

**LEAKE COUNTY SCHOOL DISTRICT
123 E. MAIN STREET
P.O. DRAWER 478
CARTHAGE, MS 39051**

E-RATE 2015-2016 CATEGORY 2
REQUEST FOR PROPOSALS (RFP)
FOR LAN INFRASTRUCTURE

PROPOSAL DUE DATE:

FRIDAY, FEBRUARY 6, 2015
BID OPENING 2:00 P.M.

PATRICK POSEY
SUPERINTENDENT OF EDUCATION

LEAKE COUNTY SCHOOL DISTRICT

LEAKE COUNTY SCHOOL DISTRICT Lan Infrastructure RFP

Subject: Requests for Quotations/Proposals for installing switches, ups backups and related equipment for schools in the Leake County School District.

Purpose:

Proposals are being sought by The Leake County School District for the purpose of evaluating various solutions to provide new switching infrastructure with backup solutions and related cords and fiber modules to integrate with the District's existing wireless equipment at the schools.

Background:

Our District's students, teachers, staff and administrators are using more and more resources that require Internet access, including wireless connectivity. The LCSD has currently standardized on a Cisco platform; however the District is looking at a new proposed solution, with a preference for Extreme switches, from other manufactures with proven evidence of equipment that is functionally equivalent or better. The purpose of this RFP is to explore the various options currently supported through the E-Rate program and its Category Two services.

General Requirements:

The Leake County School District is seeking quotations for complete solutions to install a lan infrastructure to include replacing switches including gbic modules, fiber and Ethernet cords, and ups battery backups for equipment infrastructure at each of the following school sites:

- Leake Central Elementary School,
- Leake Central Junior High School,
- Leake Central High School,
- Leake County Career and Technical Center,
- Leake County Elementary School,
- Leake County High School,

Terms used throughout this RFP

USAC – Universal Service Administrative Company

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SPAC - Service Provider Annual Certification
SPIN – Service Provider Identification Number
LCSD – Leake County School District

This RFP package consists of the following sections:

- I. General Conditions
- II. Detailed Specifications
- III. District Responsibilities
- IV. The Service Provider's responsibilities
- V. Proposal Forms

Send proposals and supporting documentation to:

Pamela Tucker, Technology Coordinator
703 Northwest Street
Carthage, MS 39051

Do Not Fax or Email Proposals. Proposals will be received by The District at the Office of Superintendent, 123 E. Main Street, Carthage, MS 39051 until 2:00 PM CST, Friday, February 6, 2015. Proposals must be mailed to the address above in time for delivery before the closing date or hand delivered.

Schedule of Events:

Event	Date(s)	
Release of RFP to Service Providers	01-12-2015	
Site Visits (Mandatory)	01-21-2015	9:00 AM CST
Optional Site Visit (If Circumstances permit)	01-23-2015	9:00 AM CST
Deadline for Submission of Proposals	02-06-2015	2:00 PM CST
Opening of Proposals (CPSD Central Office)	02-06-2015	2:00 PM CST
Board Approval of Bids	03-05-2015	5:30 PM CST

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Inquiries

All correspondence and inquiries regarding this RFP must be done via Email:

ptucker@leakesd.org

If a Service Provider does not receive a response within 48 hours, it is the responsibility of the Service Provider to call Pamela Tucker at 601-267-8442 x 207 and confirm that the email message was received.

All responses to inquiries will be emailed to the Service Providers.

Basis of Award:

1. E-rate approval by USAC
2. Provider must have current USAC SPAC and SPIN Number.
3. References of at least three installations of similar application size, complexity, infrastructure design and installation method as proposed.
4. Proposed network equipment's ability to meet current and future needs of LCSD, including onsite support, training, and technical assistance.
5. Compatibility with existing wireless infrastructure and existing Cisco VOIP Phone System at Leake County Elementary School.
6. Vendor's qualifications, knowledge, experience, past work and functionality of previous installations.
7. Overall cost and quality of proposal.
8. Service Provider MUST complete the MANDATORY walk through.
NO BIDS WILL BE ACCEPTED FROM SERVICE PROVIDERS WHO DO NOT COMPLETE THE MANDATORY SITE VISIT.
9. Total number of lan equipment will be determined during walk through.

The mandatory walk through will be on Wednesday January 21, 2015 at 9:00 AM at the Leake County Career and Technical Center, 703 Northwest Street, Carthage, MS 39051. If extenuating circumstances prevents a vendor from attending on this date a possible alternate date will be Friday, January 23, 2015 at 9:00 AM. This date must be confirmed by Pamela Tucker by phone at 601-267-8442 x 207 or by email at ptucker@leakesd.org.

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I. General Conditions

The following are the General Conditions for the work to be performed as outlined in the Detailed Specifications.

1. Location of Sites:

The location of the work is on property owned by the Leake County School District. School sites are listed at the end of this document.

2. Scope of Work:

It is understood that, except as otherwise specifically stated in this RFP, The Service Provider shall provide and pay for all materials, labor, tools, equipment, transportation, temporary construction of every nature and all other services and facilities of every nature whatsoever, necessary to execute, complete and deliver the work within the specified time. Licenses necessary for the execution of the work shall be secured and paid for by the Service Provider.

Any work necessary to be performed after regular working hours, on weekends or legal holidays, shall be performed without additional expense to the District, unless the weekend or holiday work due to a delay caused by the District and written consent is secured prior to the completion of said work by the Technology Coordinator and Superintendent.

3. Protection in General:

The Service Provider shall protect all buildings, furniture, equipment, personal items, trees, shrubs, lawns and all landscaping on school property from damage. Any damaged property shall be repaired or replaced at the Service Provider's expense. Labor shall include all restoration (leveling, sod replacement) of grounds broken up during the installation of this network.

4. Change in Contract:

The District will not be responsible for any change in the work involving extra costs unless approval in writing is furnished by the Technology Coordinator before such work is begun.

5. Existing Conditions:

The Service Provider, in submission of this proposal, will have visited the

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premises and will be assumed to have taken into consideration all conditions, which might affect this work. No consideration will be given to any claims based on a lack of knowledge of existing conditions. To schedule a site visit, contact Pamela Tucker at:

ptucker@leakesd.org

If a Service Provider does not receive a response within 48 hours, it is the responsibility of the Service Provider to call Pamela Tucker at 601-267-8442 x 207 and confirm that the email message was received.

6. Insurance:

Within ten (10) days after notification of award, The Service Provider shall furnish to The District a Certificate of Insurance showing compliance within the following limitations:

a) The Service Provider agrees to comply with the provisions of Worker's Compensation Laws of the State of Mississippi.

b) It shall be stated on every policy or Certificate of Insurance, as the case may be, that "The insurance company agrees that the policy shall not be canceled, changed, or allowed to lapse until ten (10) days after The District has received written notice as evidenced by the return receipt of registered mail, and it is agreed further that as to lapsing, such notice will not be valid if mailed more than fifteen (15) days prior to the expiration date shown on the policy."

c) The Service Provider shall maintain other insurance (with the limits shown below) that shall protect The Service Provider and The District from any claim for property damage or personal injury, including death, which may arise out of operations under this contract, and the Service Provider shall furnish The District with certificates and policies of such insurance as follows.

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Below is a list of the insurance coverage that must be procured by The Service Provider at his own expense. The Service Provider agrees to follow instructions indicated in each case:

The District Protective Liability Insurance:

- Personal injury, including death, limits of \$1,000,000.00 for each person and \$1,000,000.00 for each accident.

Service Provider's Public Liability Insurance:

- Personal injury, including death, limits of \$1,000,000.00 for each person and \$1,000,000.00 for each accident.
- Property Damage limits of \$100,000.00 for each accident and \$500,000.00 for the aggregate.

7. Workmanship

All work shall be performed in a professional manner. Personnel from the District may observe the work procedures and workmanship of the Service Provider, but such observation will not relieve the Service Provider from any responsibility of performance or constitute acceptance of the work performed. The Leake County School District has a rich tradition of excellence, which extends to all employees both in and outside of the classroom. The Service Provider will instruct personnel to adhere to high standard of excellence in quality work, behavior, language, and appearance while performing the duties of this installation.

8. Proposed Services and Service Provider Qualifications

The Service Provider shall furnish a written document that describes the services proposed under these specifications. It is understood that the Service Provider is not responsible for the function of existing equipment already installed at the schools. However, limited troubleshooting of existing equipment will be provided by the Service Provider free of charge to determine if the existing equipment or cabling can be re-utilized. The Service Provider must also show proof that their employee(s) are certified to install the proposed components and electronic equipment.

9. Financing

The Service Provider will provide a binding contract to the District for submission to the Schools and Libraries Division. After notification of award from the Schools and Libraries Division, the Service Provider will receive a Purchase Order for the products and services for which the Service Provider

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will be responsible as a result of this RFP. This Purchase Order will show the amount that is the responsibility of the local school system. The issuance of any purchase order will be contingent upon approval by USAC. Complete payment to the Service Provider will be subject to the rules of the Schools and Libraries Division (SLD). After notification by the Schools and Libraries Division (USAC Fund Administrator) of the acceptance of the Contract, the contingency will be removed and the Purchase Order will be submitted to the Service Provider in accordance with the rules and regulations of the SLD.

10. Application for Payment

All applications (invoices) for payment shall be submitted to the District according to the USAC regulations. The Service Provider must submit a Service Provider Invoice for processing of the discounted portion of the bill.

11. Addenda

Any addenda issued after the issue of this RFP shall be delivered to all parties who complete or have completed the mandatory site visit within 24 hours of issuance or upon completion of the site visit.

If any questions arise within the RFP documents, the Service Provider may submit to The District, written request for interpretation. Any interpretation of documents will be made by addendum to the RFP. Copies of any addendum will be emailed or delivered to each that has completed the mandatory site visit. The District will not be responsible for any other explanation or interpretations. The District reserves the right to reject any or all proposals, in whole or in part, and wave technicalities and informalities.

12. Proposal Submittal:

In order to be eligible for submission of a quote, the Service Provider must complete a site visit to all locations in the proposal. Any submissions submitted by a company that has not completed a site visit will be returned unopened.

One original and one copy of the proposal and two copies of the other required documentation must be sent in a sealed envelope clearly marked with the words "Leake County School District, LCSD LAN INFRASTRUCTURE 2015" to the address noted on page 2 of this document. All proposals will be opened at 2:00 PM CST on FRIDAY, FEBRUARY 6, 2015, at the LCSD Office of the Superintendent at 123 E. Main Street, Carthage Mississippi 39051.

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Due to the nature and diversity of the proposals, a significant amount of time may be required to determine which proposal provides the best option for the District. The possibility is that the best option will involve district purchased equipment that may or may not be E-Rate eligible or may or may not be part of this proposal could significantly delay the evaluation process. The evaluation process will not be complete until the District has determined the best proposal based on all factors.

13. Withdrawal of Proposal

A proposal cannot be withdrawn after it is filed, unless the Service Provider makes a request in writing to the District prior to the time set for the opening of submitted proposals. The District will accept no quotes after the deadline for submission of proposals.

14. The Service Provider's Qualifications

The Service Provider must provide proof of registration with the (SLD) for reimbursement under E-Rate guidelines for Category Two Services. If The Service Provider fails to file the appropriate forms with the SLD or fails to receive an SLD Service Provider Number, the District is not responsible for the discounted portion of The Service Provider's bill. The Service Provider must generate an invoice for the USF portion of the bill in accordance with SLD regulations. The Service Provider is responsible for supplying SLD SPIN with the quote.

It is preferred that the Service Provider has been in business for at least 3 years and have an office in the state of Mississippi. A legible copy of incorporation papers must be attached and noted.

Service Providers must give examples of experience with installation of similar projects that have equal infrastructure equipment. Service Provider must give examples and contact information for at least three such installations.

15. Stored Materials

Any materials stored on job site shall be the Service Provider's responsibility.

16. Specifications

Complete specification details for all products being proposed must be provided as part of the RFP response package (proposal).

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17. Time of Completion

All work, on all LCSD sites, must be completed and operational by July 30, 2016, presuming the funding has been approved by USAC and the Service Provider is selected, contract signed and E-Rate forms are submitted by the district in a timely manner.

18. Accident Prevention

Precautions shall be exercised at all times for the protection of persons (including employees and students) and property and hazardous conditions shall be guarded against or eliminated. The District or the building principal will determine what constitutes a hazardous condition on any campus and the Service Provider will be responsible for rectifying the issue to the satisfaction of The District.

19. Contract Form

Upon Contract award and a binding contract signed, the standard written Purchase Order form will be issued to the successful Service Provider. Issuance of the Purchase Order will be contingent upon USAC acceptance and funding of the project.

20. Indemnification

The Service Provider agrees to hold The District harmless and to indemnify The District for every expense, liability or payment arising out of or through injury (including death) to any person or persons or damage to property (regardless of whom the owner may be of the property) of any place in which work is located arising out of or suffered through any act or omission of The Service Provider or Subcontractor.

21. The Service Providers' Representative

The District reserves the right, with sole discretion, to refuse to allow any representative of The Service Provider to service the contract in any manner. In this event, The Service Provider shall furnish another representative that is acceptable to The District. Examples of reasons for refusing to allow a Service Provider representative to service the contract include, but are not limited to:

- Use of profanity or abusive language around any school personnel or students.
- Unclean or unkempt appearance.

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- Intoxication or obvious drug use.
- Threatening behavior towards any school personnel or students.

Should the Service Provider use subcontractors for portions of the work, The District reserves the right to reject any subcontractor without explanations or recourse by The Service Provider or subcontractor.

22. The District Regulations

The Service Provider and his representatives shall follow all applicable school district regulations while on The District property, including the no smoking, no weapons, and drug free policies. No work shall interfere with school activities or environment unless the Principal or person in charge gives permission. All Service Provider personnel shall be easily identified by the use of identification badges and uniforms or shirts with The Service Provider's logo clearly visible.

23. Governing Law

All RFPs and related documents submitted to The District by the Service Provider are governed under the laws of the State of Mississippi.

24. Comprehensive List of References:

All references should include: a contact person, dates of work, mailing address and telephone numbers. References must include three (3) or more references of installations of similar size and complexity within the USA.

25. The District reserves the right to:

- a. Give full and proper consideration to the service, reputation, product knowledge, and experience of all companies presenting proposals, and to disqualify any such Service Provider it deems unqualified to provide the services requested.
- b. Reject any and all proposals, in whole or in part, if deemed necessary.
- c. Accept any alternative proposal believed to be in the best interest of the district.
- d. Waive any formality in the quote submission.
- e. Cancel any awarded bid if the service proves unsatisfactory.

26. Price Quotations

Price quotations are to include the furnishing of all materials, equipment, maintenance, shipping costs, delivery, installation, drawings and the provision of all labor and services necessary or proper for the completion of the work as

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may be otherwise expressly provided in the contract documents. The District will not be liable for any costs beyond those proposed herein. Please be advised that public schools are specifically exempted from the payment of Mississippi Sales Tax.

In case of discrepancy in computed proposal prices, the unit price shall govern and the total price shall be revised accordingly.

27. Variation in Quantities and Configuration

The District reserves the right to modify quantity and configuration requirements. The Service Provider agrees to sell The District the revised quantity of items at the unit price stated in the proposal regardless of quantity changes.

28. Terms of Payment

The start of services for this project may not begin prior to July 1, 2015. The District will, if possible, issue an SLD Form 486 on the day services begin. For the duration of the contract, payments will be made on the first Friday after the first meeting of The District School Board after the submission of invoices from the Service Provider.

29. Turnkey Solution

All proposals are to provide a turnkey solution for installation and configuration of all switches and ups battery backups to include configuration of all existing vlans, voip and wireless equipment, existing fiber connections and provide a seamless integration into existing technical network and testing of equipment. Upon completion of project the Technology Coordinator will be provided close out documents detailing the location and installation of all switches and UPS with a schema drawing of the infrastructure.

30. Term of Contract and E-Rate Subsidies

Payment for The District's lan infrastructure proposal is dependent on E-Rate subsidies. The district will file for the E-Rate subsidies throughout the term of the contract. In the event that the district E-Rate subsidies were to cease, the district will notify the service provider as to the date of the cessation and the District's will be liable only for payment for services until the time of

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termination. If E-Rate subsidies stop, the district will not be bound by the remainder of the contract.

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II. Detailed Specifications

The specifications provided in this section are intended to convey the characteristics of a system to provide lan infrastructure connectivity in six schools within the Leake County School District.

The Leake County School District is looking for quotations for a lan infrastructure solution, priced by the number switches and ups battery backups indicated at each site, which will coordinate with the District's existing centralized solution to manage the equipment.

LCSD is currently on and has standardized on a Cisco platform. The District has a preference for an Extreme solution for switches and management software and APC UPS battery backups however the District will entertain proposed solutions from other manufacturers if the vendor can show equal or better functionality. It is the vendor's responsibility and obligation to provide documentation and other evidence that a non Extreme product is functionally equivalent or better. Without such documentation, LCSD cannot accept the argument on functional equivalency or better based upon on cost alone.

The scope of the project will be as follows:

- Install and configure a wired solution of switches and battery backups including configuring vlans to segregate data and voice traffic as needed. Vendor must be a participant in manufacturer's partner program. Vendor must have all engineers certified in the manufacturer's switches. Vendor must have the engineers with the skills to integrate the Cisco VOIP phone system at Leake County Elementary School into the new switch configuration as well as existing wireless access points and controller. All existing equipment in the district must be functional after installation and configuration.
- Provide training to LCSD technical staff on the configuration and management of all devices. This training should include any and all aspects of configuring, installing, and managing the entire switch lan infrastructure, including any management software for maintaining switching infrastructure and best practices. Training may be provided by the vendor or can be offered at an authorized training center.
- All equipment and material should be new. Used, refurbished or repurposed equipment or material will not be acceptable.
- Management and configuration tools to configure and manage the network devices are included in this project. This training should include any and all aspects of configuring, installing, and managing the entire

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lan infrastructure, including best practices. Erate ineligible software or equipment should be listed separately on proposal but included in the total cost of the bid.

- Project must be field supervised by an Engineer with the appropriate manufacturer's certification. (Please include information on who will perform this service.) Limited lifetime warranty for all LAN/WLAN components. Vendor must be able to provide quality in-house industry certified engineers for post-installation support.
- Vendor must provide evidence of successful past performance of the installation and configuration of switches in a LAN in the MS K-12 environment.

Minimum Technical Requirements

In additions to the requirements listed above, the equipment included in the proposals needs to at least meet the following minimum requirements:

LCSD requires switches to provide a managed, layer 3 or 4, gigabit switched LAN. We require that all proposed switch hardware to be compatible with existing wireless infrastructure and voip phone system to enhance support, insure end to end operability, provide a common feature set and enable unified LAN/WLAN management.

Proposed suggestions are stackable switches in the main wiring closets with POE+ functionality as needed for access points and Mini-GBIC modules as needed along with other switches in closets on the edge of the network. Included in the quote will be all fiber cables, stackable cables for switches, red 3 ft Cat6 Ethernet patch cables at patch panels and red 14 ft. or greater Cat6 Ethernet patch cables for every connected drop in the patch panel. In each wiring closet the appropriate UPS battery backup will be installed to protect all equipment. Please include model, make and quantity proposed for each wiring closet location.

Before preparing your RFP Response, please read carefully all sections of the RFP. Please respond with Comply or Does Not Comply and provide a supporting narrative response if necessary. If more than one product is being utilized to provide similar functions in each case, address the requirements below for each product quoted. We will consider any vendor not responding to each requirement for all products quoted to be non-responsive.

The proposed solution must provide a 10/100/1000Base-TX Ethernet switch solution that meets the requirements provided below. Your response should describe how your offering would meet these requirements. Vendors must provide clear and concise responses, illustrations can be provided where

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appropriate. Any additional feature descriptions for your offering can be provided, if applicable.

Example of Wired Switch Bid Specifications from Extreme

Extreme Summit G2 Series Stackable Switch

Must provide a stackable switch providing the following at a minimum:

- Must offer a modular switching solution that supports flexible port configurations providing the ability to support 10/100/1000Base-TX, 1000Base-X SFP and 10GBaseX-SFP+ ports. Switches should be capable of supporting up to six 10GbE SFP+ ports. Please describe the available switch offerings including port densities and identify which switch models are recommended.
- 48 port switch must offer system performance of at least 336 Gbps switch bandwidth and 250 Mpps forwarding rate. Please describe the performance levels for the recommended switching solution.
- Must support cross-platform stacking capability offering the ability to stack with other switches from the same manufacturer. Please describe the stacking capability of the recommended switching solution and the ability to stack with other recommended switches
- Must support stacking of up to eight units in a stack.
- Must support flexible stacking options with an option for high speed stacking of up to 160 Gbps. Please describe the available stacking methods.
- It is preferred that the 10 Gigabit Ethernet modules will also be able to accept standard Gigabit SFP transceivers. Please describe the capability of your switch.
- Must support dual internal redundant power supplies that are hot-swappable.
- Must support 802.3af and 802.3at PoE+
- Must be capable of supporting up to 30 watts of PoE power per switch port. Please describe how the solution can achieve this.
- Must support a modular operating system that is common across the entire switching profile. Please describe the OS and advantages.
- Must support SNMPv1, SNMPv2c, and SNMPv3
- Must support RMON (Statistics, History, Alarms, Events)
- Must support routing protocols including: static routes, OSPF v2/v3, RIPv2, RIPv4, VRRP. Please describe if any licenses are required to enable these capabilities.

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- Must support multicast protocols including: MVRP, IGMP v1/v2/v3, MLD v1/v2, PIM-SM, PIM-DM and PIM-SSM. Please describe if any licenses are required to enable these capabilities.
- Must support ingress and egress bandwidth policing/rate limiting per flow/ACL
- Must support egress bandwidth rate shaping per egress queue and per port
- Must support up to 8 QoS egress queues per port
- Must support high availability network protocols. Please describe any specific features supported by the switch to ensure high availability.
- Must support 802.1w Rapid Reconfiguration of Spanning Tree and 802.1s Multiple Spanning Trees
- Must support Port mirroring options (one-to-many, many-to-many)
- Must support 802.3ad Link Aggregation. Please specify the number of LACP groups.
- Must support LLDP and LLDP-MED
- Must support RADIUS Accounting and TACACS+
- Must support MAC security with lockdown and limit capabilities
- Must support line sFlow v5
- Must support Denial of Service (DoS) protection. Please describe the switch capabilities to protect against DoS attacks.
- Must be capable of implementing user policies that are independent of the VLAN assigned to the port.
- Must CLEAR-Flow, threshold-based alerts and actions.
- Must support the ability to authenticate multiple users on a single port via 802.1X, web or MAC at the same time.
- Must support a Lifetime Warranty that includes sustaining releases for software, phone support and advanced hardware replacement. Please describe the warranty that is provided.

Value-Added Considerations

Please outline value-added features based on product(s) and/or service(s) of your organization.

Vendor Response:

Extreme Summit X440 Series Switch

Before preparing your RFP Response, please read carefully all sections of the RFP. Please respond with Comply or Does Not Comply and provide a supporting narrative response if necessary. If more than one product is being utilized to provide similar functions in each case, address the requirements

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below for each product quoted. The University will consider any vendor not responding to each requirement for all products quoted to be non-responsive.

Access

The proposed solution must provide a 10/100/1000Base-TX Ethernet switch solution that meets the requirements provided below. Your response should describe how your offering would meet these requirements. Vendors must provide clear and concise responses, illustrations can be provided where appropriate. Any additional feature descriptions for your offering can be provided, if applicable.

- Must offer a modular switching solution that supports 24 or 48 10/100/100Base-TX ports and the capability to support either four 1Gig SFP ports and/or two 10Gig SFP+ ports. Please describe the recommended switching solution.
- 48 port switch must offer system performance of at least 136 Gbps switch bandwidth and 101 Mpps forwarding rate. Please describe the performance levels for the recommended switching solution.
- It is preferred that the 10 Gigabit Ethernet modules will also be able to accept standard Gigabit SFP transceivers. Please describe the capability of your switch.
- Must support the capability to support dual redundant power supplies
- Must support 802.3af and 802.3at PoE+
- Must support a modular operating system that is common across the entire switching profile. Please describe the OS and advantages.
- Must support cross-platform stacking capability offering the ability to stack with other switches from the same manufacturer. Please describe the stacking capability of the recommended switching solution and the ability to stack with other recommended switches
- Must support stacking of up to eight units in a stack.
- Must support SNMPv1, SNMPv2c, and SNMPv3
- Must support RMON (Statistics, History, Alarms, Events)
- Must support routing protocols including: static routes, OSPF v2/v3, RIPv2, RIPv3, VRRP. Please describe if any licenses are required to enable these capabilities.
- Must support multicast protocols including: MVRP, IGMP v1/v2/v3, MLD v1/v2, PIM-SM, PIM-DM and PIM-SSM. Please describe if any licenses are required to enable these capabilities.
- Must support ingress and egress bandwidth policing/rate limiting per flow/ACL
- Must support egress bandwidth rate shaping per egress queue and per port
- Must support up to 8 QoS egress queues per port

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- Must support high availability network protocols. Please describe any specific features supported by the switch to ensure high availability.
- Must support 802.1w Rapid Reconfiguration of Spanning Tree and 802.1s Multiple Spanning Trees
- Must support 802.3ad Link Aggregation. Please specify the number of LACP groups.
- Must support LLDP and LLDP-MED
- Must support RADIUS Accounting and TACACS+
- Must support MAC security with lockdown and limit capabilities
- Must support IEEE 802.1 Audio Video Bridging to enable real-time audio/video transmission over Ethernet. Please describe if any licenses are required to enable this capability.
- Must support line sFlow v5
- Must support Denial of Service (DoS) protection. Please describe the switch capabilities to protect against DoS attacks.
- Must support a Lifetime Warranty that includes sustaining releases for software, phone support and advanced hardware replacement. Please describe the warranty that is provided.

LCSD requires a centralized managed solution to manage the switches, access points and controller for the wired and wireless environment to provide the ability to monitor the network, provide network security, provide remote management, and system wide deployment of services. Optional plug in would be a MDM mobile device management solution. If your solution has that option, please provide documentation of your managed solution and include costs of installation, licensing and training and how it would integrate into an existing Microsoft domain network. Cost of this management solution should be a separate quote and not included in the infrastructure bid as it is erate ineligible.

Example of Extreme Centralized Management Solution:

Extreme NetSight applications

Vendor should provide a management solution meeting the following requirements as a minimum:

- Must provide a system-level management tool.
- Must provide centralized management for wired and wireless devices
- Must allow system-level operations such as device discovery, event management, logging and application maintenance to be performed centrally.

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- Must include several purpose-built plug-in applications that are integrated to provide specific, value-add capabilities to the management system.
- Must provide the capabilities to modify, filter, and create your own flexible views of the network.
- Must allow for graphing or viewing in table format and multiple OIDs that are user selectable.
- Must provide a tool to find the physical location of systems and end users, and where they are connected, quickly and easily.
- Must allow scheduled events or tasks that the user can perform behind the scenes or schedule an event for another time in the future.
- Must provide a utility to view and select MIB objects from a tree-based representation and include a compiler for new or third-party MIBs.
- Must provide a system wide deployment of VLAN configuration and monitoring capabilities.
- Must provide comprehensive remote management support for all proposed network devices as well as any SNMP MIB-I or MIB-II manageable devices.
- Must support RADIUS and LDAP Authentication for users of the application.
- Must support secure https switch management
- Should provide a solution that can be installed on a virtual appliance. Please detail the requirements for the virtual appliance.
- Should provide an optional server appliance with all applications pre-installed (activated via license keys)

Optional plug-in application must be available to define system-wide policy rules for users, applications, protocols, VLANs and ports. Supporting the following additional functionality as a minimum:

- Must support the ability to define policies once and enforced the policies automatically on the proposed wired and wireless devices.
- Must be able to define policies to rate-limit bandwidth, throttle the rate of new network connections, prioritize based on Layer 2 or Layer 3 QoS mechanisms, apply packet tags, isolate/quarantine a particular port or VLAN, and/or trigger pre-defined actions.
- Must be able to deploy policies network wide with a single click.
- Must provide automated functionality to ensure that appropriate services are available to each user, no matter where they log on.
- Must provide ease of implementation, administration and troubleshooting.
- Must provide an audit trail (event log).

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- Must work with existing authentication practices
- Must support 802.1x, Radius and MAC authentication
- Must allow IT administrators to easily define a number of pre-configured network policies, and designate select personnel to activate/deactivate these policies as appropriate
- Must be able to instantly permit or block network activities including Web access, email or peer-to-peer file sharing
- Must be easy to configure and deploy providing a simplified, point-and-click Web-based management application
- Must not require any end-user client or software agent

Optional plug-in application must be available to provide comprehensive network inventory and change management capabilities. Supporting the following additional functionality as a minimum:

- Must provide a detailed inventory of products organized by device type.
- Must provide the ability to track device attributes such as serial number, asset tag, firmware version, CPU type, and memory.
- Must support the ability to present detailed configuration information including date and time of configuration saves, firmware version, and file size.
- Must record a history of device attributes, and reports any changes made to the device.
- Must be able to provide a history of firmware and configuration changes made to a device.
- Must provide a centralized history of inventory management operations.
- Must be able to generate valuable, in-depth reports for network inventory planning purposes.
- Must support the ability to download firmware to single or multiple devices simultaneously.
- Must be able to download boot PROM images to single or multiple devices simultaneously.
- Must be able to schedule routine device configuration back-ups.
- Must be able to download text-based (ASCII format) configuration templates to one or more devices.

Optional plug-in application must be available that intelligently interacts with advanced security applications to automate responses to security incidents meeting the following requirements as a minimum:

- Must provide a dynamic, configurable threat containment solution with a broad range of response, logging and auditing options

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- Must instantly identify the physical location and user profile where an attack was sourced.
- Must be able to take action based on a predefined security policy, including the ability to notify the intrusion detection system of the actions taken via a SNMPv3 trap (inform).
- Must be able to automatically disable or isolate the source of illegal or inappropriate traffic that has identified from an IDS system.
- Must provide a granular control (per-user, per-application) over suspicious activities and unauthorized network behavior
- Must provide granular, port-level control based on threat and event type
- Must provide event log and reporting
- Must implement a “quarantine role” for the user connected to the port
- Must be able to isolated and quarantined the attacker without disruption to other users, applications and business critical systems
- Must dynamically deny, limit or change the characteristics of the user's access to the network

Optional plug-in application must be available that provides a unified view of all applications meeting the following requirements at a minimum:

- Must provide a web interface that contains reporting, dashboards, troubleshooting and monitoring tools.
- Must provide web-based flexible view, device views, and event logs for the entire infrastructure.
- Must enable diagnosis of network issues and performance through real-time NetFlow analysis.
- Must provide port level analysis capability
- Must provide customizable reports

III. The District Responsibilities

1. Access for Installation

The District will, during the progress of the installation, allow the Service Provider and its employees access to the premises and facilities at all reasonable hours or at such hours as The District representative and the Service Provider agree upon.

2. Heating/Cooling

Provide heat or cooling when required and general illumination in rooms where work is to be performed by The Service Provider.

3. Inspections

Promptly make inspections when notified by the Service Provider that the equipment or any part thereof, is ready for acceptance.

4. Electrical

The District will provide all electrical needs within the district buildings.

5. Delay in Work

It is understood that the Service Provider will not be held accountable for any delays caused by The District.

IV. THE SERVICE PROVIDER'S RESPONSIBILITIES

1. Provision

The Service Provider must provide all supervision, tools, equipment, hardware and wiring materials as specified; transportation, erection, construction, unloading, inspecting, and keeping inventory as specified in attached contract documents. Whenever in the Contract the terms "provide, furnish, supply, install, etc.", can be interpreted as requiring the Service Provider both to furnish and/or install materials, unless specific provisioning/installation of the materials by The District is denoted.

2. Ceiling Tiles

Provide for the removal and reinstallation of all ceiling tiles as needed. Any broken ceiling tiles will be replaced with equal or better quality of the damaged ceiling tiles.

3. Identification

The Service Provider will identify to the district any work necessitating cutting into or through any part of the building structure such as girders, beams, concrete, tile floors or partition ceilings.

4. Damage

The Service Provider will be responsible for repairs of damage to the building, roads, equipment, existing cable, or property. The Service Provider will promptly report to a representative of The District any such damage to the building, roads, equipment, existing cable, or property that may occur while performing work in the facilities.

5. Installation

Install the equipment and hardware in accordance with the manufacturer's specifications. All equipment shall be sufficiently labeled such that the equipment designation or purpose, interconnections and cabling endpoints can be easily determined. All labeling shall correspond with the wireless diagrams provided in Item 13 below.

6. Test and Inspections

Conduct tests and inspections in the presence of the District technical representative after installation has been completed in order that the District

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may be assured that the requirements for the installation are met.

7. Completion Notification

Promptly notify the District designated contact of completion of this proposed project.

8. Defects

The Service Provider will promptly correct all defects for which the Service Provider is responsible.

9. The District Contact

The Service Provider must coordinate all work with the District designated contact.

10. Cleanup

Upon completion of the work each day, the Service Provider must remove all tools, equipment, rubbish and debris from the premises and must leave the premises clean and neat and in the same condition as it was found.

11. Subcontractors

The Service Providers may not use subcontractors to perform work. All responsibilities rest with the Service Provider.

12. Testing

The Service Provider will provide the District with complete detailed test results. The test results must be delivered to the District before payment.

13. Diagrams

The Service Provider shall furnish, with the quote, a complete set of drawings showing the design of the lan infrastructure and the interconnection of all equipment installed. Diagrams will note the number of POE switches needed for each school's lan installation.

14. Codes, Standards, and Ordinances

All work shall conform to the latest edition of the National Electrical Code, the Building Code, and all local codes and ordinances, as applicable.

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15. Safety

The Service Provider shall take the necessary precautions and bear the sole responsibility for the safety of the methods employed in performing the work. The Service Provider shall at all times comply with the regulations set forth by federal, state, and local laws; rules; and regulations concerning "OSHA", and all applicable state labor laws, regulations, and standards. The Service Provider shall indemnify and hold harmless The Customer from and against all liabilities, suits, damages, costs, and expenses (including attorney's fees and court costs) that may be imposed on the Customer because of the Service Provider, subcontractor, or supplier's failure to comply with the regulations stated herein.

16. Patents and Royalties

The Service Provider, without exception, shall indemnify and hold harmless The Customer and its employees from any liability of any nature or kind, including costs and expenses for or on account of any trademarked, copyrighted, patented, or non-patented invention, process, or article manufactured or used in the performance of the Contract, including its use by the Customer. If The Service Provider or subcontractor uses any design, device, or material covered by letters, patent, trademark, or copyright, it is mutually understood and agreed without exception that the proposal prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.

17. USAC Certifications

The Service Provider must be an approved USAC service provider with a current SPIN and SPAC. It will be the responsibility of the Service Provider to maintain all USAC certifications throughout the term of the contract.

18. Indemnification

The Service Provider shall indemnify and hold harmless the District, its agents and employees from or on account of any injuries or damages, received or sustained by any person or persons during or on account of any operation connected with this Contract; or by consequence or any negligence (excluding negligence by the Customer, its agents, or employees) in connection with the same; or by use of any improper material or by or on account of any act or omission of said Service Provider or its subcontractors, agents, servants, or employees. The Service Provider further agrees to indemnify and hold harmless the Customer, its agents or employees, against claims or liability arising from or based upon the violation of any federal, state,

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county, city, or other applicable laws, bylaws, ordinances, or regulations by the Service Provider, its agents, associates, or employees.

The indemnification provided above shall obligate the Service Provider to defend at its own expense or to provide for such defense, at the Customer's option, of any and all claims of liability and all suits and actions of every name and description that may be brought against the Customer which may result from the operations and activities under this Contract whether the installation operations be performed by the Service Provider, subcontractor, or by anyone directly or indirectly employed by either.

The award of this Contract to the Service Provider shall obligate the Service Provider to comply with the foregoing indemnity provision; however, the collateral obligation of insuring this indemnity must be complied with as set forth.

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QUOTE SUBMISSION FORM

Company Name of Service Provider _____

Corporate Headquarters Address _____

City _____ State _____ Zip _____

Service Provider Contact Name _____

Service Provider Contact Phone Number

Service Provider Contact Email Address

E-Rate Service Provider Name _____

E-Rate Service Provider Identification Number (SPIN) _____

Address of Mississippi Office _____

City _____ State _____ Zip _____

Please include in the quote the product, model number, product description, quantity and unit pricing for POE switches, and any additional equipment or materials needed for a complete lan installation.

In addition to pricing information, please include the following information:

- Service Provider's Mississippi Division or Company's Organizational Chart including job titles, names, and departments
- Description of the Service Provider's capacity to provide support including names, position titles, and locations of technical support staff, sales staff, and management staff (i.e.: John Smith, Director of Sales – Jackson, MS)
- Description of Help Desk Procedures
- Description of warranty information for all proposed products
- Description of Service Response Procedures
- Description or list of service locations that will provide service and support for the district installation, the number of technicians available for that support, and average response times for service calls in the Carthage area.
- 3 References for similar installations as described in the specifications.
- Full Description of the lan equipment installation to be provided (to include performance specifications and all necessary installation and equipment) for the connections for selected LCSD school buildings.
- Diagram of proposed lan network including location and placement of the number of POE+ switches and UPS battery backups needed as well as number of patch cables and fiber jumper cables and gbic modules.

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DISTRICT BUILDING INFORMATION

Leake Central Elementary School	603 Hwy 16 W, Carthage, MS
Leake Central Junior High School	801 Dr. MLK Dr, Carthage, MS
Leake Central High School	704 North Jordan St, Carthage, MS
Leake County Career and Technical Center	703 Northwest St, Carthage, MS
Leake County Elementary School	1280 School St, Walnut Grove, MS
Leake County High School	220 Spruce St, Walnut Grove, MS

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Similar Project Examples and References

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SITE VISIT FORM

DATE _____

SERVICE PROVIDER NAME _____

CONTACT INFORMATION FOR CHANGES / UPDATES / CLARIFICATIONS

Name _____

Phone Number _____

Email Address _____