

FOREST MUNICIPAL SCHOOL DISTRICT
325 CLEVELAND STREET
FOREST, MS 39074

E-Rate 2015-2016 Internal Connections

Request for Proposals
Proposal Due Date: March 5, 2015

Joseph White, Ph.D.
Superintendent

FOREST MUNICIPAL SCHOOL DISTRICT
325 CLEVELAND STREET
FOREST, MS 39074

Forest Municipal School District
RFP: 2015-IC-Forest

Forest School District will accept sealed bids from qualified E-Rate vendors with Service Provider Identification Numbers (SPIN) assigned by USAC for the Internal Connections listed in Exhibit E-2 of this RFP. Interested parties shall submit a proposal to the district on or before 9:00 am local time, **March 5, 2015**. This application is for an upgrade to an existing infrastructure, with establishing a standardized network district wide. Please submit all questions by email to Jonathan Nelson at jnelson@forest.k12.ms.us. The Forest tech staff will work with all vendors to seek the lowest and best bid to improve the school's infrastructure

Proposal should be clearly labeled on the outside of the package and delivered to:

Forest Municipal School District
RFP: 2014-IC-Forest
325 Cleveland St.
Forest, MS 39074

Forest School District is working to establish a reliable and dependable switching gigabyte network, cabling network, and wireless network. The district has listed Enterasys or equivalent specifications for switching and wireless. The district requires a turnkey solution proposal to this RFP for consistent, efficient and cost effectiveness for the district during the implementation of the projects as well as future support. **This turnkey solution should include IN HOUSE CABLING and not subcontracted network cabling.** Forest School District has developed a scoring criteria list for evaluation of proposals described further in this RFP document.

Certifications desired for the proposed equipment and services of this RFP include:

Cabling certifications with a fulltime RCDD (Registered Communications Distribution Designer) on staff is desirable and is part of the bid assessment. (This is by an organization called BICSI and their web site is BICSI.org). BICSI ITS Installer 2, Copper and Optical Fiber certifications are desirable. MCITP-SE (Microsoft Certified IT Professional Server Administrator) and MCITP-EA (Microsoft Certified IT Professional Enterprise Administrator) certifications are desirable. For equivalent products proposed, similar certifications are requested to be submitted with your proposal. Certifications should be in the brand of products offered for a solution by the vendor.

Forest School District prefers that responding vendors have an office or other physical place of business within a range of 100 miles of the district location. This preference is in support of responding time for repairs and support of the proposed solutions.

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All work to be performed under this RFP is contingent upon receipt of year 2015 Erate funding. The district reserves the right to cancel any part of this project whether it is funded or not.

Forest Public School District reserves the right to waive any informality and to reject any or all proposals.

Proposers are prohibited from contacting or lobbying members of the School Board, school district administrators, superintendent, school district employees, or school technician. All contact in reference to this RFP is to be through Jonathan Nelson at jnelson@forest.k12.ms.us.

Mandatory Walk-Through

A required, mandatory walkthrough will be held **Thursday, January 29, 2015**. We are requesting that all attendees be present at the District Office (325 Cleveland St.) at **9:00 a.m.** There will be a 30 minute entrance meeting in our boardroom where we will hand out maps. This will be our only walkthrough. Any company that does not have a representative present will NOT be considered for the project. This walkthrough will be used to show all vendors the existing cabling and cabling closets. This time will be used to take notes to enable proper bids for the number of drops required as well as distances for the length of cable. This will also give vendors time to ask questions about the 3 sites and determine what materials will be required for the project.

Failure to conform to these conditions will be grounds for disqualification of the proposer.

One original and one copy of sealed proposals are to be prepared and delivered either in person or mail or Federal Express to Forest School, 325 Cleveland St, Forest, MS, 39074 on or before 9:00 am local time March 5, 2015. Bids will be time and date stamped.

Questions regarding the RFP may be emailed to jnelson@forest.k12.ms.us or call Jonathan Nelson at 601-934-8090.

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SECTION – PURPOSE

The purpose of this RFP is to select a vendor with the competencies, expertise and resources necessary to assist Forest School District in continuing to effectively integrate technology throughout the district using the E-Rate program. The selected vendor will work under the direction and supervision of **Jonathan Nelson, Technology Specialist for the district.**

Late Submission: Any REQUEST FOR PROPOSAL received after the scheduled closing time for receiving REQUEST FOR PROPOSAL will not be considered. **(March 5, 2015).**

STATEMENT OF QUALIFICATIONS FORMAT

Please provide the following information in precisely the sequence and format prescribed by this questionnaire. Supplemental materials providing additional information may be attached, but the information requested below is to be provided in this format and sequence. Please provide succinct responses to the following questions and limit those responses to the page allowances set out in each item.

1. FIRM INFORMATION: LIMIT 1/2 PAGE

Name of Firm:

Address of Home Office and Address of Branch Office if Applicable:

Telephone Number(s):

Fax Number(s):

Form of Business Organization (Corporation, Partnership, Individual, Joint Venture, Other):

Year Founded:

Primary individual to contact:

Erate SPIN Number:

2. ORGANIZATION: LIMIT 1/2 PAGE

2.1 How many years has your organization been in business in its current capacity?

2.2 How many years has your organization been in business under its present name? Under what other or former names has your organization operated?

2.3 If your organization is a corporation, answer the following: Date of incorporation, State of incorporation, President's name, Vice-President's name(s), Secretary's name, and Treasurer's name.

2.4 If your organization is a partnership, answer the following: Date of organization, type of partnership, if applicable, names of general partner(s).

2.5 If your organization is individually owned, answer the following: Date of organization, name of owner.

2.6 If the form of your organization is other than those listed above, describe it and name the principals.

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3. LICENSING: LIMIT 1/2 PAGE

3.1 List jurisdictions in which your organization is legally qualified to do business and indicate registration or license numbers, if applicable.

3.2 List jurisdictions in which your organization's partnership or trade name is filed.

4. EXPERIENCE: LIMIT 2 PAGEs (4.1 - 4.2)

4.1 Describe your firms experience with completing this scope of work for public entities using E-Rate funding, if any.

4.2 Provide a list of all certifications that your company holds that apply to this application

5. FEES:

5.1 Based on the scope of work outlined herein please describe your full price associated with the completion of this project: Include delivery, install and configuration of the switches and other related equipment or components as proposed for a fully functional network once this project is completed. Include removal of cabling and other equipment in each wiring closet. Include any miscellaneous needs to complete this project.

5.2 The Contractor shall be responsible for securing all permits and approvals necessary to complete the work (if required).

Warranty

The successful proposer must warrant its material and workmanship for a period of one year (for items requiring installation). Their respective manufacturer warrants all other products and material under separate warranty. No re-furbished or "gray market" equipment will be accepted. All equipment must be new and "out-of-box" with full warranty and support. Please include an expected response time for service requests and the procedure to follow when making these requests.

Evaluation

Forest School District has developed a bid assessment and scoring criteria for the evaluation of submitted proposals as follows:

Price of the E-Rate eligible products and services	30%
Suitability to Tasks/Certifications (there will be a 10% deduction for subcontracted cabling)	20%
Configuration Adherence to Network Standards	10%
All items were bid including Basic Network Maintenance	10%
Prior Experience with E-Rate	10%
Distance from District Office	10%
Vendor References	<u>10%</u>
Total	100%

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Exhibit E-1

REFERENCES

Provide reference information for three school districts that you installed and configured switches, wireless, cabling, and VoIP Phone system in an existing network infrastructure. Use the following format and attach as Exhibit E-1.)

Reference List		
1	School District	Contact Name
	Phone Number	Fax Number
	E-Mail Address	Physical Address
	Scope of Work	
2	School District	Contact Name
	Phone Number	Fax Number
	E-Mail Address	Physical Address
	Scope of Work	
3	School District	Contact Name
	Phone Number	Fax Number
	E-Mail Address	Physical Address
	Scope of Work	

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Exhibit E-2

Specific Equipment Requirements

1. Switches and UPS

Enterasys or Enterasys equivalent Switches that meet the following specifications are required for this project.

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

- Must provide a stackable switch with 24 or 48 10/100/1000 ports and 4 combination 1000Base-X SFP ports.
- Must support a switch option that supports 802.3af and 802.3at PoE that can be added into the same stack group as non-PoE switches; support for up to 375 watts for PoE power should be provided.
- Must provide line-rate switching
- Must support IP Multicast
- Must support 802.1p Traffic Classification
- Must support Layer 2/3/4 packet classification capabilities, which can be based upon physical port ID, MAC address, IP subnet, IP address, IP protocol type, IP Type of Service (ToS), differentiated services code point (DSCP), and TCP/UDP port
- Must Support IP ToS Rewrite
- Must support Weighted Round Robin and Strict Priority Queuing
- Must support up to eight priority queues per port
- Must support IEEE 802.3ad Link Aggregation
- Must support distributed link aggregation between multiple switches in a stack
- Must support Closed Loop Stacking. Please describe the implementation.
- Must support redundant stack management
- Must support stack management via a single IP address
- Must support redundant power as an option
- Must support IEEE 802.1x User Authentication
- Must support MAC authentication
- Must support Web-based authentication
- Must support multiple user authentication via IEEE 802.1X, Web portal and/or MAC address simultaneously for up to four users/devices per port
- Must support MAC Port Locking (Dynamic and Static)
- Must support Dynamic VLAN Assignment (RFC 3580)
- Must support multiple RFC-3580 Users per Gigabit port (up to 4)
- Must be able to operate in a role based security architecture. Providing continuous identity management with role-based authentication, authorization, QoS, and bandwidth rate limiting. Please describe the architecture and advantages.
- Must deliver sufficient network visibility to enable administrators to audit the network for adherence to compliance regulations, such as PCI or HIPAA
- Must support secure management via SSH, SSL, SNMPv3, RADIUS and TACACS+. TACACS+ support must provide support for Management Authentication, Authorization and Auditing.

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- Must support Secure Copy and Secure FTP
- Must support DHCP snooping and ARP spoofing protection to protect from rogue DHCP/ARP spoofing attacks. Please describe.
- Must support high-temperature alerts via SNMP traps and syslog events.
- Must provide power supply and fan monitoring via SNMP
- Must support the following RMON groups: Statistics, History, Alarms, Events, Packet Capture/Filtering Sampling
- Must support sFlow
- Must support one-to-one and many-to-one port mirroring
- Must support per port static and dynamic policy
- Must support IEEE 802.1s Multiple Spanning Tree
- Must support IEEE 802.1w Rapid Reconfiguration of Spanning Tree
- Must support IGMP Snooping (v1, v2, v3)
- Must support up to 4,096 VLAN IDs and up to 1,024 VLANs active simultaneously in a single stack
- Must support up to 32,000 MAC Addresses
- Must support IEEE 802.1Q VLANs with full support for the GARP and GVRP protocols
- Must support LLDP / LLDP-MED Network-Policy TLVs
- Must support Jumbo Ethernet Frames
- Must support basic IP Routing (static routes and RIP v1/v2) without an add-on license
- Must be equipped with intelligence to provide real time location detection stored in a central database
- Must support operating temperatures up to 50°C
- Must support a Lifetime Warranty that includes firmware upgrade, bug fixes, phone support and advanced hardware return. Please describe the warranty that is provided.

Recommended number of switches and materials:

Quantity	Description
4	B5G124-24 (or equivalent) 24 port non-PoE switch
11	B5G124-24P2 (or equivalent) 24 port PoE+ switch
15	B5G124-48 (or equivalent) 48 port non-PoE switch
26	MGBIC-LC09 (or equivalent) Fiber Modules
28	STK-CAB-SHORT (or equivalent) Stacking Cables

UPS

800VA rack mount UPS units are to be installed where wall mount racks are being used.

2. Access Points and Controller

Enterasys or Enterasys equivalent wireless devices that meet or excide the following specifications:

Wireless – Bid Specifications

Vendor must provide a WLAN System meeting the following requirements as a minimum:

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- Must integrate seamlessly into existing wired infrastructure
- Access Points must support dual concurrent, dual-band 802.11a/n (5 GHz) and 802.11b/g/n (2.4 GHz) connectivity
- Access Points must support 802.11n operating in 3x3 MIMO when powered via a single 802.3af power source without losing key functionality.
- Must be 802.11n WiFi certified for WLAN interoperability
- Access points must be DFS2 compliant to allow for additional channels in the 5 GHz band.
- Access Points must support WDS with the ability to dedicate any radio to backhaul or use the same radio for both backhaul and to service clients
- Must provide the capability to ensure equal airtime for all clients in environments where there is a mix of 802.11a/b/g clients and 802.11n clients. Please describe how this capability is provided.
- Access Point must support plug and play installation
- System must support centrally-deployed configurations and upgrades
- Controllers must support a flexible deployment options supporting both a centralized or distributed architecture. Please describe the controller architecture.
- Wireless controller must be capable of supporting up to 96APs in high-availability mode, 48 in normal mode.
- Wireless controller should be available as a hardware-based appliance, with the option of a virtual appliance
- Access Points must simultaneously support tunneled traffic and bridged traffic at the AP.
- Access Points must support an 802.1x supplicant to prevent the access points' wired connection from being used by unwanted devices.
- Must support authentication and encryption standards including: WEP, WPA (TKIP), WPA2 (AES), 802.11i, 802.1x
- Must support a customizable Captive Portal integrated with the controller
- Must allow non-technical personnel to create temporary guest accounts and distribute credentials through an easy-to-use graphical user interface
- Access Point must support intelligent AP encryption, blacklisting, filtering, and QoS, without dependency of the controller.
- Access Point must provide distributed RF management without the dependency of the controller, except for initial configuration. Upon loss of controller connectivity, access points must be able to continue providing AP encryption, blacklisting, filtering, QoS and RF management for the AP and locally bridged traffic.
- Must support policy enforcement and rate limiting at the AP. Please describe this capability.
- RF Management must support automatic channel selection and transmit power controls.
- Upon failure of an access point, neighboring access points must automatically expand their coverage to eliminate any uncovered areas, even when the access point cannot have access to the controller. Optimal channel selection must also be reconfigured dynamically and without user intervention.
- RF Management must adapt to new channels based on user configurable signal-to-noise ratio and channel occupancy.
- Wireless access points must be able to be configured to provide load balancing and band-steering. This feature enables the access points to balance/steer clients between both radios on a single access point and/or between multiple access points within an RF Domain.

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- Access Points must be able to be deployed in a mesh configuration enabling access points to wirelessly interconnect.
- Controllers and access points must support IP Quality of Service at the wireless and wired side. Differentiation of packets must be supported for inbound and outbound wireless packets based on DiffServ, IP TOS and IP Precedence.
- Access points must support 802.11e protocols including WMM, TSPEC and U-APSD.
- Must support fast, secure roaming and handover (pre authentication, OKC)
- Must support up to 16 SSIDs (8 per radio)
- Must support RADIUS Authentication and Accounting
- Controllers must support various data forward mechanisms including routing at the controller and bridging at the controller. The data forwarding mechanism must be configured on a per virtual network group.
- Must support a customizable Captive Portal integrated with the controller
- Must support seamless roaming between IP subnets
- Must support seamless roaming between multiple controllers
- Must support session availability option for wireless controller. Please describe how this is accomplished and describe the cost for any extra licenses required for high availability.
- Must support assignment of policies to the clients without requiring segmentation via dedicated SSIDs
- Must provide role-based policies providing security, access control and QoS priority that is implemented on a per user and per application basis.
- Must support unified wired and wireless role-based access control. Please describe how this is provided.
- Must support a lifetime warranty on indoor APs and Wireless Controller. Please describe the warranty offered for both the wireless APs and wireless controller.

Hardware and Support:

WS-C25 WLAN Controller (or equivalent) upgraded to support 48 APs

WS-C20XCAPUP16 (or equivalent) upgrade from 16 to 32

WS-CTLREG8P-NAM- Regulatory Domain Key (or equivalent)

SupportNET NBD for Hardware and Firmware updates

SupportNet Software

WS-AP3610 (or equivalent) Access Point—1 per classroom

3. Network Cabling

All cabling must be a minimum of Category 6 non-plenum rated. All cabling components must be equivalent with Category 6 cable. Patch panels must be modular and fully populated with Category 6 jacks and include cable management for neatness of cable routing for each closet location. Installation is to include pulling of cable, installing raceway, mount box, faceplates and

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jacks. Termination of cable on closet and faceplate ends, certifying, labeling and providing electronic test results of cable along with an electronic diagram of location of cable throughout the buildings. There are to be a minimum of 4 drops per classroom, 30 drops per lab, and 2 office. The total number of drops and materials required will be estimated by the vendor during the mandatory walk through. Labs and areas with more than 2 computers will require multiple drops and should also be included in the project. Some fiber exists between closets. Please also include fiber runs from the main closet at each site to each outlying closet/switch. The fiber runs can be calculated during the mandatory walk through.

4. Racks and Moving existing Wiring Closets

We are requiring new racks for all existing closets. The racks for the main closets at each location should be lockable and secure. Changes to existing closets are listed as follows:

Forest High School

IDF Closet room 9- Eliminate closet and run all cables to MDF Room 15

IDF Closet in Library Room 11- Eliminate closet and run all cables to MDF Room 15

IDF Closet in Lab Room #29 – Eliminate Closet

Use EMT in all classrooms without drop ceiling tiles.

IDF Closet room 49 Eliminate switch in classroom and run all cables to IDF Storage Closet

Forest Elementary School

IDF Closet Room B-4 Lab – Eliminate closet and run cables to library IDF

IDF Closet Room B-3 Lab – Eliminate closet and run cables to library IDF

MDF Closet Teacher Planning Room – Add 42U enclosed Rack with 2 shelves

IDF Closet PE Building – add open Rack, UPS, and 12 port POE Gigabit switch

Hawkins Middle School

Add IDF closet in Room 29

IDF Closet Room 25 – Eliminate this closet

Move Existing MDF Closet in Counselor Office to Bookroom across the hall

Eliminate switches in Computer Lab and Mech Room and Make IDF in Janitors Closet

Eliminate IDF Closet in Room 15 and make new IDF in storage room beside Room 12.

5. Fiber between closets

6 strand multi-mode 50/125 OM3 fiber with all 6 strands terminated between closets (for new fiber runs and replacement of existing fiber runs)

ST connectors with ST-LC Fiber jumpers

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Include all additional fiber materials needed for complete termination
Replace all existing Fiber runs.

6. Basic Network Maintenance

Forest Municipal School District is seeking Basic Network Maintenance as defined in the E-rate Eligible Services List 2015. All vendors are requested to provide complete contact information to include E-rate SPIN number, three to five references, listing of certifications pertaining to products listed below: Option for discount billing and option for voluntary extensions up to five years stated in proposed contracts with listing of expected price increases for each extended year. Vendors are requested to provide a Basic Network Maintenance Agreement with the proposal that states billing will only be conducted for actual hours performed as defined by USAC.

Forest Municipal School district is requesting Basic Network Maintenance for repair and upkeep, and technical support as defined by E-rate Eligible Services list for the equipment itemized below. Certifications requested of vender include CNE, CCNA, MCITP-SE, MCITP-EA, authorized Shoretel Telephony specialist, authorized Enterasys specialist, and RCDD. The contract will include all eligible entities within the district:

- Forest Office of the Superintendent: 325 Cleveland St, Forest MS 39074
- Forest High School: 511 Cleveland St, Forest MS 39074
- Forest Elementary School: 513 Cleveland, Forest MS 39074
- Hawkins Middle School: 803 Oak St, Forest MS 39074
- Forest – Scott County Career & Technology Center: 512 Cleveland St, Forest MS 39074

Current Erate eligible equipment and cable connections for each location include: Shoretel ShoreGear 220T1A Phone System (include cost for Shoretel Support Maintenance separate)

- (1) Shoretel ShoreGear 30 Phone System (include cost for Shoretel Support Maintenance separate)
- (1) Dell PowerEdge R410 Server for Phone System
- (1) Enterasys 48 Port PoE C Series Switch
- (15) Enterasys 24 Port PoE B Series Switch
- (20) Enterasys MGBIC Fiber Modules
- (1) Dell PowerEdge R710 Server for DNS/DHCP and E-Mail
- (1) Dell PowerEdge R710 Server for Web Filter
- (4) UPS Battery Backup connected to Erate eligible equipment

Approximately 300 Category 5 Network Outlets to include connectors, jumpers, and patch panels

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7. Firewall

The school will be moving to a MIS circuit from a MPLS circuit. A firewall is required for this and we are requesting that this be included in your proposal. We are requesting a firewall that meets or exceeds the specs for a Watchguard XTM 515. The firewall is not required to be this model or brand but must meet the specs of this model.

8. Forest – Scott County Career & Technology Center

The District will now be providing technology services to the Forest – Scott County Career & Technology Center. We are adding this location to our network and require this location to be added to both our wired and wireless topology. This site will be included in the mandatory walkthrough. The following are estimated requirements:

Fiber connection from FES to the Tech Center, as well as new fiber connection to each closet
200 wired drops, terminated, labeled, and certified.

All materials for network cabling including but not limited to patch panels, jacks, wall mounts, cabling, etc

1 controller and 1 Access point per classroom with license

5 24 Port PoE switches with stacking cables and fiber modules

3 48 Port PoE switches with stacking cables and fiber modules

4 wiring closets with Racks and UPSs

This location should also be included in the Basic Network Maintenance portion of this bid

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Exhibit E-3
Bid Form 2013-IC-Forest

Vendor Information

Vendor name: _____

Vendor Address: _____

Vendor City: _____ State: _____ ZIP: _____

Vendor SPIN: _____

Vendor Telephone: _____ Fax: _____

Item	Description	Cost
	Forest School District	
1	Switches, Modules, UPS, Installation	
2	Wireless Access Points, Controller, Hardware, Installation	
3	Cabling, Materials, Installation (including Fiber and Racks)	
4	Basic Network Maintenance	
5	Firewall	
6	Forest – Scott County Career Technical Center	
	<i>Total Bid (Not to Exceed)</i>	

Acknowledgements (initial beside each)

Acknowledged/Agreed

I/We warrant that all equipment quoted is new (meaning having been never opened or refurbished by any party since the original manufacturing)

Acknowledged/Agreed

I/We warranty that all equipment quoted meets or exceeds requested quantity, brand and specifications as detailed in this RFP. If any products do not meet or exceed requested quantity, brand and specifications, documentation is attached with noted quantity, brand, specifications and warranty of optional items/solutions

Authorized Signature, Title and Date: _____