REQUEST FOR PROPOSALS

For An

IP Telephony System

March 23, 2012

GREENVILLE UTILITIES COMMISSION

401 South Greene Street

Greenville, NC 27834

NOTE: All inquiries regarding this RFP

Are to be directed to

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1 Introduction & General Information

1.1 Purpose

The purpose of this Request for Proposal (RFP) is to invite prospective vendors to submit a proposal to supply an IP Telephony System (IPTS) solution including call center functionality to Greenville Utilities Commission, hereafter referred to as **GUC**. The RFP provides vendors with the relevant operational, performance, and architectural requirements of the system.

1.2 Coverage & Participation

The intended coverage of this RFP, and any agreement resulting from this solicitation, shall be for the use of all departments at GUC. GUC reserves the right to add and/or delete elements, or to change any element of the coverage and participation at any time without prior notification and without any liability or obligation of any kind or amount.

1.3 Original RFP Document

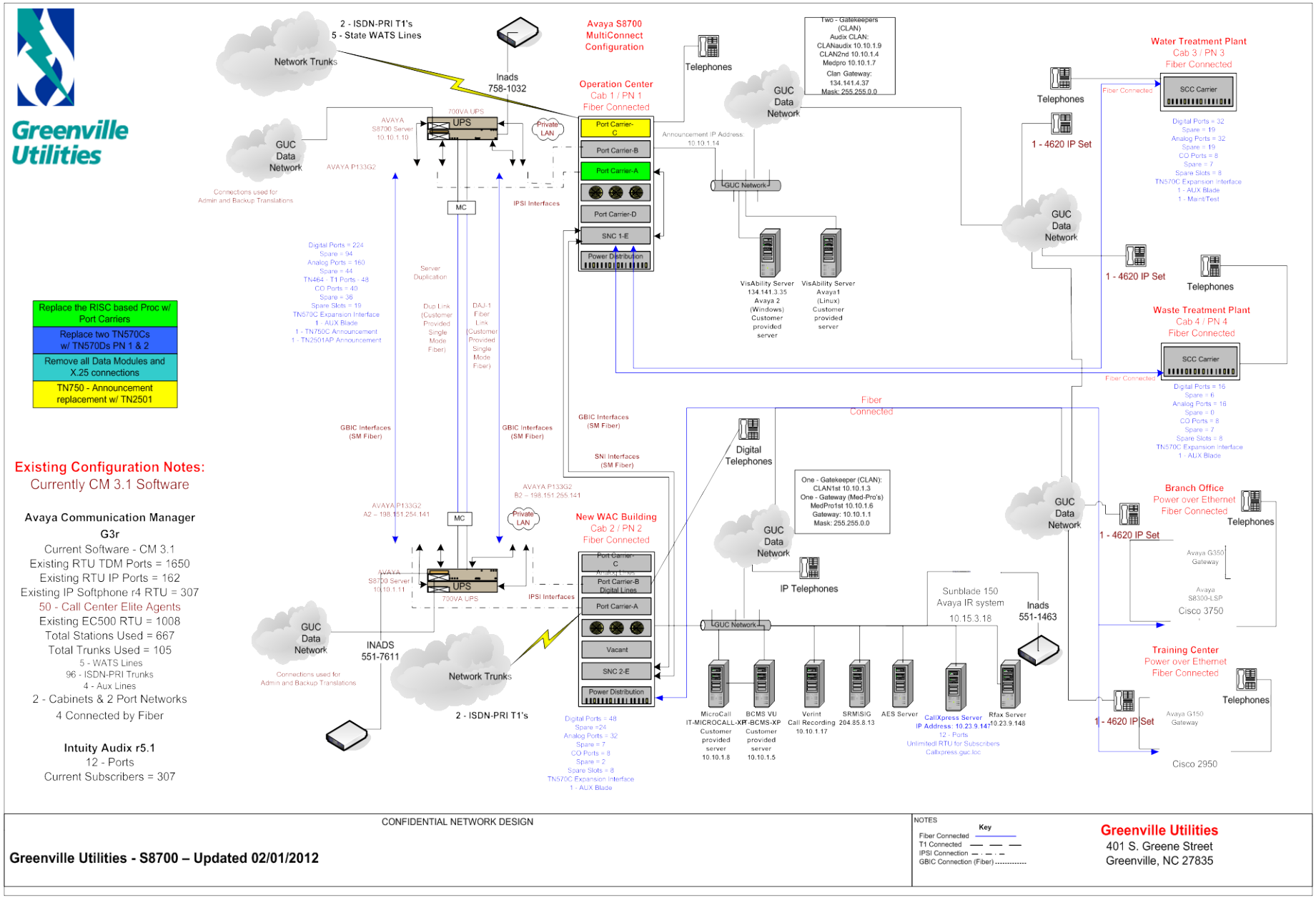
GUC shall retain the RFP, and all related terms and conditions, exhibits and other attachments, in original form in an archival copy. Any modification of these, in the vendor's submission, is grounds for immediate disqualification.

1.4 About Greenville Utilities Commission

GUC provides electric, water, sewer and natural gas services to the City of Greenville and 75% of Pitt County, N.C. GUC serves a combined total of nearly 147,400 customer connections. In addition, GUC provides billing and collection for other municipal entities. GUC is a municipally-owned utility and operates under a separate charter issued by the N.C. General Assembly.

GUC is guided and managed by an eight-member Board of Commissioners. The Board is responsible for approving rates, strategic plans, the annual budget and setting operating and extension policies. Policies are implemented by the General Manager. The City Manager serves as a full voting member of the Board. Five other Board members are nominated by the City Council and two are nominated by the County Commissioners. All Board members are approved by the City Council.

1.5 Existing Telecom Environment



2 Scope of Work, Specifications & Requirements

The scope of work, specifications, and technical requirements for the proposed IP Telephony System (ITPS) solution is below.

2.1 System Overview

GUC plans to install a new IP Telephony System (IPTS) at its main office with a secondary system at its Operations Center where copper and PRI lines at each location will continue to be used.

Distributed IPTS common control equipment must be installed in the Main Office Datacenter and at the Operations Center Datacenter. All proposed call telephony servers must independently support all generic software features for the proposed IPTS as required in Section 6 of this RFP. It is mandatory that a single system image for the IPTS solution be proposed that satisfies the requirements listed later in this section of the RFP.

The proposed IPTS must support approximately 550 stations distributed throughout multiple locations with the bulk located at Operations Center and Main Office. Please review the diagram in Section 1.5 for details on current configuration. Anticipated GUC expansion plans will require the proposed IPTS be capable of supporting growth of all call processing and port capacity parameters at either facility. The proposed IPTS must support this growth requirement without replacement of any installed hardware or generic software (excluding new release versions).

GUC has a LAN/WAN cabling and a transport infrastructure that will fully satisfy the stringent requirements of IP Telephony communications for all intra-premises and inter-premises call control and voice communications transmissions. GUC is equipped with a 1-Gbps Ethernet backbone (minimum) including owned and dedicated fiber between locations. The local wiring closets are a mix of PoE and non-PoE switches ranging from 10/100 to 10/100/1000 depending on location. We are also working on upgrades to the network switches to all PoE over the next 3 years, including an upgrade to 10 Gbps backbone. All Ethernet switches and IP routers, if used, will be equipped and programmed to satisfy QoS and security standards to support voice communications quality acceptable to GUC. Pertinent bandwidth, latency, packet loss, and echo issues will be addressed by the LAN/WAN design and implementation. All of the DMARK locations are in the datacenters or in close proximity to current gateways for remote locations. There is a mixture of PRI T1 and analog connections at these locations from our local provider.

Each station user's work area will be supported by at least a single Cat5 to the local wiring closet. The RJ-45 connectors will be either wall mounted or mounted in the modular furniture throughout the office environment. NOTE: The proposed IPTS will be required to support a number of non-IP stations, e.g., analog telephones and modems. The proposed

system may use circuit switched port carriers, LAN-connected media gateways, or some combination to support IPTS desktop analog communications and PSTN connectivity requirements.

Vendor Response Requirement:

Based on the RFP requirements, prepare a simple network diagram that illustrates the proposed IPTS design. Include in the diagram the brand name/model of the IPTSs, circuit switched port carrier/media gateway equipment, the brand/name of the IPTS systems management and messaging system. The diagram must be in the submission.

2.2 LAN/WAN Requirements

GUC currently uses Cisco for its LAN/WAN communications equipment.

Vendor Response Requirement:

Indicate if the proposed IPTS solution requires manufacturer-specific LAN/WAN communications equipment to support any or all of the following voice communications operations or functions: call processing, port interface, network switching and routing, PoE, media gateway, QoS and security. Identify make/models of manufacturer-specific equipment if required.

2.3 Single System Image

The proposed IPTS must provide a Single System Image across GUC to all system subscribers and administrators. The Single System Image must include, but not be limited to, the following:

- 4 digit dialing between all station users;
- Virtually 100% transparent operation across all GUC facilities of station and system features (see RFP Section 6: Call Processing Features);
- Main facility-housed systems management server(s) utilizing a single unified database for all station user profiles, equipped system design, and system-level operations;
- Automatic alternative routing across the network for all voice calls (station-to-station and PSTN trunk connections).
- 4 digit dialing integration to external organization (City of Greenville) that has a Nortel phone system.

Vendor Response Requirement:

- Is the proposed IPTS network solution a true single system solution or multiple systems intelligently networked?
- Does the proposed IPTS network solution fully satisfy all five (5) of the stated Single System Image requirements? If not, identify and explain which of the requirements are not fully satisfied?

2.4 Enhanced 911 (E911) Services Support

It is mandatory that the proposed IPTS support E911 services provided by a public safety answering point (PSAP) as defined by FCC regulations.

All GUC IPTS station user E911 calls must be directed to their local PSAP for call handling and response regardless of location. If more than one E911 solution is available for the proposed IPTS network configuration clearly specify the solution that is included in the price proposal. GUC requires the PSAP location for each station to be at the campus or building at a minimum.

Vendor Response Requirement:

Confirm that the proposed communications system solution supports E911 service for all user stations (IP and analog). Also, briefly explain how E911 service requirements are supported, specifically addressing each of the following questions:

- A description of any optional hardware/software equipment, including peripheral servers. [Note: Include the price of all required equipment, including servers, in the pricing proposal]
- How are station user moves/adds/changes reported to the PSAP?
- What degree of specificity station user location is identified to the E911 PSAP? Building, local switch room, work floor, Desktop work area, other?

2.5 E911 and Station Moves

Station user moves behind the proposed IPTS solution should be tracked dynamically in real time for E911 services support.

Vendor Response Requirement:

Indicate if the proposed E911 solution satisfies this requirement and indicate how often the local and PSAP databases are updated.

2.6 Proposed IPTS

Vendor Response Requirement:

Provide the following information regarding your proposed IPTS as details are requested in following sections:

- Product and model name(s) for components within the IPTS solution
- Software release for each product/model proposed
- Product/model commercial availability dates

2.7 IPTS Design Platform

The proposed system solution may be based on either of the following two architecture system designs:

- Converged TDM/IP: call telephony servers supporting LAN/WAN distributed circuit switched port interface cabinets with integrated media gateway interfaces for IP port connectivity
- Client/server: call telephony servers supporting LAN-connected media gateway equipment for non-IP port connectivity

Vendor Response Requirement:

Briefly describe the system architecture and design elements of the proposed IPTS solution. Include in your system description basic information about the following common equipment hardware elements:

- Architecture design: (converged or client/server)
- Call telephony servers and associated common control equipment
- Circuit switched port carrier/interface equipment, if applicable
- LAN-connected media gateways (server-embedded, standalone, switch/router-equipped, desktop), if applicable

2.8 Common Control

There are several mandatory common control requirements.

2.8.1 Common Control Housing

GUC requires that all IPTS host common control elements be fully embedded in compact housing with internal interfaces to media gateways, non-IP port circuit interfaces, and service circuit boards. Call control signaling to/from all IP endpoints must be supported through an integrated Ethernet LAN uplink connector, e.g., RJ-45. The cost benefits of this fully integrated design are reduced hardware, power, and system footprint requirements.

2.8.1.1. Datacenter - Host Common Control

Vendor Response Requirement:

Briefly describe the hardware housing for all datacenter facility-located common control elements (call processing, signaling, et al), specifically including size (H x L x W), weight (standard common assembly), fan cooling units, and all embedded hardware components for both main office and operations locations. Include in the response technical information for main facility-located host common control.

2.8.1.2. Cabling Requirements

GUC currently has at least Cat5 to the desktops and Cat5e in the datacenters with DMARKs in the data center with multiple types of connections into a Multi-Carrier cabinet that is expected to be removed.

Vendor Response Requirement:

Briefly describe any cabling requirements necessary for your proposed solution.

2.8.1.3. Common Control Redundancy

The IPTS common control must be based on a fully redundant duplicated design. Redundant components may be provisioned as active/passive or load sharing with seamless switchover operation between control elements in case of errors or failure. All active calls and programmed feature states must be preserved during the switchover process.

Vendor Response Requirement:

Confirm that the proposed IPTS common control fully satisfies the requirement for a fully redundant duplicated design and identify if it is based on an active/passive or load sharing (pooled) design. In your response confirm which of the following elements are provisioned in fully redundant mode and specify the design option (active/passive, load sharing, pooled resources, et al.):

- Primary call processor
- Main facility system memory
- Customer database memory
- RJ-45 Ethernet uplinks to network
- Power supply
- Tone generators
- Call classifiers
- Registers
- DTMAIN FACILITY receivers
- I/O interfaces

2.8.1.4. Call Processing

GUC requires the proposed IPTS handle a minimum of 900 Busy Hour Call Completions (BHCCs) in its proposed system design and fully equipped configuration and allows for expandability.

Vendor Response Requirement:

Confirm that the proposed IPTS fully satisfies the requirement of handling minimum of 900 BHCCs and define the maximum BHCCs allowed with your proposed solution.

2.8.1.5. Power Safeguards

GUC has UPS and generator protection that supplies power and protection with each of the two datacenters. There is additional capacity available to support the addition of multiple systems.

Vendor Response Requirement:

Describe any power failure safeguards that are included in the IPTS design. Briefly describe what happens to system operation during a power failure and if the IPTS requires its own UPS or if the data center UPS currently at GUC will be sufficient.

2.8.1.6. Ethernet Call Control Signaling Links

Vendor Response Requirement:

Identify the number of available and configured RJ-45 Ethernet LAN uplink interfaces for call control signaling to LAN-connected cabinets/carriers and/or standalone ports for each active and standby call telephony server. Include a brief description of how the physical Ethernet connection is provided: dedicated circuit board; daughterboard; fully integrated RJ-45 connector, et al.

2.9 Network Failover Resiliency

GUC desires that the proposed IPTS support network failover resiliency to a comparable IPTS located at the secondary facility in the unlikely event the redundant main facility - common control (primary active/active or active/passive) becomes nonfunctional for any reason. Network failover resiliency requires that all IPTS station users and port carrier/media gateway equipment can automatically re-register to a designated back-up IPTS if so programmed.

Vendor Response Requirement:

Respond to each of the following:

- Can the proposed IPTS solution support network failover resiliency to another back-up IPTS?
- If yes, briefly describe the failover process including the time required before full telephony services are available to re-registered station users.
- Can there be more than one designated back-up IPTS?

2.10 Session Initiated Protocol (SIP)

GUC requires that the proposed IPTS support SIP-compatible stations and trunk networking.

Vendor Response Requirement:

Respond to each of the following:

- Is the proposed IPTS solution based on a native-SIP design or is optional hardware/software required? Indicate if optional equipment is required to support SIP communications protocol specifications.

- Can the proposed IPTS support SIP-compliant desktop telephone instruments?
- Can the proposed IPTS support SIP trunk services? Indicate if optional SIP proxy gateways are required?
- Can the proposed IPTS support SIP-enabled applications, such as Internet conferencing, telephony services and features, presence, events notification and instant messaging? Indicate if optional server equipment is required.

2.11 Security

GUC requires a secure IPTS network solution to optimize system performance and reduce the probability of toll fraud, restricted calls, and illegal system and network access.

2.11.1 Unauthorized System Access

The proposed IPTS solution should be secure against unauthorized system access. The following system design and configuration guidelines should be followed:

- All unnecessary ports, such as telnet, SNMP, etc. will be closed by default.
- The software running will not contain any known vulnerabilities.
- Administrative interfaces will not be configured with known default passwords.
- Default community strings for SNMP will not be used. SNMP version 3 will be supported.
- The switch network will support security features such as VLANs, Network Admission Control (NAC), and other features.
- Key components, such as the call processor, media gateway, or associated servers/cards will have built in host-based intrusion prevention systems.

Vendor Response Requirement:

Confirm that the proposed IPTS solution satisfies each of the above listed security attributes. Briefly describe authentication processes embedded in the proposed IPTS solution to prevent unauthorized access to common control elements, data resources; and abuse of telephony services, e.g., toll fraud.

2.11.2 Unauthorized Network Access

The proposed IPTS solution should be secure against unauthorized network access.

Vendor Response Requirement:

Briefly describe call type detection and prevention processes embedded in the proposed IPTS solution to identify and prevent:

- Unmonitored and non-secured Internet sessions by employees calling private Internet Service Providers accounts using modems connected to corporate phone lines.
- Unlawful data network access by outsiders penetrating through modem-enabled corporate phone lines connected to LAN/WAN accessible workstations and other equipment.

2.11.3 Disruption of Services (DoS)

The proposed IPTS solution should be secure against disruption of services. At a minimum, the vendor will:

- Provide built-in DoS resiliency for all components processing signaling and audio.
- Provide embedded or compatible third party firewalls, IDS/IPS systems, or anti-DoS systems available.
- Support DoS detection and mitigation capabilities in network switches.
- Provide a solution for malformed or “fuzzed” packets.
- Provide protection for key supporting infrastructure services, such as TFTP, DHCP, DNS, etc. will be provided.

Vendor Response Requirement:

Briefly describe any embedded features/functions in the proposed IPTS solution that will reduce probability of telephony services disruption due to Denial-of-Service (DoS) attacks and address each of the above listed items in your response.

2.11.4 Theft of Services

Vendor Response Requirement:

Briefly describe any embedded features/functions in the proposed IPTS solution that will identify the incidence of toll fraud and other types of Long Distance toll service

abuse/misuse (e.g. LD voice calls on fax lines) in real-time, and alert and/or block such activity to reduce financial losses.

2.11.5 Restricted Calls

Vendor Response Requirement:

Briefly describe any embedded features/functions in the proposed IPTS that will identify telephony/fax spam, harassing calls, and other types of restricted calls (e.g. bomb threats, threatening calls, calls to/from restricted numbers) in real-time, and alert and/or block such activity to reduce damages and legal exposure.

2.11.6 Confidentiality and Privacy (Packet Sniffing)

The proposed IPTS solution should provide for a high degree of confidentiality and privacy, including:

- Support for standards such as IPSec, TLS, and SRTP.
- Encryption for all public (to the LAN) traffic must be supported. This includes traffic exchanged between the call processor and media gateway.

Vendor Response Requirement:

Briefly described any embedded features/functions in the proposed IPTS that will preserve communications confidentiality and privacy, including the standards listed above. Indicate if control signaling and/or bearer communications signaling is encrypted at the call control, voice client, and media gateway elements to counter packet sniffing attempts:

2.11.7 Physical Interfaces

Vendor Response Requirement:

Are there separate physical network interfaces to IPTS administration, control, and voice transmission signaling functions?

2.11.8 Root Access

Vendor Response Requirement:

Is there direct Root access to the IPTS common control, and does the proposed IPTS solution conform to the following design attributes:

- Disablement of non-secure management interfaces such as telnet by default.
- No installation of any default administrative or root passwords.
- Logging of all activity for administrative or root access.

2.11.9 Miscellaneous Security Requirements

Vendor Response Requirement:

The proposed IPTS solution should provide the following general security features:

- A patch management process and system must be available.
- A secure alternative to TFTP (whose files can easily be sniffed) must be provided.
- Support of TCP and authentication should be provided if SIP is supported.
- Firmware loads for IPTS phones will be signed to insure authenticity.

3 IPTS Network Port Capacity Requirements

The proposed IPTS must be capable of supporting port capacity requirements at the multiple facilities GUC occupies.

3.1 Port Capacity Requirements

The equipped port capacity of the proposed GUC telephony system at time of installation and cut-over must support a mix of IP phones, analog phones, facsimile terminals, modems, trunk circuits (analog and digital) for local and long distance services, and private network IP trunk circuits.

In support of general communications requirements, GUC's facilities have sufficient number of wiring closets distributed throughout the facilities to satisfy cabling specifications for voice and data communications. The entrance facilities (trunk connect panels) are in the Main Office and Operations Datacenters.

The following sections describe port capacity requirements for each of the GUC network locations. Satisfying these stated port capacity requirements is a MANDATORY requirement. Any additional trunk services necessary to support the proposed IPTS such as local survivability requirements must be identified, configured, and included in the pricing proposal. Necessary common equipment must be included in the system configuration and pricing proposals and identified as such.

3.1.1 Main Facility Station/Trunk Port Requirements

Station Equipment

- Analog devices (GUC provided): 30
  - 2500-type telephone instruments: 0
  - Modems: 19
  - Facsimile terminals: 11
- IP terminals (See Section 4) **108**
  - Economy 6
  - Desktop instrument 81
  - Desktop instrument with Expansion module 16
  - Wireless/Cordless instrument 2
  - Audio conferencing units - wireless 3

Trunk Circuits

- Local Service
  - Copper circuits 2
  - T1-carrier (PRI) circuits 2
- Long Distance & Inbound ACD
  - Provided by local carrier

3.1.2 Operations Campus Station/Trunk Port Requirements

Station Equipment

- Analog devices (GUC provided): 3**7**
  - 2500-type telephone instruments: 0
  - Modems: 26
  - Facsimile terminals: 11
- IP terminals (See Section 4) 212
  - Economy 11
  - Desktop instrument 149
  - Desktop instrument with Expansion Module 40

- Wireless/Cordless instrument 8
- Audio conferencing units - wireless 4

Trunk Circuits

- Local Service
  - Copper circuits 6
  - T1-carrier (PRI) circuits 2
- Long Distance & Inbound ACD
  - Provided by local carrier

3.1.3 Water Treatment Campus Station/Trunk Port Requirements

Station Equipment

- Analog devices (GUC provided): **16**
  - 2500-type telephone instruments: 8
  - Modems: 6
  - Facsimile terminals: 2
- IP terminals (See Section 4) **34**
  - Economy instrument 6
  - Desktop instrument 26
  - Desktop instrument with Expansion Module 8
  - Wireless/Cordless instrument 2
  - Audio conferencing units - wireless 2

Trunk Circuits

- Local Service
  - Copper circuits 2
  - T1-carrier (PRI) circuits 0
- Long Distance & Inbound ACD
  - Provided by local carrier

3.1.4 Waste Water Treatment Campus Station/Trunk Port Requirements

Station Equipment

- Analog devices (GUC provided): **10**
  - 2500-type telephone instruments: 4
  - Modems: 5

- Facsimile terminals: 1
- IP terminals (See Section 4) **14**
  - Economy instrument 8
  - Desktop instrument with Expansion Module 2
  - Wireless/Cordless instrument 3
  - Audio conferencing units - wireless 1

Trunk Circuits

- Local Service
  - Copper circuits 1
  - T1-carrier (PRI) circuits 0
- Long Distance & Inbound ACD
  - Provided by local carrier

3.1.5 Express Office Facility Station/Trunk Port Requirements

Station Equipment

- Analog devices (GUC provided): **3**
  - 2500-type telephone instruments: 2
  - Modems: 0
  - Facsimile terminals: 1
- IP terminals (See Section 5) **16**
  - Economy instrument 3
  - Desktop instrument 8
  - Desktop instrument with Expansion Module 5
  - Audio conferencing units - wireless 0

Trunk Circuits

- Local Service
  - Copper circuits 2
  - T1-carrier (PRI) circuits 0
- Long Distance & Inbound ACD
  - T1-carrier (PRI) circuits 0

Note: Fed back to Main Office telephone switch via Fiber connection

3.1.6 LNG Facility Station/Trunk Port Requirements

Station Equipment

- Analog devices (GUC provided): **2**
  - 2500-type telephone instruments: 1
  - Modems: 0
  - Facsimile terminals: 1
- IP terminals (See Section 4) 9
  - Economy instrument 0
  - Desktop instrument 8
  - Wireless/Cordless instrument 1
  - Audio conferencing units 0

Trunk Circuits

- Local Service
  - Copper circuits 1
  - T1-carrier (PRI) circuits 0
- Long Distance & Inbound ACD
  - T1-carrier (PRI) circuits 0

3.1.7 Training Facility Station/Trunk Port Requirements

Station Equipment

- Analog devices (GUC provided): **2**
  - 2500-type telephone instruments: 0
  - Modems: 1
  - Facsimile terminals: 1
- IP terminals (See Section 4) **3**
  - Economy instrument 0
  - Desktop instrument 3
  - Desktop instrument with Expansion Module 0
  - Audio conferencing units 0
- Local Service
  - Copper circuits 1
  - T1-carrier (PRI) circuits 0

Note: Fed back to Main Office telephone switch via Fiber connection

Vendor Response Requirement:

Confirm the IPTS will support GUC's configuration based on the detail provided in this section of the RFP and list minimum and maximum ports and circuits supported under your proposal.

4 Port Interface and Traffic Handling Requirements

The proposed IPTS must support a variety of peripheral ports and switched connections. In addition to IP endpoints, it is required to support traditional circuit switched analog stations and analog & digital trunk circuit interfaces. The common equipment (port interface carriers, media gateways) must be supported in a distributed topology using GUC's LAN for transmission and switching of communications and control signaling. Common equipment must be located at Main Office and Operations Data Centers and allow for any future facilities.

Any and all port interface cabinets/carriers designed to support traditional analog and digital interface ports should include an integrated TDM bus backplane traffic engineered to eliminate punch down block connectivity for network access for all peripheral endpoint connections. Transmission and connections between all TDM buses must also be traffic engineered to operate in non-blocking mode. A center stage switch network, if equipped, must also be traffic engineered for non-blocking access.

Media gateway equipment should be designed and configured to support a minimum of a 4:1 ratio between IP peripheral endpoints (line station and trunk circuit) and media gateway channels used to connect to non-IP ports.

4.1 Common Equipment

The proposed IPTS solution must support a variety of peripheral ports and switched connections. Although it is not required to support traditional digital voice terminal equipment, the IPTS must support analog communications devices and PSTN trunk circuits. Switched connections involving non-IP ports may be handled using a circuit switched network, media gateways/Ethernet switches, or a combination of both.

Vendor Response Requirement:

Briefly identify by make/model the proposed common equipment and describe each type of equipment housing used to support ports, circuit card interfaces, media gateway boards, and other required equipment. Specifically discuss in the response housing size (H x L x W), weight (standard common assembly), fan cooling units, power supply requirements, heat dissipation levels (BTUs), and number of usable port card slots per carrier/chassis.

4.1.1 Universal Card Slots

GUC prefers that the proposed common equipment be based on a universal card slot design for all TDM port interface circuit cards.

Vendor Response Requirement:

Confirm that your proposed system satisfies this requirement.

4.1.2 Common Equipment Redundancy

GUC requires an IPTS that satisfies a very high degree of reliability and services availability. To achieve this goal IPTS common equipment should include a significant number of redundant design elements to minimize the effects of single points of failure.

Vendor Response Requirement:

Confirm if the proposed common equipment includes any or all of the following redundant common equipment elements, and include a brief description of the level or type of redundancy provided for each element.

- Service circuits
- I/O interfaces
- Media gateway boards
- Control signaling interfaces
- TDM bus backplane
- Inter-TDM bus switch network connections
- Center stage switch network (if applicable)
- Internal power supply

4.2 IP Station Discovery

How do IP communications devices learn about their voice VLAN, including IP addresses, default gateways, call controller, TFTP server, QoS settings, VLANs, and other parameters? Does the proposed system solution employ proprietary protocols for IP communications devices to learn their voice VLAN or is an industry standard, such as Dynamic Host Control Protocol (DHCP) used?

Vendor Response Requirement:

Provide how the proposed IPTS solution will learn about the network and the how it will accomplish this task.

4.3 Phone/Radio Integration

GUC requires the system be compatible for integration of four phones into our current C3 Maestro radio system. This is to allow our 24/7 center to communicate on the phone or the radio using a single headset/handset. The radio system is a C3 Maestro system with a Call Director already attached. This system will require the phones support connections for 4 analog lines (2 for transmit and 2 for receive) and one sense line for the radio system connectivity.

Vendor Response Requirement:

Confirm that the proposed IPTS solution supports this integration. Describe what is necessary for this connectivity.

4.4 IP Station Power over Ethernet (PoE)

GUC requires that the power option to support IP telephones conform to IEEE 802.3af Power over Ethernet (PoE) standards.

Vendor Response Requirement:

Confirm that the proposed IPTS solution supports the IEEE 802.3af specification for in-line of IP telephone equipment. Describe current, future and retrospective compatibility of all proposed equipment. If 802.3af is not supported, identify the PoE implementation being proposed.

4.5 IP Station QoS

Vendor Response Requirement:

Describe the proposed IPTS solution's capabilities to provide Layer 2 and Layer 3 QoS to IP stations to ensuring end-to-end quality of service. Include in the response what industry standards are deployed.

4.6 Multi-Party Conference Calls

The proposed system must be able to support a minimum of a six party add-on conference calls among IPTS stations and off-network stations. The system must also support a minimum of three (3) off-network stations per multi-party conference call when required**.** The IPTS must support a minimum of six (6) simultaneous multi-party add-on conference calls with up to six (6) parties per conference.

Vendor Response Requirement:

Briefly explain how multi-party add-on conference calls are handled if:

1) All parties are on-network IP stations.
2) There is a mix of on-network IP and off-network stations.

Additionally, define the max number of parties available per conference call regardless of scenarios above. The explanation should identify any and all hardware and software requirements necessary to support multi-party add-on conference call requirements. Specify if peripheral hardware equipment, e.g., conference bridge servers, is required.

4.7 Public Address System Integration

GUC currently has a PeaVey UMA 150T Public Address system in one remote location that is integrated into the phone system for communications to individuals outside a building.

Vendor Response Requirement:

Confirm that the proposed IPTS solution supports this integration. Describe what is necessary for this connectivity.

4.8 Security Gate Management Integration

GUC has two locations that use phones to control their security gates and answer ‘calls’ from the gate. One is an analog line converted to digital, in some cases, for individuals to answer a ‘call’ or open the security gate from their desks. The other is a new system , , that is designed to ‘talk’ to any PBX solution.

Vendor Response Requirement:

Confirm that the proposed IPTS solution supports this integration. Describe what is necessary for this connectivity.

4.9 Port Interface Circuit Cards

For each of the following port types, provide a brief description of the proposed port interface circuit card(s) and/or media gateway equipment included with the proposed IPTS to support analog, digital, and IP ports. Include in the descriptions below the number of port interface terminations for each port circuit card, and the number of available gateway channels for each media gateway unit.

Vendor Response Requirement:

Supply the requested information.

4.9.1 IP Telephones

This includes desktop instrument and PC client softphones, including IP Audio-conferencing Units

Vendor Response Requirement:

Provide a brief description how all IP telephone types are logically and physically supported by the common control call telephony server. If direct call control signaling via the Ethernet LAN/WAN is not supported identify all intermediary carrier, signaling interface and/or media gateway equipment that is required.

4.9.2 Analog telephones

Vendor Response Requirement:

Provide a brief description how analog telephones are logically and physically supported by the common control call telephony server, identifying all intermediary hardware elements necessary for control signaling transmission. Specify the number of circuit terminations per circuit board/module/media gateway.

4.9.3 Facsimile terminal

Vendor Response Requirement:

Provide a brief description how facsimile terminals are logically and physically supported by the common control call telephony server, identifying all intermediary hardware elements necessary for control signaling transmission. Specify the number of circuit terminations per circuit board/module/media gateway.

4.9.4 Modem

Vendor Response Requirement:

Provide a brief description how modem terminals are logically and physically supported by the common control call telephony server, identifying all intermediary hardware elements necessary for control signaling transmission. Specify the number of circuit terminations per circuit board/module/media gateway.

4.9.5 Power Failure Transfer Station (PFTS)

Vendor Response Requirement:

Provide a brief description how analog telephone instrument Power Failure Transfer Stations (PFTSs) are logically and physically supported by the common control call telephony server, identifying all intermediary hardware elements necessary for control signaling transmission. Specify the number of circuit terminations per circuit board/module/media gateway.

4.9.6 GS/LS CO Trunk

Vendor Response Requirement:

Provide a brief description how GS/LS CO trunk circuits are logically and physically supported by the common control call telephony server, identifying all intermediary hardware elements necessary for control signaling transmission. Specify the number of circuit terminations per circuit board/module/media gateway.

4.9.7 DS1/T-1 Carrier Interface Trunk

Vendor Response Requirement:

Provide brief description how DS1-based T-1 carrier trunk circuits are logically and physically supported by the common control call telephony server, identifying all intermediary hardware elements necessary for control signaling transmission. Specify the number of circuit terminations per circuit board/module/media gateway.

4.9.8 Other Trunk Interfaces

GUC may need, at some future time, additional analog trunk interfaces, specifically Auxiliary, FX, and E&M Tie Line.

Vendor Response Requirement:

Provide a brief description of how additional analog trunk interface requirements can be logically and physically supported by the common control call telephony server, identifying all intermediary hardware elements necessary for control signaling transmission. Specify the number of circuit terminations per circuit board/module/media gateway.

5 Voice Terminal Instruments

The proposed communications system must be able to support a mix of analog and IP communications devices. GUC will provide its own analog telephone instruments, fax terminals, and modems.

5.1 Regulation Requirements

All single- and multi-line IP phones will be manufactured in accordance with Federal Communication Commission hearing aid compatibility technical standards contained in Section 68.316 and the Telecommunication Act of 1996.

Vendor Response Requirement:

Confirm the proposed telephone equipment satisfies these regulation requirements.

5.2 Desktop IP Telephone Instruments

GUC has a requirement for several types of desktop IP telephone instruments:

- Economy
- Desktop

Vendor Response Requirement:

In a separate PPT file attachment, provide a slide illustration (graphic or photograph) of the four proposed desktop IP telephone instruments with models identified. Include in the illustration any add-on modules required to satisfy the individual model requirements.

5.2.1 Economy IP Telephone Instrument

A single line Economy model will be used in common areas. It should have, at minimum, the following design attributes and features/functions:

- 12-key dial pad
- G711, G729 and wideband (G.722 or equivalent) voice codecs
- Auto Self Discovery/DHCP
- Echo Canceller
- QoS Support (802.1p/Q, DiffServ)
- Hold key
- Last Number Redial key
- Release key
- Message Waiting/Call Ringing indicator(s)
- Full Duplex Speakerphone
- Speaker/Mute key
- Volume Control keys/slide
- LDAP access
- Integrated Ethernet switch with two (2) RJ-45 connector interface ports for 10/100 Mbps LAN and desktop PC connectivity
- IEEE 802.af POE support

Vendor Response Requirement:

Confirm that your proposed Economy model fully satisfies each of the stated requirements and provide a brief description of the proposed instrument (including supported communications protocols).

5.2.2 Desktop IP Telephone Instrument

The Professional model will be used by most general GUC staff. It should have, at minimum, the following design attributes and features/functions:

- 12 key dial pad
- Twelve (12) programmable line/feature keys with soft label/status indicators
- Capable of supporting an optional add-on key module (12 line/feature, minimum) with soft label/status indicators
- G711, G729 and wideband (G.722 or equivalent) voice codecs
- Auto Self Discovery/DHCP
- Echo Canceller
- QoS Support (802.1p/Q, DiffServ)
- Embedded Web services support, e.g., XML
- Hold key
- Last Number Redial key
- Release key
- Message Waiting/Call Ringing indicator(s)
- Full Duplex Speakerphone
- Speaker/Mute key
- Volume Control keys/slide
- High resolution, backlit, monochrome grayscale pixel-based, graphical display screen with four (4) associated context sensitive soft feature labels ((key, cursor, or navigator control)
- LDAP access
- Stored Call Data (Last 50 numbers dialed/Last 50 incoming call numbers)
- Integrated Ethernet switch with two (2) RJ-45 connector interface ports for 10/100/1000 Mbps LAN and desktop PC connectivity.
- Bluetooth or USB interface
- IEEE 802.af POE support

Vendor Response Requirement:

Confirm that your proposed model satisfies at the listed minimum requirements. Provide a brief description of the proposed telephone instrument, including all supported communications protocols and the extent that any requirement is not fully satisfied, e.g., soft feature key substituted for fixed feature key requirement.

5.2.3 Desktop IP Telephone Instrument Web Service Functionality

Vendor Response Requirement:

Provide a brief description of embedded Web-browser functionality for the proposed Desktop telephone instrument models. Include the following information in your response:

- Browser protocols (XML, HTML, WAP, et al.) supported
- Station user interaction (touchscreen and/or keypad control cursor control) capabilities;
- Screen saver availability

Standard (not optionally priced) available applications, such as visual mailbox, personal directory/calendar, web page display, visual and/or audio alerts

5.2.4 Desktop Instrument Options and Add-on Modules

Vendor Response Requirement:

Provide a brief description of all hardware/software options and/or add-on modules currently available with the proposed Economy and Desktop models. Options/modules may include key modules, display modules, Bluetooth interface, USB interface, Gigabit Ethernet connectors, et al. necessary to satisfy the above telephone model requirements. Indicate the specific models that support the individual option/module.

5.2.5 SIP Compatibility

It is not required that the proposed desktop IP telephone instruments be programmed to support SIP standards and specifications, e.g., RFC3261, at time of installation and system cutover. It is desirable, however, that each of the five proposed instrument models be capable of SIP support at later time.

Vendor Response Requirement:

Complete the following table to indicate which of the proposed telephone models are native SIP or can be programmed for SIP support when requested by GUC.

Model	Default VoIP Protocol (SIP, H.323, Proprietary, Other)	If SIP is not default protocol, SIP-capable thru firmware download (Y or N)
Economy		
Desktop		

5.3 Teleworker Options

GUC may require a fixed desktop and/or a mobile soft client teleworker options at a future date.

5.3.1 Desktop Teleworker

GUC may require a desktop teleworker option at some future date. An IP desktop telephone instrument should be comparable in function, capabilities, and attributes to the Desktop model IP telephone instrument as described in Section 5.2.2. If required the teleworker instrument should be able to connect to the host communications system via VPN, SRTP or other secure connection mechanism.

Vendor Response Requirement:

Confirm that your proposed communications system can support a teleworker IP desktop telephone instrument that is comparable to the standard level IP telephone instrument model as described above. Provide a brief description of the proposed model, including:

- How the instrument physically and logically connects to the host communications system;
- If a standard Internet connection is supported;
- If the connection requires an external gateway of any type;
- Operational procedures required to log-in and log-out to the host communications system;
- Local power requirements;
- E911 support and calling procedures to the teleworker's local PSAP.

5.3.2 Mobile Teleworker

GUC may require a mobile teleworker option at some future date. At minimum the PC soft phone client should have comparable telephony services capabilities to the Desktop model IP telephone instrument model described in Section 5.2.2, including the capability to function and operate as a SIP client with Microsoft Outlook. Mandatory requirements include: multiple contact directories; LDAP/Active Directory access, detailed call logs (minimum 100 incoming and outgoing calls, respectively); click to dial function; virtual fixed feature and speed dial keys.

Vendor Response Requirement:

Confirm that the proposed softphone solution satisfies the stated requirements and provide a brief product description that includes an illustration/photograph (PPT format, only) that depicts the look and feel of an active call screen display**.**

5.4 IP Audio Conferencing Unit

GUC requires a limited number of desktop audio conferencing units with multidirectional, full duplex wireless speakerphone operation. The unit must be native IP.

Vendor Response Requirement:

Provide a brief description of the proposed IP audio conferencing unit and include as an attachment an illustration or photograph (PPT format, only) of the unit.

5.5 Mobile Extension

GUC requires that the proposal IPTS support mobile extensions for a number of its station users.

5.5.1 Mobile Cellular Extension Option

GUC requires that the proposed communications system solution support a mobile cellular extension option.

- The option should be capable of working with almost any cellular carrier network and supported mobile handsets/PDAs;
- The mobile handset/PDA must be able to receive incoming calls directed to the station user's primary system directory number, and calling party information should be displayed at the mobile handset;
- Calls placed from the mobile handset/PDA to other communications system subscribers must appear to look like calls from the station user's primary desktop voice terminal, including calling party name/ID display;
- Methods available for notification of voicemail on the mobile handset/PDA.
- IPTS system subscribers must be able to program incoming calls to ring simultaneously or sequentially at the desktop instrument and mobile handset/PDA as required;
- Basic IPTS telephony features that should be supported in mobile extension mode, including Hold, Transfer, Conference, and Forward to IPTS voice mail system on no-answer;

- Call detail records must be collected and stored for all mobile extension calls.
- Ability to answer a call on mobile device and continue call on desktop device and vice versa.

At time of system installation GUC requires 125 mobile cellular extension user licenses. Include this requirement in your pricing proposal.

Vendor Response Requirement:

Confirm that your proposed communications system solution supports mobile cellular extension capabilities as listed above, and is included in the system configuration and pricing proposals. Include a brief description of any hardware/software requirements, including peripheral application servers, necessary to support the option and provide a list of standard feature/function capabilities. Also, include any additional features available with your solution that are not listed. In addition, provide the cost for additional licenses in section 12.

5.6 Other IP Telephone Instruments

Vendor Response Requirement:

Include as an attachment a graphical illustration (PPT format, only) of IP telephone instrument models and add-on options not included as part of the proposed required system configuration such as headsets, expansion boards, etc.

6 Call Processing Features

The proposed communications system should have a robust list of call processing features supporting station user and system operations.

6.1 Station User Features

It is required that the proposed communications system support the following list of station user features. Definitions for most listed features may be found in ***PBX Systems for IP Telephony***, written by Allan Sulkin and published by McGraw-Hill Professional.

Table 9 - Station User Features

ADD-ON CONFERENCE (6 party or more)
AUTOMATIC CALLBACK
AUTOMATIC INTERCOM

BRIDGED CALL APPEARANCE
CALL ANSWER GROUP
CALLBACK LAST INTERNAL CALLER
CALL COVERAGE (PROGRAMMED)
INTERNAL & EXTERNAL CALL PROGRAMMING
TIME OF DAY/DAY OF WEEK CALL PROGRAMMING
ANI/DNIS/CLID CALL PROGRAMMING
INTERNAL CALLER ID PROGRAMMING
CALL FORWARDING - ALL CALLS
CALL FORWARDING - BUSY/DON'T ANSWER
CALL FORWARDING - FOLLOW-ME
CALL FORWARDING - OFF-PREMISES
CALL FORWARDING: RINGING
CALL HOLD
CALL PARK
CALL PICKUP - INDIVIDUAL
CALL PICKUP - GROUP
CALL TRANSFER
CALL WAITING
CONSECUTIVE SPEED DIALING
CONSULTATION HOLD
CUSTOMER STATION REARRANGEMENT
DIAL BY NAME
DISCRETE CALL OBSERVING
DISTINCTIVE RINGING
DO NOT DISTURB
ELAPSED CALL TIMER
EMERGENCY ACCESS TO ATTENDANT
EXECUTIVE ACCESS OVERRIDE
EXECUTIVE BUSY OVERRIDE
FACILITY BUSY INDICATION
GROUP LISTENING
HANDS-FREE DIALING
HANDS-FREE ANSWER INTERCOM
HELP INFORMATION ACCESS
HOT LINE
INCOMING CALL DISPLAY
INDIVIDUAL ATTENDANT ACCESS
INTERCOM DIAL
LAST NUMBER REDIALED
LINE LOCKOUT
LOUDSPEAKER PAGING ACCESS
MALICIOUS CALL TRACE
MANUAL INTERCOM
MANUAL ORIGINATING LINE SERVICE
USER CONTROLLED MEET ME CONFERENCING (6-Party or more)
MESSAGE WAITING ACTIVATION

MULTI-PARTY ASSISTED CONFERENCE w/SELECTIVE CALL DROP
MUSIC ON HOLD
OFF-HOOK ALARM
PADLOCK
PAGING/CODE CALL ACCESS
PERSONAL CO LINE (PRIVATE LINE)
PERSONAL SPEED DIALING
PERSONALIZED RINGING
PRIORITY CALLING
PRIVACY - ATTENDANT LOCKOUT
PRIVACY - MANUAL EXCLUSION
RECALL SIGNALING
RINGER CUT-OFF
RINGING TONE CONTROL
SAVE AND REDIAL
SECONDARY EXTENSION FEATURE ACTIVATION
SEND ALL CALLS
SILENT MONITORING
STEP CALL
STORE/REDIAL
SUPERVISOR/ASSISTANT CALLING
SUPERVISOR/ASSISTANT SPEED DIAL
TEXT MESSAGES
TIMED QUEUE
TRUNK FLASH
TRUNK-TO-TRUNK CONNECTIONS

Vendor Response Requirement:

Confirm that the proposed IPTS supports each of the above listed station user features. Identify any and all features that are not included as part of the standard call processing software generic package. Also identify optional hardware/software, e.g., CTI application server, to satisfy a listed feature, because it is not included as part of the standard generic software package.

6.2 Additional Station User Features

Vendor Response Requirement:

Provide, as an attachment, a listing of proposed standard generic software station user features that are not included in "**Table 9 - Station User Features"** above that GUC may find of use and benefit**.**

6.3 System Features

It is required that the proposed communications system support the following list of system features. Definitions for most listed features may be found in ***PBX Systems for IP Telephony***, written by Allan Sulkin and published by McGraw-Hill Professional.

Table 10 - System Features

ACCOUNT CODES
ADMINISTERED CONNECTIONS
ANSWER DETECTION
AUTHORIZATION CODES
AUTOMATED ATTTENDANT
AUTOMATIC CALL DISTRIBUTION
AUTOMATIC ALTERNATE ROUTING
AUTOMATIC CAMP-ON
AUTOMATIC CIRCUIT ASSURANCE
AUTOMATIC NUMBER ID
AUTOMATIC RECALL
AUTOMATIC ROUTE SELECTION - BASIC
AUTOMATIC TRANSMISSION MEASUREMENT SYSTEM
CALL-BY-CALL SERVICE SELECTION
CALL DETAIL RECORDING
CALL LOG
CENTRALIZED ATTENDANT SERVICE
CLASSES OF RESTRICTION (SPECIFY #)
CLASSES OF SERVICE (SPECIFY #)
CODE CALLING ACCESS
CONTROLLED PRIVATE CALLS
DELAYED RINGING
DIAL PLAN
DIALED NUMBER ID SERVICE
DIRECT DEPARTMENT CALLING
DIRECT INWARD DIALING
DID CALL WAITING
DIRECT INWARD SYSTEM ACCESS
DIRECT INWARD TERMINATION
DIRECT OUTWARD DIALING
E-911 SERVICE SUPPORT
EXTENDED TRUNK ACCESS
FACILITY RESTRICTION LEVELS
FACILITY TEST CALLS FIND ME- FOLLOW ME
FORCED ENTRY ACCOUNT CODES
HOTELING (/PERSONAL ROAMING)
HOUSE PHONE
HUNTING
INTEGRATED SYSTEM DIRECTORY

LEAST COST ROUTING (Tariff-based, TOD/DOW)
MULTIPLE LISTED DIRECTORY NUMBERS
MUSIC ON HOLD
NIGHT SERVICE –FIXED
NIGHT SERVICE - PROGRAMMABLE
OFF-HOOK ALARM
OFF-PREMISES STATION (OPX)
OPEN SYSTEM SPEED DIAL
PASSWORD AGING
POWER FAILURE TRANSFER STATION
RECENT CHANGE HISTORY
RESTRICTION FEATURES:
CONTROLLED
FULLY RESTRICTED
INWARD/OUTWARD
MISCELLANEOUS TERMINAL
MISCELLANEOUS TRUNK
TOLL/CODE
TRUNK
VOICE TERMINAL (IN/OUT)
ROUTE ADVANCE
SECURITY VIOLATION NOTIFICATION
SHARED TENANT SERVICE
SNMP SUPPORT
SYSTEM SPEED DIAL
SYSTEM STATUS REPORT
TIME OF DAY ROUTING
TIMED REMINDER
TRUNK ANSWER ANY STATION
TRUNK CALLBACK QUEUING
UNIFORM CALL DISTRIBUTION
UNIFORM DIAL PLAN
VIRTUAL EXTENSION
VOICE MESSAGE SYSTEM INTERFACE

Vendor Response Requirement:

Confirm that the proposed IPTS supports each of the above listed system features. Identify any and all features that are not included as part of the standard call processing software generic package. Also identify optional hardware/software, e.g., CTI application server, to satisfy a listed feature, because it is not included as part of the standard generic software package.

6.4 Additional System Features

Vendor Response Requirement:

Provide as an attachment a listing of proposed standard generic software system features that are not included in "**Table 10 - System Features"** that GUC may find of use and benefit.

7 Systems Management

The proposed communications system must be administered, monitored, and maintained through operations organized into five functional areas: Fault, Configuration, Accounting, Performance and Security (FCAPS). All of the systems and devices in your proposed solution should attempt to provide comprehensive operations in each area.

Operations for each area must be accessible through one interface regardless of the underlying system or device being managed. If a proxy server is used for intermediate operations, there must be at most one central database for each functional area. Systems or devices may be accessed individually if no proxy server is used.

EXCEPTION: Optional call center solutions may provide its own set of management operations separate from the general enterprise communications solution.

Any supplied management applications must support decentralized access from any distributed PC client across the LAN infrastructure and remote dial-up PC clients. It is also desirable for the applications to support a browser based user interface for intensive remote operations.

Any supplied management applications may integrate information from the five functional areas at the presentation level.

Vendor Response Requirement:

Confirm and verify that each functional area required to manage the proposed IPTS network is supported by a single, centrally located proxy server or, alternatively, each system or device supports a single API for a given functional area. Provide a brief description of the proposed management system, including its major hardware and software components. Specify if the proposed systems management server and software is available as a bundled offering, only, or if GUC is responsible for providing its own physical hardware or isolated virtual environment to operate the software. If third party technology is used, please indicate which components are managing your solution in a vendor agnostic fashion.

7.1 System/Port Capacity

Vendor Response Requirement:

Identify the maximum number of independent IPTS communications systems that can be supported by the proposed systems management server, and the maximum number of user ports that can be passively and actively supported.

7.2 Terminal Capacity

Vendor Response Requirement:

Identify the maximum number of configurable and active PC client terminals that can be configured as part of the proposed management server system.

7.3 Support for Open Standards

The proposed management system should provide support for open protocols, such as LDAP and SNMP. The proposed management system should use open encoding schemes, such as XML and HTML.

Vendor Response Requirement:

Briefly discuss the open standards included in your proposed management system that supports administration, operations and main facility maintenance services. Indicate if any protocols or encoding schemes are de facto standards or are being implemented publicly by other vendors.

7.4 Security Features

Unauthorized access to the communications system is a major concern. The ability to detect security problems is desirable beyond mechanisms to prevent security problems.

Vendor Response Requirement:

Briefly describe the security features that are embedded in the proposed management system to prevent unauthorized access and operation. Specify if media encryption is used for command signaling transmissions. What, if any, Denial of Service (DoS) and user authentication mechanisms are supported for the systems management application?

7.5 User Interface & Tools

The management system should be operated using GUI tools, formatted screens, pull down menus, valid entry choices, templates, batch processing & transactions scheduling, and database import/export. In general you should support a user interface set for each functional area: Fault, Configuration, Accounting, Performance and Security. The constituent users of each of these areas are distinct and your interface for each should optimize the experience for that constituent group. Management applications my integrate information from several management areas to enhance one functional area being managed.

Vendor Response Requirement:

Confirm that the proposed IPTS meets the functionality described above. If not, how it will be accomplished?

7.6 Administration Functions

The proposed systems management solution must support: station user moves, adds, and changes; trunk group definitions and individual trunk circuit programming; voice terminal parameters; call restriction assignments; class of service definitions and assignments; password resets; customer profile database; ARS routing tables; group definitions and assignments; first digit tables; dial plan; feature access codes; paging/code call zone assignments.

Vendor Response Requirement:

Confirm the proposed systems management solution supports each of the listed administrative functions. Identify any function not supported.

7.7 Group Assignments

The administration subsystem must support each of the following group definitions and assignments

- Abbreviated Dialing (System, Group, Enhanced)
- Hunt Groups
- Call Coverage Answer Groups
- Pickup Groups

- Terminating Extension Groups
- Trunk Groups

Vendor Response Requirement:

Confirm administration support for each of the listed group definitions. List any and all groups not supported by the administration subsystem.

7.8 Facilities Performance Management & Reports

The management system must be able to collect, analyze, and provide reports for a variety of system operations.

7.8.1 Basic Trunk Usage and Traffic

Trunk traffic records should be kept for all inbound and outbound calls, identifying the trunk group and trunk channel, time and duration of call.

Vendor Response Requirement:

Confirm that the proposed facilities management system satisfies this requirement.

7.8.1.1. Individual Trunk Line Counters

Vendor Response Requirement:

Confirm that individual trunk line counters measure and report: Number of call attempts; Number of blocked trunk lines; Traffic intensity (Erlangs).

7.8.1.2. Outgoing Trunk Route Counters

Vendor Response Requirement:

Confirm that outgoing trunk route counters measure and report: Number of outgoing attempts; Number of successful calls overflowing to another route; Number of lost calls due to blocking; Number of blocked trunks in measurement; Traffic intensity (Erlangs).

7.8.1.3. Incoming Trunk Route Counters

Vendor Response Requirement:

Confirm that incoming trunk route counters measure and report: Number of incoming call attempts; Number of trunks in the measurement; Number of blocked trunks in the measurement; Traffic intensity (Erlangs).

7.8.1.4. Both Way Trunk Route Counters

Vendor Response Requirement:

Confirm that both way trunk route counters measure and report: Number of incoming call attempts; Number of trunks in the measurement; Number of blocked trunks in the measurement; Traffic intensity (Erlangs).

7.8.2 Stations

Station counters should measure individual stations or station group traffic statistics, including: number calls; number of stations in measurement; number of blocked stations in measurement; traffic rating (Erlangs).

Vendor Response Requirement:

Confirm that station counters measure and provide reports for each of the listed parameters. Identify station parameters which are not measured.

7.8.3 Traffic distribution

When applicable, traffic distribution across the internal switching network should be measured for each local TDM bus, traffic over each highway bus, and traffic across the center stage switch by each switch network interface link.

Vendor Response Requirement:

Confirm that traffic distribution is measured and reported for each switch network element listed. Identify what is not measured and reported.

7.8.4 Busy hour traffic analysis

Busy hour traffic analysis measurements for trunks, stations, and the internal switch network should be performed and reported for any one hour interval for any time of the day.

Vendor Response Requirement:

Confirm busy hour traffic measurements for trunks, stations, and the internal switch network for any one hour interval for any time of the day.

7.8.5 Erlang Ratings

Erlang rating should be calculated and reported for individual trunk lines, each trunk group, and all trunk groups. CCS ratings should be calculated for individual stations or groups of stations.

Vendor Response Requirement:

Confirm Erlang and CCS rating calculations and reporting for each listed item.

7.8.6 Processor Occupancy

System call processing performance is measured in terms of Busy Hour Calls (Attempts and Completions). The percent of maximum call processing capacity should be reported for programmed time intervals. Threshold reports should also be generated to monitor system load factors. Threshold for retention and archival of these reports.

Vendor Response Requirement:

Confirm measurement and reporting of processor occupancy and threshold levels including retention guidelines and archival processes.

7.8.7 Threshold Alarms

For a variety of system hardware devices it should be possible to define a congestion threshold value, and measure generated alarms. Alarms are recorded in an Alarm Record Log. The types of devices that can be tracked include: tone receivers; DTMF senders and receivers; conference bridges; trunk routes; modem groups.

Vendor Response Requirement:

Confirm recording and reporting of alarms for each listed item.

7.8.8 Feature Usage

Feature usage counters for selected station features, e.g., call forward, call transfer, add-on conference, and attendant system features, e.g., recall, break-in, should be measured and reported for programmed intervals.

Vendor Response Requirement:

Confirm recording and reporting of feature usage counters for both station and attendant operations.

7.8.9 VoIP Monitoring

The management system should collect and store data to track usage and performance data of IP gateway devices, IP phones, and VoIP intercom/trunk calls. VoIP information reports may include: tracking of IP gateway devices and calls that pass through each gateway; gateway congestion; assignment of services or routes to gateways; tracking of phone numbers dialed or originating off-site numbers; and IP gateway addresses.

Vendor Response Requirement:

Briefly describe all VoIP monitoring information records and reports that are available. Specify if VoIP QoS parameters such as jitter, call delay/latency, and packet loss are tracked and reported, and if a system administrator can monitor VoIP calls in real-time for QoS observing? Indicate if any third party equipment is being proposed as part of your solution.

7.9 Optional Reports

Directory records may include each subscriber's name along with a variety of phone numbers such as primary, published, listed, emergency, and alternate, as well as authorization code information, job title, employee number and current employment status.

Inventory records and management is used to administer any kind of inventory product part, including: PBX common equipment (cabinets, carriers, circuit cards); voice terminals

and module options; jacks, and button maps. The reports allow administrators to accurately re-charge items. Inventory can be tracked by data such as user, system (PBX or other networks), jack, serial number, asset tags, trouble calls, recurring and non-recurring costs, and general ledger codes. The inventory management system may also include records containing the following data: purchase date, purchase order number, depreciation, lease dates, manufacturer and warranty information.

Cabling records keep track of all cable, wire pairs, distribution frames, wiring closets and all connections (including circuits) down to both the position and the pair level. Cable records include starting and ending locations, description, type and function. Individual cable lengths are maintained and automatically added, as is the decibel loss, for the entire path. Information can also be provided on the status of all cable runs, as well as the number of pairs it contains, the status of the pairs, and the type of service it provides.

Vendor Response Requirement:

Identify and briefly describe your proposed management system's Directory, Inventory, and Cabling reports, if available.

7.10 Call Detail Recording

Call Detail Record (CDR) data should be compiled for all successful incoming and outgoing trunk calls. Call record fields typically include the following:

- Date
- Time
- Call Duration
- Condition Code (categorizes information represented in the call record)
- Trunk Access Codes
- Dialed Number
- Calling Number
- Account Code
- Authorization Code
- Facility Restriction Level for Private Network Calls
- Transit Network Selection Code (ISDN access code to route calls to a specific inter-exchange carrier)
- ISDN Bearer Capability Class
- Call Bandwidth
- Operator System Access (ISDN access code to route calls to a specific network operator)
- Time in Queue
- Incoming Trunk ID
- Incoming Ring Interval Duration

- Outgoing Trunk ID

Vendor Response Requirement:

Identify all available CDR reports that can be generated for any or the entire call record field data listed above.

7.11 Main facility maintenance

System maintenance operations should, at minimum, support the following:

- Monitoring of processor status
- Monitoring and testing of all port and service circuit packs;
- Monitoring and control of power units, fans, and environmental sensors;
- Monitoring of peripherals (voice terminals and trunk circuits);
- Initiate emergency transfer and control to backup systems;
- Originate alarm information and activate alarms.

Vendor Response Requirement:

Confirm support for the required maintenance monitoring activities by completing following table:

Activity	**Yes/No**
Monitoring of processor status	
Monitoring and testing of all port and service circuit packs	
Monitoring and control of power units, fans, and environmental sensors	
Monitoring of peripherals (voice terminals and trunk circuits)	
Initiate emergency transfer and control to backup systems	
Originate alarm information and activate alarms	

7.11.1 Alarm Conditions

There are usually several types of communications system alarm conditions: Major, Minor, and Warning.

Vendor Response Requirement:

Briefly describe how your management system defines a Major, Minor, and Warning alarm.

7.11.2 Maintenance Reports

Vendor Response Requirement:

Provide a list all standard maintenance alarm reports provided by your management system.

7.11.3 Remote Maintenance

Vendor Response Requirement:

Briefly describe the available options used to support remote maintenance operations for both customer access and for an outside maintenance service provider. Specify how the system alerts a remote service center when an alarm condition occurs, the trunk circuit requirements for alert transmissions, and security measures to prevent unauthorized access.

7.12 Provisioning

All services should be provisioned in one step. Services should include station configuration, voice mailbox configuration, E911 location, billing attributes, directory attributes, and mobile Email attributes (iPhone) and the configuration of other end user applications.

For example, if your solution includes a zone paging application, the ability to assign a station to a zone and change the zone membership as a whole must be accessible through the configuration (provisioning) interface.

Your proposed provisioning application or interface must create a complete audit trail and must allow groups of changes to be scheduled for a future time. Further, the solution must support mass create, delete and modify functions to support bulk operations.

Vendor Response Requirement:

Describe the provisioning workflow you recommend showing how each of your proposed solution components is utilized. List any functions above which are not available. List any systems or devices which are not now part of your provisioning interface and provide a roadmap statement of how you will treat this situation going forward.

7.13 Integrated Messaging System

GUC currently has a voice messaging system, Call Xpress, that must be fully integrated with the proposed IPTS network solution.

The voice mail system also serves as an automated attendant position for select incoming trunk calls, and also as a secondary point of coverage as an automated attendant system for designated stations.

Vendor Response Requirement:

Briefly describe how the proposed IPTS solution will integrate with GUC's existing messaging solution, including items such as how manages the Message Indication Light on the phone.

8 Unified Communications

GUC desires a full UC solution and has recently implemented Microsoft Lync for instant messaging and presence management as our initial step into the use of UC solutions. Please explain how you would expand the use of Lync or migrate to your proposed UC solution.

GUC defines a UC solution as one that supports the following features and capabilities:

- Station user programmed call screening, coverage, and routing
- Presence management & control
- Conferencing tools for audio, data, and video communications
- Collaboration tools for desktop screen sharing, management and editing

Vendor Response Requirement:

Confirm your proposed IPTS communications solution integrates with our existing Lync solution and supports the requirements and capabilities outlined in the following RFP sections, or provide a brief overview of your UC offering and why it would be advantageous for us to migrate from Lync to your solution, if available.

8.1 UC System Integration

Vendor Response Requirement:

How does the proposed IPTS physically and logically integrate with the proposed UC solution?

9 Automatic Call Distribution (ACD) Contact Call Center

9.1 Basic ACD Call Center Requirements

GUC currently has multiple ACD groups for departments such as IT Help Desk and Customer Service that utilize agent logins, while others, e.g. Billing, utilize ACD without logins. The proposed IPTS communications solution must support the ACD-based contact call center solution including items such as call screening, call prompts, automatic distribution routing, call queuing, announcements, call handling, agent mobility, management and reporting, feature configuration and programming (support of Holiday table programming for different contact center groups) administration.

Vendor Response Requirement:

Confirm your proposed communications system can support the listed functional requirements and briefly describe the necessary hardware and software requirements. Indicate if any ACD capabilities are embedded in the IPTS generic software package and if the system allows for Holiday programming for individual ACD groups.

9.2 Third Party System Integration

GUC requires that the proposed ACD solution be able to support third party equipment.

Vendor Response Requirement:

Confirm that the proposed ACD solution can support each of the following third party equipment options:

- Interactive Voice Response (IVR) system
- Customer Relationship Management (CRM) system
- Financial System

9.3 ACD capabilities

GUC requires that ACD accept, route on skills or agents, and report on multiple communication channels (e.g. email, IM, calls, web chat, etc.)

Vendor Response Requirement:

Confirm that the proposed ACD solution can support the same functionality as UC or integrate with UC solution.

9.4 ACD Station Equipment

GUC requires that the proposed ACD solution be capable of supporting a mix of terminal equipment for agents and supervisors.

Vendor Response Requirement:

Confirm that the proposed ACD solution can support a mix of ACD agent/supervisor station equipment that includes analog and IP desktop telephone instruments and PC client soft phones for agent/supervisor voice communications requirements.

9.5 ACD Telephone Instrument

Vendor Response Requirement:

Briefly identify and describe all desktop telephone instruments and equipment in your portfolio that are designed specifically for ACD agents and supervisors.

9.6 Supervisor Workstation

Vendor Response Requirement:

Briefly describe the proposed supervisor workstation solution in your ACD solution proposal, including telephony and ACD-specific feature and functions, toolbars, and report screens.

9.7 Remote ACD Station Equipment

GUC requires that the proposed ACD solution can support remote agents.

Vendor Response Requirement:

Confirm that the proposed ACD solution can support remote off-premises IP desktop telephone instruments and/or PC client soft phones for agent communications

requirements. Also indicate if your system solution can guarantee Quality of Service levels for PSTN level connections to remote agents.

9.8 Virtual Contact Center

GUC may require a virtual contact call center solution in the event of a storm response or other emergency situation.

Vendor Response Requirement:

Confirm that your proposed ACD solution can support a virtual call center environment, and include in your response answers to the following questions:

- How many remote sites can be supported?
- How remote sites are physically and logically supported?
- Can call loads be balanced across multiple sites to avoid agents sitting idle at one site while other sites are overloaded?
- Are all call center operations transparent across sites for ACD call routing, supervisory and reporting functions, telephony features, and any applications such as call recording?
- Can your system guarantee Quality of Service (QoS) at the PSTN level for the voice channel for remote agents, and if so how is this done?
- Are remote agents measured, service observed, recorded the same as local agents? Can they be members of the same ACD group, queue, split/skill as local agents?

9.9 Redundancy

GUC requires a high level of service availability for its contact center solution.

Vendor Response Requirement:

What levels of redundancy are embedded into your Automatic Call Distributor (ACD) solution design? Be specific as to ACD call control and routing functions, switched connections, announcements, and MIS reporting capabilities. Identify if redundancy is based on fully duplicated or load sharing hardware or software elements.

9.10 ACD Contact Call Center Parameters

Vendor Response Requirement:

GUC requires an ACD contact center capability to support the following basic parameters:

- 30 active and 30 configurable agents with workstations
- 3 active and 2 configurable supervisors with workstations
- 30 agent groups/splits
- 50 integrated announcements with scripts

Confirm the proposed communications solution can satisfy these parameter requirements, and complete the following table.

Proposed ACD System Parameters

Maximum # Configurable Agents with workstations	
Maximum # Active Agents with workstations	
Maximum # Configurable Supervisors w/workstations	
Maximum # Active Supervisors w/workstations	
Maximum # Splits/Groups	
Maximum # Trunk Groups	
Maximum # ANI/DNIS numbers	
Maximum # Call Delay Announcements	
Maximum # Queue Slots	
Standard MIS Reports	
# Real Time	
# Historical	
# Exception	

9.11 Basic ACD Features

The proposed ACD solution should include, at minimum, the following basic features:

Agent mobility (e.g. login at any terminal);
Multiple Agent Groups
Call Flow
Applications/Skills-based Routing
Priority Queuing
Call Overflow and Interflow
Redirect on No Answer
Predictive Overflow
Recorded Announcements
Music between Recordings
Dial out of Queue
Work codes
Work timers
Make Agent Position Busy
Agent Help Request to Supervisor

Silent Monitoring – Split Monitoring: Supervisor & Agent
Silent Monitoring – Split Monitoring: Supervisor, Agent and Caller
Threshold Alerting
Queue status

Vendor Response Requirement:

Confirm that the proposed ACD solution supports each of the listed listed-above features/functions and identifying any feature/function not supported.

9.12 Call Flow

At minimum the proposed ACD contact center solution must be able to provide call control, screening, and routing based on:

- Incoming Trunk Group
- ANI, DNIS, or CLID
- Call Volume
- System Performance Criteria
- Priority Queuing
- Call Prompts

Vendor Response Requirement:

Confirm that the proposed ACD solution supports each of the listed call control criteria and briefly describe how supervisors/administrators create and develop scripts for incoming call flow operations.

9.12.1 Routing & Queuing

Vendor Response Requirement:

Confirm the proposed ACD solutions can support, at a minimum, each of the following call flow routing & queuing decision criteria; identifying any not supported.

- First In/First Out (FIFO)
- Time of day (TOD) / Day of week (DOW) / Day of year (DOY)
- ANI/DNIS/CLID
- Originating call by voice terminal type, i.e., cell phone or payphone
- Call prompt response
- Number of calls in queue

- Abandoned Calls
- Longest held call in queue
- Estimated wait time
- Available agents (number, skill)
- Agent idle time
- Agent handle times
- Agent Skill Level
- Caller directed routing
- Performance based routing

9.12.2 Agent Skills

Vendor Response Requirement:

Confirm that the proposed ACD solution supports skill-based routing, and identify:

- Total number of programmable skills
- Number of programmable and active skills per agent
- Number of programmable and active multiple group assignments
- If an agent can add/delete their skill assignments

9.12.3 Customer Preference

Vendor Response Requirement:

Confirm the proposed ACD solution supports customer preference call routing and queuing capabilities, and briefly describe the process how incoming callers can control their call flow.

9.13 Call Processing Functions

Vendor Response Requirement:

Provide brief answers to each of the following questions regarding the proposed ACD solution call processing features and operations.

- Describe how call control and agent handling methods can be administered locally and changed on demand if necessary in response to system activity.

- How many priority levels can be assigned incoming calls? Can priority level be changed while it is in queue based on system factors, i.e., time in queue, available agents, etc.?
- How many callers can concurrently listen to a particular ACD recorded announcement? Is the number based on origin of the announcement, i.e., internal or external to ACD system?
- Can announcements played for a caller be defined as "uninterruptible" even when agents are available to handle the incoming call?
- Describe all available and standard automated prompt features that a caller would have to listen and react to for call screening and routing procedures.
- Can callers maintain their position in queue while interacting with an IVR?
- Can information entered by the customer while interacting with an IVR system and then transfers out to a Customer Service Representative be used to screen pop information when the agent answers?
- Describe any other unique call routing features available on your ACD system that you believe GUC would be interested in knowing about.

9.14 Supervisor Functions

Vendor Response Requirement:

The proposed ACD solution must be able to support supervisor positions to monitor and assist call agent positions, monitor and review system performance, and administer ACD functions and operations.

Provide answers to each of the following supervisor function requirements.

- Describe how a supervisor can remotely monitor an agent. Indicate if the agent is notified by the system if they are being monitored by a supervisor, and specify the type of notification signal.
- Can a supervisor assist an agent during an active call, and if so can the agent received prior notification this is about to occur?
- Identify and briefly describe reports that are available to a supervisor via their PC monitor. Attach samples of available display screenshots.
- How often is data updated on supervisor monitor display?
- Describe the various display screens a supervisor would have access to for real time management operations. Include an explanation for each screen field. Specify if any of the following agent performance metrics are displayed: service level; quantity and time of calls in queue; average speed to answer; number of agents staffed to handle calls; and identity any other available performance monitoring capabilities.
- Can a supervisor perform drag and click system management programming from their monitor? And if so briefly describe available management features and operations

Specify if a supervisor can perform real time reconfiguration of call flows and agent skills assignments.

- Can supervisors login, log-out or change the status of an agent remotely?
- Can supervisors force a group into night handling?
- Can supervisors monitor and observe agents by agent ID? Can they listen and talk to an agent during a conversation: Can the entire customer experience be monitored, including announcements, music, etc.?
- Can the supervisors monitor an agent's "state" e.g., logged in; available to take calls; after call work time; etc?

9.15 Agent Functions

Vendor Response Requirement:

The proposed ACD solution must support a variety of agent functions. Provide answers to each of the following agent function requirements.

- Describe the process for an agent to request supervisor assistance during an active call, and specify if the caller must be on hold or if the agent/supervisor can talk without the caller hearing the conversation. After the supervisor consultation can the caller be transferred or conferenced?
- What happens if a supervisor is not available when assistance is required?
- Identify and provide a brief description of ACD system information (calls in queue, average time in queue, personal call handling statistics, et al) that can be retrieved and displayed on the agent desktop telephone instrument.
- Identify and provide a brief description of ACD system information and reports (calls in queue, average time in queue, personal call handling statistics, et al) that can be retrieved and displayed on the agent PC monitor. Attach samples of available display screenshots.
- Describe how an agent is able to distinguish incoming calls as a new call, transferred call, or a call from a voice response system.
- Describe each of the available "states" an agent can be in, e.g., logged in; available to take calls; after call work time; etc.
- Describe how an agent enters work codes that describe the nature of the call. Specify the maximum number of work codes and work code digits that can be entered into the system.
- Can agents be made automatically available immediately after each call?
- Can agents be members of multiple groups/splits/skills?
- Can agents be made automatically unavailable after each call in order to complete work associated with the call before the next call is delivered? Can this time be specified and controlled and is this unavailable state measured and tracked in ACD reports?

- Can agents make themselves unavailable temporarily and have this unavailable state measured and tracked in ACD reports? Can the ACD agent enter a reason code to indicate why they are unavailable and have this unavailable state measured and tracked by reason code on ACD reports?
- Can calls that ring at an available agent's station, but are not answered automatically, be redirected to the next available agent rather than letting the call ring unanswered until abandonment? For example, if an agent left their station without logging out, will the system automatically log the agent out or make them unavailable and notify the supervisor? Will this event be tracked by the reporting system?
- Can the system provide a brief announcement heard only by the agent indicating what type of call is arriving so that the agent can greet the caller appropriately if agents handle calls for multiple applications or who are visually impaired? Can the voice terminal also display this information to the agent before delivery of the call?
- Can the system provide screen pops? If so, please explain what types of applications and databases your solution is compatible with. For example, a screen pop of customer information from a database based on customer input prior to the agent taking the call.
- Can agents be "logical agents", i.e., can they login with their agent ID from any system endpoint and take ACD calls?
- Confirm if the system can automatically record agent calls for quality and monitoring purposes, and indicate if all calls can be recorded (incoming, station-to-station, non-ACD calls, etc.). Indicate if there is a beep tone to notify one or both of the call parties that the call is being recorded. Also indicate if the proposed ACD solution supports an integrated call recording feature or if an auxiliary system is required.
- Confirm if the system has the capability for screen captures. If so, explain how it would function if agents sit at multiple PCs.
- Confirm if the system is compatible or has functionality for workforce management or emotion detection.

9.16 System Call Prompts & Announcements

GUC requires that the proposed ACD solution prompt the caller to enter digits to determine how a call should be routed and then route based upon their response.

Vendor Response Requirement:

Confirm if the proposed ACD solution has a fully integrated call prompt (call director) feature that does not require optional hardware/software equipment. If yes, identify how call prompt announcements are programmed, scripted and recorded; the maximum number of programmable call prompts; and the maximum number of concurrent activated call prompts for incoming calls. Also indicate if the caller can interrupt the call prompt for TUI response before the full script is played.

9.16.1 Hands Free Caller Prompt Response

Vendor Response Requirement:

Confirm if the proposed ACD solution can support integrated Automatic Speech Recognition (ASR) as an alternative to TUI and describe how speech prompts are scripted and recorded.

9.16.2 Announcements

Vendor Response Requirement:

Confirm that the proposed ACD solution has fully integrated announcement capabilities and provide answers to the following:

- How many different announcements can be provided?
- How many announcements can be played concurrently?
- How many announcement boards are supported?
- Are digitally recorded announcements supported?
- How many different music sources can be supported?
- Can time in queue and/or placement number in queue be provided to caller?
- Can multiple announcements and music treatment be provided to a call, and can announcements and music treatment be specific to each queue?
- Can announcements and music treatment provided depend upon queue conditions or call related information, and how many different announcements can be provided for this situation?
- How do you handle feedback (music/announcements) for calls that are queued remotely?
- Can you connect audible feedback locally for calls that are queued remotely in order to decrease the number of packets sent over the IP trunk?

9.17 MIS Reporting

GUC requires a comprehensive Management Information System (MIS) reporting system capability with its proposed ACD solution. The reporting solution must provide a single location for reporting on multiple communication methods (e-mails, calls, IM, etc) and scheduling of reports for automation.

Vendor Response Requirement:

Confirm that the proposed ACD-MIS reporting system supports each of the following capabilities and attributes, and identify any that are not supported:

- Track local and remote, digital and IP agents
- Windows-based GUI
- Real-Time Monitoring
- Reporting Exceptions
- Threshold Notification
- Web-based access to reports
- Historical Reporting
- Custom Reporting Option
- Open Database Connectivity
- Exporting Data to other applications
- Local and remote access by supervisors
- Scheduling
- Reporting on multiple communication methods (e-mail, calls, IM, etc)

9.17.1 System Requirements

Vendor Response Requirement:

Briefly describe the hardware/software requirements for the proposed ACD-MIS reporting system, including requirements for applications servers and software, workstation terminals (agent and supervisor) and client software.

Does the system supply true cradle to grave reporting or do you have to add a third party reporting tool? Is the system capable of importing Informix database structure for past trending and analysis (Avaya CMS)?

9.17.2 MIS Reports

The ACD-MIS reporting system must be able to support a wide variety of report categories, including, as a minimum, the following:

Single Agent Reports
Summary Reports
Agent Group ReportsSummary Reports

Call Profile (answered, abandoned, etc.)
ACD Queue Reports
Abandoned Calls Report
Trunk Reports
Daily Total Reports
Call Profile (answered/abandoned based on wait times)
Log in / Log out
Summary Interval (1/2 hour intervals)
Ongoing Status Reports
Ring on No Answer Reports (RONA)
Call Transfer Reports
Skill/HuntGroup Reports

Vendor Response Requirement:

Confirm the proposed fully integrated ACD-MIS reporting system satisfies this requirement, and identify any listed report type not supported.

9.17.3 Customizing Reports

The ACD-MIS reporting system must be able to create custom reports as GUC currently does not have any custom reports; but we do want the capability for future needs.

Vendor Response Requirement:

Briefly describe the interface required to create custom reports and indicate if you do not support any of GUC's custom reports that are listed.

9.17.4 Real Time Reports

Vendor Response Requirement:

Provide a list of all standard and optional real time monitoring reports. At minimum should provide:

- Dashboard capabilities that are automatically updated.
- Split/Skill (shows status of agents in a selected skill, and skill status) - Report on contact center data with the ability to choose one day or date range. Ability to customize this report on an as-needed basis. Shows skill state, calls waiting, how long the oldest call has been waiting, agent name, login ID, aux reason code, state, split skill level,

time and VDN name.

9.17.5 Historical Reports

Vendor Response Requirement:

Provide a list of standard and optional historical system reports. Also, please specify how much history of data is retained in the system for historical reports.

9.17.5.1. Frequency

Vendor Response Requirement:

What is the frequency that reports can be produced?

9.17.5.2. On-Demand Reporting

Vendor Response Requirement:

Can all of the historical reports be accessed on-demand? Identify any report that cannot be accessed on-demand

9.17.5.3. Storage & Backup

Vendor Response Requirement:

How long historical reports are stored and archived by the system, and describe data backup operations.

9.17.5.4. Customized Reporting

Vendor Response Requirement:

Confirm the proposed ACD-MIS reporting system supports customized reporting capabilities and provide a brief description of how customized reports can be defined and generated.

9.17.5.5. Scheduled and Email of Reports

GUC requires that ACD-MIS reports must have email capability and permit the supervisor to schedule.

Vendor Response Requirement:

Confirm the proposed ACD-MIS reporting system supports this requirement.

9.17.5.6. Report Formats

GUC requires that the proposed ACD-MIS reporting system supports a variety of graphical and file type (EXCEL, TEXT, PDF, et al.) report formats.

Vendor Response Requirement:

Confirm the proposed ACD-MIS reporting system supports a variety of graphical report formats and identify by type.

9.18 ACD Management & Administration

Vendor Response Requirement:

Provide a description of ACD management & administration capabilities. Identify in your response which of the following supervisor or administrator capabilities are supported:

Define service levels and other thresholds
Create call flow scripts
Enter agent PINs and create passwords
Limit access to data for users
Configure all peripherals (printers, faxes etc.)
Backup and restore the database
Configure automatic backup and recovery of customer data
Create individual ”views” of the call-center

10 Detailed Configuration Components and Pricing Proposal Preparation Instructions

10.1 Vendor's Understanding of the RFP

In responding to this RFP, the vendor accepts the responsibility fully to understand the RFP in its entirety, and in detail, including making any inquiries to GUC as necessary to gain such understanding. GUC reserves the right to disqualify any vendor who demonstrates less than such understanding. Further, GUC reserves the right to determine, at its sole discretion, whether the vendor has demonstrated such understanding. That right extends to cancellation of award if award has been made. Such disqualification and/or cancellation shall be at no fault, cost, or liability whatsoever to GUC.

Proposal Guidelines:

- Configure and price your system design to satisfy all stated RFP requirements, including any and all system hardware and software elements necessary to satisfy a requirement. Where possible, break apart costs so that GUC may select items for inclusion or exclusion.
- All products and solutions proposed for this RFP must be formally announced at time the completed RFP is returned to GUC.
- Do NOT provide material or information unrelated or not relevant to a specific RFP clause requirement.
- Be brief, but complete, and provide succinct, clear, and unambiguous responses; do not obfuscate your responses with unnecessary wordage. When a vendor response calls for a brief description please restrain from providing more than 400 words of text.

10.2 Good Faith Statement

All information provided by GUC in this RFP is offered in good faith. Individual items are subject to change at any time. GUC makes no certification that any item is without error. GUC is not responsible or liable for any use of the information or for any claims asserted there from.

10.3 Inquiries

After the RFP issue date, all communications between vendors and GUC must be submitted in writing. No oral questions will be accepted. Any inquiries, requests concerning

interpretation, technical questions, clarification, or additional information pertaining to functionality shall be directed to the individual listed:

Greenville Utilities Commission
401 South Greene Street
Greenville, NC 27834
Attention: John Phillips, Information Technology Department
E-mail: john.phillips@guc.com

Vendors should not ask other GUC personnel questions, as information gathered from other sources may not be reliable. All questions concerning the RFP must reference the RFP page number, section heading, and paragraph. The question(s) must be concisely stated and be numbered in sequential order. Answers will be returned as soon as possible. Questions and responses affecting the content of this RFP will be provided to all vendors.

10.4 Proposal Submission

Instructions for submitting proposals to Greenville Utilities are outlined in the proposal package. Firms are requested to inform GUC of their intention to respond to this Request for Proposals by sending an email to: Cleve Haddock, Purchasing, at haddocgc@guc.com by February 16th, 2012 @ 3:00PM (EDST).

Please include in your email the RFP Title (IP Telephony System), your company name, mailing address, email address, telephone & fax numbers and name of the contact person.

Deadline for submitting proposals are included in the proposal package and must be strictly adhered to. If addenda are issued, they will be distributed to each respondent. Each addendum will be identified by the RFP Title followed by a letter (i.e. 02-1a, 02-1b, etc.) Firms are urged to check the Revised Date in the Date area of the addenda prior to submitting a proposal response to assure they have obtained all addenda that may have been issued for the proposal package. Proposal addenda should be acknowledged and included with the proposal response.

Vendors shall submit one (1) original and two (2) signed copies. Each original and copy must be individually bound with tabbed sections as specified in Section 6 of this document. Additionally, one (1) electronic or soft copy, of all proposal materials, in Microsoft Word or Excel format, must be submitted via CD-ROM with the one original bound written proposal. Proposals must be plainly marked on the outside for the "IP Telephony System." The proposal is contained in this contract document and must not be detached by any vendor when submitting a proposal. The proposals must be addressed to:

Greenville Utilities Commission
401 S. Greene Street

Greenville, NC 27834
Attention: Cleve Haddock, Purchasing

If forwarded other than by mail, it must be delivered to the address listed above. The vendor shall make no other distribution of the proposal.

10.5 Method of Evaluation

Members of the Information Technology Department and any other persons deemed necessary by GUC will evaluate the proposals. Selected vendors may be requested to present formal presentations on site. Proposers notified by John Phillips should be prepared to meet with the evaluation team sometime during the period April 9, 2012 through May 4, 2012 for a presentation of the proposed solution.

Evaluation Criteria:

- Capacity of the vendor to meet or exceed the requirements specified in the Scope of Work
- Ability of the vendor to communicate its vision and capacity for establishing a relationship that addresses current and future needs and trends in the industry
- Ease of use, integration of features, and functionality of the management software
- Financial stability of vendor
- Ability to meet the established installation time line.
- Total project cost

The award of the contract will be made to the vendor providing the most responsive proposal, taking into consideration quality of performance, functional capability, total life cycle cost (support requirements, added hardware, maintenance, etc.), compatibility, and the time specified in the proposals for the performance of the contract. GUC reserves the right to reject all proposals or accept such proposals, as appears in its own best interest, and to waive technicalities or irregularities of any kind in the proposal. GUC is not obligated to accept the lowest cost proposal.

10.6 Schedule of Events

The following is a tentative schedule that will apply to this RFP, but may change in accordance with the organization's needs or unforeseen circumstances.

RFP Available to Vendors:	February 14th
Vendor Acknowledgement of Intent to Reply:	February 16th

Questions Due from Vendors:	February 27th
Answers to Questions available to Vendors:	March 5th
Proposal Submission Date:	March 23rd, by 3:00 PM (EDST)
----- dates beyond this point are subject to change -----	
Vendor Finalists Selected:	April 6th
Vendor Finalist Presentations:	April 9th thru May 4th
Final Vendor Selection:	May 18th

10.7 Selection and Notification / Terms and Conditions

Vendors determined by Greenville Utilities Commission to possess the capacity to compete for this contract will be selected to move into the negotiation phase of this process. Written notification will be sent to these vendors via E-mail. Those vendors not selected for the negotiation phase will not be notified.

Terms and Conditions: The selected vendor will be subject to GUC's Terms and Conditions.

10.8 Vendor Incurred Costs

All costs that may be incurred to prepare proposals, attend meetings, attend site inspections, provide requested follow-up information, make formal and informal presentations, and for the entire contract negotiations process if applicable, shall be the sole responsibility of each Proposer. GUC is not responsible under any circumstances for reimbursement of any costs that may be incurred by Proposers during the proposal preparation, subsequent selection or negotiation stages.

11 Vendor Qualifications and References

All vendors must provide the following information in order for their proposal to be considered:

11.1 Vendor Qualifications

Provide a brief outline of the vendor's company and services offered, including:

- Full legal name of the company
- Year business was established

- Number of people currently employed
- A description of your geographic reach and market penetration
- An outline of your current financial status
- An outline of your current partnerships and relationships to date
- An outline of your current and future strategies in the marketplace

11.2 Vendor Product History

Please provide a brief history of the proposed solution. Be sure to address the following questions or requests in your response:

- What is the current product line-up produced by your company; provide a brief outline of the line-up.
- How does the proposed solution fit into your current product lifecycle?
- When was the model being proposed introduced and how many major revisions has it gone through?
- What is the technical roadmap for the proposed solution's future?
- Outline of products proposed as part of the solution outside your product line-up and reasoning for using them.

11.3 Vendor Clients and References

Provide information about your current clients, including:

- Total number of current clients
- A list of clients with similar needs using the same solution
- A list of any utility companies that use any of your products.
- Evidence of successful completion of a project of a similar size and complexity.

References: Please provide a client reference list consisting of three (3) customers presently using the proposed system. The referenced clients should be local, and references from other governmental organizations using equipment similar to what is being proposed are preferred. The list should include organization name, name of contact with address and telephone number, and a brief description of the system, platform, length of time using the system and number of users.

12 Proposal Pricing

Price and discount schedules submitted by vendor will be valid for a period of not fewer than 90 days following the date of submission of their proposal. Vendors are required to state this guarantee or better in their proposal.

12.1 Five (5) Year Cost

This tab on the spreadsheet calculates the 5 year cost of the solution along with the maintenance and support costs for years 2-5.

13 Required Response Format

Submitted materials shall have dividers with labeled (as indicated below) tabs separating the sections. The same numbering system as the RFP should be used so members of the evaluation committee can easily reference the materials. Please do not substitute printed brochures in response to specific questions.

- ***Title page***

  Show the company name, address, telephone number, and name of the project representative.

- ***Tab 1 - Executive Summary***

  Prepare a synopsis of the proposed solution not to exceed three (3) pages in length.

- ***Tab 2 - Vendor's Response to Section 2 thru Section 9 – Detail Specifications***

  Provide the information requested in Section 2 thru 9 using the provided "*IPTS RFP Specifications Worksheet.doc*" Fill out the worksheet and print it behind Tab 2

- ***Tab 3 - Vendor's Response to Section - Vendor qualifications and product history***

  Provide the information requested in Section 11 concerning vendor qualifications and product history.

- ***Tab 4 - Vendor's Response to Section 11 – Clients and References***

  Provide the information requested in Section 11 concerning vendor clients and references.

- ***Tab 5 - Vendor's Response to Section 12 - Pricing***

Provide the information requested in Section 12 by completing the provided "GUC IPTS RFP – Pricing Worksheet.xls" spreadsheet. Be sure to fill out and print all 5 tabs on the spreadsheet.

- ***Tab 6 - Promotional Materials***

  The vendor may provide, if desired, any promotional materials or printed brochures related to the hardware, software, or support plan being proposed in this RFP.

14 Minority Business Participation Program

GUC has adopted an Affirmative Action and Minority and Women Business Enterprise Plan (M/WBE) Program. Firms submitting a proposal are attesting that they also have taken affirmative action to ensure equality of opportunity in all aspects of employment, and to utilize (M/WBE) suppliers of materials and/or labor.