income or Schedule E (IRS Form 1040) Supplemental Income and Loss (for partnerships and S corporations) OR IRS Form 1120, U.S.

Corporation Income Return. These forms are typically submitted when a Vendor does not have audited financial statements.

Please see tax return in the appendix

E-1.1.3 Litigation

Identify and describe any claims made by clients during the last ten (10) years. Discuss merits, current status and, if available, outcome of each matter.

Solacom has not been in litigation with any client in the last ten years.

AK Associates has not been in litigation with any client in the last ten years.

E-1.1.4 Prior NG9-1-1 Project Descriptions (limited to 3 pages for each project)

Provide descriptions of no more than three (3) similar, NG9-1-1 projects completed. Each project description should include:

1. An overview of the project covering type of client, objective, project scope, role of the firm and outcome;
2. Project measures including proposed cost, actual project cost, proposed project schedule and actual project schedule;
3. Names and contact information (name, title, address and current telephone number) for one or two references from the client; and
4. Names and project roles of individuals on the proposed team for the New Hampshire Project that participated in the project described

Overview of Similar Projects

AK Associates

New York State Police

AK Associates has been servicing and maintaining the NYSP Communications sector for 12 years. The new state of the art facility was built with great care and attention to detail. KVM extenders were specified to keep the workstations housed in server cabinets. This allows for a better managed facility and enables better use of the furniture. Secondly, all positions cohabitate on each of these CPUs. This includes the Guardian call taker platform, Geocomm mapping, Valor CAD and Zetron radio.

This system was transitions from an ECS1000 platform. Due to our previous knowledge of the system AK Associates completed the project with minimal impact to the customer's operations. The project was within the proposed pricing and completed within the parameters of the original timeline.

Contact: Sargent Timothy Morris, PSAP Manager

Address: New York STATE POLICE
TROOP G HEADQUARTERS

760 TROY- SCHENECTADY ROAD

LATHAM, NY 12110

USA

(518)-457-6811

Email: Timothy.Morris@troopers.ny.gov

AK Associates

Niagara County, New York

AK Associates was awarded the contract to install and maintain a Vesta 4 NG 9-1-1 system.

This Geo-Diverse system was installed and cut into service in July 2014. The project involved 20 NG answering positions, Command Post, and Aastra VoIP phones to further complement the County's call taking ability. This system was transitioned from the ECS1000 platform. Due to AK Associates knowledge of the existing system, the project was highly successful.

The project was within the proposed pricing and completed within the parameters of the original timeline.

Contact: Captain Todd Ostrowski, Communications Chief

Address: Niagara County Sheriff's Office

P.O. Box 496

5526 Niagara Street Ext.

Lockport, NY 14095

Telephone: (716) 438-3397

Email: todd.ostrowski@niagaracounty.com

AK Associates

Lexington-Fayette Urban County Government.

LFUCGs endeavored to provide counties within the State to join KPEN (Kentucky Public Education Network). This network is the backbone to two Geo-Diverse Solacom Selective routers. This enables customers to share resources such as circuits and database. This saves each County monthly recurring funds and adds transfer capabilities since all customers are on the same network. AK Associates, in collaboration with LUFC, developed and engineered this project. Today there are over 20 counties live and participating on this network. As SMS is implemented the County's will be able to transfer and share this information.

Contact: Robert Stack

Address: 200 E. Main St.Rm. #313

Lexington, KY. 40507

Telephone: 859-258-3601

Email: rstack@lexington911.ky.gov

Solacom

State of Maine

The State of Maine represents the first true statewide deployment of a fully i3 NG9-1-1 system. The state required a high availability NG 9-1-1 solution to cover 26 PSAPS, a testing

lab, and a training center, based on two Data Centers for full geo-redundancy. Solacom has succeeded in providing a solution containing highly reliable sub-systems, hardware and software, geo-diverse core network elements to maintaining 99.999% system availability. Solacom's approach to this requirement was to equip two full data centers with duplicated components such that they are diversely related to each other. Independent SBC and LNG functional elements are deployed at both data centers. The terminating ESRPs provide both diversity and geo-redundancy: thus the "A" side of ESRP platform Number 1 is in Portland, Me, and the "B" side is in Lewiston, Me Likewise the A side of ESRP 2 is in Lewiston and the B side is in Portland.

Every call taker workstation in every PSAP is connected to both, one ESRP as primary and the other as secondary. The ECRF platforms co-exist in a similar geo-diverse scheme in each data center. This provides not only full geo-diverse redundancy for on-going services, but enables upgrades and changes to be implemented in a graceful way that precludes any system down time.

Another design aspect related to redundancy is providing each PSAP with back-up options in the event the PSAP becomes inoperable. The design has been proven to ensure that no call is lost across the entire service area.

The training center was configured as two separate PSAPs, each connected to a different primary data center—ECRF/LNG/d enabled us to fully test inter-PSAP calls, fail-over scenarios, etc., in addition to providing a very realistic environment for training call takers.

And with system reliability having such a high premium, we require the most thorough testing prior to transition. The testing really falls into several broad categories. First is the component testing of the different major sub-systems. Second, once their basic functionality is determined as acceptable, we move to integration testing of the core as a whole. This testing incorporated the full range of features at the PSAP level validated at the training and lab facilities, which were configured as PSAPs. It was only at this stage that call flows could be tested for proper performance. The next stage was to test the integration of the Layer 2 network with the ESInet on which the Guardian PSAP Host environment resided. As fixes were made, regression testing was also conducted to ensure no correction introduced new problems.

Solacom provided the technology platform for the Layer 3 network consisting of the core elements (ESRP, LNG, SBC) along with the ALI functionality through its sub-contractor 911 DataMaster; as well Solacom provided all the operational equipment (Guardian Work Stations) for the PSAPs and training center.

Contact: Maria Jacques, Maine ESCB (Emergency Services Com.), Director

Address: 101 Second Street, Hallowell, ME 04347

Telephone: (207) 287-3831

Email: maria.jacques@maine.gov

Solacom

Capital Area Council of Governments (CAPCOG)

Capital Area Emergency Communications District covers 209 positions at 29 PSAPs, an area of 10 counties around the Austin Texas region. Solacom was involved in the complete process including the design, implementation and ongoing maintenance as Tier 2 to AT&T for CAPCOG.

Contact: Gregg Obuch, Director of Emergency Communications

Address: 6800 Burleson Road, Austin, TX

Telephone: (512) 916-6044

Email: gobuch@capcog.org

Solacom

State of Vermont

Solacom has been chosen by service provider FairPoint Communications to supply, implement, and support equipment for a Next Generation 9-1-1 solution for Vermont's new statewide public safety network. The system provides an in-state, dedicated 9-1-1 platform to ensure reliability and availability to serve more than 600,000 citizens of Vermont.

Solacom will provide many core elements of the new network, including:

- Emergency Services Routing Proxy (ESRP)
- Legacy Network Gateway (LNG)
- Border Control Function (BCF)
- Automatic Location Identification / Location Information Server (ALI/LIS)
- Guardian Intelligent 9-1-1 Workstations (IWS)
- Network Operations Center (NOC) to monitor the health, efficiency and quality of service (QoS) of the public safety network.

The Solacom system will also seamlessly integrate GeoComm's Emergency Call Routing Function (ECRF) and mapping solution to accurately determine the caller's location in order to dispatch the most appropriate response. The new mapping capability allows call takers to answer and manage 9-1-1 calls directly from the map display.

This will be the second statewide implementation of an Emergency Services IP Network (ESInet) installed and serviced by Solacom, along with FairPoint, who announced the completion and turn-up of the State of Maine ESInet last fall.

The new system will bring a new level of 9-1-1 service to the citizens of Vermont, and will provide a greater level of redundancy, including geo-diversity. "There will be multiple levels of redundancy built into the Solacom system to ensure a robust network capable of withstanding natural disasters and emergency events," said Tony Parrott, Solacom vice president of sales.

Project Roles

The AK Associates Project Manager and Installation Engineers will coordinate and implement all facets of the installation. At the executive level is Arthur Kraus, Vice President, Kerry McCarthy, Executive Director and senior Project Manager. Our senior engineers, Steven

Anderson and Joseph Gauthier. Our Lead Trainer is Sandy Mercer, she will coordinate and implement all levels of training to the State. Our corporate support is provided from Derry, New Hampshire office.

The Solacom Project Team involves all levels of the organization and multiple disciplines. Beginning at the executive level, the VP Product Management (Gilles Ferland, PhD), VP Research & Development (Daniel Biage) and VP Business Development (Ray Vilis) are all directly involved in the architecture and configuration of the solution. Also at the executive level the Chief Operating Officer (Suzanne M. Larsen) oversees the building, staging and testing of the system. The COO continues to be involved throughout the project management, deployment and customer service phases of the project, and provides an 'open door' stable point of contact for any customer issues that may arise over the course of the project.

Day to day management of the project is executed by the Manager, Project Management and Customer Orders (Jason Howard), who coordinates closely with the in-state Project Manager (Marc Bono – located in Stratham, New Hampshire), the Field Service Manager (Martin DeLeonardis - Solacom Chicago office), as well as the Technical Trainer assigned to the project (Donna Burnside).

Employee Knowledge and Experience

AK Associates- the first ten years. AK Associates installed base through the years of the late nineties through 2010, has revolved around the ECS1000. The majority of the installed systems in this timeframe allowed us to truly understand one product solution. With the implementation of Next Generation 9-1-1 it provided our customers the opportunity to upgrade with the confidence of knowing that their service provider has a true understanding of traditional and NG platforms. Kerry McCarthy will oversee the installation process and Project Manage to ensure a successful outcome. Joe Gauthier will be charged with the network implementation, and interface with the ESInet provider to ensure there is no loss in functionality and standards set forth.

1. Kerry McCarthy: Responsible for all Engineering teams. Pre sales to post sales Engineering and Solutions. Project Management and Implementation.
His previous duties with CML technologies involved installation and training throughout the U.S. He Project Managed and installed the original ECS1000 systems in the State of New Hampshire.
2. Joe Gauthier- Senior Engineer. Joe has a very in depth knowledge of Network and Server based systems. Of our most technical installation, Joe completed the NYSP installation with great attention to detail. He will be involved with the Network and installation phases of the project.
3. Sandy Mercer-Lead Trainer will be leading our training team to ensure the State's call takers and dispatchers receive the highest level of training. She is contracted to do training for Solacom, and as such is highly qualified for these duties.

Many of Solacom key personnel worked at CML and have installed and supported the ECS-1000 at many different PSAP locations. Several of these individuals will be directly involved or overseeing the New Hampshire project should Solacom be selected.

In the case of the State of New Hampshire, the following key employees will be involved on the project team and have extensive knowledge of the ECS-1000 system operation and

capabilities. This knowledge base will ensure a smooth transition to the new Guardian System, 2 employees are profiled as examples:

1. **Martin DeLeonardis:** Responsible for the Systems Installation Group in Chicago, Mr. DeLeonardis will oversee the installation, training and all activities necessary to ensure a smooth deployment and transition from the ECS-1000 to the Solacom Guardian solution.

Mr. DeLeonardis worked at CML and PlantCML for more than 15 years, installing and providing post-sales support activities on the ECS-1000 and the Sentinel and Patriot call taking positions. Mr. DeLeonardis has worked with many new Solacom customers to make the transition from the ECS-1000 to the Solacom solution problem free.
2. **Tony Parrott:** As the VP Sales, Mr. Parrott will ensure that the concerns and needs of New Hampshire are properly understood by the project team and that appropriate solutions are provided. Mr. Parrott worked at CML in a senior position for 10 years (during the period that the ECS-1000s were deployed in New Hampshire) and has worked with many agencies to make a smooth transition to the Solacom solution.

Solacom has many employees who worked at CML and who were key players in the design and support of the ECS-1000. This level of familiarity with the State's current system is a key differentiator for Solacom. We will ensure a smooth transition from the current system to the Solacom solution given our profound understanding of both systems and telecommunicators' needs.

E-1.1.5 Subcontractor Information

Vendors must provide information on any Subcontractors proposed to work on this Project. Required information shall include but not be limited to:

1. Identification of the proposed Subcontractor and a description of the major business areas of the firm and their proposed role on the Project.
2. A high-level description of the Subcontractor's organization and staff size.
3. Discussion of the Subcontractor's experience with this type of Project;
4. Resumes of key personnel proposed to work on the Project; and
Resumes are provided below
5. Two references from companies or organizations where they performed similar services (if requested by the State).

Subcontractor Information (Solacom)

Solacom is based in Canada's National Capital Region, with a training and support facility in Chicago, IL is a leading supplier of NG9-1-1 systems. For over 30 years Solacom has been developing and deploying public safety products based on the needs of mission-critical industries such as 9-1-1 and air traffic control. We listen very carefully to our customers in public safety and we participate in industry standards bodies to ensure our products are developed to the needs of the marketplace. Solacom has a history of innovation bringing a unique combination of technology, value and reliability to our products. As the industry's leader in 9-1-1 innovation, Solacom products provide a wide range of options and features in

deployment models to meet the ever evolving and complex emergency communications demands.

Solacom is committed to open standards and interoperability, and is helping to define Next Generation 9-1-1 through NENA initiatives such as Proof of Concept and Industry Collaboration Events (“ICE”) – as well as demonstrating new capabilities such as SMS/IM/emergency messaging prototypes at industry conferences. This commitment is carried through to our product engineering to allow for straight forward integration with other standards-compliant systems in the PSAP and data center. This ensures that our customers aren’t locked into a proprietary corner – our customers retain the option to select the most cost effective ‘off-the-shelf’ components to build their PSAP.

Solacom is a member of numerous professional organizations including NENA and APCO, and has actively participated in the advance of Next Generation 9-1-1 standards and technologies. We are active participant in the NENA sponsored Industry Collaboration Events (ICE) and participated in the following events:

- ICE 1 - i3 end to end testing
- ICE 2 - NG9-1-1 transitional elements
- ICE 3 - location information
- ICE 4 - ECRF/LVF Geo-spatial events
- ICE 8 - SIP invite to Voice Recorder

Solacom’s long history of designing and delivering mission-critical solutions has given us valuable experience regarding the requirements of agencies as they transition their systems to next generation technologies. We understand that public safety systems have to deliver high availability; the Solacom ESP delivers mission-critical levels of reliability and does not require system downtime for upgrades or maintenance. Our solution expertise, however, does not stop with our own products. We work with leading third-party vendors to design, install and maintain integrated communication systems for public safety, ensuring the highest possible level of interoperability between systems. Solacom holds several patents applicable to mission critical communications, telecommunications and Public Safety 9-1-1.

The Solacom Quality Management System is ISO 9001 certified. This means that management standards are in place for carrying out and evaluating the outcome of each process.

The Solacom quality assurance program ensures products of superior quality, reliability, and performance. This approach to quality is rigorously applied by Solacom throughout a products lifetime from concept, through engineering, manufacturing, testing, installation, and throughout the product’s in-service life.

The Solacom Quality Assurance (QA) organization is involved in all aspects of product development, control, and testing. QA performs systematic planning for all required QA activities. Planning commences with a complete review and analysis of the contract and

referenced specifications and standards. The objective of this planning is to ensure that all items delivered to the customer (whether hardware, software, or data) meet the system specification and contractual requirements.

Today, Solacom has established itself as a leader in the NG9-1-1 market with solutions that range from a pure IP deployment to a hybrid IP deployment, where legacy interfaces continue to co-exist with modern IP networks. Solacom offers next generation Customer Premise Equipment (CPE) and associated database systems, which allow for the convergence of traditional voice and data into the next generation packet switched networks.

Section VI: Qualifications of key Vendor Staff

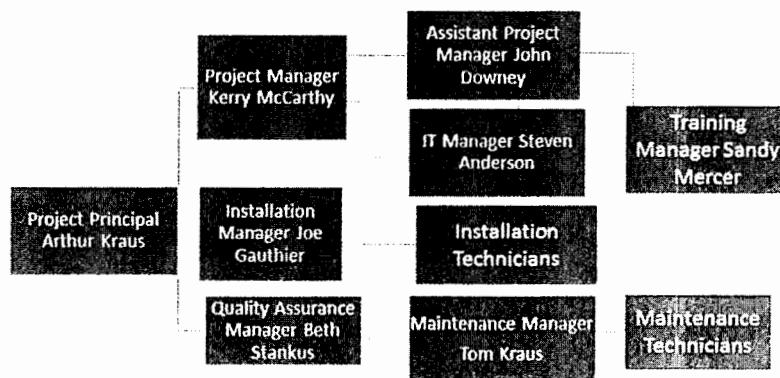
Provide an organizational chart depicting the Vendor Project team and Project organization. This chart shall identify specific key staff of the Vendor, any Subcontractors, and the Agency roles and shall identify all positions at least one (1) level below key staff.

Define the responsibilities, length of assignment, the percentage of time that the resource will be dedicated to this Project for that length of assignment and whether the resource is local (does not require travel expenses when working on the Project) for each of the roles depicted in the organizational chart. Key staff who must be identified by name include:

- Project Principal;
- Project Manager;
- Quality Assurance Manager;
- Assistant Project Manager;
- Installation Manager; and
- Maintenance Manager.

A single team member may be identified to fulfill the staff requirement in multiple areas, with the exception of Project Manager.

Project Organizational Chart



E-2.1 State Staff Resource Worksheet

Append a completed State Staff Resource Worksheet to coverage of organization. The required format follows.

Table E-2: Proposed State Staff Resource Hours Worksheet

State Role	Initiation	Configuration	Implementation	Project Close Out	Total
Project Manager	20	60	80	20	180
Installation Manager	10	20	80	10	120
Assistant Project Manager	10	20	80	10	120
Maintenance Manager				115	115
Quality Assurance Manager	5	10	40	5	60
Project Principal	5	10	60	5	80
State Total	50	120	340	165	675

E-3 Candidates for Project Manager

Qualifications of the Project Manager are particularly critical. Therefore, the Agency requires that the Project Manager be clearly identified.

The Agency requires that the Project Manager and Installation Manager be assigned full time, on site for the duration of installation of the Project. The Maintenance Manager shall be assigned full time, onsite from go live through Provisional Project Acceptance. For the Project Manager candidate, provide a resume not to exceed three (3) pages (does not count towards overall page limit) in length addressing the following:

- The candidate's educational background;
- An overview of the candidate's history;
- The candidate's project experience, including project type, project role and duration of the assignment;
- Any significant certifications held by or honors awarded to the candidate; and
- At least three (3) references, with contact information that can address the candidate's performance on past projects.

Resumes

Project Manager (AK Associates):

Kerry Joseph McCarthy

Office (603)-432-5755 Ext. 217 Mobile (603) 490-5441

kmccarthy@akassociates911.com

Summary Qualifications Statement:

Mr. McCarthy manages the technical aspects of the company from pre-sales of 9-1-1 equipment to engineering and installation of large platform E9-1-1 systems and services throughout North America. This includes Engineering, Project Management and Implementation of:

- E9-1-1 VoIP and digital call routing, PSAP controllers, interfacing with Telco voice and data; Next Generation SMS Protocols; Layer 2 &3 Networks
- Engineering of and training on third party applications such as Wireless Mapping, CAD and Radio Systems;
- Managing AK-maintained 9-1-1 PSAPs in North America;
- Ongoing customer support and consultation to our customers in North America

Key Engineering and Project Management assignments:

- Nassau County Sheriff's Office Next Gen 18 Position Vesta November 2014 to April 2015
- Niagara County, New York Geo Diverse 20 position Vesta System January 2013 to July 2013
- New York State Police Next Gen 10 Position Solacom Guardian system January 2012 to July 2012
- Wayne County Sheriff's Office, New York Next Gen Geo-Diverse Vesta system October 2011 to July 2012
- Alachua County, Florida Geo Diverse 44 position Patriot NG 9-1-1 system October 2010 to January 2011
- Pasco County, Florida Geo Diverse 48 position/ 6 PSAP Patriot NG 9-1-1 system October 2009 to October 2010
- Albany County multi PSAP project: 42 total answering positions over 11 PSAPs (Wireless Phase II compliant);
- Duval County, Florida (Jacksonville): 28 Position main PSAP with three remote PSAPs (Wireless Phase II compliant), including Patriot VoIP solution;
- Leon County, Florida: 23 answering positions at five PSAPs (Wireless Phase II Compliant);
- Schenectady County, New York: Eighteen answering positions in five PSAPs located within the County (With wireless mapping, CAD and Radio integration);
- New York State Police, Albany, New York: This PSAP answers and dispatches calls for the surrounding five counties in the Albany area; all calls from all wireless carriers are

Phase II compliant and dispatching is aided with Phase II mapping application.

References:

New York State Police: Sgt. Timothy Morris 518-457-6811

Niagara County Sheriff's Office: Marc Kasprzak 16-438-3397

Orange County Emergency Service Allen Wierzbicki 845-615-0444

Education:

Electronics Technologist Diploma

June 1985

Holland College

Prince Edward Island

Other Certifications:

- Airbus DS Certified (ECS1000/Patriot/Vesta platforms)
- Solacom Guardian and Router Applications
- VoIP/ SS7/ Networking
- Windows XP/NT/ 2000/Windows 7/Server 2008/2012
- ISDN (PRI/BRI)
- Microsoft Office
- Coaching and Mentoring
- Excelling at Managing People
- Fiber Optics

1996 – 2003:

Technical Support Specialist, Technical Services Group, PlantCML Inc.

Responsible for all aspects of technical support to Telco engineers throughout the United States for CML products. Included support of hardware and software applications to enable the end customer to use PlantCML's products to suit their needs, trouble-shooting in a lab environment, and remote access into any of our sites throughout the world. Coached and mentored junior members of the team to help them accomplish their goals.

Responsible for the installation and technical training on emergency communication systems including telephony and radio based systems. This involved travelling to customer sites and telephone offices and installing stand-alone Emergency 911

Systems. Key responsibilities included:

- Managing all aspects of installation and meeting with client to organize and implement the entire operation;
- Overseeing and managing a team of engineers and technicians in the implementation and installation of the system(s);
- Integrating voice and data over copper, T1, and ISDN links;
- Interfacing with related equipment such as central office switches, PBX, and radio transmitters/receivers;
- Interfacing data circuits with modems, frame relay and X.25 circuits
- Integration of Windows NT\2000\XP workstations in a network environment;
- Installing hardware and software on workstations and servers;
- Providing customer support encompassing all hardware and software issues;
- Upgrading databases, troubleshooting and simulation in a lab environment;
- Upgrading systems at the customer premise.

Also responsible for instructing the “Installation and Maintenance Course” that taught students all aspects of installing and maintaining an Enhanced 911 system, including:

- Architecture of the switch involving all hardware and peripherals;
- Installation and cabling of workstations and network interfaces including data transfer;
- Interfacing and configuring of workstations and answering positions;
- Interfacing and configuring of the Smart Maintenance PC;
- Programming and maintenance of the system database;
- All aspects of system installation.

Key installations and implementations:

Radio System:

- Bell Helicopter Montreal, Quebec Canada

CML Emergency 911 Systems:

- Kennedy Space Center, Cape Canaveral, Florida U.S.A.
- Sarasota, Hillsboro, and Manatee County(s) Florida U.S.A.
- State of Rhode Island, U.S.A.

E-4 Candidates for Other Key Vendor Staff Roles

Provide a resume not to exceed two (2) pages (does not count towards overall page limit) in length for each key Vendor staff position on the Project team. Each resume should address the following:

- The individual's educational background;
- An overview of the individual's history;
- The individual's project experience, including project type, project role and duration of the assignment;
- Any significant certifications held by or honors awarded to the candidate; and
- At least three (3) references, with contact information, that can address the individual's performance on past projects.

System Engineer (AK Associates):

Steven D. Anderson

E-mail: sansderson@akassociates911.com

Summary Qualifications Statement:

Mr. Anderson has 11 years' experience with AK Associates working in the position of central Florida district manager. Responsible for the maintenance of the Polk County, FL E-911 system consisting of 2 primary and 11 secondary PSAP's and 64 answering positions. He is also charged with Research and Development of TDM and VOIP technologies and maintaining internal operations of the company phone and email systems.

COMPUTER SKILLS Proficient in Windows and UNIX environment, software related to inventory control, accounting and budgeting, MS Office Suite. School experience programming in COBOL, PASCAL, BASIC, C, Visual C++, HTML, ActiveX, TCP/IP, SQL MS-Client, Novell Netware, Attachmate, and computer networks. Developed computer programs using the JAVA and Visual Basic computer languages. Experienced and trained using ArcView/ArcInfo software. Experience programming routers utilizing Cisco and Adtran IOS.

EDUCATION Polk Community College, Lakeland, Florida

May 2000 **A.A.** (Pre-engineering) Engineering Information Systems

USF, College of Engineering Lakeland, Florida

May, 2003 **B.S.** Engineering Information Systems

CompTIA A+ Certified 2003

CompTIA Network+ Certified 2003

Microsoft MCP Certified 2003

CML ECS1000 I&M Certified 2004
Cisco CCENT Certified 2012

EMPLOYMENT

04/2003 to present	Central Florida Team Leader/ Field Engineer	AK Associates
02/2003 to 03/2003	E911 Network Coordinator	Polk County BOCC
05/2001 to 02/2003	E911/GIS Addressing Intern	Polk County BOCC
09/1999 to 05/2001	Student Veteran Worker	Dept. of Veterans Affairs
01/1986 to 09/1998	Automated Logistics Specialist	United States Army

Technical Trainer (AK Associates):

Sandy Mercer, Training Manager
smercerc@akassociates911.com

Summary Qualifications Statement:

Mrs. Mercer has been with Associates since 2005. Her duties include Training PSAP and maintenance personnel in the use and maintenance of various 9-1-1-related systems.

Contracted to provide all end user training to Solacom Technologies.

Provides technical expertise in analysis, design, configuration, implementation, documentation, and ongoing maintenance support for all E9-1-1 network communications applications.

Coordinates the interconnection between the local LECs and CLECs and county systems.

Serves as liaison for LECs, CLECs, wireless carriers, PSAPs and various state and local government entities.

1998–2005 Polk County BoCC Bartow,
FL

E911 Systems Manager

- Managed technical aspects of Polk County's Enhanced 911 system to include network management and data conversion.
- Managed the 9-1-1 Addressing Office, GIS, 9-1-1 Training and Database operations and personnel.

- Managed the County's 9-1-1 System fund; >\$2 million dollars annually.

1986–1998 Polk County BoCC Bartow,
FL
E911 MSAG/Database Coordinator & 9-1-1 Supervisor

- Maintains the Master Street Address Guide (MSAG), the E 9-1-1 system database(s) to assure proper routing and display of Enhanced 9-1-1 calls.

1985-2005 Polk State Coll. – Other
Various Organizations

- Airbus Certified Trainer, 2015
- Solacom Certified Trainer, 2012
- Airbus Technician Certification, 2005, 2009, 2013
- Solacom/VOIP/SS7 Technician Certification, 2008
- Airbus Vesta (DMS100-Pallas) Technician Certification, 2008
- NENA ENP certification, 2003
- NENA President, Florida Chapter, 2004
- Florida 9-1-1 Coordinators Legislative Chairperson, 2002-2004
- EMT Certification – Polk State College
- Many various courses towards degree in Computer Information Systems & Business Administration – Polk State College & USF

Project Manager (Solacom):

Marc Bono, NG9-1-1 Project Manager

Phone: 1-888-765-2266 Ext. 337, Email: mbono@solacom.com



Marc Bono

Project Manager

Summary Qualifications Statement:

Mr. Bono has an extensive background in telecommunications, project management, and 9-1-1 services, including expertise in: quality assurance, strategic planning/business development, and managing a technical support group. He has more than 12 years as a Project Manager specifically focused on 9-1-1 and in fact was a key participant in the initial planning for NG 9-1-1 for the Commonwealth of Massachusetts, creating decision models, project schedules, and risk analysis. Mr. Bono holds certification as a Project Management Professional and an Emergency Number Professional.

Experience

Present	Solacom , Project Manager for deployment of State of Maine NG9-1-1 system
2012	Intergraph Corporation , Project Manager II
1999-2011	RCC Consultants Inc. , Associate Director in E9-1-1 practice
1993-1999	Ram Mobile Data , Vice President of Business Planning and Development for partnership between Bell South and RAM Broadcasting Co.
1989-1992	Minitel Holdings Company , Director of Business Development for US-based subsidiary of France Telecom seeking strategic partnerships with U.S. telecommunications service providers
1987-1989	Nynex Telemarketing Services , Staff Manager for technical systems support, sales and product development for subsidiary of Nynex Corporation
1984-1987	Shared Technologies , Manager of Business Planning for telecommunications joint venture between AT&T and United Technologies
1983	Northern Telecom , Sales Manager for new branch covering office system sales for three-state territory
1982	Salesnet , Manager of National Accounts Program for start-up subsidiary of Dun and Bradstreet
1971-1982	AT&T , Various management positions in engineering, operations, and sales departments over an eleven year period

Education and Training

- Columbia University, BA, *Summa Cum Laude*
- NYU School of Continuing and Professional Studies, Certificate in Fundraising (4.0) and several courses on project management.

- Jacksonville State University: post-graduate courses in Emergency Management.
- Various professional courses related to public safety (NENA) and project management (Project Management Training Institute and NYU).

Technical Expertise

Mr. Bono has over 4 decades experience in telecommunications that includes technical engineering of systems, as well as planning and operations. He has extensive knowledge of 9-1-1 solutions and systems.

Project Manager (Solacom):

Jason Howard, NG9-1-1 Project Manager

Phone: 1-888-765-2266 Ext. 334, Email: jhoward@solacom.com



Jason Howard
Project Manager

Summary Qualifications:

Mr. Howard has over 12 years of experience in telecommunications as a solutions engineer and project manager. His practical experience includes system installation, project management, system support and troubleshooting, system design and sales engineering, including quotes and proposals.

Recent projects include the following: - Butler Co, OH – 5 PSAP's, 27 Positions; Albert Health Services – 2 PSAP's, 29 Positions, currently expanding to 3 PSAP's & 50 Positions, Madison Co, AL – 5 PSAP, 36 Position, CAECD, TX – 29 PSAPs, 209 positions, State of Maine – 27 PSAPs, 145 positions

Experience

2009 - Present NG 911 Project Manager, Solacom

- Create detailed project management plans for installation projects with MS Project
- Oversee project costing during delivery to ensure delivery of targeted gross margin
- Monitor resource allocation to deliver projects on-time and on-budget
- Remain informed of the public safety industry, competing products, and current technology
- Oversee project implementation including relationship building with the customer
- Track project key indicators such as risk mitigation plans
- Prime point of contact for the OEM on the project site
- Conduct project reviews at both the working, customer and executive levels

1999-2009 Solutions Engineer, PlantCML

- Knowledgeable of entire product line, lead sales presentation to existing and future customers

- Provided analysis on technical requirements to customer needs and contractual commitments
- RFP / RFI technical response specifics
- Provided technical support for PlantCML trade shows
- Responsible for developing Detailed Design Documents and Statement of Work documents
- Responsible for developing and maintaining customer specific Network Diagrams
- Assisted in defining specifications for system installation or upgrades at customer site
- Participated in sales presentations to customers and/or business partners
- Reviewed all technical requirements and resolve issues related to prospective customer site needs
- Provided secondary level in-house and on-site technical support to customers sites
- Oversaw entire pre-sales process from customer engagement through to receipt of PO
- Technical resource and liaison to Project Management, Product Management, Research & Development, and Customer Service teams on all applicable technical issues

System Engineer (Solacom):

Bill Wiswell, NG9-1-1 System Engineer

Phone: 1-888-765-2266 Ext. 295, Email: bwiswell@solacom.com



Bill Wiswell
System Engineer

Summary Qualifications:

Mr. Wiswell has over 15 years of experience in telecommunications as a Solution Architect and Product Manager. His practical experience includes system, network design, and carrier interface, as well as 3rd party part qualification, product management of 9-1-1 and mapping product lines. Mr. Wiswell is a Subject Matter Expert on call processing platforms, and currently supports the Solacom sales department as a Solutions Architect working directly with customers to define system specifications and deliver detailed engineering documentation and pricing.

Recent projects include the following: - Butler Co, OH – 5 PSAP's, 27 Positions; Albert Health Services – 2 PSAP's, 29 Positions, currently expanding to 3 PSAP's & 50 Positions, Madison Co, AL – 5 PSAP, 36 Position, CAECD, TX – 29 PSAPs, 209 positions, State of Maine – NG911 Network Deployment with 27 PSAPs, 145 positions, State of Vermont – NG911 Network Deployment with 9 PSAPs, 34 positions, Ross Co, OH – 3 positions.

Experience

2007 - NG 911 Solution Architect, Solacom

Present

- Knowledgeable of entire product line, lead sales presentation to existing and future customers
- Provided analysis on technical requirements to customer needs and contractual commitments

- Provided technical support for Solacom trade shows
- Responsible for developing Detailed Design Documents and Statement of Work documents
- Responsible for developing and maintaining customer specific Network Diagrams
- Participated in sales presentations to customers and/or business partners
- Oversaw entire pre-sales process from customer engagement through to receipt of PO
- Technical resource and liaison to Project Management, Research & Development, and Customer Service teams on all applicable technical issues

1999-2007

Solution Architect and Product Manager, PlantCML

- Knowledgeable of entire product line, with specialty in 9-1-1 and mapping, lead sales presentation to existing and future customers
- Provided analysis on technical requirements to customer needs and contractual commitments
- RFP / RFI technical response specifics
- Provided technical support for PlantCML trade shows
- Responsible for developing Detailed Design Documents and Statements of Work
- Responsible for developing and maintaining customer specific Network Diagrams
- Product lifecycle management
- Participated in sales presentations to customers and/or business partners
- Oversaw entire pre-sales process from customer engagement through to receipt of PO
- Technical resource and liaison to Project Management, Product Management, Research & Development, and Customer Service teams on all applicable technical issues

Field Services Manager (Solacom):

Martin DeLeonardis, NG9-1-1 Field Service Manager.

Phone: 708-205-7772, Email: mdeleonardis@solacom.com



Martin DeLeonardis
Field Service Manager

Summary Qualifications:

Mr. DeLeonardis has worked as a telecommunications professional for more than 2 decades, and is presently Field Service Manager based out of Solacom's Chicago location. Mr. DeLeonardis has held a number of engineering and field service positions prior to joining Solacom and has extensive experience installing and servicing communications equipment.

Experience

2009 - Present NG 911 Field Service Manager, Solacom

- Responsible for developing and managing an expert customer service team
- Accountable for overall delivery of projects on time, on budget and on scope.
- Work with Solacom customers to meet overall business objectives and ensure customer satisfaction.
- Manage technical projects that integrate technology, people and processes to effectively meet customer and business needs.

2008-2009 NG 911 Senior Support Engineer, PlantCML

- Supported the Training Department by learning new technologies and products and passing it to the training staff. Also conducted customer and technician Installation and Maintenance training.
- Supported the Field Engineering staff by phone and on site of Sentinel Patriot (VoIP) and CM (Avaya).
- Provided cut-over support for Field Engineering Department.
- Managed phone and IP infrastructure of the Chicago office which included the Patriot (VoIP) phone system and designing and building of new training systems.

1993-2008 Field Services Manager / Field Service Installation Specialist , Plant CML

- Managed group of eight field service specialists, a team leader and two contractors.
- Responsible for install profitability, budget planning, employee performance and development, measurement of customer satisfaction and relations with value added resellers.
- Problem solving and VAR/Field Specialist support.
- Managing day to day operations of local Field Service office in Chicago which was opened in 1996.
- Designed and Implemented several new installation and add-ons of 911 and radio systems around the Chicago office including O'Hare and Midway airports.
- Managed deployment of new products such as VoIP product introduced in 2005.

Technical Trainer (Solacom):

Donna Burnside, NG9-1-1 Technical Trainer.

Phone: 1-888-765-2266 Ext. 287, Email: dburnside@solacom.com



Donna Burnside

Technical Trainer

Summary Qualifications Statement:

Ms. Burnside has more than 14 years of experience in the quality assurance of a broad spectrum of information systems. These include web-based, relational database and client/server systems. Her experience extends to testing applications, system software, environments and operation systems; development and implementation of quality assurance standards; and development of quality assurance policies and procedures. Knowledge of quality assurance processes permitted training of others in a team environment. She possesses the ability to apply new technologies and processes when required. She has familiarity with test methodologies (waterfall, iterative, prototyping and agile) and test processes using manual and automated techniques has facilitated ability to select methods, techniques and evaluation criteria for obtaining results. Solid understanding of quality assurance principles and the Software Development Life Cycle, including the Rational Unified Process, combined with analytical, problem solving, communication and organizational skills enable adherence to high quality standards.

Experience

2009 - Present

Technical Trainer, Solacom Technologies

- ♦ Developed training material for courses offered by Solacom Technologies, including: Guardian Administration, Guardian Operator, Installation and Maintenance, Management Information System, Train-the-Trainer, and Server-Based IP-PBX.
- ♦ Delivered training to customers.
- ♦ Managed the continuing development of the Solacom demonstration software package.
- ♦ Managed the configuration and maintenance of the Training Emulation System.
- ♦ Configured customer system installations.
- ♦ Performed verification testing of the Guardian Controller system and the Guardian Selective Router system.

2006 - 2009

Product Verification Specialist, Liquid Computing

- ♦ Performed sanity, load and benchmark testing on a twice weekly release basis.
- ♦ Performed functional, integration, verification and regression testing of through four iterative cycles of development.
- ♦ Performed GUI and user acceptance testing of web-based interface for supported web browsers including Microsoft Internet Explorer and Mozilla Firefox.
- ♦ Performed verification testing of numerous operating systems within the system's virtual servers including Xen Hypervisor 3.3/4.0, Windows Server 2003/2008, VMWare Server 3.5, Oracle Enterprise Linux, and Red Hat Enterprise Server connected via iSCSI interfaces to NASs and SANs.

- ♦ Performed verification testing of LiquidIQ's Ethernet and Fiber Channel networking facilities including TFTP, DHCP and NFS services within VLANs over the system IQInterconnect.
- ♦ Prepared and maintained test environment and test data.
- ♦ Created detailed test cases maintained in Testopia for new features based on requirements garnered from High Level Design Specifications and Functional Specifications.
- ♦ Designed and developed the LTC automation testing framework utilizing Tcl and Expect with DejaGNU.
- ♦ Created and automated applicable test cases utilizing the LTC framework with XML scripts.
- ♦ Participated in High Level Design and Detailed Functional Specification review meetings.

2006 Product Verification Specialist, Bridgewater Systems

2005 – 2006 Test Engineer, Trigence Corporation

Education and Training

IBM Rational Training, 2003

Computer Technology – Computing Science, Algonquin College, 2001

Commerce, Dawson College, 1990

Technical Expertise

- ♦ Operating Systems: MS-DOS, Windows 95/98/Me, Windows NT/2000/XP/Vista, Windows Advanced Server 2000-2008, Linux, UNIX System V, Solaris, QNX 4, Novell Netware 5
- ♦ Programming Languages: C/C++/Visual C++, Visual Basic, VB Script, ASP, SQL, Java, JavaScript, Perl, Tcl/Tk, HTML, CGI, Linux/UNIX Shell Script, Bash Script, DOS Batch Script
- ♦ PC Software: VMWare, XEN, Citrix MetaFrame, Rational Suite Analyst Studio, MindManager, Oracle (iSQLPlus, Enterprise Manager), Bugzilla, Testopia, BEA WebLogic Server, Hummingbird Exceed, XML Spy, TestTrack Pro, ApTest, Golden32, SAP, Bugzilla Microsoft Office Professional 97 through 2007, Corel WordPerfect Suite, Lotus SmartSuite, Lotus Notes and Domino, Microsoft SQL Server, Microsoft Access, Microsoft Project, Microsoft Visio, Novell ZENworks, Remedy IT Service Management, Adobe Acrobat Professional, Microsoft Internet Explorer, Mozilla Firefox
- ♦ Methodologies/Standards: Rational Unified Process, Capability Maturity Model, Enhanced Management Framework, Software Life Cycle, Project Life Cycle, IEEE Standards, Professional Test Engineers Common Body of Knowledge, Project Management Body of Knowledge

Section VII: Cost Proposal

**SEE SEPARATE COST PROPOSAL BOOKLET AS REQUIRED IN
ADDENDUM A**



Where Technology, Creativity and Quality Service Meet

7 Independence Ave, Derry, New Hampshire 03038 Office 603-432-5755 Fax 603-434-0685
AKAssociates911.com

Please see original copy for the original RFP and
signed addendums.

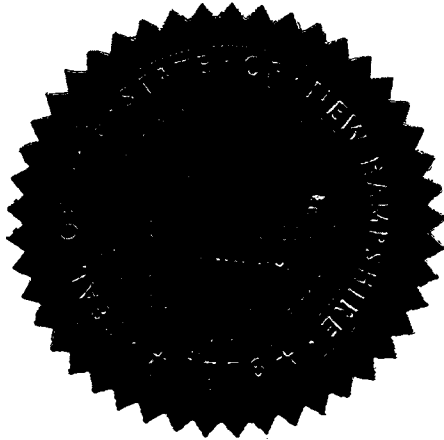
**Kraus Associates Inc., d/b/a AK Associates, 326 Porta Rosa Cir, St Augustine,
Florida 32092**

1	Required Business Documents
2	Gantt Chart
3	Business Income Tax Form 1120
4	System/PSAP Diagrams
5	Exacom Integration Letter
6	HW/SW Maintenance Policies
7	Solacom Course Catalog
8	End User License Agreement
9	Test Documents
10	EcaTs Optional MIS Response

State of New Hampshire Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that Kraus Associates, Inc. a(n) Florida corporation, is authorized to transact business in New Hampshire and qualified on December 7, 2006. I further certify that all fees and annual reports required by the Secretary of State's office have been received.



In TESTIMONY WHEREOF, I hereto set my hand and cause to be affixed the Seal of the State of New Hampshire, this 16th day of April, A.D. 2015

A handwritten signature in cursive script, appearing to read "Wm Gardner", written in black ink.

William M. Gardner
Secretary of State



Where Technology, Creativity, and Quality Service Meet

Certificate of Authority Vote

We, the owners of Kraus Associates, Inc. d/b/a AK Associates, a corporation existing and organized in the State of Florida, RESOLVE that Julie A Chase, VP of Sales and Marketing of AK Associates is empowered and authorized, on behalf of the entity, to execute and deliver any and all documents, contracts, agreements, and other instruments and any amendments, revisions or modifications thereto, as he/she may deem necessary, desirable, or appropriate. The foregoing resolutions have not been amended or revoked, and remain in full force and effect as of April 17, 2015.

Elaine M. Kraus, President (58% Shareholder)

4/17/15
Date

Arthur E. Kraus, Vice President (30% Shareholder)

4/17/15
Date

Thomas A. Kraus, Executive VP (4% Shareholder)

4/17/15
Date

Lauren M. Choumard, VP of Northeast (4% Shareholder)

4/17/15
Date

Julie A. Chase, VP of Sales & Marketing (4% Shareholder)

4/17/15
Date

ID	W.C.	Task Name	Duration	Start	Finish	% Complete
1		State of New Hampshire - Solacom Guardian Project	232 days	Mon 7/13/15	Tue 5/31/16	0%
2	-1	Notice to Proceed	1 day	Mon 7/13/15	Mon 7/13/15	0%
3	-2	Project Planning	9.75 days	Tue 7/14/15	Mon 7/27/15	0%
4	-2.1	Internal Project Review Meeting	1 day	Tue 7/14/15	Tue 7/14/15	0%
5	-2.1.1	Contract & RFP Review	1 day	Tue 7/14/15	Tue 7/14/15	0%
6	-2.1.2	Project Design Review	1 day	Tue 7/14/15	Tue 7/14/15	0%
7	-2.2	Project Kick-off Meeting	0.5 days	Mon 7/20/15	Mon 7/20/15	0%
8	-2.2.1	Contract & RFP Review	0.25 days	Mon 7/20/15	Mon 7/20/15	0%
9	-2.2.2	Project Scope and Objectives Review	0.5 days	Mon 7/20/15	Mon 7/20/15	0%
10	-2.2.3	Project Schedule Review	0.25 days	Mon 7/20/15	Mon 7/20/15	0%
11	-2.4	Site Survey / Technical Data Gathering	4.75 days	Tue 7/21/15	Mon 7/27/15	0%
12	-2.4.1	Site Surveys	1 day	Tue 7/21/15	Tue 7/21/15	0%
13	-2.4.2	Technical Data Requirement Overview	0.5 days	Wed 7/22/15	Wed 7/22/15	0%
14	-2.4.3	3rd Party Equipment overview	0.5 days	Wed 7/22/15	Wed 7/22/15	0%
15	-2.4.4	IP Network Infrastructure Assessment	1 day	Thu 7/23/15	Thu 7/23/15	0%
16	-2.4.5	Call Flow Overview	1 day	Fri 7/24/15	Mon 7/27/15	0%
17	-3	NH ESInet ready for Implementation	0 days	Mon 7/27/15	Mon 7/27/15	0%
18	-4	Detailed Design Activities	6.5 days	Mon 7/27/15	Wed 8/5/15	0%
19	-4.9	Solution Configuration Document	2 days	Mon 7/27/15	Wed 7/29/15	0%
20	-4.10	Solution Rack Drawings	1 day	Wed 7/29/15	Thu 7/30/15	0%
21	-4.11	IP Network / IP Security Design	5 days	Mon 7/27/15	Mon 8/3/15	0%
22	-4.12	3rd Party Equipment Interface Design	2 days	Mon 7/27/15	Wed 7/29/15	0%
23	-4.13	Call Flow / Provisioning Document	3 days	Thu 7/30/15	Tue 8/4/15	0%
24	-4.14	NOC and Monitoring Design	0.5 days	Mon 8/3/15	Tue 8/4/15	0%
25	-4.15	Final Detailed Design Review	0.5 days	Tue 8/4/15	Tue 8/4/15	0%
26	-4.16	Detail Design Approval	0.5 days	Tue 8/4/15	Wed 8/5/15	0%
27	-4.6	Solacom Configuration Document Complete	0 days	Wed 8/5/15	Wed 8/5/15	0%
28	-4.7	Circuit Orders	1 day	Mon 7/27/15	Tue 7/28/15	0%
29	-4.7.1	Voice Circuits (SIP / Admin)	1 day	Mon 7/27/15	Tue 7/28/15	0%
30	-4.7.2	IP Network Circuits	1 day	Mon 7/27/15	Tue 7/28/15	0%
31	-5	Solacom Data Center Hardware Procurement	15 days	Mon 7/27/15	Mon 8/17/15	0%
32	-5.1	Solacom Equipment Procurement	15 days	Mon 7/27/15	Mon 8/17/15	0%
33	-6	Solacom Manufacturing	31 days	Mon 8/17/15	Tue 9/29/15	0%

ID	Wbs	Task Name	Duration	Start	Finish	% Complete		T	W	T	F	S	S	M
34	-6.1	Solacom Data Center Equipment Manufacturing	26 days	Mon 8/17/15	Tue 9/22/15	0%								
35	-6.1.1	Equipment Transfer to Floor Complete	2 days	Mon 8/17/15	Wed 8/19/15	0%								
36	-6.1.2	Equipment Assembly at Factory	5 days	Wed 8/19/15	Wed 8/26/15	0%								
37	-6.1.3	Software load & configuration	10 days	Wed 8/26/15	Wed 9/9/15	0%								
38	-6.1.4	Switch/Router Configuration	5 days	Wed 9/9/15	Wed 9/16/15	0%								
39	-6.1.5	Inter-Connect Testing	4 days	Wed 9/16/15	Tue 9/22/15	0%								
40	-6.1.6	Solacom Position Equipment Configuration	7 days	Wed 9/9/15	Fri 9/18/15	0%								
41	-6.1.6.1	Equipment Transfer to Floor Complete	2 days	Wed 9/9/15	Fri 9/11/15	0%								
42	-6.1.6.2	Software load & configuration	5 days	Fri 9/11/15	Fri 9/18/15	0%								
43	-6.1.7	Solacom Manufacturing Complete	0 days	Fri 9/18/15	Fri 9/18/15	0%								
44	-6.2	Factory Acceptance Testing	5 days	Tue 9/22/15	Tue 9/29/15	0%								
45	-6.2.1	Conduct Factory Acceptance Test	4 days	Tue 9/22/15	Mon 9/28/15	0%								
46	-6.2.2	Factory Acceptance Test Review / Sign-off	1 day	Mon 9/28/15	Tue 9/29/15	0%								
47	-7	Shipment, Delivery and Inventory of Solacom of Equipment	5 days	Tue 9/29/15	Tue 10/6/15	0%								
48	-8	UAT, Stress Test, Security Test Plan Development	52 days	Wed 8/5/15	Fri 10/16/15	0%								
49	-8.1	Create Test Plan documents	40 days	Wed 8/5/15	Wed 9/30/15	0%								
50	-8.2	State Test Plan Document Review	10 days	Wed 9/30/15	Wed 10/14/15	0%								
51	-8.3	Complete Testing Schedule	2 days	Wed 10/14/15	Fri 10/16/15	0%								
52	-9	Cutover Planning	11 days	Fri 10/16/15	Mon 11/2/15	0%								
53	-9.1	Develop Cutover Plan	10 days	Fri 10/16/15	Fri 10/30/15	0%								
54	-9.2	Review Plan with all Vendors	1 day	Fri 10/30/15	Mon 11/2/15	0%								
55	-10	Site Readiness	72.75 days	Mon 7/13/15	Wed 10/21/15	0%								
56	-10.1	Building Occupancy Complete	1 day	Mon 7/13/15	Tue 7/14/15	0%								
57	-10.2	CPE & PSAP Site Preparation	15 days	Tue 9/29/15	Tue 10/20/15	0%								
58	-10.2.1	Rack location identified	5 days	Tue 9/29/15	Tue 10/6/15	0%								
59	-10.2.2	Power / Electrical / Grounding complete	5 days	Tue 9/29/15	Tue 10/6/15	0%								
60	-10.2.3	Cabling (Solacom-IDF, IDF-MDF, conduit) Complete	5 days	Tue 10/6/15	Tue 10/13/15	0%								
61	-10.2.4	PSAP Staging Location complete	5 days	Tue 10/13/15	Tue 10/20/15	0%								
62	-10.3	Core Network Circuit Provisioning/Testing	50 days	Mon 8/3/15	Mon 10/12/15	0%								
63	-10.3.1	Interconnection Requirements Identified	20 days	Mon 8/3/15	Mon 8/31/15	0%								
64	-10.3.2	IP Switches Configuration complete	10 days	Mon 8/31/15	Mon 9/14/15	0%								
65	-10.3.3	IP Connectivity Testing complete	10 days	Mon 9/14/15	Mon 9/28/15	0%								
66	-10.3.4	VPN Circuit installed / configured	5 days	Mon 9/28/15	Mon 10/5/15	0%								

ID	WBS	Task Name	Duration	Start	Finish	% Complete											
							'15	Jul 5, '15	Jul 6, '15	T	W	T	F	S	S	M	A
67	-10.3.5	UAT - Core Network	10 days	Mon 9/28/15	Mon 10/12/15	0%											
68	-10.4	Approval of Pre-Installation Site Readiness Document	1 day	Tue 10/20/15	Wed 10/21/15	0%											
69	-11	Solacom Implementation Activities	41.75 days	Tue 10/20/15	Thu 12/17/15	0%											
70	-11.1	Inventory Equipment	0.25 hrs	Tue 10/20/15	Tue 10/20/15	0%											
71	-11.2	Solacom Data Center 1 Install - Laconia - (Side-A)	8.03 days	Tue 10/20/15	Fri 10/30/15	0%											
72	-11.2.1	Onsite Project Meeting/Review	0.25 hrs	Tue 10/20/15	Tue 10/20/15	0%											
73	-11.2.2	Install Solacom Cabinet	1 day	Tue 10/20/15	Wed 10/21/15	0%											
74	-11.2.3	Establish Power / Grounding Connectivity	1 day	Wed 10/21/15	Thu 10/22/15	0%											
75	-11.2.4	Install Cabling to DMARC	1 day	Thu 10/22/15	Fri 10/23/15	0%											
76	-11.2.5	Establish IP Network Connectivity	2 days	Fri 10/23/15	Tue 10/27/15	0%											
77	-11.2.6	Establish VPN Connectivity	1 day	Fri 10/23/15	Mon 10/26/15	0%											
78	-11.2.7	Establish TDM Network connectivity	0.5 days	Mon 10/26/15	Tue 10/27/15	0%											
79	-11.2.8	Establish connectivity to All Database	3 days	Tue 10/27/15	Fri 10/30/15	0%											
80	-11.2.9	Establish connectivity to CAD Server	0.25 days	Fri 10/30/15	Fri 10/30/15	0%											
81	-11.2.10	Establish connectivity to Recorder Server	0.25 days	Fri 10/30/15	Fri 10/30/15	0%											
82	-11.3	Physical Installation Complete Review	0 days	Fri 10/30/15	Fri 10/30/15	0%											
83	-11.4	Solacom Data Center 2 Install - Concord - (Side-B)	9.78 days	Fri 10/30/15	Fri 11/13/15	0%											
84	-11.4.1	Onsite Project Meeting/Review	0.25 hrs	Fri 10/30/15	Fri 10/30/15	0%											
85	-11.4.2	Install Solacom Cabinet	1 day	Fri 10/30/15	Mon 11/2/15	0%											
86	-11.4.3	Establish Power / Grounding Connectivity	1 day	Mon 11/2/15	Tue 11/3/15	0%											
87	-11.4.4	Install Cabling to DMARC	1 day	Tue 11/3/15	Wed 11/4/15	0%											
88	-11.4.5	Establish IP Network Connectivity	1 day	Tue 11/3/15	Wed 11/4/15	0%											
89	-11.4.6	Establish VPN Connectivity	1 day	Wed 11/4/15	Thu 11/5/15	0%											
90	-11.4.7	Establish TDM Network connectivity	0.5 days	Thu 11/5/15	Fri 11/6/15	0%											
91	-11.4.9	Configure Admin Lines	0.5 days	Fri 11/6/15	Fri 11/6/15	0%											
92	-11.4.10	Establish connectivity to All Database	0.25 days	Fri 11/6/15	Fri 11/6/15	0%											
93	-11.4.11	Configure All format	2 days	Fri 11/6/15	Tue 11/10/15	0%											
94	-11.4.12	Establish connectivity to CAD Server	1 day	Tue 11/10/15	Wed 11/11/15	0%											
95	-11.4.13	Configure CAD spill	1 day	Wed 11/11/15	Thu 11/12/15	0%											
96	-11.4.14	Establish connectivity to Recorder Server	1 day	Thu 11/12/15	Fri 11/13/15	0%											
97	-11.5	Physical Installation Complete Review	0.25 days	Fri 11/13/15	Fri 11/13/15	0%											
98	-11.6	PSAP Equipment Staging	23.66 days	Fri 11/13/15	Thu 12/17/15	0%											
99	-11.6.1	PSAP Staging - Laconia	10 days	Fri 11/13/15	Fri 11/27/15	0%											

ID	Wbs	Task Name	Duration	Start	Finish	% Complete	T	W	T	F	S	S	M	A
100	-11.6.1.1	Stage Solacom Guardian Positions in staging area:2 days	3 days	Fri 11/13/15	Tue 11/17/15	0%								
101	-11.6.1.2	Establish Ethernet Connectivity to all Positions	3 days	Tue 11/17/15	Fri 11/20/15	0%								
102	-11.6.1.3	Guardian IWS Setup and Configuration	5 days	Fri 11/20/15	Fri 11/27/15	0%								
103	-11.6.2	PSAP Staging Complete	0 days	Fri 11/27/15	Fri 11/27/15	0%								
104	-11.6.1	PSAP Staging - Concord	10 days	Fri 11/27/15	Fri 12/11/15	0%								
105	-11.6.1.1	Stage Solacom Guardian Positions in staging area:2 days	3 days	Fri 11/27/15	Tue 12/1/15	0%								
106	-11.6.1.2	Establish Ethernet Connectivity to all Positions	3 days	Tue 12/1/15	Fri 12/4/15	0%								
107	-11.6.1.3	Guardian IWS Setup and Configuration	5 days	Fri 12/4/15	Fri 12/11/15	0%								
108	-11.6.2	PSAP Staging Complete	0 days	Fri 12/11/15	Fri 12/11/15	0%								
109	-11.6.1	Training Facility Staging	3.5 days	Mon 12/14/15	Thu 12/17/15	0%								
110	-11.6.1.1	Stage Solacom Guardian Positions in training facility:0.5 days	2 days	Mon 12/14/15	Mon 12/14/15	0%								
111	-11.6.1.2	Establish Ethernet Connectivity to all Positions	2 days	Mon 12/14/15	Wed 12/16/15	0%								
112	-11.6.1.3	Guardian IWS Setup and Configuration	1 day	Wed 12/16/15	Thu 12/17/15	0%								
113	-11.6.2	Training Facility Staging Complete	0 days	Thu 12/17/15	Thu 12/17/15	0%								
114	-12	Acceptance Testing	26 days	Mon 1/4/16	Mon 2/8/16	0%								
115	-12.6	Solacom Vendor Testing	11 days	Mon 1/4/16	Mon 1/18/16	0%								
116	-12.6.1	Unit Testing	2 days	Mon 1/4/16	Tue 1/5/16	0%								
117	-12.6.2	System Integration Testing	2 days	Wed 1/6/16	Thu 1/7/16	0%								
118	-12.6.3	Conversion/Migration Validation Testing	2 days	Fri 1/8/16	Mon 1/11/16	0%								
119	-12.6.5	UAT - Full System	5 days	Tue 1/12/16	Mon 1/18/16	0%								
120	-12.7	State Testing	11 days	Tue 1/19/16	Tue 2/2/16	0%								
121	-12.7.8	System Integration Testing	2 days	Tue 1/19/16	Wed 1/20/16	0%								
122	-12.7.9	Conversion/Migration Validation Testing	2 days	Thu 1/21/16	Fri 1/22/16	0%								
123	-12.7.12	Performance Tuning and Stress Testing	2 days	Mon 1/25/16	Tue 1/26/16	0%								
124	-12.7.11	UAT - Full System	5 days	Wed 1/27/16	Tue 2/2/16	0%								
125	-12.8	Regression Testing	4 days	Wed 2/3/16	Mon 2/8/16	0%								
126	-12.9	Site Acceptance Test Plan Complete	0 days	Tue 2/2/16	Tue 2/2/16	0%								
127	-14	Training	41 days	Mon 1/4/16	Mon 2/29/16	0%								
128	-14.3	Installation and Maintenance Course	5 days	Mon 1/4/16	Fri 1/8/16	0%								
129	-14.1	Administrative Training	2 days	Mon 2/22/16	Tue 2/23/16	0%								
130	-14.2	Training-the-Trainer	4 days	Wed 2/24/16	Mon 2/29/16	0%								
131	-15	PSAP - Transition	43 days	Mon 2/22/16	Wed 4/20/16	0%								
132	-15.16	Laconia - Transition	16 days	Mon 2/22/16	Mon 3/14/16	0%								

ID	WbJ	Task Name	Duration	Start	Finish	% Complete									
							T	W	T	F	S	S	M		
133	-15.16.1	Laconia PSAP shut down & prep	5 days	Mon 2/22/16	Fri 2/26/16	0%									
134	-15.16.1.5	Alternate Route Traffic to Concord	0.5 days	Mon 2/22/16	Mon 2/22/16	0%									
135	-15.16.1.6	Complete testing of all incoming lines	0.5 days	Mon 2/22/16	Mon 2/22/16	0%									
136	-15.16.1.7	Decommission and remove equipment	2 days	Tue 2/23/16	Wed 2/24/16	0%									
137	-15.16.1.8	Prepare on PSAP for new equipment	2 days	Thu 2/25/16	Fri 2/26/16	0%									
138	-15.16.2	PSAP Installation - Laconia	4 days	Mon 2/29/16	Thu 3/3/16	0%									
139	-15.16.2.7	Stage Solacom Guardian Positions in PSAP	1 day	Mon 2/29/16	Mon 2/29/16	0%									
140	-15.16.2.8	Establish Ethernet Connectivity to all Positions	1 day	Tue 3/1/16	Tue 3/1/16	0%									
141	-15.16.2.9	Complete Configuration / Voice testing	2 days	Wed 3/2/16	Thu 3/3/16	0%									
142	-15.16.2.1	PSAP Installation Complete	0 days	Thu 3/3/16	Thu 3/3/16	0%									
143	-15.16.4	Laconia PSAP Call Taker Training	5 days	Mon 3/7/16	Fri 3/11/16	0%									
144	-15.16.5	Go Live Plan - Laconia	4 days	Wed 3/9/16	Mon 3/14/16	0%									
145	-15.16.5.2	Go Live - Cut-Plan Review	1 day	Wed 3/9/16	Wed 3/9/16	0%									
146	-15.16.5.2	Go-Live - Go/No-Go meeting	1 day	Thu 3/10/16	Thu 3/10/16	0%									
147	-15.16.5.2	Go-Live	1 day	Fri 3/11/16	Fri 3/11/16	0%									
148	-15.16.5.2	Cut-over Coaching	2 days	Fri 3/11/16	Mon 3/14/16	0%									
149	-15.16.5.3	Cutover Review	0.5 days	Mon 3/14/16	Mon 3/14/16	0%									
150	-15.19	Concord - Transition	18 days	Mon 3/28/16	Wed 4/20/16	0%									
151	-15.19.5	Concord PSAP Shut down & Prep	5 days	Mon 3/28/16	Fri 4/1/16	0%									
152	-15.19.5.1	Alternate Route Traffic to Laconia PSAP	0.5 days	Mon 3/28/16	Mon 3/28/16	0%									
153	-15.19.5.1	Complete testing of all incoming lines	0.5 days	Mon 3/28/16	Mon 3/28/16	0%									
154	-15.19.5.1	Decommission and remove equipment	2 days	Tue 3/29/16	Wed 3/30/16	0%									
155	-15.19.5.1	Prepare on PSAP for new equipment	2 days	Thu 3/31/16	Fri 4/1/16	0%									
156	-15.19.6	PSAP Installation - Concord	4 days	Mon 4/4/16	Thu 4/7/16	0%									
157	-15.19.6.1	Stage Solacom Guardian Positions in PSAP	1 day	Mon 4/4/16	Mon 4/4/16	0%									
158	-15.19.6.1	Establish Ethernet Connectivity to all Positions	1 day	Tue 4/5/16	Tue 4/5/16	0%									
159	-15.19.6.1	Complete Configuration / Voice testing	2 days	Wed 4/6/16	Thu 4/7/16	0%									
160	-15.19.6.1	PSAP Installation Complete	0 days	Thu 4/7/16	Thu 4/7/16	0%									
161	-15.19.7	Concord PSAP Call Taker Training	5 days	Mon 4/11/16	Fri 4/15/16	0%									
162	-15.19.8	Go Live Plan - Concord	11 days	Wed 4/6/16	Wed 4/20/16	0%									
163	-15.19.8.1	Go Live - Cut-Plan Review	1 day	Wed 4/6/16	Wed 4/6/16	0%									
164	-15.19.8.1	Go-Live - Go/No-Go meeting	1 day	Mon 4/18/16	Mon 4/18/16	0%									
165	-15.19.8.1	Go-Live	1 day	Tue 4/19/16	Tue 4/19/16	0%									

ID	Wb.	Task Name	Duration	Start	Finish	% Complete	Jul 26, '15							
							T	W	T	F	S	S	M	
166	-15.19.8.1	Cut-over Coaching	2 days	Tue 4/19/16	Wed 4/20/16	0%								
167	-15.19.8.1	Cutover Review	0.5 days	Wed 4/20/16	Wed 4/20/16	0%								
168	-16	As-Built Documentation Delivery	0 days	Tue 2/16/16	Tue 2/16/16	0%								
169	-17	Hand-off to Customer Services	0 days	Mon 4/25/16	Mon 4/25/16	0%								
170	-18	Final Acceptance	0 days	Tue 5/31/16	Tue 5/31/16	0%								

U.S. Corporation Income Tax Return

For calendar year 2014 or tax year

beginning _____, ending _____

2014

Department of the Treasury
Internal Revenue Service

Information about Form 1120 and its separate instructions is at www.irs.gov/form1120.

A Check if: 1a Consolidated return (attach Form 851) <input type="checkbox"/> b Life/nonlife consolidated return <input type="checkbox"/> 2 Personal holding co. (attach Sch. PH) <input type="checkbox"/> 3 Personal service corp. (see instructions) <input type="checkbox"/> 4 Schedule M-3 attached <input type="checkbox"/>	TYPE OR PRINT	Name KRAUS ASSOCIATES, INC.	B Employer identification number 02-0529836
		Number, street, and room or suite no. If a P.O. box, see instructions. 7 INDEPENDENCE AVE	C Date incorporated 05/08/2001
		City or town, state, or province, country and ZIP or foreign postal code DERRY, NH 03038	D Total assets (see instructions) \$ 107,940.
		E Check if: (1) <input type="checkbox"/> Initial return (2) <input type="checkbox"/> Final return (3) <input type="checkbox"/> Name change (4) <input type="checkbox"/> Address change	

Income	1a Gross receipts or sales	1a	4,146,370.	1c	4,146,370.
	b Returns and allowances	1b			
	c Balance. Subtract line 1b from line 1a				
	2 Cost of goods sold (attach Form 1125-A)			2	80,701.
	3 Gross profit. Subtract line 2 from line 1c			3	4,065,669.
	4 Dividends (Schedule C, line 19)			4	
	5 Interest		See Statement 1	5	332.
	6 Gross rents			6	
	7 Gross royalties			7	
	8 Capital gain net income (attach Schedule D (Form 1120))			8	
	9 Net gain or (loss) from Form 4797, Part II, line 17 (attach Form 4797)			9	
10 Other income (attach statement)		See Statement 2	10	1,894.	
11 Total income. Add lines 3 through 10			11	4,067,895.	
Deductions (See instructions for limitations on deductions.)	12 Compensation of officers (attach Form 1125-E)			12	202,384.
	13 Salaries and wages (less employment credits)			13	2,701,195.
	14 Repairs and maintenance			14	
	15 Bad debts			15	
	16 Rents			16	38,166.
	17 Taxes and licenses		See Statement 3	17	26,344.
	18 Interest			18	389.
	19 Charitable contributions			19	
	20 Depreciation from Form 4562 not claimed on Form 1125-A or elsewhere on return (attach Form 4562)			20	12,163.
	21 Depletion			21	
	22 Advertising			22	393.
	23 Pension, profit-sharing, etc., plans			23	88,283.
	24 Employee benefit programs			24	
	25 Domestic production activities deduction (attach Form 8903)			25	
	26 Other deductions (attach statement)		See Statement 4	26	1,000,516.
	27 Total deductions. Add lines 12 through 26			27	4,069,833.
	28 Taxable income before net operating loss deduction and special deductions. Subtract line 27 from line 11			28	-1,938.
29a Net operating loss deduction (see instructions)	29a				
	b Special deductions (Schedule C, line 20)	29b			
	c Add lines 29a and 29b	29c			
Tax, Refundable Credits, and Payments	30 Taxable income. Subtract line 29c from line 28 (see instructions)			30	-1,938.
	31 Total tax (Schedule J, Part I, line 11)			31	0.
	32 Total payments and refundable credits (Schedule J, Part II, line 21)			32	9,480.
	33 Estimated tax penalty (see instructions). Check if Form 2220 is attached <input type="checkbox"/>			33	
	34 Amount owed. If line 32 is smaller than the total of lines 31 and 33, enter amount owed			34	0.
	35 Overpayment. If line 32 is larger than the total of lines 31 and 33, enter amount overpaid			35	9,480.
36 Enter amount from line 35 you want credited to 2015 estimated tax 9,480. Refunded <input checked="" type="checkbox"/>			36		

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than taxpayer) is based on all information of which preparer has any knowledge.

Sign Here Signature of officer _____ Date _____ _____ PRESIDENT	May the IRS discuss this return with the preparer shown below? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	Print/type preparer's name GEORGE BENTAS, CPA, MST	Preparer's signature GEORGE BENTAS, CPA
Paid Preparer Use Only Firm's name Roy & Bentas CPAs P.C.	Firm's EIN 20-0147427	Phone no. 603-625-5715
Firm's address 697A Union Street Manchester, NH 03104	PTIN P00028461	

Schedule C Dividends and Special Deductions (see instructions)	(a) Dividends received	(b) %	(c) Special deductions (a) x (b)
1 Dividends from less-than-20%-owned domestic corporations (other than debt-financed stock)		70	
2 Dividends from 20%-or-more-owned domestic corporations (other than debt-financed stock)		80	
3 Dividends on debt-financed stock of domestic and foreign corporations		see instructions	
4 Dividends on certain preferred stock of less-than-20%-owned public utilities		42	
5 Dividends on certain preferred stock of 20%-or-more-owned public utilities		48	
6 Dividends from less-than-20%-owned foreign corporations and certain FSCs		70	
7 Dividends from 20%-or-more-owned foreign corporations and certain FSCs		80	
8 Dividends from wholly owned foreign subsidiaries		100	
9 Total. Add lines 1 through 8			
10 Dividends from domestic corporations received by a small business investment company operating under the Small Business Investment Act of 1958		100	
11 Dividends from affiliated group members		100	
12 Dividends from certain FSCs		100	
13 Dividends from foreign corporations not included on lines 3, 6, 7, 8, 11, or 12			
14 Income from controlled foreign corporations under subpart F (attach Form(s) 5471)			
15 Foreign dividend gross-up			
16 IC-DISC and former DISC dividends not included on lines 1, 2, or 3			
17 Other dividends			
18 Deduction for dividends paid on certain preferred stock of public utilities			
19 Total dividends. Add lines 1 through 17. Enter here and on page 1, line 4			
20 Total special deductions. Add lines 9, 10, 11, 12, and 18. Enter here and on page 1, line 29b			

Schedule J Tax Computation and Payment (see instructions)

Part I - Tax Computation

1	Check if the corporation is a member of a controlled group (attach Schedule O (Form 1120))	<input type="checkbox"/>	
2	Income tax. Check if a qualified personal service corporation (see instructions)	<input type="checkbox"/>	2 0.
3	Alternative minimum tax (attach Form 4626)		3
4	Add lines 2 and 3		4 0.
5a	Foreign tax credit (attach Form 1118)	5a	
b	Credit from Form 8834 (see instructions)	5b	
c	General business credit (attach Form 3800)	5c	
d	Credit for prior year minimum tax (attach Form 8827)	5d	
e	Bond credits from Form 8912	5e	
6	Total credits. Add lines 5a through 5e		6
7	Subtract line 6 from line 4		7 0.
8	Personal holding company tax (attach Schedule PH (Form 1120))		8
9a	Recapture of investment credit (attach Form 4255)	9a	
b	Recapture of low-income housing credit (attach Form 8611)	9b	
c	Interest due under the look-back method-completed long-term contracts (attach Form 8697)	9c	
d	Interest due under the look-back method-income forecast method (attach Form 8866)	9d	
e	Alternative tax on qualifying shipping activities (attach Form 8902)	9e	
f	Other (see instructions - attach statement)	9f	
10	Total. Add lines 9a through 9f		10
11	Total tax. Add lines 7, 8, and 10. Enter here and on page 1, line 31		11 0.

Part II - Payments and Refundable Credits

12	2013 overpayment credited to 2014		12
13	2014 estimated tax payments		13 9,480.
14	2014 refund applied for on Form 4466		14 ()
15	Combine lines 12, 13, and 14		15 9,480.
16	Tax deposited with Form 7004		16
17	Withholding (see instructions)		17
18	Total payments. Add lines 15, 16, and 17		18 9,480.
19	Refundable credits from:		
a	Form 2439	19a	
b	Form 4136	19b	
c	Form 8827, line 8c	19c	
d	Other (attach statement - see instructions)	19d	
20	Total credits. Add lines 19a through 19d		20
21	Total payments and credits. Add lines 18 and 20. Enter here and on page 1, line 32		21 9,480.

Schedule K Other Information (see instructions)

1	Check accounting method: a <input checked="" type="checkbox"/> Cash b <input type="checkbox"/> Accrual c <input type="checkbox"/> Other (specify) _____	Yes	No
2	See the instructions and enter the:		
a	Business activity code no. <input type="checkbox"/> 541990		
b	Business activity <input type="checkbox"/> Repairs & Maintenance		
c	Product or service <input type="checkbox"/> Communication System		
3	Is the corporation a subsidiary in an affiliated group or a parent-subsidary controlled group? If "Yes," enter name and EIN of the parent corporation _____		X
4	At the end of the tax year:		
a	Did any foreign or domestic corporation, partnership (including any entity treated as a partnership), trust, or tax-exempt organization own directly 20% or more, or own, directly or indirectly, 50% or more of the total voting power of all classes of the corporation's stock entitled to vote? If "Yes," complete Part I of Schedule G (Form 1120) (attach Schedule G)		X
b	Did any individual or estate own directly 20% or more, or own, directly or indirectly, 50% or more of the total voting power of all classes of the corporation's stock entitled to vote? If "Yes," complete Part II of Schedule G (Form 1120) (attach Schedule G)		X

Schedule K Other Information continued (see instructions)

				Yes	No
5 At the end of the tax year, did the corporation:					
a Own directly 20% or more, or own, directly or indirectly, 50% or more of the total voting power of all classes of stock entitled to vote of any foreign or domestic corporation not included on Form 851, Affiliations Schedule? For rules of constructive ownership, see instructions If "Yes," complete (i) through (iv) below.					X
(i) Name of Corporation	(ii) Employer Identification Number (if any)	(iii) Country of Incorporation	(iv) Percentage Owned in Voting Stock		
b Own directly an interest of 20% or more, or own, directly or indirectly, an interest of 50% or more in any foreign or domestic partnership (including an entity treated as a partnership) or in the beneficial interest of a trust? For rules of constructive ownership, see instructions If "Yes," complete (i) through (iv) below.					X
(i) Name of Entity	(ii) Employer Identification Number (if any)	(iii) Country of Organization	(iv) Maximum Percentage Owned in Profit, Loss, or Capital		
6 During this tax year, did the corporation pay dividends (other than stock dividends and distributions in exchange for stock) in excess of the corporation's current and accumulated earnings and profits? (See sections 301 and 316.) If "Yes," file Form 5452, Corporate Report of Nondividend Distributions. If this is a consolidated return, answer here for the parent corporation and on Form 851 for each subsidiary.					X
7 At any time during the tax year, did one foreign person own, directly or indirectly, at least 25% of (a) the total voting power of all classes of the corporation's stock entitled to vote or (b) the total value of all classes of the corporation's stock? For rules of attribution, see section 318. If "Yes," enter: (i) Percentage owned ▶ _____ and (ii) Owner's country ▶ _____ (c) The corporation may have to file Form 5472, Information Return of a 25% Foreign-Owned U.S. Corporation or a Foreign Corporation Engaged in a U.S. Trade or Business. Enter the number of Forms 5472 attached ▶ _____					X
8 Check this box if the corporation issued publicly offered debt instruments with original issue discount <input type="checkbox"/> If checked, the corporation may have to file Form 8281, Information Return for Publicly Offered Original Issue Discount Instruments.					
9 Enter the amount of tax-exempt interest received or accrued during the tax year ▶ \$ _____					
10 Enter the number of shareholders at the end of the tax year (if 100 or fewer) ▶ _____ 2					
11 If the corporation has an NOL for the tax year and is electing to forego the carryback period, check here <input checked="" type="checkbox"/> If the corporation is filing a consolidated return, the statement required by Regulations section 1.1502-21(b)(3) must be attached or the election will not be valid.					
12 Enter the available NOL carryover from prior tax years (do not reduce it by any deduction on line 29a.) ▶ \$ _____					
13 Are the corporation's total receipts (page 1, line 1a, plus lines 4 through 10) for the tax year and its total assets at the end of the tax year less than \$250,000? If "Yes," the corporation is not required to complete Schedules L, M-1, and M-2. Instead, enter the total amount of cash distributions and the book value of property distributions (other than cash) made during the tax year. ▶ \$ _____					X
14 Is the corporation required to file Schedule UTP (Form 1120), Uncertain Tax Position Statement (see instructions)? If "Yes," complete and attach Schedule UTP.					X
15a Did the corporation make any payments in 2014 that would require it to file Form(s) 1099?					X
b If "Yes," did or will the corporation file required Forms 1099?					X
16 During this tax year, did the corporation have an 80% or more change in ownership, including a change due to redemption of its own stock?					X
17 During or subsequent to this tax year, but before the filing of this return, did the corporation dispose of more than 65% (by value) of its assets in a taxable, non-taxable, or tax deferred transaction?					X
18 Did the corporation receive assets in a section 351 transfer in which any of the transferred assets had a fair market basis or fair market value of more than \$1 million?					X

Schedule L Balance Sheets per Books	Beginning of tax year		End of tax year	
	(a)	(b)	(c)	(d)
Assets				
1 Cash		1,200.		5,851.
2a Trade notes and accounts receivable				
b Less allowance for bad debts	()		()	
3 Inventories				
4 U.S. government obligations				
5 Tax-exempt securities				
6 Other current assets (att. stmt.) Stmt 5		69,861.		46,015.
7 Loans to shareholders				
8 Mortgage and real estate loans				
9 Other investments (att. stmt.)				
10a Buildings and other depreciable assets	254,741.		261,251.	
b Less accumulated depreciation	(188,736.)	66,005.	(218,875.)	42,376.
11a Depletable assets				
b Less accumulated depletion	()		()	
12 Land (net of any amortization)				
13a Intangible assets (amortizable only)				
b Less accumulated amortization	()		()	
14 Other assets (att. stmt.) Stmt 6		7,676.		13,698.
15 Total assets		144,742.		107,940.
Liabilities and Shareholders' Equity				
16 Accounts payable				
17 Mortgages, notes, bonds payable in less than 1 year		5,698.		3,976.
18 Other current liabilities (att. stmt.) Stmt 7		6,252.		5,407.
19 Loans from shareholders				
20 Mortgages, notes, bonds payable in 1 year or more		3,977.		
21 Other liabilities (att. stmt.)				
22 Capital stock: a Preferred stock				
b Common stock	100.	100.	100.	100.
23 Additional paid-in capital				
24 Retained earnings - Appropriated (attach statement)				
25 Retained earnings - Unappropriated		128,715.		98,457.
28 Adjustments to shareholders' equity (attach statement)				
27 Less cost of treasury stock		()		()
28 Total liabilities and shareholders' equity		144,742.		107,940.

Schedule M-1 Reconciliation of Income (Loss) per Books With Income per Return

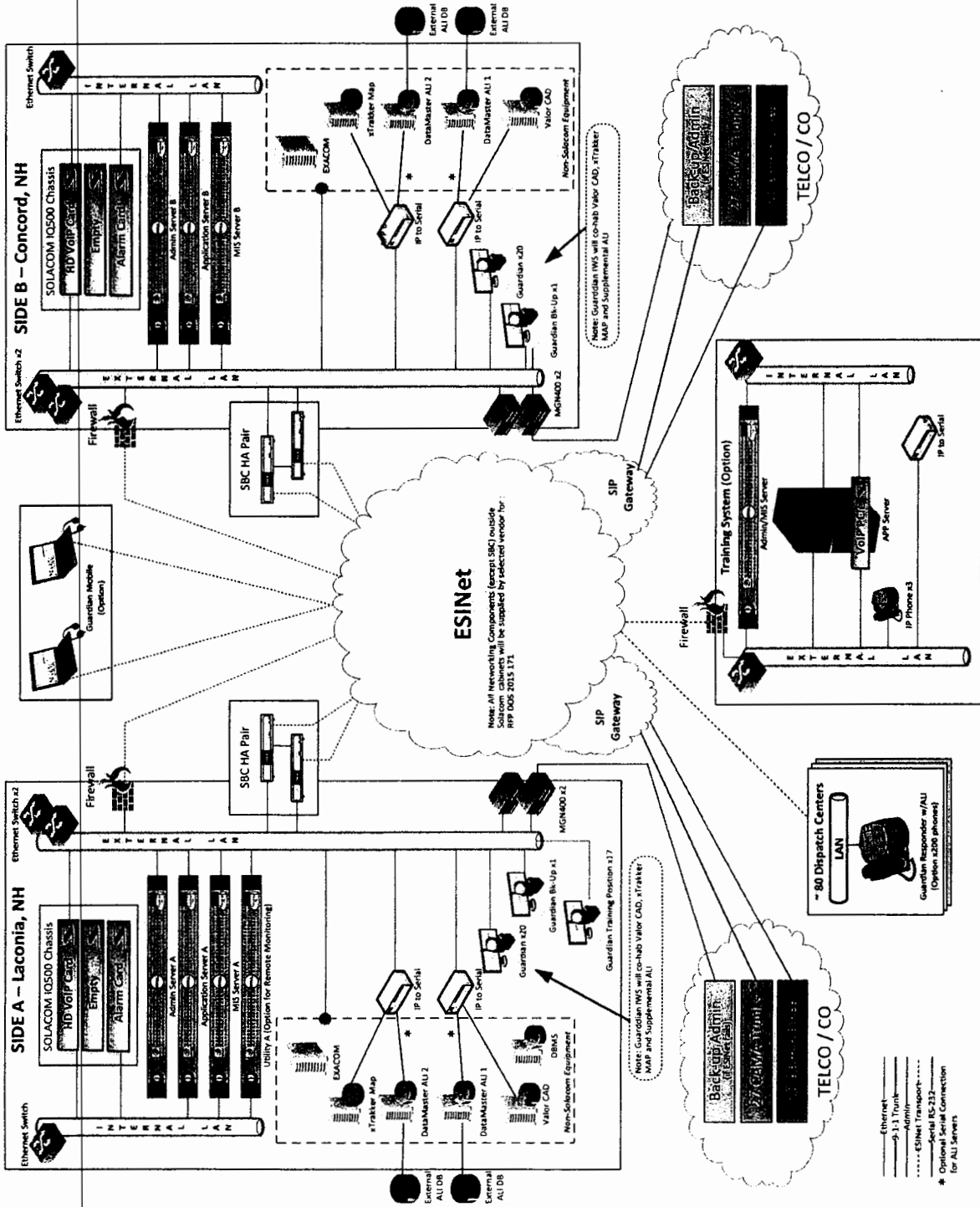
Note: The corporation may be required to file Schedule M-3 (see instructions).

1 Net income (loss) per books	- 30,258.	7 Income recorded on books this year not included on this return (itemize): Tax-exempt interest \$ _____	
2 Federal income tax per books	1,196.		
3 Excess of capital losses over capital gains			
4 Income subject to tax not recorded on books this year (itemize): _____		8 Deductions on this return not charged against book income this year (itemize): a Depreciation \$ _____ b Charitable contributions \$ _____	
5 Expenses recorded on books this year not deducted on this return (itemize): a Depreciation \$ 17,975. b Charitable contributions \$ _____ c Travel and entertainment \$ 15,171. Stmt 8 -6,022.	27,124.	9 Add lines 7 and 8	
6 Add lines 1 through 5	- 1,938.	10 Income (page 1, line 28) - line 6 less line 9	- 1,938.

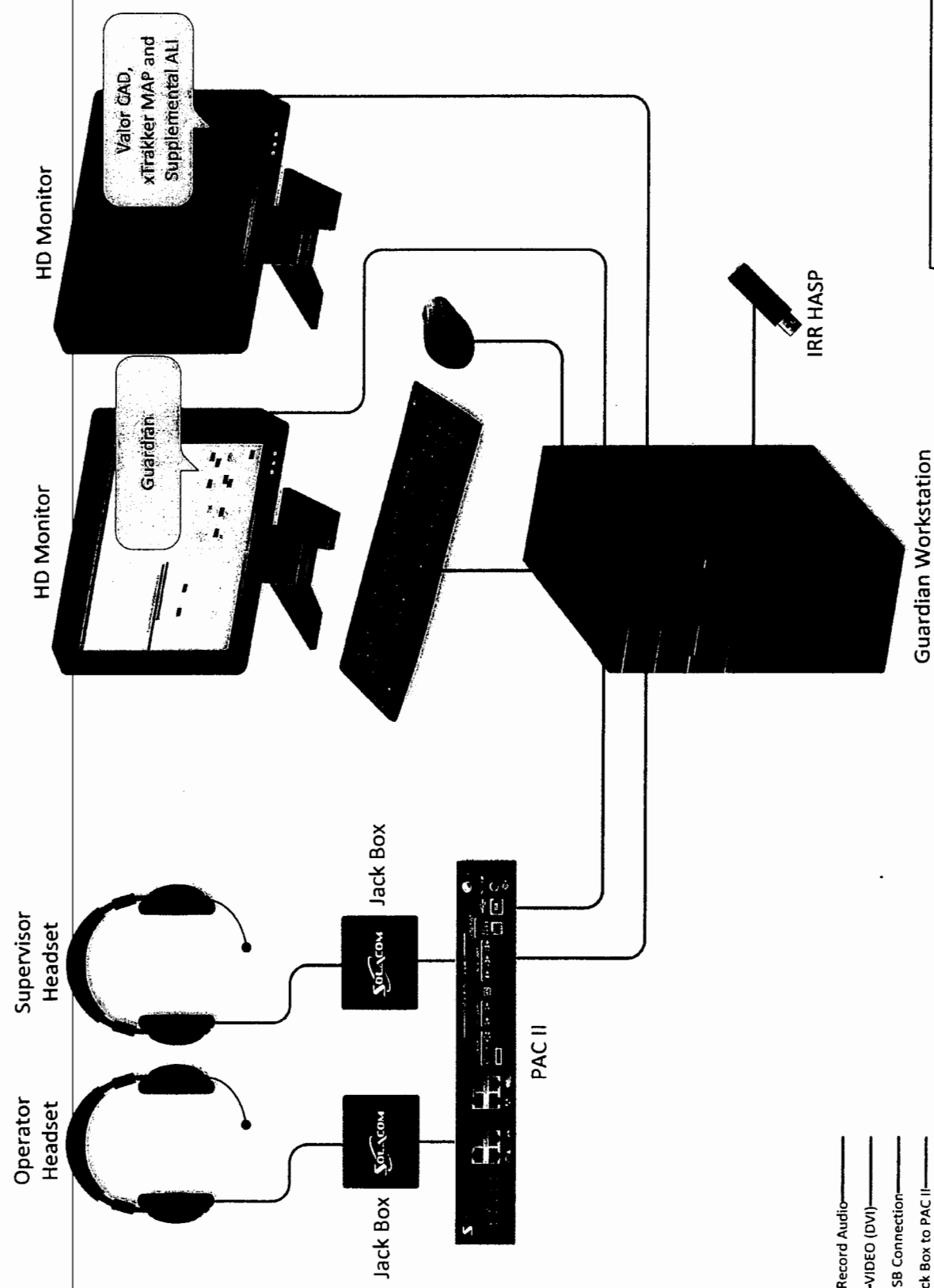
Schedule M-2 Analysis of Unappropriated Retained Earnings per Books (Line 25, Schedule L)

1 Balance at beginning of year	128,715.	5 Distributions: a Cash	
2 Net income (loss) per books	- 30,258.	b Stock	
3 Other increases (itemize): _____		c Property	
		6 Other decreases (itemize): _____	
		7 Add lines 5 and 6	
4 Add lines 1, 2, and 3	98,457.	8 Balance at end of year (line 4 less line 7)	98,457.

System Design



State of New Hampshire
Guardian Position Layout



- Record Audio—
- VIDEO (DVI)—
- USB Connection—
- Jack Box to PAC II—
- Headset Quick Conn.—

April 17, 2015

To: Julie Chase, VP of Sales and Marketing
Office: 603-432-5755 ext. 215
Cell: 603-860-8473
Fax: 603-432-0900
jchase@AKAssociates911.com

Re: New Hampshire Department of Safety
Division of Emergency Services and Communications
RFP: DOS 2015-171 "Network for NH NG9-1-1"

Dear Julie:

Pursuant to our discussion regarding NH RFP: DOS 2015-171 "Network for NH NG9-1-1", EXACOM is pleased to confirm that our geo-redundant "Hindsight-G2" NG911 Multi-Media Logging Recording System deployed with the NH-911 at their Concord and Laconia 911 Centers has been bilaterally tested with Solacom for SIP-trunk VoIP level integration with the Solacom-Guardian NG911 System. The EXACOM "Hindsight-G2" NG911 Logging Server also supports multi-media (Audio, Video, Text) recording as the "Logging Services" functional element within an ESINet environment per the NENA i3 Standard via SIPREC protocol.

As EXACOM has very good relationship with Solacom, we expect that this will allow Solacom to keep their Guardian NG911 System and EXACOM's Hindsight-G2 N911 Recording Platform aligned as we all navigate the public safety sector's migration towards full implementation of NENA N911-i3 Standard.

EXACOM is also, appreciative of the collaborative relationship we have with AKAssociates911, resulting in many successful 911, E911, and NG911 projects over the years...

We look forward to working with you again should you be awarded the NH-NG911 project.

Respectfully,

Helmut Koch

EXACOM, Inc. "An Employee Owned Company"
Chairman, Director of Strategic Business Development, ESOP Trustee



Maintenance and Support Policy

Software Support – Level 2

Solacom's description of its Level 2 software support obligations is outlined below.

A. Definitions

"FPR" is defined as a Field Problem Report

"Business Hours" are defined from Monday through Friday, 8h30-17h00 EST excluding Canadian Statutory Holidays.

"Customer" is defined as Solacom's Value-Added Reseller or "VAR"

B. Customer Obligations as Level 1 Technical Support

During the term or any renewal of the software maintenance and support contract, the Customer shall have the following maintenance and support obligations to enable Solacom to properly provide support activities identified below in Section C. Any information provided by the Customer hereunder will be required in order to support the activity of an active/open FPR and/or during maintenance in which Solacom has been invited to provide and not as an ongoing view into the regular day-to-day operation of said systems:

- a) The Customer shall provide Solacom with a complete network topology, including access points, log in information, trouble logs and reports and contact information, user ID/passwords for Solacom VPN access, firewall access or other related access information as required in order to facilitate troubleshooting and fault identification, diagnosis and/or correction. This may also include but not limited to the Customer service and maintenance logs, service schedules and/or third party activities, maintenance logs and/or modifications, etc.
- b) The Customer shall provide first level support and have personnel on hand certified by Solacom to assist Solacom's second level support team to gather the required information to qualify and verify that an actual fault exists, or capture the details of the non-performance to be performed and attempt to reproduce the fault in order to characterize and isolate the failure mechanism if such a fault is being reported, and where possible to perform the required preventive and/or corrective activity to bring the system up and online;
- c) The Customer shall provide Solacom with information and assistance reasonably required by Solacom to detect, verify, replicate and validate a fault to the system and/or a failure mechanism;
- d) The Customer shall have on hand, the equipment/tools required to reasonably assist in data collection and fault isolation relative to the system installed at that site;
- e) The Customer shall provide access to people and equipment to isolate third party equipment from the fault being investigated. If the fault is traced to equipment not part of the Solacom system as defined in this agreement, this activity will be treated as outlined in Section C;
- f) The Customer is responsible for all related on-site support activities related to item a) to e) above, to support upgrade activities that may require on-site support, and to meet any on-site response SLA that may be specified and required by the End-Customer.

C. Solacom's Obligations to provide Support Services for Software as Level 2

1. General:

1.1 Technical Service Center ("TSC") Support Services

Solacom is responsible for providing support services to the Customer via phone or e-mail on a 24-hour per day, 7 day a week basis as Level 2 support. Solacom support personnel shall verify and confirm performance failures and isolate causes after initial troubleshooting has been performed by the Customer technician. Customer personnel must be trained and certified to perform such activities on the system. Level 2 support is triggered by the Customer according to the prevailing escalation process when Level 1 support (provided by the Customer) fails to pinpoint the failure. The associated incident data is then analyzed to prescribe, validate and implement problem resolution. Level 2 Support may also include service disruption interim recovery activities to allow the development of permanent solutions.



1.2 Incident Management and Escalation

1-888-Solacom (1-888-765-2266) or 1-819-205-8100*

*Note: Please follow voice prompts to relevant technical support (Press 1).

An alternate number can be used to reach Solacom Answering Service: **613-239-4681**

Once the incident has been captured, an FPR reference number will be provided to the Customer for future reference when calling the TSC.

1.3 Exclusions

Please note that the following services are not included in the current agreement and are considered chargeable services.

1.3.1 Systems/Professional Services for software/hardware re-configuration, new feature implementation, consultation on features and/or functions, relocation of equipment or;

1.3.2 Assistance in the isolation of faults that resides in third party equipment or involves inter-operability with third party equipment that is not provided by or typically supported by Solacom. This service is not a normally supported activity; and must therefore be explicitly requested by Customer prior to execution.

1.3.3 Hardware Repair and maintenance. Solacom offers a maintenance and support program for hardware that can be purchased separately.

1.3.4 Managed Services for all server and workstation hardware that include Active remote monitoring from the Solacom Network Operation Center (NOC), OS Patch Management, Virus Protection and/or Disaster Recovery Services.

2. Software Support:

Software support provides for software and firmware updates and upgrade for the new releases on product manufactured by Solacom if and when available. Although all software fixes may not apply to a specific Customer, release notes will be made available on the Solacom Web Portal at www.solacom.com. Software fixes and upgrade will be made available to customer upon availability. These fixes and upgrades must be requested during the term of the software support agreement of the Customer.

2.1 Software Features

New software releases can include new features. It is important to note that some of the new software features can have an activation fee and/or a licensing fee.

2.2 Third Party Software

Third party software such as the Operating System or any other Third Party applications not developed by Solacom are not covered by Solacom software maintenance and support program; Solacom transfers the Third Party warranties and will offer an additional support program, if available and permitted by the Third Party Software vendor.

This exclusion provision does not apply to the Higherground MIS and Instant Recall Recorder Software or the Marathon Software (if applicable) which are included as part of this agreement and are covered by Software Support and Maintenance

To implement new software releases developed by Solacom, Third Party Software may also be required to be purchased or updated; this is the responsibility of the Customer. As required, a quote for this new software will be provided by Solacom.

2.3 Hardware Required for New Software Release

To implement a new software release with additional functionality desired by the Customer, new hardware may also be required; this is the responsibility of the Customer. As required, a quote for this new hardware will be provided.



2.4 Installation of new software

Installation of new software will be done remotely. If necessary, the Customer may be requested to have a technician on-site to assist with the upgrade. If deemed by the Customer, Solacom can be on-site to perform the upgrade; this additional service can be provided by Solacom upon request. A quote will be provided.

3. Service Level

The agreed service level offered by Solacom to the Customer shall be subject to the following provisions:

3.1 Fault

Shall mean any reproducible defect or direct failure of the system or system components to perform in accordance with the design specifications.

3.2 Urgency Levels and Speed of Response

The situations targeted for these definitions are various operating circumstances where the Customer needs assistance beyond the normal provision of operating manual and initial operator and system administrator training.

Often such a situation will require Solacom to engage its resources to support the Customer in identifying a fault, assisting in correcting that fault in the Customer configuration, isolating a failed software component and providing a quick resolution and a reasonably complete solution to a given incident.

The following table summarizes the detailed information that follows:

Level - Classification	Impact	Initial Response	Corrective Measures
1 – Critical	Entire system or entire subsystem is unusable. Prevents use of capability. No work-around. Immediate safety and/or significant financial impact. Affects both primary and the redundant back-up of a system.	Under 30 min	Problem will be addressed 24 hours/day until the system is restored to a functional and mutually agreeable state pending a permanent fix. Resolution in 24 hours or less via code correction, or work-around created.
2 – Severe	Restricts use of a capability. No workaround. Operation can be recovered by a manual intervention. High risk of reoccurrence. No immediate safety and/or financial impact. A redundant component failure has occurred. System is still operational.	Under 1 hour	Problem will be addressed 24 hours/day until the system is restored to a functional and mutually agreeable state pending a permanent fix. Resolution in 72 hours or less via code correction, or work-around created.
3 – High	Restricts use of a capability. Acceptable workaround exists. Non-critical function affected or critical function affected, a workaround is identified. System is still operating.	Next Business Day	Problem will be addressed during business hours until resolution.
4 – Low	Prevents or restricts use of a non-essential capability. Minor nuisance.	Next Business Day	Problem will be addressed during business hours until resolution.

3.3 Urgency Level 1 (Critical)

Definition: The entire system, or an entire subsystem, is unusable (prevents use of capability). There is no work-around, and the fault has an immediate adverse impact on the commercial operation of a system. There are immediate safety and/or significant financial impacts. A single point of failure has occurred in the software or there is a fault that affects both the proper performance of both the primary and the redundant back-up of a system.

Response Time: Initial response is under ½ hour (any time of day). Problem will be addressed 24 hours/day until the system is restored to a functional and mutually agreeable state pending a permanent fix. This may include the isolation and identification of a failed hardware component, in which case, the Customer will be responsible for providing a replacement from their spares pool of equipment. If a catastrophic (hardware or software) fault is found with the equipment/system, this correction will be addressed immediately. Solacom will provide a correction for software or hardware (Replacement, Replace, or Recall) as required restoring the system to operation as per section B) 2.0 and B) 3.0.



3.4 Urgency Level 2 (Severe)

Definition: A failure resulting in an unacceptable workload or safety impact (restricts use of a capability), and there is no currently known workaround. This category of failure or defect causes or may cause occasional service interruptions. The system operation can be recovered by a manual intervention. There is a high risk of reoccurrence but no immediate safety and/or financial impact. Major system features or functions are affected. A redundant component failure has occurred in the software or the related hardware and a significant portion of the system is affected but the system is still operational.

Response Time: Initial response under one hour (any time of day). Problem will be addressed 24 hours/day until the system is restored to a functional and mutually agreeable state pending a permanent fix. This may include the isolation and identification of a failed hardware component. The Customer will be responsible for providing a replacement from their spares pool of equipment.

3.5 Urgency Level 3 (High)

Definition: The failure restricts use of a capability and there is an acceptable workaround (acceptable means that the workaround comprises a reasonable set of actions to be taken where the restriction of the capability no longer results in an unacceptable workload or safety impact). Non-critical function affected, or critical function is affected but a workaround is identified. A redundant part of the hardware or software has failed and the system is still operating completely, however, without backup.

Response Time: This level of severity will be addressed during business hours. A maintenance software release may result, or a hardware bulletin to address this issue. Any new features the Customer may request will be addressed individually outside of this agreement.

3.6 Urgency Level 4 (Low)

Definition: The failure results in an acceptable workload or safety impact (prevents or restricts use of a non-essential capability and can be handled procedurally). The problem results in a minor nuisance. This level may also include new functionality or product enhancement, but is not service affecting or have any safety or financial impact.

Response Time: This level of severity will be addressed during business hours. A technical bulletin may result. Any activity on this issue will be addressed at Solacom's discretion. Any new features the Customer may request will be addressed individually outside of this agreement.

4. Customer Caused Damage/failure/tampering/accident/

In the event that the Customer calls Solacom for an agreed service level element and the root cause is determined to be (1) a modification or other alteration, (2) improper storage, installation, usage, maintenance or repair or (3) equipment that has been subjected to any kind of misuse or detrimental exposure or has been involved in an accident the item is not covered under this agreement.

5. Obsolescence

So long as Customer remains current with annual maintenance and support services, Solacom will make current software releases available to Customer during the Term. However, if Customer fails to make payment for annual maintenance and support then any activity related to a software component of a Customer owned system that becomes outdated, obsolete and/or is no longer supported by Solacom will be chargeable at the rates outlined in this Agreement or at Solacom's standard rates at the time of the incident. In some instances, the product may no longer be repairable due test setup and/or product knowledge. In such instances, the product will be deemed non-repairable. Solacom will make every attempt to provide technical assistance for a product life cycle of at least 10 years following delivery. Solacom will advise its Customer in advance of any pending end of life of any system.

6. Travel & Living

In any event that Solacom is requested and/or required on-site, all travel and living expenses will be charged to Customer including travel time. During the troubleshooting of an Urgency Level 1 or 2 issue which requires travel to site and the fault is proven to be Solacom, the Travel & Living fees will be waived.

8. Solacom Labour Rate

For services provided outside the boundaries of this agreement, the following rates will apply. Prices are in US Currency:

Service Technician during regular business hours	\$175/hr, minimum 2 hours
Service Technician outside regular business hours	\$250/hr, minimum 2 hours
Software and Professional Engineer	\$350/hr, minimum 2 hours
In Factory Repair Service Rates	\$175/hr, minimum 2 hours



Maintenance and Support Policy
Hardware Support – Level 2

Solacom's description of its Level 2 hardware support obligations is outlined below.

A. Definitions

"FPR" is defined as a Field Problem Report

"LRU" is defined as a Line Replaceable Unit which is a module or component of the Solacom system that the Customer is authorized to remove and insert.

"RMA" is defined as a Repair Material Authorization which is provided by Solacom to the customer when a LRU needs to be repaired or returned to Solacom.

"Business Hours" are defined from Monday through Friday, 8h30-17h00 ET excluding Canadian Statutory Holidays

"Customer" is defined as Solacom's Value-Added Reseller or "VAR".

"TSC" is defined as Solacom's Technical Service Center.

B. Customer's Obligations

During the term or any renewal of this Agreement, the Customer shall have the following maintenance and support obligations to enable Solacom to properly provide support activities identified. Any information provided by the Customer hereunder will be required in order to support the activity of an active/open FPR or RMA and/or during maintenance:

- a) The Customer shall provide Solacom with a complete network topology, including access points, log in information, trouble logs and reports and contact information, user ID/passwords for Solacom VPN access, firewall access or other related access information as required in order to facilitate troubleshooting and fault identification, diagnosis and/or correction. This may also include but not limited to the Customer service and maintenance logs, service schedules and/or third party activities, maintenance logs and/or modifications, etc.
- b) The Customer shall provide Level 1 support and have personnel on hand certified by Solacom to assist Solacom's second level support team to gather the required information to qualify and verify that an actual fault exists, or capture the details of the non-performance to be performed and attempt to reproduce the fault in order to characterize and isolate the failure mechanism if such a fault is being reported, and where possible to perform the required preventive and/or corrective activity to bring the system up and online. Customer is the initial contact point from end user and will perform initial triage and respond to all End User requests.;
- c) The Customer shall maintain an inventory of recommended spare parts.
- d) The Customer shall provide Solacom with information and assistance reasonably required by Solacom to detect, verify, replicate and validate a fault to the system and/or a failure mechanism;
- e) The Customer shall have on hand, the equipment/tools required to reasonably assist in data collection and fault isolation relative to the system installed at that site;
- f) The Customer shall provide access to people and equipment to isolate third party equipment from the fault being investigated. If the fault is traced to equipment not part of the Solacom system, as defined in this agreement, this activity will be treated as outlined in Section C.
- g) With regard to repairs, the Customer is responsible for the costs of shipping the faulty LRU to Solacom. Solacom will pay for the cost of shipping of the repaired or replacement unit back to the Customer's site except if no fault is found or if it is beyond economical repair; Therefore, the cost of shipment shall be borne by the Customer.

C. Solacom's Obligations to Provide Support Services for Hardware

1. General:

- 1.1 The Hardware Support program covers Solacom-manufactured and supplied hardware such as VOIP, T1, SS7 Gateway, Chassis, Lantronix, Damocles and Gateways.



1.2 Repair – In Factory

Solacom provides the service to repair a system or system component returned to the factory. This service comprises of the diagnostic testing and troubleshooting and repair labour to return this unit to full working condition, or identify it as beyond economical repair (BER) as appropriate.

2. Module Repair Service

2.1 Defective hardware components can be repaired through Solacom Repair service department. A Return Material Authorization (RMA) number will be opened to ensure proper tracking of module to repair. To obtain a RMA number, please communicate with Solacom Technical Service Center (TSC). A clear description of the problem with the module will be expected before a RMA will be issues.

2.2 The Customer must contact Solacom's TSC to authorize all returned materials prior to shipment. An RMA number will be issued to this specific item for tracking purposes. TSC can be contacted at

1-888-Solacom or 1-819-205-8100

Please follow voice prompts to relevant technical support (Press 1).

2.3 Repaired components are warranted for the remaining of the warranty or ninety (90) days from the date of return of the component to the customer, which ever occurs first. Solacom may decide to replace any components or modules if this is the best course to repair the defective module.

2.4 RMA Turn-around-time is **20 days**. This shall mean the duration of time allotted for the servicing of equipment at factory. This time is measured from the date the equipment arrives at the factory and the date of equipment is shipped from the factory.

2.5 Any modules returned to Solacom where no fault is found will be charged an analysis fee of 350\$. A purchase order for the analysis fee will be required from the Customer before the module can be shipped back.

3. Exclusions

3.1 The hardware support program excludes Computers, Servers, LCD Touch or regular LCD Screen, Monitors, Keyboard, mouse, headset, handset and any consumable items unless covered under optionally purchased manufacturer support programs sourced through Solacom. UPS battery refresh is excluded from Hardware Warranty. Consumable items are items that generally have an expected life of less than one year.

3.2 Hardware support excludes any act of god, Products that are not properly stored, installed, used, maintained or repaired, or Products that have been subject to misuse, unauthorized modification, and detrimental exposure or involved in an accident. A repair fee will be invoiced to the customer.

3.3 To implement a new software release with additional functionality desired by the Customer, new hardware may also be required; this is the responsibility of the Customer. As required, a quote for this new hardware will be provided.

4. Shipping

4.1 Unless otherwise specified in the Agreement or by a specific service agreement between Solacom and the Customer, shipping fees to Solacom from the Customer location is the responsibility of the Customer and shipping fees from Solacom to the Customer location is the responsibility of Solacom. Note that Solacom uses standard delivery shipping services.

4.2 If for any reason, the customer would like a more rapid repair services, additional charges may apply.

5. Advance Hardware Replacement

5.1 The Hardware Support program does not include advance replacement. The only time that Solacom will ship an advance replacement module is for any hardware that is found to be an out-of-box failure. The module will be shipped within 2 business days. The defective module must be returned to Solacom within 30 days. An invoice for the amount due will accompany the replacement module and if the module is not returned within the 30 days, the amount will be payable within 60 days of the date of the invoice.

5.2 Modules sent for repair may be replaced if judged appropriate by Solacom. Customer will be informed of this decision.



6. Third Party Hardware

- 6.1 Third Party Hardware not manufactured but supplied by Solacom will follow the same RMA process as outlined in section C-2 of this program. However, the RMA Turn-around-time will not apply as Third Party Manufacturers are involved and have different processes. Solacom transfers the Third Party warranties and will offer additional support programs if available and permitted by the Third Party Hardware manufacturer. Typically, extended warranty on Third Party Hardware can be obtained at the time of purchase of the Third Party Hardware.
- 6.2 This agreement does not cover repairs or replacement by Solacom of Customer-supplied Third Party Hardware.
- 6.3 Extended warranties purchased on Third Party Hardware such as Computer and Servers are covered by the Third Party support agreements.

7. Customer Caused Damage/failure/tampering/accident/

In the event that the Customer calls Solacom for an agreed service level element and the root cause is determined to be (1) a modification or other alteration, (2) normal consumption, (3) improper storage, installation, usage, maintenance or repair or (4) equipment that has been subjected to any kind of misuse or detrimental exposure or has been involved in an accident the item is not covered under this agreement.

8. Obsolescence

Any activity related to a hardware component of a Customer owned system that becomes outdated, obsolete and/or is no longer supported by Solacom will be chargeable at the rates outlined in this Agreement or at Solacom's standard rates at the time of the incident. In some instances, the product may no longer be repairable due test setup and/or product knowledge. In such instances, the product will be deemed non-repairable. Solacom will make every attempt to provide technical assistance for a product life cycle of at least 10 years following delivery. Solacom will advise its Customer in advance of any pending end of life of any system.

9. Solacom Labour Rate

For services provided outside the boundaries of this agreement, the following rates will apply. Prices are in US Currency:

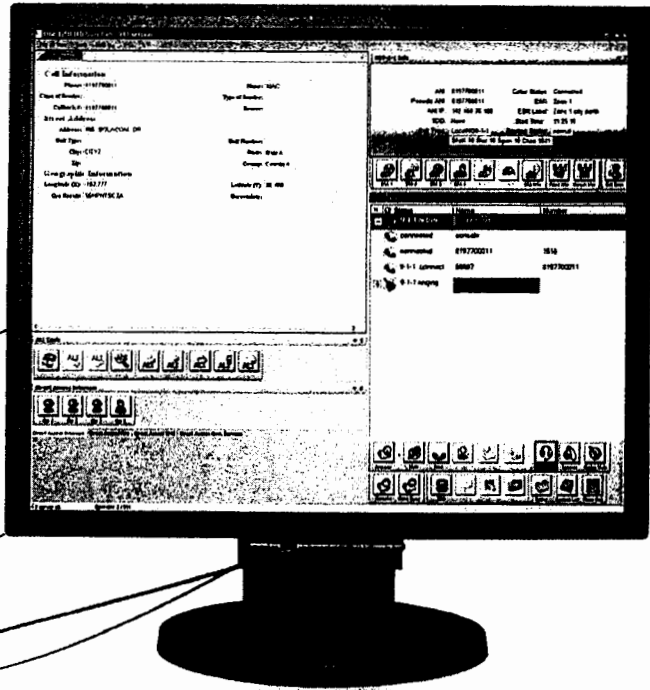
Service Technician during regular business hours	\$175/hr, minimum 2 hours
Service Technician outside regular business hours	\$250/hr, minimum 2 hours
Software and Professional Engineer	\$350/hr, minimum 2 hours
In Factory Repair Service Rates	\$175/hr, minimum 2 hours



Solacom Training

Course Catalog 1.2

June 2013



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Training Overview

The courses described in this catalog are delivered by Solacom factory certified trainers and help to validate the skills needed to perform the role of Call Taker, Administrator and Installer. Most courses are delivered at our customer's location in conjunction with the installation of a new Solacom system. Installation and maintenance courses can be delivered at a Solacom facility or alternatively at a customer's facility if desired. Additional charges apply if Solacom is required to provide dedicated training equipment for a training course. Specific training requirements must be quoted via the normal Solacom quotation process by submitting a request to psquotes@solacom.com

Guardian Operator Training Course

Duration: 5 hours

Maximum number of students per course: 6

Course Overview

The Guardian Operator training course provides an introduction to all features of the Guardian administrative and emergency call processing software that runs on the Guardian Intelligent Workstation. In this leader-led course, the trainer presents an interactive demonstration of each Guardian feature as described in the "Guardian Operator Training Guide." Students are grouped in pairs and practice using system features in a call taking simulation environment.

The last module of the course allows students to review specific topics and ask the trainer to demonstrate call procedures relevant to their operating environment.

The following topics will be covered:

- Introduction to Guardian Call Processing Client
- Answering calls
- Alternative Site Log In
- Failover Behavior
- Answering Calls
- Call Legs with Interactive Examples
- Telephony Functions with Role-Playing Simulation
- Accessing and Exiting Groups using Ring Group Assignments
- Conferencing for POTS and CENTREX Functionality with Role-Playing Simulation
- Blind and "Warm" Transferring for POTS and CENTREX Functionality with Role-Playing Simulation
- Outbound Dialing using Speed Dial Buttons, Contacts, and Manually Dialing
- Handling TTY Calls – Interactive Hands-On Training
- Multiple Call Handling and ALI Processing

- Accessing Call History and Call Backs
- Utilizing Call Taker Notes – Interactive Hands-On Training
- Retrieve Local Call Recordings
- Practice Period for Custom Call Scenarios

Course Objectives

Upon successful completion of the Guardian Operator Training course, the student can demonstrate ability to:

- Log in to the system;
- access and use all Guardian call processing features;
- answer, transfer, and release calls;
- handle TTY calls;
- retrieve previous call recordings; and
- create, access and use contacts and call taker notes.

Student Prerequisites

Students taking Guardian Operator Training should have knowledge of written and spoken English.

Course Material

A *Guardian Operator Training Guide* is provided to each student.

Classroom Setup

A Guardian Intelligent Workstation connected to the Guardian ESP is required for each student. An operational 9-1-1 test phone line is required for the duration of the class. The trainer will present course material via a projector

Guardian Administration Training Course

Duration: 8 hours

Maximum number of students per course: 5

Course Overview

The Guardian Administration training course provides an introduction to all features needed to administer and manage the Guardian administrative and emergency call processing software. In this leader-led course, the trainer presents an interactive demonstration of each of the Guardian Telecom features as described in the *Guardian Administration Training Guide*.

The course is divided into five sections: features, provisioning, layouts, administrator tools, and system tools. The course time is divided between describing the Guardian features, determining the required system configuration, and implementing the configuration including account and layout creation. To provide valuable hands-on experience, students enter the configuration into the customer system with the trainer's supervision. This course does not include call processing training.

The following topics will be covered:

- Introduction to Guardian Call Processing Client and Administration
- Guardian Configuration Overview and Description
- Guardian Administration Objects
- Roles and Privileges Creation
- User Accounts Creation
- 9-1-1 Selective and Fixed Transfer Code Assignments
- Threshold Setting Configuration
- Create and Configure Auto Greetings
- Intelligent Contacts
- Layout Creation including Speed Dial Buttons
- Tenant Status Accessibility
- Ring Groups Dashboard
- Ticker Message Configuration
- Import and Export of Contacts
- Preference Template Configuration
- Ringer Mode Management
- Interactive System Configuration

Course Objectives

Upon successful completion of Guardian Administration Training course, the student can demonstrate ability to:

- manage system components such as user accounts and role privileges;
- modify and configure screen layouts;
- maintain intelligent contacts;

- export contacts for backup purposes;
- configure ringers for different call types;
- record and apply auto greetings;
- configure speed dials; and
- use tenant status to garner real-time statistics.

Student Prerequisites

Students taking Administration Training should have:

- knowledge of written and spoken English;
- knowledge of Voice Communications; and
- familiarity with 9-1-1 Public Safety systems.

Course Material

A Guardian Administration Training Guide is provided to each student.

Classroom Setup

Two Guardian Intelligent Workstations connected to the Guardian ESP are required at a minimum for the class. The trainer will present course material via a projector and will require access to a whiteboard.

Level I: Installation & Maintenance Training Course

Duration: 5 days

Maximum number of students per course: 8

Course Overview

The Level I Installation and Maintenance training course provides an introduction to all tasks needed to install, configure, and maintain the Guardian Enhanced 9-1-1 Controller and the Guardian Intelligent Workstation. The course consists of theory as well as hands-on exercises to ensure that students learn about the various components and are able to perform the necessary tasks to install, administer and maintain the system. The course also includes a course completion examination addressing all features covered during class.

The following topics will be covered:

- Guardian Emergency Services Platform and Components
- Redundant and Geo-Diverse Models
- Guardian Next Generation Controller
- Guardian ESP Initial Power Up
- ESP Interconnectivity
- Guardian Controller Connectivity
- Audio Gateways
- Guardian Intelligent Workstation Configuration
- Position Audio Control Installation and Configuration
- Guardian Configuration including ACD, Line Appearances, and Tenant Groups
- Incoming Call Policies
- Call Routing
- Alternate Routes and Priority
- Automatic Location Identification Link Configuration
- Guardian Administration
- Event Logging and Alarms
- Maintenance and Troubleshooting

Course Objectives

Upon successful completion of the Level I: Installation and Maintenance course, the student can demonstrate ability to:

- name, state the purpose of, and operate each operator module and feature;
- successful installation of a basic ESP controller and peripheral devices;
- configure incoming and outgoing call policies;

- configure routing and alternate route policies;
- manage system resources;
- diagnose problems; and
- conduct repairs.

Student Prerequisites

Technical students should have:

- knowledge of written and spoken English;
- fundamental telecom/IT experience; and
- familiarity with 9-1-1 Public Safety systems.

Course Material

An Installation and Maintenance Training Guide is provided to each student.

Classroom Setup

An operational Guardian E9-1-1 Controller is mandatory; either the customer system will be used or a training system can be shipped to the customer site. A laptop or PC with remote access to the Guardian ESP is required for each student/pair. The trainer will present course material via a projector and will require access to a whiteboard.

Level II: Configuration & Advanced Troubleshooting Training Course

Duration: 5 days

Maximum number of students per course: 8

Course Overview

The Level II Configuration & Advanced Troubleshooting course provides in-depth training on troubleshooting a Guardian Enhanced 9-1-1 Controller and the Guardian Intelligent Workstation. The course consists of theory as well as hands-on exercises to ensure that attendees learn about the various components and are able to deduce and rectify problems that may arise with an active system.

The following topics will be covered:

- System Overview
- IQadmin
- Interface Cards
- Audio Gateways
- Gateways Logging Tools
- IP-to-Serial Converter
- IWS Initialization and Troubleshooting
- Backup and Recovery
- Monitoring and Troubleshooting Tools
- IQprobe and Alarm Viewer
- Call Trace
- Logical and Physical Viewer
- Wireshark
- Advanced Troubleshooting

Course Objectives

Upon successful completion of the Level II Configuration & Advanced Troubleshooting course, the student can demonstrate ability to:

- name and state the purpose of the system's components;
- operate each operator module and feature;
- successful installation of an ESP controller and peripheral devices with advanced functionality;
- configure incoming and outgoing routing policies;
- manage system resources;
- diagnose problems; and
- conduct repairs.

Student Prerequisites

Technical students should have:

- knowledge of written and spoken English;
- fundamental telecom/IT experience;
- familiarity with 9-1-1 Public Safety systems; and
- successful completion of Level I: Installation and Maintenance.

Course Material

A Configuration and Advanced Troubleshooting Training Guide is provided to each student.

Classroom Setup

An operational Guardian E9-1-1 Controller is mandatory; either the customer system will be used or a training system can be shipped to the customer site. A laptop or PC with remote access to the Guardian ESP is required for each student. The trainer will present course material via a projector and will require access to a whiteboard.

IP Selective Router Training Course

Duration: 5 days

Maximum number of students per course: 8

Course Overview

The IP Selective Router Training course provides in-depth training on installing, configuring, deploying and maintaining IP Selective Routers. The course consists of theory as well as hands-on exercises to ensure that attendees learn about the various components and functionality.

The following topics will be covered:

- IP Selective Router Overview
- System Installation and Configuration
- Call Flow and IQadmin Overview
- IP Addressing
- ANI Translations
- ESN Configuration
- Transfer Codes
- Routing Queries
- Incoming Call Policies
- Routing Policies
- Gateways
- Trunk Configuration (CAS, PRI, SS7, VoIP)
- Monitoring and Troubleshooting

Course Objectives

Upon successful completion of the IP Selective Router Training course, the student can demonstrate ability to:

- install and configure an IP selective router;
- configure trunks and gateways;
- perform network connectivity; and
- diagnose problems.

Student Prerequisites

Technical students should have:

- knowledge of written and spoken English;
- fundamental telecom/IT experience; and
- familiarity with 9-1-1 Public Safety systems.

Course Material

An IP Selective Router Training Guide is provided to each student.

Classroom Setup

An operational Selective Router is mandatory; either the customer system will be used or a training system can be shipped to the customer site. A laptop or PC with remote access to the Selective Router is required for each student. The trainer will present course material via a projector and will require access to a whiteboard.

Train-the-Trainer Training Course

Duration: 2 days

Maximum number of students per course: 5

Course Overview

The Train-the-Trainer course is a compilation of Guardian Administration and Guardian Operator features with the emphasis placed on preparing students to be responsible to provide effective training to PSAP staff. The first part of the course is spent with the students describing and explaining the configuration and call flow options available within the Guardian system so they can work with future administrators on configuring and making configuration changes to their Guardian system. The second part of the course is spent with the students describing and using, the Guardian IWS to answer incoming calls, transferring calls, making calls, retrieving recordings, so that all system features are explained in a call taking simulation. The last part of the training session is a review and question period in which students can ask the trainer to demonstrate call procedures relevant to their operating environment.

Course Objectives

Upon successful completion of the Train-the-Trainer course, the student can demonstrate ability to:

- work with future administrators to configured and make configuration changes to their Guardian system: and
- train future Guardian users.

Student Prerequisites

Students should have:

- knowledge of written and spoken English;
- fundamental telecom/IT experience;
- familiarity with 9-1-1 Public Safety systems;
- successful completion of Guardian Operator Training; and
- successful completion of Guardian Administration Training.

Course Material

A Guardian Train-The-Trainer Guide is provided to each student.

Classroom Setup

A Guardian Intelligent Workstation connected to the Guardian ESP is required for each student. An operational 9-1-1 test phone line is required for the duration of the class. The trainer will present course material via a projector and will require access to a whiteboard.

MIS Remote Training Course

Duration: 4 hours

Maximum number of students per course: 5

Course Overview

The Level II MIS Remote Training course provides an interactive online demonstration of the HigherGround MIS application as described in the *Management Information System Training Guide*. Features of the management information system are described and explained so that students can maintain user accounts, update their system configuration, and generate needed reports. The remainder of the course is spent creating PSAP-specific reports as described by the students.

Course Objectives

Upon successful completion of the MIS Remote Training course, the student can demonstrate ability to:

- generate preconfigured reports and create new reports;
- update their system configuration; and
- create new accounts for MIS interactive users.

Student Prerequisites

Students should have:

- knowledge of written and spoken English;
- fundamental telecom/IT experience; and
- familiarity with 9-1-1 Public Safety systems.

Course Material

An electronic version of the *Management Information System Training Guide* is provided to each student.

Computer Setup

Students need Internet access to connect to the instructor's web-based training tool and the instructor requires access to the customer's MIS system.

IP PBX Remote Training Course

Duration: 2 hours

Maximum number of students per course: 5

Course Overview

The IP PBX Remote Training course provides an interactive review of the administration of the IP PBX and Aastra Phones features, with special focus on the needs of the particular installation. Students will be given an opportunity to test their navigations skills of the IP PBX configuration menus. If time allows, special features that a specific class is interested in may be demonstrated and shown how to configure.

The following topic will be covered:

- IP PBX software and hardware architecture overview
- IP Phone sets overview
- PBX Extensions, Ring Groups
- Voicemail
- Trunks overview
- Inbound and outbound routes
- Call forward and Follow Me
- Conferences, Call Park
- Paging and Intercom
- Music on Hold
- IVR and Auto Attendant overview

Course Objectives

Upon successful completion of the IPBX Remote Training Course, the student can demonstrate ability to:

- handle routine add, move, and changes to user extensions;
- configure baseline features; and
- perform basic troubleshooting.

Student Prerequisites

Students should have:

- knowledge of written and spoken English;
- Fundamental telecom/IT experience; and
- Familiarity with 9-1-1 Public Safety systems.

Course Material

A slide deck is provided to each student.

Computer Setup

The instructor will connect remotely to a computer that has access to the IP PBX and will share the desktop with the students.



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Your Partner In Critical Communications

<Customer>

Solacom Master Test Document - Customer Acceptance
NG 9-1-1 System with Integrated Workstations (IWS)

Version 4.0

August 2011

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1 Test Objectives and Guidelines

1.1 Scope of document

The intent of this document is to define the test procedures for performing the Site Acceptance Test. All testing shall be conducted by Solacom and witnessed/approved by a representative of the Value Added Reseller (VAR), if applicable, and of the Customer.

The purpose of these tests is to verify the Guardian Controller has been properly installed and configured. Test Notes and Results shall be recorded during testing.

Due to the dependency on other systems that are not provided by Solacom, it is possible that some tests could fail and will require disposition from the Customer. When a failure cannot be rectified, it shall be logged as "Failed" in the test results and noted with a comment as to the cause. Disposition of failures and their resolution shall be reviewed and mutually agreed upon between the Customer, the VAR and Solacom.

1.2 Site Information

System Name	
Solacom Contract No.	
System Part No.	
Customer	
Value Added Reseller	
Site Address	
Site Manager Name	
Site Manager Phone Number	
Site Manager Cell Phone Number	
Site Manager Email Address	

1.3 Test System Configuration

9-1-1 System and Computer Telephony Interface (CTI) capabilities.

The system is equipped with the quantities of lines and stations (operator consoles) shown below.

Lines/Trunks	Quantity	Station Type	Quantify
E9-1-1 Trunks		CTI (Integrated Work Station) - Guardian	
Basic (aka POTS, Loop Start)			
Caller ID			
Manual Ringdown (Tie)			
Automatic Ringdown (Tie)			
Station (Door Intercom)			
VoIP Interface (128 ports)			
T1 span(s)			
PRI span(s)			
SS7 span(s)			
TOTAL LINES/TRUNKS		TOTAL STATIONS	

The system is equipped with the following optional equipment or features:

Station Accessories	Quantity	Station Options	Quantity
Handsets		TDD Feature	
Handset Jackbox(es)		IRR Feature	
Headsets		Remote Station (of any type)	
PAC		Pre-Answer ANI/ALI (for IWS)	
Monitors per station (IWS Only)		System Summary (for IWS)	
Touch Screen (IWS only)		Mapped ALI Interface(for IWS)	
Monitor Speakers			

1.4 Schedule of Events

Event	Date
Install Begin	
Testing Begin	
Testing Complete	

2 Equipment and Software Version

2.1 Equipment, Software Version

Latest Software Release Installed:

3 Test Requirements

3.1 Functional Checklist

The functional test checklist is included in this section. Each item will be tested based on the availability of test circuits and interfaces. Detailed instructions for each task can be found in the Guardian Intelligent Workstation User Guide and Solacom ESP Administration Reference.

Requirements Codes

The following codes will be used to indicate pass, fail, or not applicable for each application module feature. The designated code for each requested feature is listed in the “**Test Code**” column.

When the **TF** or **RTF** code is used, the Tester must also insert an explanation of the planned correction action in the **Comments** column.

TP	Test Passed
TF	Test Failed
RTP	Retest Passed
RTF	Retest Failed
NA	This feature is not applicable in Customer systems

3.2 Power and Connectivity Requirements

3.2.1 Power Connections

Test Case #	Test Description	Test Code	Comments
1.	Use the power connections diagram to verify that all pre-installed power connections are still firmly plugged in.		
	Verify that power connections of all elements of the system are safely connected and that there is no risk of a connection being accidentally disconnected.		
	Verify that all elements of the solution are powered on.		
	Verify that the Central Equipment is connected to the building ground. Test this ground with voltmeter (should be close to 0 Volts or current building ground voltage) and measure resistance (close to 0 Ohms.)		

3.2.2 Admin, App, Proxy, VOIP and Ethernet Connections

Test Case #	Test Description	Test Code	Comments
2.	Use Ethernet connection diagram to verify that all pre-installed Ethernet connections are plugged in their correct port.		
	Connect the customer's main internet RJ-45 drop to the Admin Server.		
	Power on IQ1500 chassis and verify power supply LED is solid green on both power supplies.		
	From rear side of the Admin server, turn on the main power switch. Verify there are no error messages while the server boots up.		
	From rear side of the APP server, turn on the main power switch. Verify the green activity LEDs on the hard drives are both on simultaneously when there is hard drive activity. Verify there are no error messages while the server boots up.		

Test Case #	Test Description	Test Code	Comments
	<p>On Admin Server, verify serial connection is functional with TeraTerm.</p>		
	<p>After APP server has completed booting, verify that four windows open and display connectivity.</p> <ol style="list-style-type: none"> 1 - VoIP_SIL.exe should be in a continuous loop trying to connect to the VSOS until it connects to the Gateway. 2 - SIP Gateway (VOIPSIL_SIP) window should also be in a loop with the VSOS until the SIL initializes. 3 - Mesoware.exe should display a status of Active Hot with all the VoIP and T1 cards configured and ready. 4 - IQscript should display an IQscript % prompt. 		

Test Case #	Test Description	Test Code	Comments
	Verify that LEDs on both VoIP cards become solid green (they may blink orange briefly while initializing.) -Ethernet link LEDs are green. -Ethernet activity LEDs are flashing. -Status LEDs are green. -Hotswap LEDs (blue) are off.		

3.2.3 Remote Access

Test Case #	Description	Test Code	Comments
3.	Verify that you have the proper external IP addressing and connectivity to the Internet from the Admin Server. Contact the Interact Support group at _____ Have a member of the customer support team login to the system and verify that they are able to connect to the devices of the Guardian solution.		

Test Case #	Description	Test Code	Comments
	Confirm that remote access is functional for Radmin.		

3.3 Functional Requirements

Requirements code from the list above should be entered as each functional test is performed.

Test Case #	Description	Test Code	Comments
4.	<p>Log In</p> <ol style="list-style-type: none"> 1. Launch the Guardian application by running the file LibertyShield.exe, either directly or from a shortcut. 2. In the Guardian – Log In dialog box that appears when the program starts, enter your login name and password. Both are case sensitive. 3. Click Log In. 4. If your login name is assigned more than one role, select the role you want to log in as for the session, and then click Log In again. <p>The application window opens with your login name and role displayed on the status bar.</p>		
5.	<p>Arrange Windows</p>		

Test Case #	Description	Test Code	Comments
	<ol style="list-style-type: none"> 1. Log in with an admin role (ATP/SolaCom.) 2. Drag a title bar to move a window to another location. 3. The window can float by dropping it anywhere within the application window, or dock by dropping it on one of the docking icons that appear as the window is dragged. If the docking icons do not appear as you drag a window, right click on the title bar of the window, and ensure that Dockable is checked. 4. Dock the window to any side of the application. Click the Auto-Hide button on a title bar of a window to hide that window. 5. The window is temporarily returned by pausing the mouse pointer over the tabbed window title: <ol style="list-style-type: none"> a. To remove auto hide from window select "dockable". 6. Restore Layout: <ol style="list-style-type: none"> a. Log off without saving configuration. b. Log back in with ATP/SolaCom. c. Verify window is restored to original layout. 		

Test Case #	Description	Test Code	Comments
	7. Make change to window (close a window.) 8. Save Configuration by selecting File → Save Layout. 9. Log off and Log back in with ATP/SolaCom: a. Verify window displays new configuration. 10. Remove user permission to Save Layout. 11. Verify user does not have access to save window change.		
6.	Save Layout 1. Log In as Admin/SolaCom, role=Design. 2. From the menu, click File → Save Layout As. 3. Save as ATP/ATP. 4. Log out and log in as ATP/SolaCom. 5. The saved layout settings apply to the role selected (ATP.)		
7.	MENU – Enter Personal Contacts		

Test Case #	Description	Test Code	Comments
	<ol style="list-style-type: none"> 1. Open Tools → Personal Contacts. 2. Store your personal contact phone number. 3. Log out and log in with another user account. 4. Select Tools → Personal Contacts and verify that the newly created Personal Contact is not listed. 5. Select Contacts and verify that the newly created personal contact is not listed. 		
8.	<p>MENU – Ringer Modes</p> <ol style="list-style-type: none"> 1. Log in with an admin role (ATP/SolaCom.) 2. Open Tools → Ringer Modes. 3. Change Audio Source. 4. Save As defaultUser, ATP role. 5. Changes are saved to the app server under Edge\Q\libertyServer\Profile. 6. Open ringer.defaultUser.ATP.xml and verify that <Call_Admin> or <Call_911> AudioSource is set to the way file selected. 7. Make either a 911 or admin call to verify that the 		

Test Case #	Description	Test Code	Comments
	ringer has changed.		
9.	<p>MENU – Remote File Transfer</p> <ol style="list-style-type: none"> 1. Log in with a supervisor or admin role. 2. Open Tools → Remote File Transfer. 3. Move a file between your computer (Local Files) and LibertySHIELD server (Remote Files.) 4. Files are copied to C:\Edge\Q\LibertyServer\Share on the server and C:\Edge\Q\LibertyShield\Share on the workstation. 		
10.	<p>MENU – HELP Contents</p> <ol style="list-style-type: none"> 1. Click Help → Contents. 2. Opens the LibertySHIELD Guardian Help. 3. Use the Help index and search facilities to find needed information. 		
11.	<p>Call/Line Indicators</p> <ol style="list-style-type: none"> 1. Place 9-1-1 test call: 		

Test Case #	Description	Test Code	Comments
	<ul style="list-style-type: none"> • 9-1-1 calls shall present a flashing NG9-1-1 Info window, Phone Line Status window, 9-1-1 Line Appearance, and an audible alert to indicate that an emergency call is being presented. <ol style="list-style-type: none"> 2. Verify each position has a flashing NG9-1-1 Info window, Phone Line Status window, Line Appearance, and an audible alert. 3. Place an admin test call: <ul style="list-style-type: none"> • Admin calls shall present a flashing NG9-1-1 Info window, Phone Line Status window, admin Line appearance, and an audible alert to indicate that an admin call is being presented. 4. Verify each position has a flashing NG9-1-1 window, Phone Line Status window, Line Appearance, and an audible alert. 		
12.	<p>Answer Incoming 911 Call</p> <ol style="list-style-type: none"> 1. Place test call. 2. Verify Ringer Mute: <ol style="list-style-type: none"> a. Toggle off and on. 3. Answer call by selecting the flashing NG9-1-1 		

Test Case #	Description	Test Code	Comments
	<p>Info window.</p> <ol style="list-style-type: none"> 4. Verify ANI / ALI is displayed. 5. Verify ALI information was delivered to CAD. 6. Verify Line ID number is displayed in Phone Line Status window. 7. Place call on and off hold - testing all call legs. 8. Mute console leg of call. Operator continues to hear audio from caller but not vice versa. 9. Unmute console leg of call. Two-way audio is restored. 10. Mute caller leg of call. Operator no longer receives audio from caller but caller receives audio from operator. 11. Unmute caller leg of call. 12. Add second operator to call via operator status button. Verify 3-way audio. 13. Add third party to call via speed dial button (re-use incoming line.) Verify audio among all parties. Verify from the AudioCodes home page that an admin line was not seized for the call. 14. Add additional party via manual call (do not re- 		

Test Case #	Description	Test Code	Comments
	<p>use incoming line.) Verify audio among all parties. Verify from the AudioCodes home page that an admin was seized for the call.</p> <p>15. Release second operator leg of call.</p> <p>16. Release call from the position. Verify audio between remaining parties.</p> <p>17. Repeat step 1.</p> <p>18. Answer call by selecting the Line Appearance button.</p> <p>19. Verify ANI ALI was received and displayed.</p> <p>20. Verify ALI information was delivered to CAD.</p> <p>21. Verify Line ID number is displayed in Phone Line Status window.</p> <p>22. Release call.</p> <p>23. Repeat step 1.</p> <p>24. Answer call by double clicking the call in the Phone window.</p> <p>25. Verify ANI ALI was received and displayed.</p> <p>26. Verify ALI information was delivered to CAD.</p>		

Test Case #	Description	Test Code	Comments
	<p>27. Verify Line ID number is displayed in Phone Line Status window.</p> <p>28. Release call.</p>		
13.	<p>Incoming Admin Call</p> <ol style="list-style-type: none"> 1. Place test call. 2. Verify all incoming calls are routed to each position and available to answer. 3. Verify Ring Tone Mute: <ol style="list-style-type: none"> a. Toggle off and on. 4. Answer call by selecting flashing NG9-1-1 Info widow. 5. Verify CID was received and displayed. 6. Mute console leg of call. Operator continues to hear audio from caller but not vice versa. 7. Unmute console leg of call. Two-way audio is restored. 8. Mute caller leg of call. Operator no longer receives audio from caller but caller receives audio from operator. 		

Test Case #	Description	Test Code	Comments
	9. Unmute caller leg of call.		
	10. Add second operator to call via operator status button. Verify 3-way audio.		
	11. Add third party to call via speed dial button. Verify audio among all parties.		
	12. Place focus on admin call leg and press Hook Flash. Verify 4-way audio.		
	13. Add additional party via manual call. Verify audio among all parties.		
	14. Place one leg of call on and off hold.		
	15. Place original operator call leg on hold. Verify admin caller, second operator, and speed dial contact continue to have 2-way audio.		
	16. Take original operator call leg off hold. Verify that audio is returned to all parties.		
	17. Release second operator leg of call.		
	18. Release call from the position. Verify audio between remaining parties.		
	19. Repeat steps 1 – 2.		
	20. Answer call by selecting the Line Appearance		

Test Case #	Description	Test Code	Comments
	button. 21. Verify CID was received and displayed. 22. Release call. 23. Repeat steps 1 – 2. 24. Answer call by double clicking the call in the Phone window. 25. Verify CID was received and displayed. 26. Release call.		
14.	Wireless Phase I and Phase II Call (10 and 20 digits) 1. Create test calls (test should include 10 and 20 digit Phase I and II.) 2. Send 10 digit pANI: KP40xxxxxxxxxST 3. Verify pANI received and used to dip the ALI database to obtain the Wireless ALI. 4. Send 20 Digit CPN/pANI: KP40xxxxxxxxxSTKPxxxxxxxxxST 5. Verify pANI received and used to dip the ALI		

Test Case #	Description	Test Code	Comments
	database and display also shows CPN.		
15.	<p>Place Outgoing Admin Call</p> <ol style="list-style-type: none"> 1. Dial manually: <ol style="list-style-type: none"> a. Press the Place Call button. b. In the Dial Pad, enter the digits to be dialed. You can press the dial pad buttons or use the numeric keypad on your computer keyboard. <ol style="list-style-type: none"> i. Dial an IP Backup phone. ii. Dial another position. iii. Dial an internal PBX call. iv. Dial a long distance number. v. Dial a local number. c. Press the Call button. If using the numeric keypad, you can also press Enter. 2. Speed dial: <ol style="list-style-type: none"> a. Press one of the custom DA buttons that have been programmed with an internal 		

Test Case #	Description	Test Code	Comments
	PBX extension. b. Press one of the custom DA buttons that have been programmed with an external phone number. Note: Direct Access buttons may be configured by an administrator to either conference to the active call or always initiate a new call. c. Press one of the custom DA buttons that have been programmed with a long distance external number. d. Press one of the custom DA buttons that have been programmed for a voicemail system. <ul style="list-style-type: none"> i. Wait for the auto-attendant to pick up, then place focus on the Voice Mail call leg, press the DTMF Pad button and enter a valid 4-digit voicemail box. 3. Contacts: <ul style="list-style-type: none"> a. In the Contacts window, select the contact you want to dial. The Contacts window contains a combined list of shared and personal phone contacts. b. Press the Call button. You can also double click on the contact. 		

Test Case #	Description	Test Code	Comments
16.	<p>911 Call Transfer</p> <ol style="list-style-type: none"><li>1. Place a 9-1-1 call. Verify which trunk the call came in on if line appearances are mapped.<li>2. Answer call.<li>3. Place focus on 9-1-1 call leg.<li>4. Test each pre-programmed STA and FTC transfer button. Each transfer button should be tested to ensure stored digits are correct.<li>5. Repeat steps 1 through 3 ensuring that call comes through on each trunk in a round robin fashion.<li>6. Place 9-1-1 call. Verify which trunk the call came in on if line appearances are mapped.<li>7. Place focus on 9-1-1 call leg.<li>8. Press the DTMF Pad, press Hook Flash, and dial number.<li>9. Release call.<li>10. Verify that 9-1-1 caller is connected to transferred number.<li>11. Perform manual call transfers. Test should		

Test Case #	Description	Test Code	Comments
	<p>include 7 and 10-digit dialing.</p> <p>12. Repeat steps 6 through 10 ensuring that call comes through on each trunk in a round robin fashion.</p>		
17.	<p>911 Quick Transfer</p> <ol style="list-style-type: none"> 1. Ensure Direct Access Quick Transfer privilege is enabled for the ATP role. 2. Place 9-1-1 call. 3. Answer call. 4. Click a Direct Access toolbar button. Verify that call is released from the position when the DA toolbar party answers the call. 5. Repeat steps 1 and 2. 6. Click the Place Call button. Dial external number, click the Quick Transfer button. 7. Verify that the call is released from the position when the 3rd party answers the call. 8. Repeat steps 1 and 2. 9. Launch the redial list, select an entry from the list 		

Test Case #	Description	Test Code	Comments
	<p>and click the Quick Transfer button.</p> <p>10. Verify that the call is released from the position when the 3rd party answers the call.</p> <p>11. Repeat steps 1 and 2.</p> <p>12. Launch Contacts; select a Contact and click the Quick Transfer button.</p> <p>13. Verify that the call is released from the position when the 3rd party answers the call.</p>		
18.	<p>Multiple Call Testing</p> <ol style="list-style-type: none"> 1. Place multiple test calls consisting of 9-1-1 (minimum 2) and Admin (minimum 2) calls. 2. Verify all incoming calls are routed to each position and available for answer. 3. Verify NG9-1-1 Info window shows 9-1-1 as long as there are 9-1-1 calls ringing (Highest Priority.) 4. Verify NG9-1-1 Info window changes to Admin once all 9-1-1 calls have been answered. 5. Answer calls on different positions. 6. Verify ANI / ALL was received and displayed on 		

Test Case #	Description	Test Code	Comments
	<p>9-1-1 calls.</p> <ol style="list-style-type: none"> 7. Verify CID was received and displayed for all calls. 8. Verify voice on each call, no interference by other positions, and all calls are handled independently. 9. Disconnect calls. 		
19.	<p>Progressive Conference</p> <ol style="list-style-type: none"> 1. Press the Place Call button. 2. From the Dial Pad, enter the number of the first party to call. You can press the dial pad buttons or use the numeric keypad on your computer keyboard. 3. Press the Call button. If using the numeric keypad, you can also press Enter. 4. When the call is answered, press the Place Call button again. 5. Enter the number of the second party to call. 6. Press the Join button in the Dial Pad window. 7. Repeat steps 4 to 6 for all other parties to 		

Test Case #	Description	Test Code	Comments
	conference.		
20.	<p>Shortcut Keys</p> <ol style="list-style-type: none"> 1. Select Tools → Administration → Tools → Shortcuts → New. 2. Select Filter = <none>, Shortcut Name = Answer, Shortcut Key = Space. Click OK. 3. Select Help → Shortcut Mappings. Verify that Key = Space and Shortcut Name = Answer is listed. 4. Place a 9-1-1 call. 5. Verify that the call can be answered using the Space bar. 		
21.	<p>Ticker Bar</p> <ol style="list-style-type: none"> 1. Ensure a Ticker Bar is located in the ATP layout. 2. Select Tools → Administration → Ticker → Ticker Messages → New. 3. Enter Message = "10 car collision" and select "Enabled." Click OK. 4. Verify that "10 car collision" is scrolled the Ticker 		

Test Case #	Description	Test Code	Comments
	Bar for 1 minute.		
	<ol style="list-style-type: none"> 5. Cut off communication with IQscript (simple method is to turn off IQscript.) Verify that "Voice communication down" is scrolled in a bold red font across the Ticker Bar. 6. Re-establish communication with IQscript (restart IQscript.) Verify that the "Voice communication down" message no longer scrolls across the Ticker Bar. 		
22.	<p>Special Line Keys (site-specific)</p> <p>Special Line Keys are used for objects such as garage doors.</p> <ol style="list-style-type: none"> 1. Double-click each button to verify it functions as expected. 		
23.	<p>Volume Control</p> <ol style="list-style-type: none"> 1. Place a test call. 2. Open volume control. 3. Adjust headset volume by sliding volume control up and down. 		

Test Case #	Description	Test Code	Comments
	<ol style="list-style-type: none"> 4. Verify volume is adjusted. 5. Select speaker output. 6. When monitoring through the speakers, the headset microphone is still active. 7. Adjust speaker volume by sliding volume control up and down. 8. Verify volume is adjusted. 		
24.	<p>Abandon Call Feature</p> <ol style="list-style-type: none"> 1. Place 9-1-1 call and abandon call before it is answered. 2. Verify call continues to be presented to all active positions. 3. Answer call. Verify that Caller Status is set to Abandoned in the NG9-1-1 Info window. 4. Verify ANI ALI was received. 5. Verify ALI spill was sent to CAD. 6. Return call by selecting the Call Back button. 		

Test Case #	Description	Test Code	Comments
25.	<p>MIS</p> <ol style="list-style-type: none"> 1. Verify all call data is available for MIS. 		
26.	<p>Workstation Transfers</p> <p>The 9-1-1 workstation shall be able to transfer 9-1-1 and administrative calls from one position to another.</p> <ol style="list-style-type: none"> 1. Place 9-1-1 test call. 2. Answer call. 3. Transfer call to another workstation by selecting the operator status button and then releasing the call. 4. Verify that 9-1-1 caller and 2nd operator have 2-way audio. 5. Verify second position has ANI/ALI. 6. Release call. 7. Place an admin test call. 		

Test Case #	Description	Test Code	Comments
	8. Answer call. 9. Transfer call to another workstation by selecting the operator status button. 10. After answering call on 2 nd position verify that there is 3-way audio. 11. Verify second position receives CID. 12. Release call from first workstation. Verify that 2 nd operator and admin caller continue to have 2-way audio. 13. Release call.		
27.	Redial 1. Open the Redial List: <ol style="list-style-type: none"> a. The Redial List contains an extensive list of all incoming and outgoing calls since last login. b. The last call is highlighted. 2. Press the Call button. 3. Verify last call is dialed.		

Test Case #	Description	Test Code	Comments
	<ol style="list-style-type: none"> 4. Release call. 		
	<ol style="list-style-type: none"> 5. Select a long distance number from the redial list and press the Call button. 6. Verify number is dialed. Release call. 7. Double-click an external 7-digit number. 8. Verify number is dialed. Release the call. 		
28.	<p>Instant Recall Recorder</p> <ol style="list-style-type: none"> 1. Press the IRR button. 2. Use the recording playback window to retrieve and play a portion of a recording. If list of recordings is not displayed, click the Select Date button and pick a date to see the list of recordings for that date. 3. Select real-time voice monitor from the Start Menu to monitor an active call. 		
29.	<p>Master Logging Recorder Interface</p> <ol style="list-style-type: none"> 1. Verify Master Recorder is able to record and replay previous 9-1-1 and Admin calls. 		

Test Case #	Description	Test Code	Comments
30.	<p>Reduced Level Of Service</p> <p>The system shall not contain a single point of failure. A component failure shall lead only to reduction in capacity, and never a reduction in service levels to callers to 9-1-1.</p> <ol style="list-style-type: none"> 1. Place a test 9-1-1 call. 2. Answer call. 3. Using Windows' Task Manager, kill the LibertyShield.exe process. 4. Verify that call is re-routed to other logged in workstations within 30 seconds. 5. Answer call. Verify 2-way audio. 6. Release call. 7. Log out of Guardian on all workstations. 8. Place a test 9-1-1 call. 9. Verify that call is sent to all IP Phones. 10. Answer call. Verify 2-way audio. 11. Release call. 		

Test Case #	Description	Test Code	Comments
31.	<p>Partial ANI - No ANI</p> <ol style="list-style-type: none"> 1. Create partial ANI test call using the butt-set. 2. Answer call. Verify 2-way audio. 3. Release call. 4. Create total ANI failure test call using the butt-set. 5. Answer call. Verify 2-way audio. 6. Release call. 		
32.	<p>IP Phone – Receiving Call</p> <p>The system includes IP phones that are fully integrated to the ANI/ALI Controller. The system phones shall be capable of accessing a pool of dedicated Centrix access lines and have features such as Call Hold and Transfer available on buttons.</p> <ol style="list-style-type: none"> 1. Dial an IP Phone from a position from the Place Call window. 2. Answer call. Perform call functions. 		

Test Case #	Description	Test Code	Comments
	3. Release call. 4. Dial an IP Phone from another IP Phone. 5. Answer call. Perform call functions. 6. Release call.		
33.	IP Phone – Making Call 1. Make an outgoing call to an external number from the IP Phone. 2. Answer call. 3. Press More → Transfer on IP Phone; dial the number to be transferred to; press Transfer again. 4. Verify audio between external and transferred numbers. 5. Release call. 6. Make an outgoing call to an external number from the IP Phone. 7. Answer call. 8. Press Conf; dial the number to be conferenced;		

Test Case #	Description	Test Code	Comments
	<p>press Conf again.</p> <ol style="list-style-type: none"> 9. Verify audio between all parties. 10. Release call. 		
34.	<p>IP Phone – Backup</p> <ol style="list-style-type: none"> 1. Make a 9-1-1 test call. 2. Do not answer the call from a position. 3. Verify that call is re-routed to all IP Phones after 120 seconds. 4. Answer call. Release call. 5. Repeat steps 1 to 4 until all 9-1-1 trunks have been tested. 6. Make a 9-1-1 wireless test call. 7. Do not answer the call from a position. 8. Verify that call is re-routed to all IP Phones after 120 seconds. 9. Answer call. Release call. 10. Repeat steps 6 to 9 until all wireless 9-1-1 trunks 		

Test Case #	Description	Test Code	Comments
	<p>have been tested.</p> <p>11. Make a 9-1-1 VoIP test call.</p> <p>12. Do not answer the call from a position.</p> <p>13. Verify that call is re-routed to all IP Phones after 180 seconds.</p> <p>14. Answer call. Release call.</p> <p>15. Repeat steps 11 to 14 to test all VoIP 9-1-1 trunks.</p>		
35.	<p>TDD</p> <p>The system must support Telecommunication Relay Centers for speaking / hearing-challenged 911 callers.</p> <p>1. Place Test Call originating from a TDD device:</p> <ul style="list-style-type: none"> a. Verify receipt of TDD message from originating device. b. Send canned TDD message. c. Verify originating device received message. 		

Test Case #	Description	Test Code	Comments
	2. Initiate TDD Call: <ul style="list-style-type: none"> a. Send TDD message. b. Verify called device received message. c. Switch call between VCO and HCO. d. Verify call can be switched. 		
36.	ALI Ports <ul style="list-style-type: none"> 1. Verify heart beats are sent on both ports at a minimum of 60 second intervals (or interval configured.) 2. Place test call: <ul style="list-style-type: none"> a. Verify ALI request is sent on both ALI ports immediately upon receiving the call – and should not require that a calltaker go off hook to trigger the query. 3. Test link failure: <ul style="list-style-type: none"> a. Fail one link and verify that ALI is still received on remaining link and presented to call taker. b. Restore link and verify that it comes back in service (might require provider 		

Test Case #	Description	Test Code	Comments
	intervention.)		
37.	<p>ALI Tools</p> <ol style="list-style-type: none"> 1. Refresh: <ol style="list-style-type: none"> a. While on an active call, press refresh button. b. The ALI database is re-queried and any updated information is displayed. 2. Manual ALI Lookup: <ol style="list-style-type: none"> a. Press the Manual ALI button – a manual ALI dialog box opens. b. Enter the phone number to query and press the Query button. c. The ALI database is re-queried with the new number and updated information is displayed. 3. Remote ALI Print: <ol style="list-style-type: none"> a. Press RMT Print button – ALI Remote Print dialog box will open b. Select printer in the ALI Remote Print 		

Test Case #	Description	Test Code	Comments
	<p>dialog box.</p> <p>4. Print ALI:</p> <ul style="list-style-type: none"> a. Press the Print button. b. ALI information is printed to the default windows printer. <p>5. ALI Correction:</p> <ul style="list-style-type: none"> a. Press Correction button. b. Make changes to the displayed ALI information. c. Press the Print button. d. Updated ALI is printed to the default windows printer. 		
38.	<p>Make Busy</p> <ul style="list-style-type: none"> 1. Press Make Busy button. 2. NG9-1-1 Info window and Phone Line Status window change to Busied Out. 3. Place a 9-1-1 test call. 4. 9-1-1 calls are not presented or ring at busied out 		

Test Case #	Description	Test Code	Comments
	<p>position.</p> <ol style="list-style-type: none"> 5. Place an admin test call. 6. Admin calls are not presented or ring at busied out position. 7. Press Make Busy button again. 8. NG9-1-1 Info window changes to normal and Phone Line Status window displays No Active Calls. 9. Place a 9-1-1 test call. 10. Call is presented as normal. 11. Answer call. 12. Place call on hold. 13. Press the Make Busy button. 14. NG9-1-1 Info window displays Busied Out. 15. Take call off hold. 16. Verify 2-way audio. 17. Release call. 18. Verify Phone Line Status window continues to 		

Test Case #	Description	Test Code	Comments
	<p>show Busy Out.</p> <p>19. Press the Make Busy button.</p> <p>20. Position returns to normal.</p>		
39.	<p>Global Operator Status</p> <p>Ensure OperatorStatusFiltering is set to "no" in LibertyShield.exe.config.</p> <ol style="list-style-type: none"> 1. Log into two positions belonging to two different tenant groups. 2. Make a 9-1-1 test call. 3. Answer call on position in 1st tenant group. 4. Operator status button for operator will reflect that they have answered a 9-1-1 call to both tenant groups. 5. Make an admin test call. 6. Answer call on position in 2nd tenant group. 7. Operator status will reflect that they have answered an admin call to both tenant groups. 8. Release calls. 		

Test Case #	Description	Test Code	Comments
	9. Set operator in 1 st tenant group to Make Busy. 10. Operator status button is updated to indicate position is busied out and is visible by operator in 2 nd tenant group. 11. Log out of position in 1 st tenant group. 12. Operator status button reflects that the position is logged out and is visible to the operator in the 2 nd tenant group.		
40.	LAT and Long Verification 1. Verify the system extracts the longitude and latitude with an onsite or offsite ALI database. 2. Verify the data is displayed to the call takers in clearly defined fields and also port the data to geographical mapping software (servers) via one or more NENA compliant CAD ports.		
41.	CAD System Interface 1. Place 9-1-1 test call: a. Verify ALI with position number that answered call is spilled.		

Test Case #	Description	Test Code	Comments
	2. Place 9-1-1 wireless test call: <ol style="list-style-type: none"> a. Verify ALI with position number is spilled. b. Verify new ALI is spilled with updated Phase II information. 3. Option CAD port to provide heartbeat and hang-up message: <ol style="list-style-type: none"> a. Verify HB and hang-up message is sent. b. Verify system recognizes a NK or an absence of an AK. 		
42.	External Clock <ol style="list-style-type: none"> 1. Manually mal-adjust System clock. 2. Verify servers and workstations synchronize with the correct time Via Network Time Protocol (NTP.) 		
43.	Time Stamps <ol style="list-style-type: none"> 1. The system shall ensure consistency of time stamps added to event records, reports, and voice recordings. <ol style="list-style-type: none"> a. Verify the time the call entered the 		

Test Case #	Description	Test Code	Comments
	<p>system, the time it was answered, call duration, time completed/transferred, and the user ID is included in the time stamp function.</p>		
44.	<p>Forced Disconnect</p> <p>1. Verify call takers have the ability to release a call at anytime simply by clicking on the 'Release' icon, regardless of whether the calling party has hung up.</p>		
45.	<p>Automatic Call Distribution (ACD) Ring All Feature</p> <p>1. Ring All:</p> <p>a. In the Ring All distribution scheme, incoming calls to the PSAP should be placed in a call waiting queue. All idle call takers in the PSAP are simultaneously alerted of an incoming call through emergency ringing sounds and animations at their consoles.</p> <p>2. Perform test calls to verify feature.</p>		
46.	<p>Automatic ANI/ALI Print</p>		

Test Case #	Description	Test Code	Comments
	1. Call Detail Report (CDR): The CDR's of 9-1-1 calls should be automatically printed on completion of call. 2. Verify call detail information is sent on system activity. <ol style="list-style-type: none"> a. Trunk seize time. b. Caller's telephone number (including NPA or NPD.) c. Answer time. d. Answering position number. e. Trunk number. f. Trunk release time. g. Date - The date does not necessarily need to be a part of each record. As a minimum, the date shall be printed at least once per page. 		
47.	Monitor Call 1. Non-intrusive Monitoring. <ol style="list-style-type: none"> a. With appropriate permissions (supervisor 		

Test Case #	Description	Test Code	Comments
	<p>and admin roles), an operator shall have the ability to monitor the conversation at another workstation without alerting the call taker at the position that monitoring has been invoked.</p> <ol style="list-style-type: none"> 2. Place 9-1-1 test call. <ol style="list-style-type: none"> a. Monitor call from second position. b. Verify first position has no indication when second position monitored call. 		
48.	<p>Join Call</p> <ol style="list-style-type: none"> 1. Place 9-1-1 test call. Any operator with a supervisor or admin role shall have the ability to enter an operator conversation. 2. Join active call from second position. <ol style="list-style-type: none"> a. Verify both positions and caller is active on the call. 		
49.	<p>Muting</p> <ol style="list-style-type: none"> 1. Place 9-1-1 test call. 		

Test Case #	Description	Test Code	Comments
	<p>Any operator shall have the ability to block the caller from hearing any conversation from the remaining parties on the call. The caller's conversation shall continue to be heard from the remaining parties.</p> <ol style="list-style-type: none"> 2. Mute caller. 3. Verify caller cannot hear call taker. 4. Verify calltaker can still hear caller. 5. Un-mute caller. 6. Establish a conference call. 7. Mute one leg of the conference. 8. Verify caller cannot hear remaining parties. 9. Verify all other parties can still hear caller. 10. Disconnect call. 		
50.	<p>Call On Hold Window</p> <ol style="list-style-type: none"> 1. Place 9-1-1 test call. <p>The call-on-hold window shall maintain a list of all 9-1-1 calls placed on hold. An operator with either the supervisor or admin role shall be able</p>		

Test Case #	Description	Test Code	Comments
	<p>to click on the circuit in this window to retrieve it from hold.</p> <ol style="list-style-type: none"> 2. Place call on hold. 3. Retrieve call from Calls On Hold window from second position. 		
51.	<p>Maintenance Position</p> <p>The system administration and maintenance function shall be facilitated through the use of an application called 'IQadmin.' IQadmin and it will be password protected so that only authorized administrators and/or technicians can access the application.</p>		
52.	<p>Alarms</p> <p>The system's administration server should monitor all elements of the system and collect alarms and status information. The alarm/incident information is pushed via SNMP traps and / or contact closures to individuals or monitoring systems which reside locally or exist remotely.</p> <ol style="list-style-type: none"> 1. Create system alarms. 2. Verify alarms are displayed in IQAdmin and sent 		

Test Case #	Description	Test Code	Comments
	via SNMP.		
53.	<p>Line Appearances</p> <p>9-1-1 trunks and Admin lines can be mapped to a line appearance. Status such as idle, ringing, answered and on hold is displayed</p> <p>Single Line Test:</p> <ol style="list-style-type: none"> 1. Place a 9-1-1 test call. 2. Verify button indicates ringing by turning red. 3. Answer call by line appearance button. 4. Verify button indicates answered by turning green. 5. Place call on hold. 6. Verify button indicates hold by turning yellow. 7. Release the call. 8. Verify button returns to idle (normal icon.) 		

Test Case #	Description	Test Code	Comments
	<p>9. Place an admin test call.</p> <p>10. Repeat steps 2 through 8.</p> <p>Multiple Calls:</p> <ol style="list-style-type: none"> 1. Place multiple calls. 2. Verify buttons indicates ringing by turning red. 3. Answer single call on one position. 4. Verify button indicates answered by turning green. 5. Verify additional calls still show ringing. 6. Answer second call on a different position. 7. Verify communication on both calls. 8. Release the calls. 9. Verify buttons return to idle (normal icon.) 		

Test Case #	Description	Test Code	Comments
	<p>Failover Test:</p> <p>This is to test the node failover from node "A" to node "B" and prove that calls are processed when node "A" is down.</p> <ol style="list-style-type: none"> 1. Verify Connection Status of the VSOS, IQscript, Liberty Server and Proxies and make sure they are showing connected and normal. Also verify A→B and B→A are showing normal. 2. Remove power from Node A by opening both circuit breakers. 3. Verify that the Guardian position failover to Server B. 4. Place a call into Node B and verify the call presents correctly. 5. Power on Node A 6. Verify that it is back up and synced with Node B. 7. Using IQAdmin put the Guardian positions back on Node A. Verify the Guardian is showing "Server OK". 8. Place a call to Node A and verify call processing 		

Test Case #	Description	Test Code	Comments
	<p>has returned to normal.</p> <p>This test will verify correct operation of the Stratus servers. A side app processor failover, within the A side Stratus</p> <p>- System State</p> <ol style="list-style-type: none"> 1. In Iqadmin connection status info window (i button), proxy tab, ensure all proxies are in normal, good state. 2. If proxies are in failed state, verify that both App servers are good and channels are in service. Select GOTO Primary command, refresh and ensure everything is in good state. 3. In upgrade assistant window, section "Connect Operator Positions To", select "Primary Liberty Server Duplex" and click "Connect To" button. 4. Verify positions are logged in redundant (primary server OK, bold. Secondary server OK, not bold). If it is not the case, logout and login redundant. 5. On the A-side cabinet, locate the Status servers: <ul style="list-style-type: none"> • Find both "safe to pull" LED on the FTserver, one LED per slice (beside the red circle below) • During run time both LED should be Solid Green (note that blinking Green state is not ready for redundancy testing) • The primary server has its "primary" LED green beside the safe to pull LED (bottom one in the screen capture below). 		

Test Case #	Description	Test Code	Comments
	<p>- Test</p> <ol style="list-style-type: none"> 1. Place test call and answer on position 1. 2. Power down the primary slice (the one with "Safe to Pull" and "primary" LEDs green) by pulling its power cord. <p>The other living slice will now have its LED blinking green, do not touch a blinking green slice.</p> <ol style="list-style-type: none"> 3. Verify the call is kept on position 1. 4. To complete the test, release the call. <p>- Restore system</p> <ol style="list-style-type: none"> 1. In upgrade assistant window, select Proxy GOTO Side B command. 2. In upgrade assistant window, section "Connect Operator Positions To", select "Liberty Server B (force Simplex)" and click "Connect To" button. Verify that the proxies have changed status in the connection status info window (i button). 3. In physical view gracefully disable all spans on the A side 4. Do a refresh on the view, wait until there are no more calls on A side 5. Put the slice back online, its LED will be solid green. 6. Wait for both slices to have solid green (don't execute any other failure test). This can take 10 minutes. 7. In IQadmin connection status info window, verify database replication status. If failed, refresh. If still failed, follow instruction on the screen 8. In physical view, enable all spans on the A side. 9. Do a refresh view, wait for spans to be enabled 		

Test Case #	Description	Test Code	Comments
	<p>(green) (refresh view every 30 seconds; should not take more than 2 minutes).</p> <p>10. In upgrade assistant window, select "Proxy GOTO" " Primary" command.</p> <p>11. In upgrade assistant window, section "Connect Operator Positions To", select "Primary LibertyServer Duplex" and click "Connect To" button.</p> <p>12. In status info window. Refresh and ensure everything is in good state.</p> <p>13. Verify positions are logged in redundant (primary server OK, bold. Secondary server OK, not bold).</p>		

4 Site Acceptance Test Summary

We hereby certify that the present document is complete (no missing page) and that all test procedures have been executed and passed as per associated expected results or that all tests have been executed and some deviations were observed.

	All tests were executed and passed.
	All test were executed, however there was the following deviations:

Customer Test Representative

Name:	
Title:	
Signature:	
Date:	

VAR Test Representative /Witness

Name:	
Title:	
Signature:	
Date:	

Solacom Test Representative

Name:	
Title:	
Signature:	
Date:	

NEXT GENERATION 9-1-1 SYSTEM (NG9-1-1) RFP 2015-170



April 16, 2015

PREPARED FOR:

DEPARTMENT OF SAFETY
DIVISION OF EMERGENCY SERVICES AND COMMUNICATIONS
NEXT GENERATION 9-1-1 SYSTEM (NG9-1-1) RFP 2015-170

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C-2 DETAILED REQUIREMENTS

Table C-2 General System Requirements -Vendor Response Checklist

REQ #	REQUIREMENT/DELIVERABLE	M/O	Y/M/N (SEE ABOVE)	VENDOR COMMENTS
	BUSINESS REQUIREMENTS			
C-1-G	Required Reports for the Management Information System			
1	Abandoned Call Percentages	M	Y	
2	Average Calls by Telecommunicator	M	Y	
3	Breakdown of Call Statistics	M	Y	
4	Call Count by Day	M	Y	
5	Call Count by Day of Week	M	Y	
6	Call Count by Day by Telecommunicator	M	Y	
7	Call Count for Telecommunicator by Shift/Supervisor Group	M	Y	
8	Hold Count by Range	M	Y	
9	Hold Time by Range	M	Y	
10	Response Time by Telecommunicator	M	Y	
11	Response Time by Range	M	Y	
12	Call Count by type of call (TTY, Wireless, text, etc.)	M	Y	

13		Telecommunicator Daily Activity	M	Y	
14		Top 10, 25 and 50 Callers by ANI	M	Y	
15		Total Call Statistics by Trunk/Line Number	M	Y	
16		Total Call Statistics by Selected Time Period	M	Y	
17		Total Call Statistics by Telecommunicator	M	Y	
18		Total Calls by Month	M	Y	
19		Total Calls by Shift	M	Y	
20		Total Calls by Type	M	Y	
21		Total Calls Transferred to Municipality by date range	M	Y	
22		Total Calls Transferred to ESN by date range	M	Y	
23		Total Calls Transferred to Responding Agency by date range	M	Y	
24		Total Calls Transferred to Municipality and/or Speed Dial Listing by date range	M	Y	
C-1-G cont.		Management Information System Functionality Requirements			
25		The System must be able to be configured to print information for only 9-1-1 calls or to also include administrative calls.	M	Y	
26		The System shall be configurable to print the ALI record and the TTY/TDD/text message conversation for TTY/TDD/text message calls.	M	Y	
27		The desired solution must also contain a capability which automatically associates related calls, to allow for evidence organization.	M	Y	
28		The System also shall be able to auto-schedule the generation of predefined reports.	M	Y	
29		The MIS system shall be designed to be highly reliable and protect data security and integrity.	M	Y	
30		The MIS system shall contain near real-time information (shortly after call completion) and allow users to search for recently completed events and event details.	M	Y	
31		The MIS system shall allow users to associate related events.	M	Y	
32		The MIS solution shall include the ability to build ad hoc reports. An ad hoc report shall mean the ability to build a report template from scratch; not select filtered items from a list.	M	Y	
33		Real time ACD statistics and information available on screen as well to be reported on such as longest idle agent, agents availability, etc.	M	Y	
34		Report on the time difference from presentation of call to the system and time answered (how long was it ringing)	M	Y	
35		MIS solution is on site not cloud based	M	Y	

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IN WITNESS WHEREOF, each Party hereto has agreed to the above provisions and attached appendixes through its duly authorized representative:

The Licensor:

SolaCom Technologies Inc.
 By: *Anthony A. Parrott*
 Name: *Anthony A. Parrott*
 Title: *VP Sales*

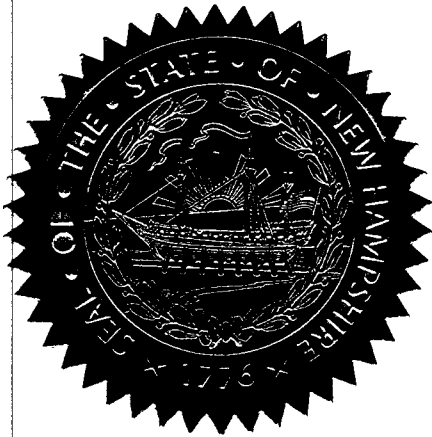
The Licensee:

Customer: *NH Dept of Safety*
 By: *[Signature]*
 Name: *Kyra Leonard*
 Title: *Administrator IV*

State of New Hampshire Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that Kraus Associates, Inc. a(n) Florida corporation, is authorized to transact business in New Hampshire and qualified on December 7, 2006. I further certify that all fees and annual reports required by the Secretary of State's office have been received.



In TESTIMONY WHEREOF, I hereto
set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 20th day of October, A.D. 2015

A handwritten signature in black ink, appearing to read "Wm Gardner".

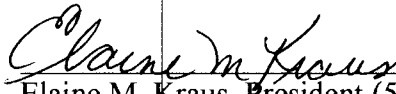
William M. Gardner
Secretary of State



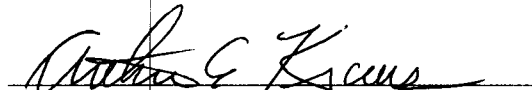
Where Technology, Creativity and Quality Service Meet

Certificate of Authority

We, the owners of Kraus Associates, Inc. d/b/a AK Associates, a corporation existing and organized in the State of Florida, RESOLVED: that Julie A. Chase, VP of Sales and Marketing of AK Associates is empowered and authorized, on behalf of the entity, to execute and deliver any and all documents, contracts, agreements, and other instruments and any amendments, revisions or modifications thereto, as he/she may deem necessary, desirable, or appropriate. The foregoing resolutions have not been amended or revoked, and remain in full force and effect as of December 22, 2015.


Elaine M. Kraus, President (58% Shareholder)


12/22/15
Date


Arthur E. Kraus, Vice President (30% Shareholder)

12/22/15
Date


Thomas A. Kraus, Executive VP (4% Shareholder)

12/22/15
Date


Lauren M. Chouinard, VP of Northeast (4% Shareholder)

12-22-15
Date


Julie A. Chase, VP of Sales & Marketing (4% Shareholder)

12-22-15
Date



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/6/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER FIAI/Cross Insurance 1100 Elm Street Manchester NH 03101		CONTACT NAME: Cathleen L'Hommedieu PHONE (A/C, No, Ext): (603) 669-3218 FAX (A/C, No): (603) 645-4331 E-MAIL ADDRESS: clhommedieu@crossagency.com	
		INSURER(S) AFFORDING COVERAGE	
		NAIC #	
		INSURER A: Everest National Insurance Co	
		INSURER B: Cincinnati Ins Co. 10677	
		INSURER C: Merchants Mutual Insurance Co.	
		INSURER D:	
		INSURER E:	
INSURED Kraus Associates, Inc., DBA: AK Associates 7 Independence Ave Derry NH 03038		INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** 16-17 GL & Umb/15-16 BA **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATION MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			CF4GL00414161	1/6/2016	1/6/2017	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			CAA5147676	12/3/2015	12/3/2016	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Uninsured motorist combined \$ 1,000,000
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			CUP0001444	1/6/2016	1/6/2017	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N N/A				PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 State of New Hampshire is included as additional insured with respects to the CGL as per written contract.

CERTIFICATE HOLDER	CANCELLATION
State of New Hampshire Dept of Safety Division of Emergency Services & Communic 110 Smokey Bear Blvd Concord, NH 03305	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE R Kittle, LPCS, CLCS/ <i>Robin Kittle</i>



CERTIFICATE OF LIABILITY INSURANCE

CMC
R054DATE (MM/DD/YYYY)
1/7/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

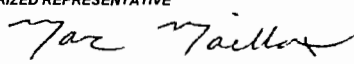
PRODUCER PAYCHEX INSURANCE AGENCY INC 210705 P: F: (888) 443-6112 PO BOX 33015 SAN ANTONIO TX 78265	CONTACT NAME: PHONE (A/C, No, Ext): E-MAIL ADDRESS:	FAX (A/C, No): (888) 443-6112
	INSURER(S) AFFORDING COVERAGE INSURER A: Hartford Fire Ins Co NAIC# 19682	
INSURED KRAUS ASSOCIATES INC. 7 INDEPENDENCE AVE DERRY NH 03038	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WYD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED: RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N <input type="checkbox"/> If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	76 WEG VK8409	01/01/2016	01/01/2017	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$500,000 E.L. DISEASE - EA EMPLOYEE \$500,000 E.L. DISEASE - POLICY LIMIT \$500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Those usual to the Insured's Operations.

CERTIFICATE HOLDER The State of New Hampshire Division of Emergency Services and Communications 110 SMOKEY BEAR BLVD CONCORD, NH 03305	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
--	--

PAYCHEX INSURANCE AGENCY INC
PO BOX 33015
SAN ANTONIO TX 78265

The State of New Hampshire
Division of Emergency Services
and Communications
110 SMOKEY BEAR BLVD
CONCORD NH 03305