Request for Proposal
VOIP System
for the Cartersville School System

April 15, 2016

Prepared by:
Cartersville City Schools Technology Department
310 Old Mill Road
PO Box 3310
Cartersville, GA 30120

Dear Gentlemen:

The Cartersville School System invites you to submit a proposal for the purchase of **VOIP Telephony System.**

Return your sealed pricing bid clearly marked **on the outside of the envelope or package to:**

Dr. J. Howard Hinesley, Superintendent

Cartersville School System

RFP # ENCLOSED 9408-415-192

P.O. Box 3310, 15 Nelson Street

Cartersville, Georgia 30120

The proposal is due no later than 2:00 p.m., Friday, May 13, 2016.

The Cartersville School Board reserves the right to accept and/or reject any and all bids.

We invite your participation.

Sincerely,

J. Howard Hinesley, Ed. D.

Superintendent

Enclosures

Please include this cover sheet as (page 1) of your proposal

PROPOSAL FORM

Cartersville School System
P.O. Box 3310
15 Nelson Street
Cartersville, Georgia 30120

Gentlemen:

We have carefully examined and fully understand the Instructions to Bidders and other requirements indicated in the specifications as prepared by you.

We propose to enter into a contract to furnish **VOIP Telephony System** as specified at the price quoted. RFP # 9408-415-182

Total price of all requested items:

Approximate date of delivery: (P.O. to be issued 6/14/2016)

_____
Name of Company

_____
Signature of Company Representative Authorized to Submit this Proposal

_____
Printed Name of Representative

_____
Business Address/ Street, City, State, Zip Code

_____ _____
Phone Number Fax Number

Office use only

INSTRUCTION TO BIDDERS

1. Proposals are due no later than 2:00 p.m., Friday, May 13, 2016, and shall be opened publicly at that time.

2. Proposals must be submitted on the forms enclosed. Bidders may attach other appropriate information to best evaluate the proposal.

3. Proposals must meet the requirements relating to any and all Georgia Department of Education guidelines.

4. The Cartersville School Board reserves the right to accept or reject any and all proposals.

5. **Payment will be made at the end of completion of each project. Check will be made payable to the sole vendor awarded the bid.**

6. Contractor must provide a copy of Certificate of Liability Insurance. W-9 Tax ID form and E-Verify form.

7. Further information regarding the RFP can be obtained by contacting:
   Kristy Hovers
   770-387-5571

This Request for Proposal (RFP) is being used to obtain proposals for a replacement of the current telephony systems in use at Cartersville School System. The new system will include the Central Office, Maintenance Department, Transportation Department, Technology Department and five schools.

(Please see the following facilities listing). The current phone system is a VoIP phone system: Cisco with HA Pair Call Manager System version: 8.6.2.20000-2, Voicemail is routing to an Asterisk VM for distribution and management.

Site_ID	Site Name	Address
CCSS_BOE	Cartersville School System Board of Education	15 Nelson Street; Cartersville, GA
Maint/Bus	CCSS Maintenance and Transportation Facility	152 Milner Road; Cartersville, GA
Tech	CCSS Technology Facility	310 Old Mill Road; Cartersville, GA
PreK	Kids & Company PreK Center	323 South Erwin Street; Cartersville, GA
CPS	Cartersville Primary School	315 Etowah Drive; Cartersville, GA
CES	Cartersville Elementary School	340 Old Mill Road; Cartersville, GA
CMS	Cartersville Middle School	825 Douthit Ferry Road; Cartersville, GA
CHS	Cartersville High School	320 East Church Street; Cartersville, GA

This RFP is organized into the following sections:

- Section 1 – General Information and Instructions
- Section 2 – Requirements
- Section 3 – Vendor Overview
- Section 4 - Pricing

All vendors responding to this RFP must respond to section 2, 3 and 4 using the information provided in section 1.

Section 1 General Information and Instructions

1.1 District Profile

Cartersville School System is located in Bartow County, Georgia along Interstate 75 approximately 45 minutes north of Atlanta, GA. We have one PreK Center, one primary school, one elementary school, one middle, and one high school. Our district also includes a Central Office, Technology Center, Transportation and Maintenance buildings. We enroll over approximately 4200 students.

1.2 Purpose of Project

The purpose of this project is to replace the existing telephony systems within our schools with the best solution that provides a reliable, secure, scalable, and enterprise-wide communications platform designed to meet our needs today and into the future. The solution must support, among other things, distributed architecture, centralized administration, inter-site dialing and directory, advanced PBX features, inter-site voice mail with unified messaging, inbound call center functionality, user mobility, site survivability, emergency services, and support for remote and home office workers.

All of the school sites require some level of survivability in cases of WAN failure. AT&T land lines are available at all of our schools. VOIP Telephone system must have the capability for future integration with intercom systems.

1.3 Goals and Objectives

The successful Vendor proposal must meet or exceed a design capacity of 555 digital devices. Our strategic goal is to ensure security, scalability, and upgradeability, traffic prioritization, Quality of Service (QoS), redundancy, and data recovery. The overall SIP-based, VoIP deployment should adhere to industry best practices and standards as well as compliancy regulations

The goal of this project is to replace our existing telephony systems with a state of the art communications solution with these objectives:

- Total solution including product, installation, and maintenance and training
- Easy to use phones, applications, and features with superior voice quality
- Centralized administration and management of hardware and software
- Auto attendants and voice messaging to all users
- Choice of regular voice mail or unified messaging for all users
- Standards-based integration with other telephony applications
- Integration with hybrid Exchange/O365 environment and instant messaging applications
- Ability to provide integration with school intercom systems through analog lines.

1.4 Current Telephony Environment

Our current telephone system is of a mix of over 555 phone lines spread out to each building. To reduce cost of the phone lines Cartersville School System uses AT&T's modified PRI/Centrex service.

1.5 Current Data Environment

Cartersville School System has a 1 GB fiber optic WAN connecting all schools to the Technology Center which is the demark for internet connection. The demark for the PRI is the Central Office. The WAN has 10 GB capability and will hopefully be upgraded the summer of 2016.

1.6 RFP Coordinator

Upon release of this RFP, all communications concerning the proposal must be directed to the RFP Coordinator listed below.

- Name: Kristy Hovers
- Address: 310 Old Mill Road, Cartersville, GA 30120
- Phone: 770-789-3536 mobile
- Fax: 770-387-5571
- Email: khovers@cartersville.k12.ga.us

1.7 RFP Schedule

The schedule for this project is as follows:

- RFP Issued: 4/15/2016
- Proposals Due: 5/13/2016, 2 pm

Cartersville School System reserves the right to adjust this schedule as necessary.

1.8 Vendor Site Tours

There will not be a formal proposal conference conducted for vendors wanting a site survey of the main office facilities. A site visit is not required for the proposal but, Cartersville School System will be available to allow proposing vendors an opportunity to obtain firsthand exposure to the implementation environment. To schedule a site tour, contact Kristy Hovers.

1.9 Proposal Questions

RFP questions must be forwarded to the Kristy Hovers at khovers@cartersville.k12.ga.us. The preferred method of questions is via email. All official questions and answers will be in writing and made available to all vendors.

1.10 RFP Evaluation Factors

Cartersville School System will evaluate the proposals to determine the most advantageous proposal. We will use the following factors to evaluate the proposals listed in order from most to least important:

- Total cost of ownership for the proposed system
- Ability of the proposed system(s) to meet the stated requirements
- System warranty, technical support and annual maintenance offerings
- Proposed vendor experience and qualifications related to delivering, installing and maintaining the proposed system
- References of comparable installations noting quality of past performances
- Documented installation plans for off hours implementation
- Documented training plans for users and Information Technology staff
- RFP response document completeness

Vendors must provide brief, clear, and concise responses to the following requirements with illustrations where appropriate.

2.1 System Capacities

The following table describes the number of locations, the number of trunks and lines, the number of IP phone sets expected growth, and the level of survivability required.

Site_ID	Analog Line(s)	PRI(s)	Fax Lines	Business Phone(s)	Voice Mail	Attendant Console(s)
CCSS_BOE	1	1	2	32	30	1
Maint/Bus	1		2	13	18	0
Tech	1		1	5	5	0
PreK	1		2	10	9	1
CPS	1		2	23	92	1
CES	1		2	86	82	1
CMS	1		3	88	88	1
CHS	1		10	120	90	1

2.2 System Architecture

Identify the manufacturer, make and models of the proposed solution, including a brief overview of the proposed solution.

The proposed solution must support end-to-end SIP signaling. Describe how SIP provides end-to-end signaling in your communications architecture.

The proposed solution must support the ability to integrate additional SIP-based applications with the base system. Describe how the proposed solution provides the ability to add and integrate SIP-based applications and devices to the base system.

Identify the servers used and operating system associated with the proposed solution.

Describe the support of the servers used in a virtual environment, specifically used with VMWare.

Describe the equipment and interfaces that are used to connect to the Public Switched Telephone Network (PSTN).

How are analog phones and devices such as fax machines connected to the system?

Describe how remote locations will handle emergency calls (911).

Describe the level of phone service at remote locations during the loss of the WAN.

Describe how configurations are managed for remote equipment. Can configurations automatically propagate to replacement equipment at remote locations?

2.3 Redundancy and Reliability

Failover to redundant or mirror servers is a requirement. The mirror server must be online in less than 10 minutes. Describe how your solution provides failover and recovery of redundant equipment.

2.4 Scalability

Describe how your solution provides scalability in call processing capacity, PSTN gateway capacity, messaging mailbox capacity, and user capacity as the number of physical access ports and number of users grows over time.

2.5 Interoperability

Describe your philosophy on open architecture and your ability to support other vendors' equipment.

Describe your IP signaling capabilities and their conformance to standards. Clearly identify open or international standards versus proprietary standards. (Note: standards supported by a single vendor do not qualify as open or international, regardless of market share. They are, by definition, proprietary.)

Does the proposed solution utilize a proprietary method to power the IP Phones, or are industry standards supported? Describe the support for Power over Ethernet, including the 802.3af specification.

Describe your support of out-of-band dual tone multifrequency (DTMF) signaling over IP.

2.6 Data Network

Identify the data networking requirements to support quality of service for the proposed solution.

Does the solution require a specific vendor's data networking equipment? Describe the ways we can monitor Quality of Service of VoIP calls.

2.7 IP Phones

Are the IP phones in the proposed solution RoHS compliant?

Describe your basic phone set model, including the number of system appearances, buttons, display, and features of the phone.

Describe your business phone set model, including the number of system appearances, buttons, display, and features of the phone.

Describe your manager phone set model, including the number of system appearances, buttons, display, and features of the phone.

Describe the attendant console available with the system. Describe the SIP-based soft phones available with your solution. What are the PC requirements for the SIP softphones?

Describe how a large number of soft phone clients can be auto-configured.

Describe the SIP-based software attendant console supported by the proposed solution. Identify the languages that are supported for phone displays. Can a specific language be configured on a per-group or per-user basis?

Describe the options for powering IP phone sets.

Describe the options for connecting the IP phone sets to the LAN.

Can IP phone sets share existing Ethernet ports with data devices or do they require separate Ethernet ports?

Do any of your IP phone sets support gigabit to the desktop?

Do IP phones require manual intervention to upgrade phone software?

Describe the user mobility options. Can users log on/off a phone so that two (or more) users can use the same phone, but with different line options and features?

2.8 System Features

The proposed solution must provide the ability to route long distance calls over the appropriate, usually least costly, trunk group via public or private networks, IP or traditional.

The proposed solution must support the ability to route calls based on ANI/DNIS/CLID incoming call information.

The proposed solution must support the ability to route calls to alternate route points in cases of congestion or failure of a device interfacing with the PSTN.

Describe the ability of the proposed solution to support an unlimited number of music on hold sources, and how these sources can be assigned on a per-user basis.

Briefly describe the 911/E911 capabilities of your solution.

Is operator intervention required or are specific phones required when dialing emergency calls?

Identify the system's ability to redirect callers who dial "911" or "9+911" to a predetermined location; i.e., security desk, operator's console, etc.

Describe how your system supports E911 services in conjunction with the local telephone operating company.

How are media gateways assigned to handle emergency calls when the call processor is unavailable?

2.9 Calling Features

Does the proposed solution support abbreviated dialing?

Does the proposed solution support anonymous call reject for next call and all calls?

Can the reception/operator console be disabled and have calls flow automatically to an alternate location?

Does the proposed solution support automatic answerback (hands free) mode? Can a call be placed to an extension and left until the extension becomes available, without altering forward on busy settings (camp on busy)?

Does the proposed solution support Automatic Number Identification (ANI), Caller ID., Incoming calls and Privacy.

Does the proposed solution support the ability to bridge multiple phones to a single phone extension?

Does the proposed solution support multiple appearances of the same extension (Automatic Line Selection). System must allow the user to automatically answer a predetermined line by lifting the handset.

Does the proposed solution support three way calling native to the system?

Does the proposed solution support up to six party conferencing native to the system without any additional cost or equipment?

Does the proposed solution allow a station user to define their call coverage point as voice mail, an auto attendant, or an internal/external phone number?

Does the proposed solution support call drop?

Does the proposed solution support call forward busy?

Does the proposed solution support call forward all (call forward universal)? Does the proposed solution support call forward - no answer?

Does the proposed solution support the ability to provide an audible tone to remind the user that their station is in the call forward mode?

Does the proposed solution support the ability to remotely forward an extension? Does the proposed solution support the ability to restrict call forward to trunk?

Does the proposed solution support a programmable one-button send all calls? Does the proposed solution support call history with inbound/outbound/missed calls?

Does the proposed solution support call hold?

Does the proposed solution support a call hold reminder?

Does the proposed solution support the ability to place a call in a parked state, similar to hold, where it can be retrieved by any attendant console or by another telephone?

Does the proposed solution support directed call pickup?

System must allow a group of telephones to answer a ringing station in its group through the use of either an access code or a programmed pickup button.

Does the proposed solution support call restrictions for blocking inbound, blocking outbound, white list, and black list?

Does the proposed solution support call restrictions for toll screening? Does the proposed solution support call return?

Describe how the proposed solution supports attended (supervised) call transfer.

Describe how the proposed solution supports recovery of mis-operation of transferred calls, which prevents external calls from being dropped due to a station user's incorrect operation of transfer feature.

Describe how the proposed solution can restrict call transfers to an outgoing trunk.

Describe how the proposed solution supports unattended (Blind) call transfers. Describe how the proposed solution supports call waiting.

Describe the support for direct inward dialing (DID). Describe the support for direct outward dialing (DOD).

Describe how the proposed solution supports distinctive ring patterns for different types of calls.

Describe how the proposed solution supports distinctive ring patterns for different phone numbers.

Does the proposed solution support DNIS (Dialed Number Identification Service)? System must allow the station user or attendant to place their station in the "Do Not Disturb" mode.

System must support Dual Tone Multi-Frequency (DTMF) end-to-end signaling through an established outgoing connection.

Describe how the proposed solution supports feature codes.

Describe how the proposed solution supports ability to forward calls to voice mail.

Describe how the proposed solution supports a global user directory.

Describe the hunt group functionality of your system, including interactions with other features and system capacities.

Describe how the proposed solution supports a calling group hunt group.

Describe how the proposed solution supports last number redial.

Describe how the proposed solution supports audio indications for Message Waiting Indicator (MWI).

Describe how the proposed solution supports missed call indicator with callback. Describe how the proposed solution supports the ability to use your phone setting on another phone.

Describe how the proposed solution supports multiple music-on-hold sources with custom recordings.

Are multiple music sources supported for differing groups or departments? Describe how the proposed solution supports the ability to mute a call so that remote party or parties are still connected but cannot hear the user who initiates the mute?

Describe how the proposed solution support night service (time of day) call routing.

Describe how your system supports the re-use of the same extension number in different offices where call processing servers are located.

Describe how the proposed solution supports paging from a phone to a loudspeaker paging system (integrate-able with external PA system).

Describe how the proposed solution supports paging phone to phone. Describe how the proposed solution supports paging groups to IP phones.

Describe how the proposed solution supports phantom extension operation, giving us the ability to configure phantom extension numbers (e.g. "roll over" numbers) without purchasing any associated hardware.

System must have capability to assign private Central Office lines to selected extensions.

Describe how the proposed solution supports remote feature programming, allowing users to change their forwarding or do not disturb status from outside the office.

Describe how the proposed solution supports the ability to silently monitor and barge-in to an established connection.

Describe how the proposed solution supports speed dialing.

Describe how the proposed solution supports transfer directly to voice mail for any mailbox.

2.10 Unified Messaging

Describe how the proposed solution provides synchronization of voice, fax, and email messages.

Briefly describe an overview of the messaging solution included with the proposed solution.

Describe how the proposed solution can support a distributed unified messaging solution.

Outline, if any, the license charges that are a recurring expense, and in the case of the Voice Mail Seat License, how additional or less voicemail users on the system are handled administratively through billing and maintenance costs.

Explain how fax calls are supported with the proposed unified messaging solution.

Can subscriber mailbox features be reset without loss of voice messages?

Can a subscriber mailbox be reinitialized without loss of voice messages and custom greetings?

Can subscriber mailboxes be reinitialized with all messages and greetings deleted?

Are there system controls to govern the size of disk space or number of faxes stored per system/user/group?

Is there a programmable feature to disable a mailbox after a number of unauthorized attempts have been made?

What options are available if a mailbox receives more than the number of messages allowed?

Does the system perform automatic housekeeping routines which free up disk space by purging messages after a pre-defined period of time?

What is the maximum number of mailboxes that can be administered on the proposed solution?

What is the maximum storage capacity for voice, fax, and email messages that is supported by the proposed solution? Include the maximum number of minutes/hours available for message storage, and the maximum disk storage size available for storage.

What is the maximum number of access ports that can be supported on the proposed solution?

Describe how messages can be automatically purged.

Are mailbox pass codes concealed from the system administrators?

Provide an overview of the reporting and logging capabilities of the proposed unified messaging solution.

Describe system reporting capabilities.

Briefly describe the auto attendant features and functionality of the proposed IP messaging system.

Are different automated attendant greetings available on a per application basis by: Time of day, Day of week, Weekend and holiday, and Exception days?

Can multiple auto attendant applications run concurrently on the same system? Can integrated voice mail, fax, auto attendant run on the same interface port? Are directory options available on a per application basis?

Distribution lists. Please list maximum number of members per list.

Identify the maximum number of Unified Messaging clients.

Describe the message storage capacity characteristics of the proposed unified messaging system.

What are the maximum number and/or time of messages allowed per user, per system?

Describe the physical access port capacity of the IP Messaging module.

Are all access ports available to all unified messaging interfaces, i.e. outcall to pager, pda, cell, etc?

Can either ports or storage be added to the system, without requiring that the Voice Mail system be taken out of service?

Briefly describe personal distribution lists.

Can non-system members be a part of a distribution list?

Does the proposed IP messaging system support the ability to broadcast a message to a group of users?

Can the system generate a fax cover sheet for the receiving user?

Are all features that apply to voice messages (private, future delivery, etc.) available for fax messaging?

Can callers and users attach a voice message to a fax?

Does the system support fax-on-demand capabilities?

Can the system automatically delete a fax after it is successfully printed? Can users choose to receive a fax from the fax machine from which they are calling?

Can a mailbox be configured with several "back-up" telephone numbers that are automatically dialed if the primary number is not answered?

Describe Informational (Listen Only) mailbox functionality.

How many greetings does the mailbox support at one time? Can users edit/change personal greetings at any time?

Describe the default system greeting used when a greeting has not been recorded by a mailbox owner.

Can users choose or be required to use a standard system greeting instead of a personalized one?

Describe the personal normal greeting functionality. Describe the personal scheduled greeting functionality.

Describe the personal busy greeting functionality.

Does the proposed IP messaging system support the ability for mailbox owners to record and use an extended absence greeting?

Are callers and users notified that a mailbox is full? If so, how?

Describe the methods and procedures that are used for logging into a mailbox.

Can mailbox owners annotate a message before forwarding?

Can callers append to their messages? Can users add comments on an already recorded message without re-recording the entire message?

Does the proposed IP messaging system support the ability to automatically deliver voice messages to another phone?

Does the proposed messaging solution support message Auto playback? Describe the features available for mailbox owners to delete a message.

Can the system warn users of impending message deletion because messages have reached the allowed retention time?

Does the proposed IP messaging system support the ability for mailbox owners to retrieve a previously deleted message?

Does the proposed IP messaging system provide the ability for mailbox owners to receive a confirmation that a message was delivered?

Can the proposed IP messaging system deliver messages to non-subscribers? Describe the options available to callers when a message is deposited into a mailbox.

Describe the options available while recording a message.

Describe the features available with the proposed IP messaging system to reply to a message.

When replying to a message, can a copy of the reply be sent to a user or group of users?

Is there a way to warn a caller that is leaving a voicemail that they are approaching the maximum message length?

2.11 Conferencing Requirements

What are the configuration options available with your conferencing solution? Briefly describe your audio conferencing functionality.

Describe how users can access audio conferences.

Describe the parameters used when scheduling a conference.

Can a conferenced user (internal to the system) initiate additional conference to increase the total number of conference users?

Can a roll call of participants currently in the conference be announced or displayed?

What is the maximum number of users on a single audio conference? Describe your video conferencing functionality.

Describe your data collaboration functionality.

Does the system offer video conference capability inherent to the core product? What is the maximum number of participants that can be added to the video conference?

What video codecs are supported by your conferencing solution?

2.12 Call Center

Does the proposed solution support an integrated inbound call center application?

Does the call center application require additional server hardware? Describe the capacities of the call center application.

2.13 System Administration

Describe the process for administrators to remotely access the system. Identify if any special software or plug-in is required.

Does your solution provide central administration and management of all users and equipment across all locations?

Can multiple administrative activities be performed by multiple administrators concurrently?

Outline the steps required to facilitate setting up a new extension.

Does the proposed solution support the ability to map feature functions to phone buttons on a per-user and per-group basis?

Outline the steps required to move a phone between buildings.

Is your system compliant with government standards on time zones? Does the proposed solution support automated daylight savings time?

Does equipment support line command administration? Does the administrative application have on-line help?

Does the system permit the system administrator to locate station information based on multiple criteria (e.g. extension number, name etc.)?

Does the system support templates, which allows the system administrator to program multiple telephones with similar features/functions at the same time?

How frequently does the bidders call processing system back-up the configuration data, which includes up-to-date moves and changes?

Is the system capable of doing such a backup remotely to a secured off-site without on-site administrator presence?

Describe the Describe Class of Service restriction levels available to define calling patterns for telephones.

Describe the ability to restrict the features available to end users via the administration interface.

Identify the languages supported by the administration interface.

What normal maintenance/ administrative activities require system downtime? List the system down time incurred by each of these activities.

What type of system maintenance do you suggest for the system? Do these procedures require downtime on the system? If so, how long?

Describe the audit capabilities of your system. Describe the US 508/ADA Compliance of your system.

2.14 Reporting

Provide a brief overview of your system's data reporting and real-time monitoring capabilities.

Can your system aggregate performance data from multiple sites, servers, and/or components?

Describe the historical reports that can be generated from the call detail record system of your solution.

Describe how data is viewed for historical reporting.

Provide examples of the standards reports available with the proposed solution for the telephony and voice mail sub-systems.

Describe the licensing requirements for your historical (call detail record) reporting system.

Describe the server requirements for your historical (call detail record) reporting system.

Does your system provide the user with the ability to create custom real-time and historical reports?

2.15 System Element Management

Briefly describe the network management capabilities of the proposed solution. Describe the server and database requirements of your management solution.

Can the system be programmed to perform system backups automatically? Does the management system support the graceful shutdown of services? Describe the interoperability with other OSS systems.

Can the management system support the ability to perform scheduled software upgrades?

Describe how we can monitor the status of equipment in your proposed solution. Does the equipment send SNMP alerts?

Can QoS monitoring be done through SNMP for monitoring with your network management solution?

Does the monitoring application include a graphical client that will extrapolate data into graphs and tables for easy viewing by administrators?

2.16 Implementation

Fully describe the implementation process.

2.17 Maintenance

Fully describe the maintenance plans available for the proposed solution.

2.18 Training

Provide a description of the System Administration and Maintenance training courses.

3 Vendor Overview

Describe your company's experience with implementing SIP-based communications solutions.

Provide a brief history of the proposed solution and state its experience in our market.

Furnish a list of references with specific information regarding type of project and involvement in providing of equipment and systems in a K-12 environment.

4 Pricing

Provide detailed pricing, including costs of installation, support, licensing and licensing for common options.