

Request for Proposal - #100-1

for

IP-enabled Network



March 2010

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1. INTRODUCTION

The Golden Crescent Regional Planning Commission (GCRPC), a regional voluntary association of local governments and other agencies, is 1 of 24 regional associations in Texas and 1 of 670 in the United States. Created in response to the regional Planning Act of 1965, as amended and codified, the GCRPC is defined as a political subdivision of the state. In part the law provides that "any two or more general purpose governmental units may join in the exercise, performance, and cooperation of planning, powers, duties, and functions as provided by law for any or all such governmental units (Tex. Rev. Civ. Stat. Ann. Art. 1011m)."

GCRPC desires to implement a new managed Internet Protocol (IP) network connecting the GCRPC and the eight public safety answering points (PSAPs) in its jurisdiction. The respondent's submittal to this Request for Proposal (RFP) must be for a complete "turn-key" network solution that includes, but is not limited to, design, testing and validation, implementation, network operations center/security operations center (NOC/SOC), change control, maintenance, reporting and project management.

1.1 INTENT

The purpose of this RFP is to communicate GCRPC's plans to contract for a managed IP network solution. It is the intent of GCRPC that this RFP encourage competition and creativity in the Proposer community. To that end, GCRPC will hold a period for open questions and a mandatory pre-proposal meeting. The purpose of the pre-proposal meeting is to communicate to the Proposer community that the transition to a standards-based, interoperable, carrier agnostic, packet-switched network is beginning to happen.

GCRPC intends to keep their current PlantCML Vesta Pallas Telecommunicator PSAP CPE, and this CPE is not part of this RFP.

1.2 STRUCTURE OF TECHNICAL PORTION OF RFP

1.2.1 Recommendations and Best Practices

Adherence, current and future, to industry-accepted recommendations and best practices provides many advantages, including protection from obsolescence, improved supportability, reduced costs, and improved interoperability. For these reasons, GCRPC places a great deal of importance on industry recommendations and best practices.

Proposers must be aware of and present proposals based upon National Emergency Number Association (NENA) standards and directions, and National Reliability and Interoperability Council (NRIC) VII recommendations.

1.3 BACKGROUND

Through this RFP, the GCRPC desires to implement a network to connect the GCRPC and eight PSAPs. The primary objective of this new network will be to serve as the IP backbone across the GCRPC service area.

1.4 PROJECT GOALS

The primary goal of this RFP document is to solicit competitive and thoughtful proposals for a robust, secure, extensible, and managed IP network. The proposed network should be in addition to, and not a replacement of, the existing time division multiplexing (TDM) GCRPC network.

By using tried and proven technologies, GCRPC hopes to gain many of the benefits that have been realized by public safety entities when transitioning to networks based on commercial standard components and accepted standards. The benefits that the GCRPC is seeking include:

- Increasing reliability
- Flexibility to accommodate changing requirements
- Ability to easily integrate new technology
- Ability to easily manipulate the network to improve emergency response
- Ability to easily extract management information from the network
- Improving public safety for the citizens of and visitors to the region
- Equalizing service across the GCRPC area, increasing functionality and capabilities for GCRPC and all PSAPs
- Future support of improved call transfer functionality via session initiation protocol (SIP)
- Improving communications between GCRPC and all PSAPs
- Facilitating transfer of geographic information system (GIS) data
- Providing transport for a cost effective means of GCRPC and PSAP backup and fail over (call re-routing), if and when GCRPC chooses to implement that technology
- Improving reliability and redundancy in the delivery network

The GCRPC and its eight PSAPs will connect to and be served by a new open architecture IP network. The RFP response must include a strategy for eliminating single points of failure in its design and implementation.

Proposals must define and design a network architecture that best meets the requirements of this RFP. The network design will be evaluated to determine how it fulfills the goals of the GCRPC.

The awarded Proposer will plan, design, implement, install, maintain and manage the GCRPC IP network.

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2. PROPOSAL SUBMISSION INFORMATION

The following information is offered to assist potential respondents in understanding key information regarding the critical dates and processes associated with successfully submitting their proposal(s).

2.1 KEY DATES

The urgency of this project is necessitated by GCRPC's annual fiscal budgeting process, which will require an aggressive schedule of events for the RFP process. The currently planned dates for the procurement process are:

RFP Release Date	March 19, 2010
Round 1 Proposer Questions Due	March 30, 2010
Pre-Proposal Meeting (Mandatory)	April 8, 2010
Round 2 Proposer Questions Due	April 15, 2010
Proposals Due	April 30, 2010
Potential Presentation Date(s)	June 14 – July 9, 2010
Possible Initiation of Contract Negotiations	July 19 – August 2, 2010

GCRPC reserves the right to change this schedule of events.

2.2 GCRPC CONTACT INFORMATION

All contact with GCRPC with respect to this procurement, and any questions concerning this RFP or submittal of the proposal, should be directed to:

Physical and Mailing Address

Attention: Ms. Leslie Sciba
Director of Regional 9-1-1 Services
Golden Crescent Regional Planning Commission
568 Big Bend Drive (Regional Airport)
Victoria, Texas 77904
361-578-1587
lesleys@gcrpc.org

Information regarding RFP documents and specific meetings times will be available at GCRPC's website, <http://www.gcrpc.org/>

2.3 PROPOSAL SUBMISSION PROCESS

2.3.1 Proposer Contact Information

Interested potential Proposers shall provide the name (designee), address, telephone number, facsimile number, and email address of the person who should be contacted on all RFP communications and for questions regarding submitted proposals. This contact information will be used to provide interested parties a direct distribution of updates, changes, and informational postings regarding this procurement. All formal updates, addenda, etc. will be distributed to the aforementioned Proposer designee.

2.3.2 Proposal Submission Due Date

All proposals must be sealed and delivered to the **GCRPC offices by 4:00 p.m. April 30th.**

2.3.3 Proposal Format and Delivery

GCRPC requires four bound hard copies of each proposal, one soft copy of each proposal and one soft copy of Microsoft Excel spreadsheets containing pricing, equipment lists, and any other data. The preferred method of soft copy delivery is by USB "thumb" drive or CD/DVD-ROM.

Only written, hard copy proposals with accompanying soft proposals will be accepted. Proposals by telephone, email, oral, or facsimile reproduction and transmission will not be considered.

Proposers must assume full responsibility for timely delivery and receipt of sealed proposals at the GCRPC offices at the address provided above, and logged-in by a GCRPC staff member. Proposals, which for any reason are not so delivered, will not be considered. Late proposals will be returned to the Proposer unopened and will not be considered.

2.3.4 RFP Questions Submission and Answer Process

According to the schedule outlined in Section 2.1, GCRPC intends to conduct two rounds of written questions and answers: one prior to and one following the mandatory pre-proposal conference.

All Proposer questions to this RFP must be received in soft copy format only, according to the deadlines in Section 2.1, using either Microsoft Word as an email attachment or in the body text of the email itself. If email 'delivery' or 'read' receipts are requested, they will be acknowledged and returned.

All official GCRPC responses to Proposer questions will be supplied as an addenda posted on the GCRPC web site, <http://www.gcrpc.org/>

Only these official posted responses to questions are considered the 'official' responses of GCRPC in this procurement. All other responses to questions posed, whether written or oral, should be considered 'unofficial' and will not necessarily be incorporated into the 'official' documentation of the project.

There will be no official responses supplied to questions outside of the described soft copy format or after the question deadlines as outlined in Section 2.1.

2.3.5 Mandatory Pre-Proposal Meeting

Proposers interested in submitting a proposal in response to this RFP must attend a **mandatory Proposers conference on April 8th at 10:00 a.m.**

The meeting will be held at the GCRPC offices located at 568 Big Bend Drive (Regional Airport) Victoria, Texas 77904.

Conference attendance is limited to four persons per potential respondent or proposal team.

2.3.6 Evaluation and Selection Process

All proposals will be evaluated to determine the extent to which they comply with the RFP requirements provided herein. GCRPC reserves the right to accept or reject in whole or in part any responses submitted, and to waive minor technicalities when in the best interest of GCRPC. Responses may be disqualified for any of the following reasons:

- Information from references, the Commission on State Emergency Communications (CSEC), or other sources reporting unsatisfactory experiences with the prospective Proposer or subcontractor(s)
- Collusion among prospective Proposers
- Failure to comply with, or inclusion of terms and conditions in conflict with, the terms of this RFP or purchasing rules and procedures or the laws and statutes of the State of Texas
- Failure to meet minimum response requirements established in the RFP

If a proposal fails to meet a material solicitation document requirement, the proposal may be rejected. A deviation is material to the extent that a response is not in substantial accord with the solicitation. Immaterial deviations may cause a bid to be rejected.

Proposals containing false or misleading statements may be rejected if in GCRPC's opinion the information was intended to mislead regarding a requirement of the solicitation document.

All figures entered on the cost proposal must be clearly legible and the cost sheet should be well-organized with costs for all elements clearly stated.

During the evaluation process, GCRPC reserves the right, where in their best interest, to request additional information or clarifications from Proposers.

Preliminary negotiations may be conducted with responsible Proposers who submit proposals that are reasonably susceptible of being selected. GCRPC may decide, at their sole option and in their sole discretion, to negotiate with one, several, or none of the Proposers submitting responses to this RFP. During the negotiation process, any Proposer with whom GCRPC chooses to negotiate may adjust the statement of work, alter the method of providing the services, and/or alter the costs of the services so long as the changes are mutually agreed upon and are in the best interest of the GCRPC. GCRPC may, at their sole discretion, permit a Proposer to prepare one or more revised offers. For this reason, Proposers are encouraged to treat their proposals, and any revised proposals, as best and final offers. Statements made by a Proposer in its proposal or in other appropriate written form will be binding unless specifically changed during final negotiations.

At the discretion of GCRPC, all Proposers reasonably susceptible of being selected based on criteria set forth in this RFP may be given an opportunity to make a presentation and/or interview with the Selection Committee. Proposers will be ranked in order of preference and final contract negotiations will begin with the top ranked firm. Should negotiations with the highest ranked firm fail to yield a contract, or if the firm is unable to execute said contract, negotiations will be formally ended and then commence with the second highest ranked firm, etc.

GCRPC reserve the right to waive any or all irregularities, formalities, or other technicalities, to be the sole and independent judge of quality and suitability of any products or services offered, and may accept or reject any proposal in its entirety, or may reject any part of any proposal without affecting the remainder of that proposal.

It is understood that GCRPC may use all means at their collective disposal to evaluate the proposals received based on the stated criteria. The final decision as to the best overall value, both as to price and to suitability of the products and/or services offered to fit the needs, will rest solely with the Board of Directors of GCRPC or their designee(s).

Delivery time and prompt payment discounts, including time allowed for payment, may be considered in tie-breaking of offers that are judged to be equal in all other criteria.

The successful Proposer(s) will be notified by "Notice of Intent to Award" issued by the GCRPC.

By submission of a response, Proposers recognize and accept that GCRPC may at their sole discretion make subjective judgments during the evaluation process.

2.3.7 General Evaluation Criteria

The Selection Committee team will review all documentation and other information received and will evaluate utilizing the following criteria:

Network design and technical compliance	25 percent
Proposer's service and maintenance experience and strategy	25 percent
Network per site costs for equipment, installation	35 percent
Project management planning and schedule	10 percent
General criteria	5 percent

2.3.8 Proposer Presentations

It is mandatory that separate Proposer presentations/demonstrations be held to further clarify each selected Proposer's proposed solution(s). This presentation should include detailed drawings, whiteboard drawings, demonstrations of required and recommended functionality, and other methodologies to help GCRPC understand the functionality and value of the proposed solution.

All Proposers are encouraged to submit concise and clear proposals consistent with the format outlined herein. Proposals that do not comply with this format, are of excessive length, or contain a preponderance of "boilerplate" text are strongly discouraged. GCRPC encourages Proposers to provide thorough responses to each of the RFP sections in narrative form. Tailored information which describes the Proposer's approach and deliverables that demonstrate the Proposer's knowledge and competence are encouraged.

To the greatest degree possible, this narrative response should be provided according to the same order and outline sequencing as is provided in the RFP. This will aid GCRPC in reviewing, understanding, and evaluating the content of each Proposer's response

2.4 SUPPORT DOCUMENTATION

2.4.1 Attachment A - Bandwidth Assessment

This document is provided as information to be utilized in planning the proposed solution. It is important that questions regarding this information be identified and clarified as early as possible in the process.

2.4.2 Attachment B - GCRPC Basic Network Design Diagram (Conceptual)

This diagram is provided as an overview to illustrate logical network architecture only and is not a specified physical network design. GCRPC encourages Proposers to submit a proposed network design that is uniquely their own, and which delivers the identified performance and functionality most efficient and cost effective for GCRPC.

2.4.3 Attachment C – Call Volume Statistics

This diagram shows the percentage of calls that are wireline versus wireless at GCRPC each PSAP.

2.4.4 Attachment D – Vendor Acknowledgement and Certification

2.4.5 Attachment E – Network Pricing Sheet

This MS Excel Spreadsheet is for Proposers to provide network pricing

2.4.6 Attachment F - Glossary

2.5 PROPOSAL SUBMISSION REQUIREMENTS

2.5.1 Submission Format and Content

This RFP has been provided as a set of electronic files located at the GCRPC web site <http://www.gcrpc.org/> which collectively represent the RFP package. Proposers should review the listing below to assure that all applicable parts are included. If any portion of the package is missing, immediately notify the GCRPC representative as outlined in Section 2.2.

Addenda will be posted on the GCRPC web site <http://www.gcrpc.org/>. It will be the Proposer's responsibility to download addenda from the web site, print the addenda and sign the addenda as part of the Proposer's RFP response.

It is the Proposer's responsibility to be thoroughly familiar with all requirements and specifications and to assure that the proposal addresses each element of the RFP package before it is submitted to GCRPC.

2.5.2 Transmittal Letter

Each response should include a 'Transmittal Letter' indicating the Proposer's company name, address, the total proposal cost, and signature (IN INK) of an officer of the company who has signatory authority for a proposal of the total value as indicated on the included pricing sheets.

2.5.3 Requirements Compliance Responses

Proposers must respond in the form of either:

COMPLY, which indicates that the feature/capability is part of the recommended offering as proposed and is included in base pricing of the offer.

COMPLY WITH EXCEPTION, which indicates that the feature/capability is available as optional 'add-on', and, or **EXCEPTION** to the items detailed in the RFP.

NOT COMPLY, which indicates that the proposed solution does not include or meet the stated requirement. The Proposer should also provide reasons for not complying.

EXCEPTION, which indicates that the proposed solution does not meet this requirement as stated, but there is additional information that the Proposer would like to provide.

If a Proposer provides supportive collateral material in response to a requirement, those materials must be limited to three pages per requirement and must be identified by RFP requirement number.

If a Proposer takes **EXCEPTION** to a particular item, they must provide an alternative recommendation for how they intend to meet the requirement. If a Proposer's proposal does not fully meet any requirement, there must be a section labeled Exceptions to Requirements. In this section, every requirement that the proposal does not fully meet must be revealed and a proposed solution must be offered.

Additionally, proposals must include a detailed response immediately following each requirement, describing how the proposed solution meets the particular feature/functionality/requirement. These are especially important in the cases of "**COMPLY WITH EXCEPTION**", and "**EXCEPTION**".

A provision for an Exception to Requirements section is not to be construed as GCRPC's willingness to accept proposals that do not meet all requirements. It is recognized that a potential Proposer may be able to provide a solution that exceeds the functionality desired in a manner that has not been considered by GCRPC. It is strongly recommended that all submitted proposals meet all requirements identified in this RFP.

2.6 PRICING

2.6.1 Network Pricing

Each of the eight PSAP locations and GCRPC must have pricing that is separate, as noted on Attachment E. Both recurring and non-recurring costs must be presented separately in the Costing requirements of this RFP.

2.6.1.1 Maintenance Pricing

Proposers must quote pricing for 24/7/365 fully managed support contract. Maintenance pricing, including associated routers and switches, must be listed per location. GCRPC will consider an initial contract term of three (3) years with two (2) one year extensions OR a five (5) year contract term.

2.6.1.2 Managed Services

Proposers responding to this RFP must detail the cost of their managed services, as well as the added value brought by their managed service offering.

Proposers are to be very specific as to exactly what managed services they are offering to what systems/devices/functions, where the options are (end-to-end vs. piecemeal), itemized pricing, limitations, etc.

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3. PROJECT MANAGEMENT

Proposers must provide a project management plan. Proposers must describe how they will provide project management expertise for this project. The Project Management section must address and contain the following items:

- Communications plan
- Proposed/tentative project schedule to include milestones, major tasks, and sub-tasks
- Work breakdown structure (WBS)
- Migration plan
- Network engineering
- Network installation
- Pre-cutover assistance
- Joint acceptance testing

A web portal for GCRPC to view activities during the network implementation stage should be priced as an option.

3.1 PROJECT MANAGER

Proposers must designate a project manager who will provide the single point-of-contact for the management and coordination of all aspects of the awarded Proposer's work. The name and resume of the Proposer's project manager and project manager's work address must be submitted with the proposal. The Proposer's project manager must have previously worked on similar projects of this magnitude. Proposers must provide an estimate of how much time the project manager will spend at GCRPC to accomplish the successful installation, testing, acceptance, and ongoing support of the requested services. It is preferred that the Proposer's project manager be a Project Manager Professional (PMP) certified through Project Management Institute (PMI) or from an organization of equal standing.

3.2 SCOPE OF WORK

This RFP and proposal should become the basis of the scope of work (SOW) to assure that all requirements are met. As part of contract award, the SOW must be formally submitted by the awarded Proposer to GCRPC and must include the requirements stated in all sections of this document. GCRPC reserves the right to review and reject the SOW if it does not meet with their satisfaction. GCRPC must approve the SOW before execution of the final contract. The awarded Proposer's RFP must also become a part of the services contract between the awarded Proposer and GCRPC.

3.2.1 Monthly Progress Reports

The awarded Proposer must email monthly progress reports to GCRPC on or before the fifteenth day of the month following the month being reported. During specific phases of implementation of the proposed network, additional progress reports may be requested by GCRPC, based on a mutually agreed on schedule. At a minimum, each monthly progress report must contain:

- A clear and complete account of the work performed on each task
- An outline of the work to be performed during the next reporting period
- A bar chart showing the work accomplished by task versus the schedule of work of the contract and the cost schedule
- A discussion of any problems encountered or anticipated that might affect the completion of the contract within the time and fiscal constraints set forth in the contract, together with recommended solutions to such problems, or a comment that no problems were encountered
- A chart showing incremental costs per month for all services compared to the proposed timeline and the cost schedule
- Any other pertinent information, i.e., analysis data
- Any post-cutover assistance, when required

These reports will be provided to GCRPC in a standardized format. The report shall include previous month's information with the current month in a format that can provide trend analysis.

GCRPC may require weekly meetings, or upon request, to discuss the items mentioned above. The awarded Proposer is responsible for any and all communication requirements to host the aforementioned meetings, such as, but not limited to, conference bridges and on-site meetings.

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4. GENERAL PROJECT REQUIREMENTS

4.1 GENERAL QUALIFICATIONS

As necessary, to provide the services in the proposals and, as applicable, Proposers must provide all required certifications, permits, etc. to provide the services and/or equipment to GCRPC in Texas, and shall include certificate numbers assigned as applicable.

Proposers must demonstrate their respective organization's competence, qualifications, and ability to perform the services requested by this RFP. This will be measured by several factors, including, but not limited to, number of years that the Proposer has provided the services required by the RFP. Proposers should include information of structure, responsibilities, and history of partnerships and alliances collaborating on similar projects. Proposers must provide a statement from a financial officer of the company who can ensure sufficient budget and processes are available to fulfill RFP obligations.

4.2 EXPERIENCE

*Proposers must provide specific references relating to their record of successful IP network installations, the proposed Project Manager's experience, and the Proposer's qualifications. **Proposers are strongly encouraged to demonstrate their experience in designing, installing, and implementing wide area IP networks of similar size and scope. This area will be considered very carefully, and weighted appropriately in the evaluation process.** The reference to successful installation(s) must be contained in the reference section of the proposal (Proposer Experience and Capabilities) and must be distinctly identified as the required reference to successful installation(s).*

4.2.1 Table of Organization

Proposers must provide a copy of their current table of organization. The purpose of this requirement is to demonstrate range and depth of the Proposer's staff qualifications and resources.

4.2.2 Resumes

Proposers must provide resumes for all employees expected to work on this contract, including Project Manager, Technical Leader, and Quality Assurance Officer. Resumes must include references to projects similar to the project defined by this RFP.

4.2.3 Proposer Experience and Capabilities

This section must include the Proposer's organization experience, type of equipment and/or services provided, and the length of time the organization has been providing the equipment and/or services. Specific information must be provided concerning projects similar in size and scope to the project for which this RFP is issued.

For each identified contact, the Proposer must provide:

- The contracting entity
- A brief description of the services/goods provided
- The dollar value of the contract

- The term of the contract
- Whether the contract was terminated prior to the specified original contract termination date
- Whether any available renewal option was not exercised
- The contact person (name, title, telephone number, and e-mail address)

4.2.4 State of Texas Experience

If applicable, the Proposer must submit a list of all similar in scope contracts it currently holds or has held within the past five years with any government entity of the state. For each identified contract, the Proposer must provide:

- The state contracting entity
- A brief description of the services/goods provided
- The dollar value of the contract
- The term of the contract
- Whether the contract was terminated prior to the specified original contract termination date
- Whether any available renewal option was not exercised
- The state employee contact person (name, title, telephone number, and e-mail address)

This information will be considered as part of the experience and past performance evaluation criteria in the RFP. Proposers must attach proofs required to show the qualifications outlined in the paragraph below have been met. If the objective proofs do not demonstrate that the qualifications are met, are not submitted, or otherwise are not the form of proof requested, the Proposer's proposal may be deemed not reasonably susceptible for award and eliminated from further consideration.

4.3 IP MIGRATION PLAN AND VISION

Proposers must also provide information reflecting their "road map" toward a fully functional IP network solution, including, but not limited to, IP networks. This road map should be in the form of actual plans or visionary statements regarding future plans.

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5. GENERAL TERMS AND CONDITIONS

5.1 PROPOSER'S RESPONSIBILITIES

Any selected Proposer will be responsible for all products and services required by this RFP. If a Proposer that seeks to perform or provide the services required by this RFP is a subsidiary of another entity, all information submitted by the Proposer, such as, but not limited to, references, will pertain exclusively to the Proposer, unless the parent organization will guarantee the performance of the subsidiary. If applicable, the Proposer's proposal must contain an explicit statement that the parent organization will guarantee the performance of the subsidiary.

5.2 ORDER OF PRECEDENCE AND AWARD OF CONTRACT

In the event of conflict between this document and any references or documents cited herein, this document will take precedence prior to contract award.

With authority granted by the Board of Directors of GCRPC, a written contract will be presented to the successful Proposer, and will be subject to acceptance by the successful Proposer within ten calendar days after presentation by the GCRPC. If a contract is not executed within ten calendar days, GCRPC may rescind the contract offer and award a contract to the next Proposer in order of rank as determined by GCRPC.

A sample Contract Form will be made available from GCRPC on or before the Bidder's Conference on April 8th, 2010. The actual final contract will be the same or nearly the same as the sample contract. The successful Proposer will be expected to sign such a contract with GCRPC. Substantial material or excessive changes to the sample contract will cause points to be deducted from the Proposer's point total. Minor exceptions must be specifically requested in the Proposer's formal proposal to GCRPC. GCRPC reserves the right to rescind the contract offer and award a contract to the next Proposer in order of rank as determined by GCRPC in cases whereby the Proposer's request for exceptions are not in the best interest of GCRPC.

The contract will consist of the documents identified herein and in order of precedence: (1) the text of the sample contract as amended through contract negotiations prior to award, (2) this RFP, including all terms and conditions, any relevant addenda, and (3) contractor's response to the RFP, including but not limited to, network design, prices, options, implementation, and payment schedules offered and finally negotiated/amended and attached.

5.3 MANDATORY CONTRACTUAL TERMS

Proposers must verify, through a statement in the Executive Summary of the proposal, that they have read the sample contract, which will be available from GCRPC by April 8th, 2010. By submitting an offer in response to this RFP, a Proposer, if selected for award, will be deemed to have accepted the terms of this RFP and the contract. Any exceptions to this RFP or the contract must be clearly identified in the Executive Summary of the proposal. A proposal that takes exception to these terms may be rejected.

5.4 CONTRACT DURATION

GCRPC intends to enter into a multi-year agreement. Therefore, multiple year rate guarantees are requested. The contract will remain in full force and effect with firm fixed prices for a period of five years.

This RFP and the contractor's response, when properly accepted by GCRPC, will be incorporated as part of any contract that is ultimately agreed upon GCRPC and the contractor.

5.5 FISCAL FUNDING

GCRPC operates and is funded on a fiscal year basis; accordingly, GCRPC reserves the right to terminate, without liability, any contract for which funding is not available. Renewal of contract will be in accordance with Local Government Code 271.903 concerning non-appropriation of funds for multi-year contracts. GCRPC reserves the right to rescind the contract at the end of each fiscal year if it is determined that there are insufficient funds to extend the contract.

5.6 HISTORICALLY UNDERUTILIZED BUSINESS (HUB) PARTICIPATION

To satisfy Texas' statutory requirements [Government Code, Chapter 2161, Subchapter D], GCRPC requires all Proposers to supply information in any proposal response listing: (1) the total number of subcontracts and (2) the total number of HUB contracts applicable to the services offered in the response. For purposes of information availability, Proposers are encouraged to include subcontracts with HUBs that provide delivery of a service.

5.7 VENDOR ACKNOWLEDGEMENT AND CERTIFICATIONS

Proposers must fully complete and sign Attachment D, Acknowledgement and Certification Form. It must show the full firm name and mailing address of the Proposer and be manually signed by an authorized sales or quotation representative of the company. Submission of a signed Acknowledgement and Certification Form will be interpreted to mean that the company has hereby agreed to all terms and conditions set forth in all of the sheets which make up this RFP and to execute the sample contract

In addition, the Proposer, by signing the Acknowledgement and Certification Form, makes the following certifications under penalty of perjury and possible contract termination if any of these certifications are found to be false:

5.7.1 Non-Collusive Response

The prices in the response have been arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other Proposer or potential competitor.

The prices quoted in the response (unless otherwise required by law) have not been knowingly disclosed by the Proposer and will not be knowingly disclosed by the Proposer prior to the award of contract, either directly or indirectly, to any other Proposer or competitor.

No attempt has been made or will be made by the Proposer to induce any other person, partnership, or corporation to submit or not to submit a response for the purpose of restricting competition.

5.7.2 Non-Biased Specifications

This RFP contains no requirements considered to be unduly biased in favor of the Proposer or any other Proposers that may be competing for this procurement.

5.7.3 No Financial Interest or Other Conflict

No GCRPC officer, employee, Board of Directors member, GCRPC board or commission, nor family member of any such person, has a financial interest, direct or indirect, in the Proposer or in any contract the Proposer might enter into with GCRPC.

No economic or employment opportunity, gift, loan, gratuity, special discount, trip, favor, or service has been, or will be, offered or given to any officer, employee, Board of Directors member, or GCRPC board or commission, nor to any family member of any such person.

By submitting a response to this solicitation, the Proposer represents that it is not in arrears in the payment of any obligations due and owing the State of Texas, including the payment of taxes and employee benefits, and that it will not become so in arrears during the term of the contract if selected for contract award.

5.7.4 Debarment and Suspension Status

The Proposer is not currently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any government agency, nor is the Proposer an agent of any person or entity that is currently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transaction by any government agency.

The Proposer has not within a three year period preceding this RFP been convicted of or had a civil suit judgment rendered against the Proposer for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statement, or receiving stolen property.

The Proposer is not presently indicted for or otherwise criminally or civilly charged by a government entity (federal, state, or local) with commission of any of the offenses enumerated above. The Proposer has not, within a three year period preceding this RFP, had any government (federal, state, or local) transactions terminated for cause or default.

5.7.5 Insurance Coverage

The Proposer has and will maintain insurance coverage in accordance with the requirements of this RFP, unless otherwise negotiated in the final contract.

5.7.6 Licensing and Permits

The Proposer has all licenses and/or permits required by any and all governmental entities having jurisdiction, to legally sell the products/services offered.

5.8 INSURANCE REQUIREMENTS

Unless otherwise stipulated, the successful Proposer/contractor must have the following insurance and coverage minimums and strictly adhere to the following requirements:

5.8.1 Commercial General Liability Insurance

Limit of liability not less than \$1,000,000 per occurrence. The Proposer agrees to maintain a standard ISO version Commercial General Liability occurrence form, or its equivalent, providing coverage for, but not limited to, Bodily Injury and Property Damage, Premises/Operations, Products/Completed Operations, and Independent Contractors. Additional insured endorsement required.

5.8.2 Workers' Compensation Insurance and Employers' Liability Insurance

The contractor must maintain workers' compensation insurance for statutory limits and employer's liability insurance with limits not less than \$1,000,000 each accident and \$1,000,000 by disease. The contractor waives all rights against GCRPC for recovery of damages to the extent these damages are covered by the workers' compensation and employer's liability or umbrella liability insurance obtained by the contractor. The contractor must provide evidence of this by Waiver of Subrogation in favor of GCRPC.

5.8.3 Business Automobile Liability Insurance

The contractor must maintain Business Automobile Liability Insurance with a limit of not less than \$1,000,000 each accident. Business Auto Liability must be written on a standard ISO version Business Automobile Liability, or its equivalent, providing coverage for all owned, non-owned, and hired automobiles. The contractor waives all rights against GCRPC for recovery of damages to the extent these damages are covered by the business auto policy or umbrella liability insurance obtained by the contractor or under any auto physical damage coverage. If the contractor does not own the automobiles and furnishes satisfactory evidence of this, then this requirement may allow the contractor to agree to maintain only Hired and Non-Owned Auto Liability. This amended coverage requirement may be satisfied by way of endorsement to the Commercial General Liability, or separate Business Auto policy.

5.8.4 Umbrella or Excess Liability

The contractor may satisfy the minimum liability limits required for Commercial General Liability and Business Auto Liability under an Umbrella or Excess Liability policy. The annual aggregate limit must not be less than the highest "each occurrence" limit. The contractor agrees to endorse GCRPC as an additional insured, unless the Certificate states the Umbrella or Excess Liability provides coverage on a pure "True Follow Form" basis.

5.8.5 Contractor's Insurance to be Primary

The contractor's insurance will be deemed primary with respect to any insurance or self-insurance carried by GCRPC or any End User for liability arising out of operations under the contract.

5.8.6 Deductibles, Coinsurance Penalties, and Self-Insured Retention

The contractor must agree to be fully and solely responsible for any costs or expenses as a result of a coverage deductible, coinsurance penalty, or self-insured retention, including any loss not covered because of the operation of such deductible, coinsurance penalty, or self-insured retention.

5.8.7 Right to Review and Adjust

GCRPC reserves the right to review these requirements and to modify insurance coverage and their limits when deemed necessary and prudent. Furthermore, GCRPC reserves the right, but not the obligation, to review and reject any insurer providing coverage because of poor financial condition.

5.8.8 Subcontractor's Insurance

The contractor must agree to cause each subcontractor employed by the contractor to purchase and maintain insurance of the type specified, provided the contractor's insurance does not afford coverage on behalf of the subcontractor.

5.8.9 Certificate of Insurance

The contractor must furnish GCRPC with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements. The certificate must be from a company with an A.M. Best rating of "A-" or better and/or otherwise be acceptable to GCRPC. Certificates must be submitted using the ACORD form and all endorsements must be included with the submittal. The certificate(s) must contain a provision that coverage under such policies will not be cancelled or non-renewed until at least thirty days prior written notice, or ten days notice for cancellation due to non-payment of premiums, is given to GCRPC.

In the event the GCRPC is notified that a required insurance coverage will cancel or non-renew during the contract period, the contractor must agree to furnish, prior to the expiration of such insurance, a new or revised certificate(s) as proof that equal and like coverage is in effect. GCRPC reserves the right, but not the obligation, to withhold payment to the contractor until coverage is reinstated. If the contractor fails to maintain the required insurance, GCRPC will have the right, but not the obligation, to purchase the required insurance at the contractor's expense.

Insurance coverage must be in effect for the length of any contract made pursuant to this RFP, and for any extensions thereof, plus the number of days/months required to deliver any outstanding order after the close of the contract period.

5.9 TAXES

GCRPC is a unit of government or qualified non-profit agencies, and are generally exempt from federal and state sales, excise, or use taxes. Proposers must not include any such taxes in their response. It will be the responsibility of the successful Proposer to determine the applicability of any taxes to a particular order and act accordingly. Exemption certificates will be provided upon request.

5.10 DRUG FREE WORKPLACE

The contractor must provide notice to its employees and subcontractors, as required under the Drug-Free Workplace Act of 1988. A copy of the contractor's Drug-Free Workplace policy must, on request, be furnished to GCRPC.

5.11 DUPLICATION OF TERMS OR STATEMENTS

Where statements or terms are duplicated or are extremely similar, GCRPC reserves the right to use the statement or term most favorable to GCRPC.

5.12 NON-RESIDENT RECIPROCAL SALES ACT

As required by Texas Civil Statutes in the award of contracts, a Proposer that is not a Texas resident business must determine if its state of residence prohibits award of government contracts to Texas resident Proposers without penalty. If a Proposer's resident state does penalize Texas Proposers, the Proposer must provide this information along with a copy of its applicable resident state's statute in the response.

5.13 SPECIFICATIONS

Proposers must inform themselves of all the conditions under which the work is to be performed concerning the site of the work, the obstacles which may be encountered, and all other relevant matters concerning the work to be performed under this contract.

The contractor to whom the work is awarded must furnish all materials, labor, tools, appliances, appurtenances, and all things necessary to complete and perform the work and/or scope of services in accordance with these specifications, and anything omitted herein that may be interpreted as reasonably necessary to completion is to be merged in the prices contained in the proposal.

5.14 NOTICE OF STARTING WORK

The contractor must notify the GCRPC 72 hours before beginning any work on the contract, or of the intent so to do, and in case of a temporary suspension of the work, must give a similar notice before resuming.

5.15 FORCE MAJEURE

If either party is wholly or partially prevented from the performance of any contractual obligation or duty by reason of or through strikes, stoppage of labor, riot, fire, flood, acts of war, insurrection, accident, order of any court, act of God, or specific cause reasonably beyond the party's control and not attributable to its neglect or nonfeasance, the time for the performance of such obligation or duty will be suspended until such disability to perform is removed. Determination of Force Majeure rests solely with GCRPC.

5.16 ASSIGNMENT

No part of the work herein specified may be assigned without the consent of GCRPC.

5.17 COURT JURISDICTION

The contract will be governed in all respects by the laws of the State of Texas. The parties agree that performance and all matters related thereto will be in a state court of competent jurisdiction in Victoria County, Texas and further that neither party will seek to remove such

litigation to the federal court system by application of conflict of laws or any other removal process to any federal court or court not in Texas. This condition is non-negotiable.

5.18 CHANGE ORDERS

GCRPC has the right to make additions to the contract by addenda for the purpose of clarification or inclusion of additional specifications, qualifications, conditions, etc. Any such addenda will be made in writing and agreed upon by the contractor and the participating entity prior to issuance of any Change Order. A copy of any such Change Order must be furnished by the contractor to the participating entity.

5.19 ORDERS AND PAYMENTS

The contractor will deliver products/services ordered, and will invoice GCRPC for products/services accepted and accepted by same. All invoicing and payments will be performed in strict accordance with the final contract terms and conditions. Under no circumstances will any payment be made payable to a representative or agent.

5.20 DATA PRIVACY

The contractor must abide by all applicable local, state, and federal laws and regulations concerning the handling and disclosure of private and confidential information concerning individuals and corporations as to inventions, patents, and patent rights. The Proposer agrees to hold the GCRPC harmless from any claims resulting from the contractor's unlawful disclosure or use of private or confidential information.

All laws of the United States of America and the State of Texas are applicable to the products or services covered herein and are made a part thereof.

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6. NETWORK PROJECT GOALS

GCRPC's immediate goal is the migration to reliable, efficient, cost effective, and proven technologies, IP network with first-tier services which include the following:

- Facilitate transfer of call and associated data between GCRPC and PSAPs or end-points using SIP protocol
- Dissemination of GIS mapping updates
- Administration and maintenance of network files and configurations
- Administration, extraction, and compilation of network management information
- Exchange of public safety data between points on the network
- Capable of transporting SIP-based IP calls
- Interoperability with standards-based disparate networks not provided by responder

GCRPC also sees the potential for the development of cooperative efforts leading to shared resources and area-wide projects. These second-tier services will require local, strategic planning and local administrative assistance, but the GCRPC envisions expanding needs for projects of this nature. Second-tier services may include the following:

- Video services
- Radio interoperability
- Enhanced data sharing
- Storage area network

Ideally, the new IP-enabled network will be redundant and diverse, leveraging high-speed digital technologies, to connect GCRPC and all PSAPs within the network. Individual circuit, hardware, or firmware failures should not disrupt normal call processing.

6.1 TRANSITION AND DEPLOYMENT ISSUES

The proposed network must provide a transition that includes:

- Implementation management
- Senior technical consulting
- Project management

6.2 NETWORK DESIGN

GCRPC is currently providing mapping updates over its network. As part of the PSAP assessment, L.R. Kimball identified current and conceptual bandwidth requirements beyond mapping to include additional data, radio, video, and voice. See Attachment A for bandwidth requirements.

6.3 NETWORK AND ACCEPTANCE TESTING PROCESS

Proposer must include complete and detailed network and acceptance test processes that include, but are not limited to, application testing, integration testing, interface testing, and production testing. The awarded Proposer must be willing to work with GCRPC regarding all areas of the test plan and execution.

6.4 PROPOSED NETWORK

6.4.1 Overview

The proposed GCRPC IP network must be robust, private, scalable, secure, and sustainable. In this response, describe how the proposed solution meets each of these goals. It is desired that the network solution is required to include diverse routes and diverse building entrances, whenever it is logical and cost effective. Proposers are encouraged to be creative and forward-thinking with their design and strategy. This creative and forward-thinking IP network may include alternate network transport types, including fiber, copper, microwave, wireless, cellular, and other reliable transport mediums. Proposers should propose a network solution for all sites.

6.4.2 General Technical Requirements

General technical requirements are applicable to any Proposer solution. The proposed solution should be providing for redundancy and diversity of paths, as much as possible.

6.4.2.1 Reliability and Resiliency

The GCRPC IP-enabled network must be designed to provide the highest level of reliability and resiliency possible, as further indicated in the Network Operating Requirements section. Proposers must clearly detail the level of reliability and resiliency designed into their solution inclusive of path and protocol resiliency where applicable.

6.4.2.2 Increased Reliability

GCRPC is looking for a high availability network. Ideally, proposed networks must be designed to provide 99.999 percent reliability. GCRPC realizes that guarantee of 99.999 reliability is a challenge for some PSAP locations. Knowing this challenge, proposers must describe reliability options and provide any known or projected network reliability statistics and scientific data, which support proposed reliability assertions. Proposers must also describe any obstacles to true five-nine reliability in their proposed solution. In addition, proposer solutions should include recommendations and options for overcoming these obstacles.

6.4.2.3 Architecture Redundancy

The design of these networks and supporting hardware are intended to be fully redundant and geographically diverse, whenever possible and cost effective. The Proposers need to provide clear documentation on how the proposed solution supports this requirement

6.4.2.4 Architecture Survivability

The proposed networks and supporting hardware should be configured so any one failure of any one circuit must not result in total failure, but only loss of connectivity of that circuit. Proposers should describe any potential single point of failure(s), and provide solutions for mitigating any impact that this single point of failure may cause.

6.4.2.5 *Architecture Flexibility*

Proposers must describe the net flexibility of their proposed solution(s), to include redundancy, resiliency, failover, hot standby, cold standby, etc., and other applicable benefits that support network flexibility.

6.4.3 Diagrams

Proposers are expected to provide:

- Conceptual network documentation, including hardware elements and call flow diagrams relating to the proposed solution.
- Detailed engineering diagrams showing connectivity of each segment and element. Both hard copies and soft copies of MS Visio are preferred.
- Detailed diagrams must provide sufficient information so technical reviewers can identify how the design meets the requirements and intent of this RFP.
- The drawings must convey all connection points, including wiring closets and hub locations. The diagrams must define all redundant components and supported demarcation points. Any potential single points of failure must be noted on drawings.

6.4.4 Diagram Descriptive Narrative

Proposers must include detailed narrative support for diagrams that describe the network and all supporting hardware.

Wherever applicable, Proposers must provide an explanation describing how the proposed solution supports high traffic periods that may be caused by loss of connectivity, weather, or other unexpected interruptions that might impact call handling capacity.

6.4.5 Network Upgrades

The proposed network must not require down time for routine or anticipated maintenance. It is acceptable that individual components or elements have down time for routine or anticipated maintenance; however, Proposers must provide an explanation of how the proposed solution will remain operational when this routine or anticipated maintenance is performed

6.5 NETWORK EXPANDABILITY

Future expansion and connection to a regional and hierarchical emergency services IP-enabled network is possible. An expandability explanation must include any required and customer-affecting circuit or hardware changes, if any, in order to reach a required maximum bandwidth at GCRPC or any given PSAP.

6.5.1 Network Connection

The network expandability properties must be such that it accommodates connection to other separate IP networks in the future, even if these networks are not managed by the proposer. The GCRPC IP-enabled network must have the capability to scale, expand, and interconnect to all the connecting and available sub-systems. All connected and interconnected networks must be IPv4 and IPv6 capable.

6.5.2 Technology Integration

Proposers must describe their use of open standards within their proposed network solution and how it promotes current and future technology integration(s). Any network integration limitations, whether technological or philosophical, should also be discussed.

6.5.3 Network Manipulation

Proposers must describe how their proposed solution manipulates information from a network management or administrative standpoint.

6.5.4 Information Retrieval

Proposers must describe how their proposed solution retrieves information for reporting purposes and the description should include comments regarding any requirements of the customer.

6.5.5 GIS Data Transfer

Proposers must describe how the GCRPC IP-enabled network will have the ability to facilitate transfer of GIS data across jurisdictional boundaries.

6.5.6 GCRPC and PSAP Future Technologies Preparation

The GCRPC IP-enabled network must be both scalable and extensible to accommodate current and future forms of emergency calling. Proposers should be able to explain their strategy and vision for providing future technology solutions. These future forms may include but are not limited to the following:

- Short Message Service (SMS) messaging
- VoIP
- Video
- Telematics
- Instant messaging
- Text messaging
- Satellite personal locator beacons
- Future development in Telecommunications Device for the Deaf/Teletypewriter (TDD/TTY)-type devices
- Global positioning system (GPS)/GIS technologies developed for public safety or personal use

6.6 SIGNALING PROTOCOL REQUIREMENTS

VoIP signaling protocols establish, modify, and terminate multimedia sessions. The most common ones, H.323, RFC 3261-compliant SIP and H.248, and QSIG are required. Proposers must provide and describe network features capable of supporting these protocols. The network must be sufficiently flexible to support new protocol requirements as network technologies advance.

6.7 NETWORK PERFORMANCE

Proposers will be held responsible for the performance of their proposed network in its entirety to include the complete end-to-end performance from the network core to the GCRPC end points.

6.7.1 Service Level Agreements (SLA)

Proposers must include SLAs for Network Implementation, Network Architecture, Network Performance, and Network Management. SLAs must include remittance per event.

6.7.1.1 SLA Reporting

Proposers must provide a description of their secure online SLA reporting tool. SLA reporting tools are expected to include both real-time and/or near real-time performance data captures in no greater than five minute averages. Proposers must specify how they will conduct and provide end of the month and end of the quarter reviews accounting for any degradation of service to include service failures, and incidents and problems as defined by the current version of the Information Technology Infrastructure Library (ITIL).

Incidents must be tracked via tickets and the ticket contents must be made available to GCRPC.

Problems must be accompanied by resolution, root cause, and event analysis coupled with steps to mitigate future occurrence.

6.7.2 Bandwidth Management

Proposers must specify how the network bandwidth automatically scales based on network traffic demand.

Proposers must outline a detailed process to manually change committed information rates on GCRPC requests. Proposers must detail IP pricing/billing governed by the 95th percentile sampling for burstable (variable rate) bandwidth, every five minutes, over a 30 day period.

6.7.3 Quality of Service (QoS)

The GCRPC IP network is not intended to carry significant amounts of VoIP traffic in the beginning. Most voice traffic will involve SIP transfers between GCRPC and PSAPs. If GCRPC chooses to increase the amount of voice traffic in the future, the requirement for QoS may be necessary. Proposers must communicate their strategy to implement QoS using DiffServ based on RFC 2475 or an equivalent method.

6.7.4 Network Latency

Proposers must specify the maximum guaranteed latency across the respective Proposer's backbone network.

6.7.4.1 POP to POP

Proposers must specify the maximum guaranteed latency from interconnection facility to interconnection facility.

6.7.4.2 POP to End-points

Proposers must specify the guaranteed latency threshold levels from interconnection facilities to the network interface device located at the entrance to the customer's premise.

6.7.5 Packet Loss

Proposers must specify the maximum guaranteed end-to-end packet loss across the respective Proposer's network. This specification must also include any loss characteristics associated with another carrier's network or any applicable wireless links.

6.7.6 IP Deviation Variance (IPDV) (Jitter):

Proposers must specify the maximum IPDV from IP-enabled network edge device to network access point (NAP). Proposers should comment on their ability to support the variability in the arrival time as set forth in the relevant standards of RFC 2679 and RFC 3393

6.7.7 Network Traffic Convergence

Proposers must specify convergence protocols they may be using, and the estimated or guaranteed network convergence time of IP traffic at any point within the proposed solution.

6.7.8 Network Availability

Proposers must specify the service level offered as a percentage of time when the service is available and the maximum period of total outage before remedies are activated, including mean time between failure/mean time between failure + mean time to repair (MTBF/(MTBF+MTTR)).

6.7.9 Mean Time to Repair (MTTR)

Proposers must specify their MTTR characteristics of their proposed solutions. These specifications should reflect the end-to-end solution and network components or subsystems that are subject to failure.

6.7.10 Mean Time Between Failure (MTBF)

Proposers must specify their MTBF characteristics of their proposed solutions. These specifications should reflect the end-to-end solution and network components or subsystems that are subject to failure.

6.7.11 Remedies

Proposers must specify financial remedies to GCRPC, for each event in which service levels, i.e., quality of service and availability, are not maintained.

6.8 NETWORK MANAGEMENT TOOLS

Proposers must specify in detail, all network management options made available to GCRPC.

6.8.1 Remote Access Security

Proposers must identify authentication, authorization, and accounting (AAA) access list for remote management.

6.8.2 Identity and Access Management IdAM

Proposers must identify uniform process for establishing user identification and access control.

6.8.3 Configuration Management Database

Proposers must specify their configuration management database and their standards for maintenance of the database.

6.8.4 Incident Management System

The incident management system must log all support requests from users and those automatically generated.

6.8.5 Performance Monitoring

6.8.5.1 Customer Based Monitoring

GCRPC must be provided options for 24x7x365 monitoring (view only) of the providers' nodes and routes that affect the customers IP network. It is highly preferable for this system to accommodate direct inquiries and/or trouble ticket management for the network.

6.8.5.2 Performance Monitoring Capacity

The network monitoring system must be capable of maintaining a minimum of one year of performance reports regarding packet loss, packet delay, IP Delay Variation (Jitter). Reports must be provided monthly which detail each request. The report must include the following information.

- Date/Time
- Requestor
- Time to respond
- Responder
- Summary of problem reported
- Summary of problem found
- Solution provided
- Time to resolve
- Preventive steps recommended, if any

6.8.6 Change Management Procedures

Proposers must outline a detailed change management process which follows the ITIL Standards. Proposers must include FCAPS (fault, configuration, accounting performance, and security).

6.8.7 Configuration Management Procedures

Proposers must outline a detailed configuration management process.

6.8.8 Network Logging

The IP network must allow historical tracking of events and event resolution. It is preferable that this system be a part of or interfaced (or contain cross-reference abilities) with the Proposer's trouble ticketing system.

6.9 OTHER NETWORK SUPPORT

6.9.1 Support Contracts

Proposers must identify and specify support contracts for the life of purchase of the contract.

6.9.2 Support Maintenance

Proposers must identify and specify fully managed 24 X 7 maintenance support for the life of contract.

6.9.3 Access to Technical Staff

Proposers must detail the procedures by which selected technical personnel from GCRPC have access to the successful Proposer's technical staff. Proposers must specify the level of assistance expected to GCRPC to resolve issues.

6.9.4 Escalation Procedure

Proposers must outline a detailed escalation process to be used during service-affecting and critical service outages. It is preferable that these procedures be maintained and accessible via an online portal.

6.10 NETWORK MANAGEMENT

6.10.1 Network Operations Center/Security Operations Center (NOC/SOC)

Proposers must describe their NOC/SOC solution. Proposers must include the specific network elements that will be monitored through the NOC/SOC. The Proposer must be equipped with a network operation center (NOC) staffed to support 24x7 restoral or mitigation of incidents. The Proposer must provide a 24x7 toll free number accessible to all GCRPC personnel determined by GCRPC

GCRPC will require pricing for a fully-managed IP network to meet public safety best practices. Even though this initially is not going to be an ESInet, the network should be designed so that transition to an ESInet will not require replacement of all network related customer premise equipment, (CPE), such as routers and switches. GCRPC will rely on this network for public safety; consequently, network outages and poor network performance will directly affect the ability of first responders to react to an emergency situation. The monitoring of the network and associated reporting must encompass these areas:

6.10.1.1 Network Performance Management

Performance management will measure the variables that affect network performance. The GCRPC and PSAPs will require a reactive performance monitoring system with user-defined thresholds that meet the service levels defined. Network performance reports describing corrective action when thresholds are not met should be required on a monthly basis.

Network performance management data access is required from all manageable IP devices. Network performance management and reports should be priced as a required option. All network hardware must support the SNMPv3 specification for performance management via standard management information base (MIB) objects forwarded to or extracted by any GCRPC designee.

6.10.1.2 Network Configuration Management

Configuration management will monitor the IP network configuration. Changes in configuration can cause network outage situations and poor network performance. The configuration management process should store copies of the various hardware and software configurations in place and track network-affecting changes.

6.10.1.3 Configuration Restoration

If changes adversely impact public safety grade standards, then the provider must initiate immediate corrective action and restore the previous working configurations.

6.10.1.4 Fault Management

Fault management will detect, log, and notify the GCRPC staff of the IP network problems. If the failure immediately corrects itself, notification is not required, but the event should be logged and reported.

6.10.1.5 Root Cause Analysis (RCA)

For major outages, the network provider should provide GCRPC staff with a RCA within five business days, or sooner; and for minor outages will provide an RCA upon request.

6.10.1.6 Security Management

Proposers should have intimate knowledge of industry security best practices standards.

The Proposer's security management solution must control access to network resources according to public safety network security guidelines to prevent sabotage (intentional or unintentional) and the compromise of sensitive information. Security management must use public safety network security standards to monitor users logging into the network resources and refuse access to those who enter inappropriate access codes. The proposed IP-enabled network should support standard security policies that may include the use of anti-virus software, VLANs, VPNs, and secure sockets layer protocols.

6.10.1.7 Preventative Maintenance

The Proposer should include preventative maintenance activities that will be included as part of a maintenance contract. This should address how preventative maintenance is handled, as well as the frequency of preventative maintenance activities. The provider should use support logs to drive the development of solutions to recurring issues and follow industry best practices.

6.10.1.8 Scheduled Maintenance

Any maintenance by Proposer, including upgrades to the network, must be coordinated in advance with GCRPC and conducted in a manner that does not interrupt operations.

6.10.2 Security

Security is a critical component of the GCRPC solution.

6.10.2.1 Proposers should explain how the proposed solution provides security management must control access to network resources according to public safety network security guidelines to prevent sabotage (intentional or unintentional) and prevents the compromise of sensitive information.

6.10.2.2 Proposers should explain how the proposed solution provides for using public safety network security standards to monitor users logging into the network resources and refuse access to those who enter inappropriate access codes.

6.10.2.3 *Proposers should explain how the proposed IP-Enabled network supports standard security policies that may include the use of anti-virus software, VLANs, VPN's and secure sockets layer protocols.*

6.10.2.4 *Proposers must explain their implementation in the proposed solution of security mechanisms, including the following:*

- Antivirus software
- Patch management
- Firewalls
- Security policies
- NG-SEC audits
- Any other security mechanisms included in the proposed solution.

6.10.2.5 *Proposers must provide explanations of any plans in the proposed solution for compliance to security standards, including security audits/*

6.11 IP ADDRESSING

IP maintains interoperability across GCRPC and all PSAPs, allowing for the use of IPv4 and IPv6 addressing schemes throughout the IP network. Less than 15 percent of the IPv4 address space remains. Proposers are expected to deploy with IPv4, but be compatible with the IPv6 address space.

6.12 TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS)

Secondary TVSS must be installed in addition to primary protection, typically on facilities such as punch down blocks or via plug-in modules, and are used to protect the equipment from voltages that may have been introduced into the sites from utility facilities.

Secondary TVSS devices must protect all incoming and outgoing equipped ports that are, or could be connected to wireline or wireless facilities, including Central Office (CO) Plain Old Telephone Service (POTS), 9-1-1 trunks, T1/DS1 facilities, Ethernet, GCRPC-owned CPE and GCRPC-owned facilities.

Proposers must include an installation kit including all ground bars and ground wiring for installation.

The secondary TVSS devices must list a clamping voltage of 250 volts (.5kV) or less and operate in < 10 nanoseconds. The device must meet UL497A requirements and must have an operational indicator in the form of a light signal to alert maintenance personnel that the device has been utilized, failed, or the circuit is no longer protected. The secondary TVSS must not degrade the audio signaling and must have a minimum of one year manufacturer's warranty. An example product might be UltraLinx UP3P, 66 Block protection.

The purpose of TVSS is to provide as much protection for the GCRPC network as possible. That being said, alternatives for providing TVSS will be considered. Proposers will need to provide justification for their recommendation.

6.13 SPARES

Proposers should provide explanation of their strategy to provide local spare kits to reduce restoral time in the event of hardware failure.

6.14 NEW ORIGINAL EQUIPMENT MANUFACTURER (OEM)

Only new equipment will be considered. Refurbished or used equipment must not be considered as part of the proposed solution. GCRPC requires that proposed hardware be in current manufacture. If a proposed device goes into end-of-life within the contract period, its equivalent or better current manufacture must be installed. Proposers must include the life cycle of the proposed solution or equipment.

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