

BID SPECIFICATIONS

WIRELESS EQUIPMENT FOR

Hardeman County Schools

General: Hardeman County School District is requesting bid proposals under the E-Rate category of "Internal Connections". An approved contract should cover the period between July 1, 2012 and June 30, 2013. Purchases are dependent upon E-Rate assistance, Director of Schools approval of the contract, and final approval by individual end users. Prospective vendor MUST perform walk-thru at site prior to bid date in order to ensure a working solution with existing network infrastructure regardless of details outlined in this RFP.

Bidding Instructions/Deadline: Bidders must clearly and independently identify all fees associated with their services including items such as maintenance, insurance, and any optional/extended services. Questions regarding bid specifications or requirements should be directed to Mrs. M. Johnson, Coordinator of IT (Phone: 731-658-3228). Bids should be clearly identified on the outside of a sealed envelope as "Bid-Wireless – Hardeman County Schools, ATTN: Willie Spencer/M. Johnson", and received no later than 10:00 a.m. central standard time, on March 14, 2012 at the following address:

**The County Mayor's Office
100 N. Main, P.O. Box 250
Bolivar, Tennessee 38008
Attention Willie Spencer/M. Johnson**

VENDOR REQUIREMENTS/TERMS OF CONTRACT:

1. **PUBLIC CHAPTER 587.** Vendors are required to comply with Tennessee Code Annotated, Section 49-5-413 enacted on September 1, 2007, which states that all employees who will have access to the grounds of a school must supply verification documentation for each employee that a background check has been performed by Tennessee Bureau of Investigation and the Federal Bureau of Investigation, prior to access to the school.
2. **BID BOND\PERFORMANCE BOND** Proposal must be accompanied by a **10% Bid Bond**. The 10% Bid Bond will be held from the selected Vendor as a guarantee of performance. Cost of the Bid Bond is the responsibility of the Vendor. ***Any bid submitted without these Bonds will be rejected.***
3. **FINANCIAL RESPONSIBILITY:** Any expenses incurred in preparation of proposals to this RFP, including bid bonds or performance bonds, are the sole financial responsibility of the vendor.
4. **CONTRACTORS LICENSE** Vendors are required to have a current contractor's license from the State of Tennessee if any network cabling is involved in this bid. A copy of contractors license should be enclosed and the contractor's license number must be listed on bid envelope. Any work that will be subcontracted should be clearly marked in the bid. A copy of the contractor's license for all subcontractors is also required and should be enclosed and listed on the bid envelope. The vendor is responsible for any fees and/or costs incurred by all subcontracted work. The vendor is also responsible for correcting any sub par work performed by the subcontractor at the expense of the vendor. If the contractor fails to fulfill its obligation under this contract in a timely or proper manner, or if the contractor violates any terms of this contract, the Hardeman County School System shall have the right to immediately terminate the contract and withhold payments in excess of fair compensation for completed services. Notwithstanding the above, the contractor shall not be relieved of liability to the State for damages sustained by virtue of any breach of this contract by the contractor.

TENNESSEE CONTRACTOR LICENSE NUMBER-_____

Any bid submitted without contractors license number a will be rejected.

5. **Subcontracting/Assignment**--consent required. The provisions of this contract shall insure to the benefit of and shall be binding upon the respective successors and assignees of the parties hereto. Except for rights to money due to Contractor under this contract, neither this contract nor any of the rights and obligations of Contractor hereunder shall be assigned or transferred in whole or in part without the prior written consent of the director of Hardeman County Schools. Any assignment or transfer shall not release Contractor from its obligations hereunder. NOTICE OF ASSIGNMENT OF ANY RIGHTS TO MONEY DUE TO CONTRACTOR UNDER THIS CONTRACT MUST BE SENT TO THE ATTENTION OF: Accounting Department, Hardeman County Board of Education, 10815 Old Highway 64, Bolivar, TN 38008

If such subcontracts are approved by the local government entity, they shall contain at a minimum, sections of this Contract pertaining to Conflicts of Interest and Nondiscrimination (Sections 6 and 7).

6. **Conflicts of Interest/Contingent Fees/Gratuities and Kickbacks.** The Contractor warrants that no part of the total Contract Amount shall be paid directly or indirectly to an employee or official of the local government entity as wages, compensation, or gift in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Contractor in connection with any work contemplated or performed relative to this Contract. It shall be a breach of ethical standards for any person to offer, give or agree to give any employee or former employee, of for any employee or former employee to solicit, demand, accept or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation of any part of a program requirement or a purchase request, influencing the content of any specifications or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for any ruling, determination, claim or controversy or other particular matter, pertaining to any program requirement of a contract or subcontract or to any solicitation or proposal therefore. It shall be a breach of ethical standards for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or a person associated therewith, as an inducement for the award of a subcontract or order. Breach of the provisions of this paragraph is, in addition to a breach of this contract, a breach of ethical standards, which may result in civil or criminal sanction and/or debarment or suspension from being a contractor or subcontractor under local government entity contracts.

7. **Nondiscrimination**. The Contractor hereby agrees, warrants, and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Contract or in the employment practices of the Contractor, including promotion, demotion, employment, dismissal, or laying off of any individual, on the grounds of handicap and/or disability, age, race, color, religion, sex, national origin or any other classification protected by Federal, Tennessee State constitutional, or statutory law. The Contractor shall upon request, show proof of such nondiscrimination and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination

8. **Hold Harmless**. The Contractor agrees to indemnify and hold harmless the local government entity as well as its officers, agents, and employees from and against: (a) any and all claims, liabilities, losses, and causes of action which may arise, accrue, or result to any person, firm, corporation, or other entity which may be injured or damaged as a result of acts, omissions, bad faith, negligence, or willful misconduct on the part of the Contractor, its officers, its employees, or any person acting for or on its or their behalf relating to this Contract; and (b) any claims, damages, penalties, costs and attorney fees arising from any failure of Contractor, its officers, employees, and/or agents, including its sub- or independent contractors, to observe applicable laws, including, but not limited to, labor and minimum wage laws. The Contractor further agrees it shall be liable for the reasonable cost of attorneys for the State in the event such service is necessitated to enforce the terms of this Contract or otherwise enforce the obligations of the Contractor to the State. In the event of any such suit or claim, the Contractor shall give the local government entity immediate notice thereof and shall provide all assistance required by the local government entity in its defense. The local government entity will not indemnify, defend or hold harmless in any fashion the Contractor for any claims, regardless of any language in any attachment or other document that the Contractor may provide. Contractor shall pay the local government entity any expenses incurred as a result of Contractor's failure to fulfill any obligation in a professional and timely manner under this Contract

9. **JOBSITE INSPECTION** Vendors are required to complete a walkthrough at each jobsite before bidding on proposed project. This will insure that vendor and Hardeman Co. Schools are in agreement on what the exact specifications must be. Contact M. Johnson at Hardeman Co. Schools to schedule a walkthrough and pickup a copy of the bid packet. Prospective vendor MUST perform walk-thru at site prior to bid date in order to ensure a working solution with existing network infrastructure regardless of details outlined in this RFP.

10. **TECHNICAL SUPPORT/VENDOR OFFICE OR TECHNICIANS/ENGINEERS** Vendors are required to have an office or representatives that are located within a 120 miles radius of Hardeman Co. Schools. This will insure that the vendors will be able to provide the needed service in a timely manner. Vendor must provide an 800 line for technical support at no additional charge to the school system during the warranty period if out of the local calling area. Vendor is required to provide 48-hour response time on any problems that may occur with network or hardware. Please list all technicians, their locations, and experience. Technicians/Engineers must hold current Cisco certifications. Please note if any of your technicians have Network Cabling, or Fiber Optic, or MESH Technology certifications.

OFFICE OR TECHNICIANS ADDRESS- _____
TOLL FREE TECHNICAL SUPPORT NUMBER- _____
CISCO CERTIFICATIONS: _____

11. **E-RATE AUTHORIZED SPIN NUMBER** Vendors are required to have an authorized E-RATE Spin Number From USAC. This will allow Hardeman Co. Schools. Schools to purchase products with the E-Rate discount in the future.

E-RATE SPIN NUMBER- _____
*****Any bid submitted without ERATE spin number a will be rejected.*****

12. **INSURANCE REQUIREMENT** Bid must be accompanied with Certificate of Insurance. Vendor must carry a minimum of \$1,000,000 Liability Coverage and Workers Compensation on all employees that will work in Hardeman Co. Schools
*****Any bid submitted without a certificate of insurance will be rejected.*****

13. **CLIENT/REFERENCE LIST** Vendor must provide a list of School References (Min. of 5) where similar networks and computers have been installed. as proposal (List Contact Name and Telephone Number, preferably within the State of Tennessee.)
*****Any bid submitted without a client reference list will be rejected.*****

14. **FINANCIAL STABILITY** Vendor must be willing to provide financial statements and bank references if required to show financial stability to a school system.

15. **CODES, STANDARDS, AND REGULATIONS** All FCC regulations governing Wireless Telecommunications must be followed. All network/telecommunication cabling must comply with applicable Tennessee building and fire codes. All electrical codes, standards and guidelines govern the installation practices and materials used. The minimum standards will meet ANSI/TIA/EIA-568, 569, 570, 598, 606, 607, 758, TIA/EIA TSB-67, 72, 75. Other considerations concerning 802.11 deployment must be met, which includes IEEE 802.11i, IEEE 802.11e, Wi-Fi certification, WMM certification, IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11i, Layer-3 mobility, and IEEE 802.3af. Also see Compliance Standards located under Scope of Work.

16. **PRICE PROTECTION** All prices must be Free On Board (F.O.B.) to Hardeman Co. Schools. Prices quoted must be good for one year from the date of award. Vendor must deliver, setup, install, and test every system on the network. Delivery and installation of these systems into the network must be completed within 45 days of obtaining the purchase order. **Vendor must provide on-site services after the warranty period.** If network cabling is involved, the warranty provided must be a minimum of 3 year from installation date.

17. **RIGHT TO REJECT PROPOSALS** Hardeman Co. School System reserves the right to reject any or all proposals, to waive technicalities or informality and to accept any proposal deemed to be in the best interest of the county. **All proposals must include SKU AND FULL MAKE AND MODEL with the bid.**

18. **RIGHT TO PURCHASE SELECTED ITEMS ON BID** Hardeman Co. School System reserves the right to purchase selected items on this bid. If funds to purchase entire bid are not available, Hardeman Co. School System may purchase selected items at this time and the balance within the next school year.

19. **WORKMANSHIP** *All work areas will be swept and work materials picked up before leaving the premises at the end of the workday.* Equipment will be moved, if possible, or if not possible, covered when any drilling must be done through the walls or ceilings. Tables will be covered at both sides of the work area where drilling will take place. All cell phones should be turned off, or placed on silent mode when inside school buildings.

20. **JOB COMPLETION:** Upon job completion, all hardware installations and network drops must be tested, and a hardcopy of test results must be provided to the Hardeman County School System. A wireless survey and spectrum analysis, which includes intrusion detection services and RF predication should be completed at job end. Documentation for each AP should include MAC address, ESSID, associated ESSIDs, associated APs or peer station, Channel, Average/Peak SNR, Beacons security parameters/802.1x identity, and location.

21. **COMPATIBILITY** All proposed additions of network infrastructure must be compatible with previously installed equipment.

22. **Warranty:** Hardware and installation should be for a minimum of three (3) years.

23. **Severability.** If any terms and conditions of this Contract are held to be invalid or unenforceable as a matter of law, the other term and conditions hereof shall not be affected thereby and shall remain in full force and effect. To this end, the terms and conditions of this Contract are declared severable.

I agree to all of the above terms and guarantee to meet all said terms, unless otherwise noted, to the satisfaction of the school district.

Name _____ Title _____

Company _____

Signature _____ Date _____

Scope of Work:

Part A: Hardeman County Schools is requesting a failover solution for the wireless network infrastructure. In case of hardware failure of a WCS at one of the schools or at the Board of Education, a wireless controller will need to be set up at the Hardeman County Operations Center to allow for seamless operation. The maximum number of wireless access points to be managed at one time would be 71. Hardeman County Schools expect a turnkey solution where the selected vendor is responsible for managing the entire project from design phase through user acceptance, to include installation and any necessary on-going support and maintenance. Responsibilities include, but are not limited to, site surveys, wireless security analysis and recommendations, structured cabling, electrical and equipment recommendations, testing of all equipment, failover system testing, and any other associated tasks required for a successful implementation. Warranty of installation and newly installed hardware should be for 3 years. As part of the solution, on-site training over the use and management of the wireless network infrastructure, and an electronic spreadsheet detailing products, serial number, device name, static IP address and location is expected as part of the user acceptance condition. The wireless solution must be a centrally managed solution, being able to co-exist and comply with existing wireless in the district. Proposed network must be compliant with Cisco 4400 and 5500 Series WLAN controllers, and be managed by Cisco's WCS. Network drops, if required, should be plenum rated Cat6. The existing rack is open faced. One or more additional switches may be needed. If needed, the switch(es) will need to be rack mounted, and the depth dimension of which should not exceed 24.1 cm.

All existing security measures must be maintained as outlined in the following Scenarios:

Scenario No. 1: Students and/or teachers bring personal mobile devices (whether it is a laptop, PDA, or a blackberry device) onto the campus. It is unknown what level of antivirus security, and/or patch management/firmware upgrade is on the mobile device. It is unknown what kind of WLAN client or driver is installed. While protecting access to our network environment, the ability to access the Internet will be granted without granting Internet access to the general public by proximity.

Scenario No. 2 Guest speakers on campus will be allowed Internet access without granting Internet access to the general public by proximity as well, while also protecting network infrastructure from guest equipment. This solution should show ease of access. This should be also easy to administer and change by non-technical personnel.

Scenario No. 3 Although a controller will be deployed at each school site, central management of the wireless network should be implemented. We will need to be aware of trouble spots and view/manage all APs in the school district, not just on-site. We will also need to detect and contain rogue access points within the school district. At any time, there may be up to 5 concurrent administrators logged into the management system. We will need the ability to temporarily setup an access point in a conference/classroom if needed without the AP being identified as a rogue access point.

Scenario No. 4 At times, it may be necessary to elevate Internet/network priority among the wireless traffic. This would be dependent on application/network access, i.e. teacher inputting grades at the end of a grading period within the student management system.

Part B: Hardeman County Schools expect as part of this project to have all controllers in the school system updated to current software release. Current Network configuration (make/model) begins on page 6. After completed, all APs should be operational. In case something goes wrong, it is up to the vendor to correct.

Wireless Specifications

- A. NETWORK SWITCHES, RACKS, PATCH PANELS AND EXPANSION CABLES- (Installed)**
- a) Vendor must deliver test and install each rack, patch panels, switches and expansion cables on the network if required.
 - b) A hard copy of the testing results must be provided to Hardeman County Board of Education upon completion of job. It is vendor's responsibility to provide literature and documentation that products meet or exceed specifications if quoting brands other than what has been specified.
 - c) All proposed equipment must be compatible with currently installed products/hardware.
 - d) All cables will be clearly marked at demarcation point in wiring closet as to its destination.
 - e) All cable (both ends), faceplate, and patch panel labels will be provided by the contractor, and shall be either typed or machine generated.
 - f) Where slack cable is prescribed, cable should be neatly coiled, bound, and stored in the ceiling if applicable.
 - g) Vendor must use current wall penetrations where available. If new wall penetrations are required, all building and fire codes must be adhered to.
 - h) Plenum-rated Cat6 cabling should be used, if compatible to proposed AP solution.
 - i) All APs will be connected to a new Ethernet layer-3 switch with PoE capabilities.
 - j) The controller will be installed in the MDF closet, unless vendor can indicate a better solution.
 - k) For listing of other codes/standards/regulations, please refer to option 11 on page 3 of RFP.
- B. AP/RF Management criteria**
- a) WAPs must be able to handoff seamlessly from point to point or multi-point to point, and must have roaming profile, mobile user profile, and mobility groups capabilities.
 - b) Support for location and mapping services, including MESH pathway.
 - c) Must have a security and authentication control system that is compatible to a Cisco Secure ACS 4.X 1113 Appliance. If using WPA2 encryption, describe the solution that will provide for a Radius Server.
 - d) Support for rogue detection with wireless intrusion detection system. Included with detection must be the ability investigate, isolate the physical location, and when appropriate, interfere with communication of the rogue. Include ability to assimilate adhoc devices.
 - e) Proposal should include at least use of two VLANs, one being used for AP management. Solution must explain access differentiation according to user class, i.e., Office, Teacher, Student, Guest/Visitor.
 - f) Must have the ability to globally change configuration parameters for APs, allowing for validation of configuration changes and software/firmware updates, while allowing for rollback if problems are detected.
 - g) System allows for dynamic power level adjustment with alarm notification delivery system.
 - h) Allow for different levels of administrative control to include lower level administrative function that allows for viewing of local site activity and management.
 - i) Management should be GUI interface, preferably web-based and support centralized management. Training is expected upon completion.
 - j) Ability to generate and view historical and real time statistics. Provide sample reports.
 - k) A hard copy of all testing should be received by the Hardeman County School System upon completion of job. See number 15, Job Completion, on page 3 for further information.
- C. Other Optional Devices**
- a) Mobile WLAN analyzer with import/export capabilities in order to share data with the wireless intrusion detection system.
 - b) Rack mounted UPS backup with dimensions similar to the Ellipse 1200.
 - c) Cat6 24 or 48 port patch panels with horizontal wire management where needed.

CURRENT NETWORK SWITCH CONFIGURATON BY LOCATION

BOE		IP Address	Make	Model	MAC Address	Location	Serial Number	Asset Tag	Product #	Version
MDF			Cisco	4402 WLC				10941	NA	NA
			Cisco	3560 Switch				4453	NA	NA

GJES		IP Address	Make	Model	MAC Address	Location	Serial Number	Asset Tag	Product #	Version
MDF			Cisco	5508 WLC				10517	NA	NA
			Cisco	SG-300-28P POE				10943	NA	NA

IDF1		IP Address	Make	Model	MAC Address	Location	Serial Number	Asset Tag	Product #	Version
			3Com	Switch 3300SM				10944	3C16987A	2.72
			Cisco	ESW-540-8P-K9 POE				10518	NA	NA

BES		IP Address	Make	Model	MAC Address	Location	Serial Number	Asset Tag	Product #	Version
MDF			Cisco	SG-300-28P POE				10547	NA	NA
			Cisco	5508 WLC				10546	NA	NA
IDF2			Cisco	Catalyst 2960-S POE				10545	NA	NA
IDF6			Cisco	Catalyst 2960-S POE				10516	NA	NA

BMS

IP Address	Make	Model	MAC Address	Location	Serial Number	Asset Tag	Product #	Version
MDF	Cisco	Controller				10949	NA	NA
	Cisco	3560 Switch				8499	NA	NA
IDF1	Cisco	3560 Switch				7956	NA	NA
IDF2	Cisco	3560 Switch				7947	NA	NA
IDF3	Cisco	3560 Switch				11631	NA	NA

WES

IP Address	Make	Model	MAC Address	Location	Serial Number	Asset Tag	Product #	Version
MDF	Cisco	Controller				8902	NA	NA
	Cisco	3560 Switch				8911	NA	NA
IDF1	Cisco	3560 Switch				8994	NA	NA

BCHS

IP Address	Make	Model	MAC Address	Location	Serial Number	Product #	Version
MDF	Cisco	3560					
	Cisco	CE500-12-1					
	Cisco	CE500-12-2					
	Cisco	4404 WLC					
	Cisco	4402 WLC AP mgr					
IDF1							
	Cisco	CE500-24					
IDF2							
	Cisco	CE500-24					

IP Address	Make	Model	MAC Address	Location	Serial Number	Product #	Version
BCHS CONT. IDF3							
	Cisco	Router					
	Cisco	CE500-24					
IDF4							
	Cisco	CE500-24					

HES

IP Address	Make	Model	MAC Address	Location	Serial Number	Product #	Version
MDF							
	Cisco	Router					
	Cisco	5508 Controller					
	Cisco	3560					

MES

IP Address	Make	Model	MAC Address	Location	Serial Number	Product #	Version
MDF							
	Cisco	Router					
	Cisco	5508 Controller					
	Cisco	Cisco 3750 Switch					
	Cisco	Cisco 2960 Switch					
IDF1							
	Cisco	Cisco 2960 Switch					
IDF2							
	Cisco	2960 Switch					

MHS	IP Address	Make	Model	MAC Address	Location	Serial Number	Product #	Version
MDF		Cisco	3560					
		Cisco	CE500-24					
		Cisco	4402 WLC					
		Cisco	4402 WLC AP mgr					
IDF1		Cisco	Router?					
		Cisco	CE500-24					
IDF3		Cisco	CE500-24					

TES	IP Address	Make	Model	MAC Address	Location	Serial Number	Product #	Version
MDF		Cisco	Router					
		Cisco	3560					
		Cisco	4402 WLC					
		Cisco	4402 WLC AP mgr					
IDF1		Cisco	CE500-24					

**HARDEMAN COUNTY SCHOOLS
BID RETURN FORM WIRELESS**

VENDOR'S NAME _____	TELEPHONE _____
CONTACT PERSON _____	FAX NO. _____
ADDRESS _____	EMAIL _____
_____	_____

SIGNATURE OF/FOR VENDOR

DATE

PROVIDE YOUR BID TOTAL AFTER CONSIDERING ALL SPECIFICATIONS HEREIN: Note: Vendor must complete Appendix A for each access point model recommended.

Part A Total Bid: Failover Solution: _____

Part B Total Bid: Updating Controllers: _____

Optional features should be detailed and associated cost referenced on the following pages.

Schedule A. Solution Pricing Template

All hardware pricing should include a 3-year warranty. Optional warranty would encompass additional years above the 3-year period.

Controller or Wireless LAN switching price

Mfg/Model No.	SKU	List Price	Discount off List	Discount Price	Optional Warranty	8:00 a.m. to 5:00 p.m. full technical support	Clarifying Comments

Management Software

Mfg/Model No.	SKU	List Price	Discount off List	Discount Price	Optional Warranty	8:00 a.m. to 5:00 p.m. full technical support	Clarifying Comments

Miscellaneous Software – If applicable, vendor must price a site license covering all operations of Hardeman County School System.

Mfg/Model No.	SKU	List Price	Discount off List	Discount Price	Optional Warranty	8:00 a.m. to 5:00 p.m. full technical support	Clarifying Comments

Miscellaneous Parts

Mfg/Model No.	SKU	List Price	Discount off List	Discount Price	Optional Warranty	8:00 a.m. to 5:00 p.m. full technical support	Clarifying Comments