



Eanes Independent School District
Purchasing Department
601 Camp Craft Road
Austin TX 78746
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REQUEST FOR PROPOSALS (RFP) #201617-010 **March 17, 2017** **NETWORK GEAR UPGRADES FOR CAMPUSES & DATA CENTERS**

INCLUDING:

NETWORK EQUIPMENT w/ MULTIGIGABIT & PoE+ SUPPORT
UNINTERRUPTIBLE POWER SUPPLIES TO SUPPORT NEW NETWORK EQUIPMENT
NETWORK EQUIPMENT AGGREGATION AND CORE SWITCHES: SFP+/QSFP+/WDM SUPPORT
NETWORK EQUIPMENT TO SUPPORT LEGACY, WIRED DESKTOP COMPUTERS & DEVICES
NETWORK EQUIPMENT INSTALLATION – “RACK, STACK & PATCH”

The Eanes Independent School District (hereafter also referred to as “EISD” or “District” or “Owner”) invites qualified, local firms (hereafter also referred to as “Vendor” or “Contractor” or “Network Equipment Contractor”) to submit Proposals to survey schools and procure, install, configure and test newest-generation *ANSI/IEEE Standards-based* NETWORKING EQUIPMENT (hereafter also referred to as Local Area Network and/or Wide Area Network LAN/WAN Switching Equipment or Switches) in all Elementary and Secondary Schools as well as in related educational facilities, the Network Operations Center (NOC) and the new District Operations Center (DOC - currently under construction).

This procurement may be divided into four sections:

First Section: The primary focus for this project will be to replace multiple 10/100/1000 Mb/s Access Layer switches with port counts adequate to support new 802.11ac Wave2 / PoE+ Wireless Access Points with *Standards Based* Multigigabit uplinks to support all newly procured APs in all location in all buildings. These new switches (mounted either singly or in small stacks are to be arranged to be together and linked up w/ backplane connection devices and shared power cables (if available) in available rack space in IT Rooms in all schools and facilities) shall be accompanied with an Uninterruptible Power Supply (UPS) each or per stack that is capable of providing 30 minutes of runtime for the new equipment and the downstream (PoE+) Wireless Access Points (APs). Other network powered devices may also be attached if/as spare ports are available – e.g. VoIP Phones. Contractor to provide and install Cat6 and FOC patching cords and power cables as required providing a fully functional networking system to be supported by the new network equipment.

Second Section: New LAN core network equipment will also be required in each school’s MDF to serve as aggregation points for the new access switches via fiber optic cables using multiple or single 10G, 40G or 100G SFP, SFP+ and/or various QSFP+/28 uplink modules for connections between the schools’ various IT Rooms. It is predicted that Elementary Schools (with fewer classrooms) may not need the higher-bandwidth QSFP uplink connections mentioned above that will be required for the much larger Middle Schools and the High School. Contractor to provide and install FOC patching cords and power cables as required providing a fully functional networking system being supported by the new network equipment.

Third Section: New WAN Core Switches will be required to provide non-blocking uplink connections for each school at the District’s primary and secondary Network Operations Centers. Although in the beginning, the WAN may be using 10-to-40 Gigabit connections, equipment should be purchased with the capacity to accommodate up to 100GB/s links as needs

are identified – at least one link per school up to a total of 12. Contractor to provide and install FOC patching cords and power cables as required providing a fully functional networking system to be supported by the new network equipment.

Fourth Section: If funds are available and it proves to be sensible, this section, which may be thought of as a secondary focus, will be to upgrade or replace legacy 10/100/1000 MB/s access switches and legacy core / aggregation switches and routers. Although most equipment is covered by a limited lifetime warranties and still functioning as required and relevant for wired, legacy workstations it is aging and it may be prudent to seek new replacements if any given manufacturer has appropriate equipment available. If it is found to be impractical or unaffordable to upgrade or replace this equipment, this system and its network-attached equipment (e.g. 95+% wired workstations) may continue to be used as standalone systems cabled independently on their own fiber links back to its own core at the NOC/DOC where traffic will be aggregated with traffic from the newly installed network equipment system where it will all be directed to local resources and/or the Internet as required. Contractor to provide and install Cat6 and FOC patching cords and power cables as required providing a fully functional networking system to be supported by the new network equipment.

Network Equipment Contractor’s Scope:

1. Procurement, transportation, pre-deployment site inspections, installation, connecting, configuration, labeling, and post-installation testing of newest-generation 802.3bz-2016 Multigigabit network switching equipment with high bandwidth fiber-based uplink capacity capable of providing 802.3at PoE+ (or better) to provide at least 30 watts power to standards-compliant powered devices for administrative areas, classrooms, instructional spaces and commons and office areas at all facilities including any required ancillary equipment such as mounts, mounting hardware, patching cables, etc. to replace existing network elements that are not useable with new system equipment. In essence, the new networking equipment should be able to support *Standards-Based* multi-Gigabit connectivity for wireless access points (1, 2.5, 5 and up to 10 Gig/s) as well as PoE+ (and beyond – up to 60 watts per remote device) over Cat5e, Cat6 and Cat6a UTP cabling. Furthermore, the equipment should support high bandwidth uplinks (10G to 25G up to 40G or 100G) using singlemode (OS2) or multimode (OM4) fiber optic cables via SFP+ and/or QSFP+ modular inserts. Links considered will be MDF-to-IDF; school-to-school; and schools-to-NOC and schools-to-DOC – at distances of up to 10km. Aggregation switches at NOC and DOC should be capable of receiving direct fiber optic uplink connections at 25-, 40-, or 100GB/s via appropriate QSFP modules – minimum one link per school or group of schools to each network center.
2. Procurement, transportation, pre-deployment site inspections, installation, connecting, configuration, labeling, and post-installation testing of Uninterruptible Power Supplies (UPS) to be installed in all remote IT Rooms (MDFs and IDFs) being provided with new network equipment. UPSs being provided in any given IT Room should be sized and provided with batteries with adequate “KEEPALIVE TIME” to support the applicable Network Switches and their attached Wireless Access Points (APs) for a period of at least 30 minutes after a loss of commercial power. UPSs should be equipped with room environment monitoring hardware/software to provide the IT Department with ongoing, running temperature information provided on a web page accessible to IT Staff with appropriate logon credentials. Generally speaking, closets have available 120v 20A circuits that can be used for powering UPSs. Additionally, School MDFs may have available 208v 20A or 30A service – total room counts and Contractors should determine available powering capacity in each during pre-bid site visits.
3. Procurement, transportation, pre-deployment site inspections, installation, connecting, configuration, labeling, and post-installation testing of all UTP and FOC patching cords and power cables for all network equipment as it is installed in each school.
4. New Networking Switches are to be installed to support wireless network connections in administrative, teaching & commons areas at the following District facilities:
 - a. Barton Creek Elementary School (BCE)
 - b. Bridge Point Elementary School (BPE)
 - c. Cedar Creek Elementary School (CCE)
 - d. Eanes Elementary School (EE)
 - e. Forest Trail Elementary School (FTE)
 - f. Valley View Elementary School (VVE)
 - g. Hill Country Middle School (HCM)
 - h. West Ridge Middle School (WRM)
 - i. Westlake High School (WHS) – including the Ninth Grade Center (NGC), The Learning Center (TLC), Adult Transition Services (ATS), the Football and Baseball Fields and the Robotics Building

- j. The Network Operations Center (NOC)
- k. The District Operations Center (DOC)

NOTE 1: The overall Networking System includes Access, Distribution and Core Networking Systems at LAN and WAN levels that incorporate equipment for Local Area Network Connectivity at schools as well as Redundant Wide Area Network Connections laid out in a “Dual Home” pattern focusing on the NOC (Network Operations Center) and the DOC (District Operations Center – currently under construction).

NOTE 2: Some wired connections may be made to the new equipment as needs are identified and if spare ports are available.

5. As stated, the main focus of this project will amount to replacing/upgrading network ports and backbone uplinks to support new Aruba 802.11ac-Wave2 Generation 2 Wireless Systems (Aruba AP335 – Controller Managed Wireless Access Points) requiring Multi-Gigabit Ethernet Connections with PoE+ power to function on a cable plant that has mostly Cat6 UTP connections (with Cat5e cables in a few areas) in support of the District’s 1:1 (wireless device-to-student) ratio/strategy wherein each student and staff member in the District has their own iPad and/or Laptop / Notebook Computer and/or Smartphone.
6. Although it is anticipated that legacy 1000BASE-T network equipment will remain in place to serve wired legacy desktops and VoIP phones as well as safety and security systems; a secondary focus of this project, if proven practical and if funds are available, will be to replace existing network equipment with current generation network switches.
 - a. Current network traffic studies show that upwards of half of network traffic within the District’s LAN / WAN environment is generated by wireless devices and this use is anticipated to expand as more curricula and student storage becomes Web or cloud-based.
 - b. Another 25% of the network WAN traffic is for CCTV cameras streaming to centralized DVRs. CCTV traffic, is anticipated to stay about the same if the strategy for centralized DVRs remains; or increase only modestly as few new facilities are planned. On the other hand, camera traffic on the WAN may decrease significantly if the District decentralizes DVRs and replaces legacy cameras with devices that have on-board data storage. Changes like these in the CCTV typology to decentralize DVRs and/or to adopt cameras with on-board storage may alleviate this high traffic load on the WAN/LAN.
 - c. With wireless traffic offloaded to new network equipment and uplinks and a revised CCTV strategy, the legacy network may be perfectly adequate to provide services to existing wired network equipment –which is not being renewed in significant percentages.
 - d. The existing network is made up mostly of Cisco 2900-series PoE Access Switches aggregating at schools on Cisco 4500- and 6500-series switches via 62.5-micron OM1 Fiber with 1-Gig SFP modules. In turn, these school core switches are homed to the NOC from school cores via 1-Gig SFP Modules on 8.3-micron OS2 Fiber. Most of the network equipment is covered by Cisco’s Limited Lifetime Warranty and could be run well into the foreseeable future without issues. The core chassis systems could be run with ongoing Smartnet support, if necessary. Current thinking is that this existing network infrastructure will more-than-likely be adequate to meet the future needs of wired computers and select PoE IP-based devices (e.g. some phones and cameras) into the foreseeable future, once the growing, high-bandwidth traffic (from wireless devices) is moved over to new network systems.
7. Fiber-connected Core Aggregation Equipment at the NOC & DOC is also to be included in this acquisition. These core switches should support multiple 10-, 25-, 40- or even 100Gigabit fiber optic connections from schools and between each other to provide a fully redundant, meshed, non-blocking core WAN network typology. Some level of flexibility/expandability should be kept under consideration in offering these switches so they may accommodate network growth and potential changeovers to higher-bandwidth modules, slots, blades, connections as future needs are identified (e.g. The District may start out using 10G modules from some schools to the WAN Core and these may be upgraded to 40G or even 100G as future needs may dictate. This upgrade should be made by being able to replace a transceiver or uplink module; rather than by having to procure a new switch or chassis blade.)
8. In preparation to support these network initiatives, the District has procured and installed new OM4 multimode and OS2 singlemode fiber optic links from each school’s MDF to each IDF.
 - a. At most schools, each IDF is now connected to the MDF with 6 strands of OS2 Singlemode Fiber Optic Cabling and 12-strands of OM4 Multimode Fiber Optic Cables. (At least 6 strands of legacy 62.5- micron OM1 fiber optic cabling – tested and certified – is also available between MDFs and IDFs as well as at portable classroom buildings at all facilities.)

- b. The network typology at Eanes Elementary School differs slightly:
 - 1) New OM4 multimode links are routed to each Classroom Pod (housing four (4) classrooms each) and portable, dual-classroom buildings.
 - 2) EES classrooms in Pod Buildings are “uplinked” to the MDF with six (6) strands of newly installed OM4 Multimode Cables. In situations where OM4 cabling distances may be exceeded, cross-connection fields have been placed at intermediate distances to aggregate fiber links and allow signal regeneration opportunities using intermediate switches.
 - 3) EES classrooms in Portable Buildings are “uplinked” to adjacent IDFs or directly to the MDF with six (6) strands of newly installed OM4 Multimode Cable in a method that is similar to that for Classroom Pods so that signal regeneration, if required, may be applied to the uplinks.
 - 4) Singlemode (OS2) fiber optic cables have been routed from the MDF out to two centralized nodes on the EES Campus where high speed aggregation switches may be placed if needs for higher speed uplinks than can be provided by OM4 cable beyond *Standards-based* cabling distances.
 - c. Schools are connected to the NOC (and in some cases, together) with District-owned OS2 Singlemode Fiber (minimum 6 strands per school).
 - d. The NOC and DOC are to be connected to each other with a 48-strand OS2 Singlemode Tie Cable.
9. The District has issued contracts for the purchase and installation of new Wireless Access Points supporting 802.11ac-Wave2 standards – with installation anticipated to occur over the 2017 late spring semester, summer break and early fall.

NOTE 1: At this time, it is acknowledged that the current Cisco NBase-T technology that does meet the aforementioned performance requirements for their own equipment is *pre-Standard*, and other manufacturers’ *Multigigabit equipment is not yet generally available or it is just entering the market*. In that EISD does not wish to be “locked in” to a proprietary standard, the District may wait to purchase new network equipment until after an IEEE Standards-based multi-gigabit strategy has been ratified, adopted and implemented by the industry to the point that this type of equipment is generally available in the marketplace from multiple manufacturers. In addition, the District would rather not buy First Generation (v1.0) equipment – which may not be fully “debugged” – from any manufacturer. Given this, the District acknowledges that this may delay procurements and installation of some schools’ new Network Systems.

NOTE 2: As part of the 2011 Bond-funded Instructional AV Systems Upgrade Program, two (2) additional, unallocated Cat6 drop cables were installed from inside Audiovisual System Enclosures located in all classrooms, libraries and commons areas to the closest MDF or IDF – with direct access to above-ceiling spaces – for “future” networking services connections, including additional or enhanced wireless services. If additional network connections are required, these may be used.

10. Almost all of the existing UTP cabling in the District is comprised of Category 6 cables. Although not specifically rated to carry 10GB/s traffic to *Standards-based* distances, it is generally accepted that this type of cabling (especially if of new generation cable and installations) is capable of carrying 2.5-, 5- and even 10GB/s traffic over shorter distances, and, in some cases up to 100 meters, depending on how the cables are installed and the “handshake” of the concerned network equipment. Given this and the fact that it is known that cabling conditions can be changed to improve the distances cables can carry higher speeds, contractor is to provide information about their own equipment and roadmap and the standards to which their equipment will be built and what may be done to improve network performance beyond installing new cabling.
- a. Contractor is to provide input about their equipment manufacturers’ positions regarding the status of Standards Development for Multi-Gigabit PoE+ equipment and systems and if/when their equipment will become generally available in the US marketplace.
 - b. If it appears that IEEE multi-gigabit standards/equipment will **not** be developed, ratified and generally adopted in time for equipment to be generally available for this project to come on line at full capacity, contractor is instead to make recommendations about using *pre-standard MGBase-T¹ or NBASE-T² strategies* (2.5BASE-T and/or 5BASE-T) Ethernet over Cat5e and Cat6 UTP cabling.
 - c. Contractor is to recommend strategies that might be used to assure desired high bandwidth performance from the existing UTP cable plant according to TIA, TSB-155-A (e.g. mitigating alien crosstalk; using non-adjacent patch panel positions for high-bandwidth terminations; separating equipment cords and patch cords from each other; unbundling or more loosely bundling the horizontal cables; checking/minimizing the “un-twist” at termination points; making sure cable bends exceed minimum radii for given cable types; etc.)

¹ Proprietary HP/Aruba Multi-Gigabit Standard

² Proprietary Cisco Multi-Gigabit Standard

11. New UTP patching cables may be required to facilitate connecting new network equipment in the LAN to remote devices attached to the horizontal cable plant (e.g. APs, phones, workstations, etc.). Contractor is to note requirements and provide an adequate number of Cat6 patching cords of appropriate lengths and colors to connect new equipment being proposed.
12. New Fiber Optic patching cables will be required to facilitate connecting new network equipment within the LAN and WAN architecture. Contractor is to note requirements and provide an adequate number of patching cords to connect new equipment being proposed. The New Fiber Plant (SM & MM) is terminated with “LC-Type” connectors; the Old Fiber Plant is terminated with “ST-Type” connectors.
13. Newly Installed Network Equipment is to be provided with a minimum 3-year installation warranty from the time of acceptance.
14. Newly Installed Network Equipment (Standalone Switches) is to be provided with a no-cost hardware warranty for the life of the equipment – extending 5 years beyond published end-of-sale date.
15. Newly Installed Network Equipment (Chassis-based Switches) is to be provided with a renewable Annual Hardware/Software Warranty / Service and Maintenance agreement with pricing and terms for same to be clearly identified.

It is the desire of the District to have the majority of the new network system equipment installed, tested and operational at schools prior to the end of the Spring, 2017 Semester, with acceptance testing and payments completed at that time in preparation for the installation of new Wireless Access Points during the late spring, summer and early fall. **Furthermore, the District requires that the latest generation of network equipment (hardware and software) be installed, so procurement should take place after manufacturers’ refresh period within the aforementioned timeline to assure that the latest editions of both hardware and software are installed.**

Spring Semester began on January 3, 2017 and ends on May 26, 2017. Fall, 2017 semester begins on August 16, 2017. Summer School will be scheduled in some facilities, but it is not known at this time what these schedules may be. **When school is in session and students are at schools, work will be restricted to inside-closet activities only during school hours. Work conducted in the balance of the building must be carried out after school hours or on weekends and school holidays.** (Typically, Elementary Schools end their class day by 3:00 – Forest Trail at 3:30; Middle Schools by 4:00 and the High School by 4:15.) Contractor is to plan their work accordingly.

Knowing this, as a part of the RFP response, Contractor is to present as part of their proposal, a tentative **Schedule for Work** to include building surveys; system design; submittal preparation, submission and review; submittal approval; ordering and receiving equipment and materials; staging; pre-installation testing and documentation; pre-installation preparation; cable/patch cord installation as required; post-installation activities including configuration and testing; system acceptance; and presentation of warranty credentials.

This Request for Proposal can be reviewed and downloaded from the following website:

<http://www.eanesisd.net/departments/business/purchasing>

Qualified firms within 200 miles of the District are encouraged to thoroughly read the RFP to ensure they meet qualifications and that all required documentation is included in their Proposal Response. Failure to provide all required documentation may be grounds for rejection of the response.

If you are an interested firm, the District invites your firm to submit a Proposal Response to the EISD Purchasing Office. The envelope containing your Proposal Response should be plainly marked:

**Proposal Response for:
RFP #201617-010 NETWORK GEAR UPGRADES FOR CAMPUSES & DATA CENTERS**

THIS IS A NEGOTIATED PROCUREMENT, and as such, the District reserves the right to negotiate any terms, conditions, or pricing with a Proposer prior to an award. Responses shall be received any time but no later than **2:00 PM on Tuesday May 2, 2017 at the Eanes ISD Administration Building at 601 Camp Craft Rd, Austin, Texas 78746.** Please include **two** copies of your proposal.

There will be an OBLIGATORY Pre-Proposal Conference held at 2:00 P.M. on April 17, 2017 at 601 Camp Craft Road, Austin TX 78746 (Eanes ISD Administrative Building Board Room). It is requested that each potential attendee confirm their anticipated attendance at the conference. Please send an e-mail to **networkrfp@eanesisd.net** so that the District can

anticipate the number of individuals who will be attending. Site Visits / Walk-Throughs will be scheduled to begin immediately after the Pre-Proposal Conference with the expectation that all interested parties will complete these at all locations by Saturday, April 22, 2017.

Any and all questions regarding this RFP must be submitted in writing to the e-mail address shown above by 5:00 PM on Thursday, April 27, 2017. Answers to questions will be presented to all proposers by 5:00 PM on Friday, April 28, 2017. All questions must be posed in writing. Oral responses to any questions, although potentially helpful, will not be binding.

The Board of Trustees reserves the right to reject any and/or all Proposals, to award contracts for individual products or services as may appear advantageous, and to negotiate separately in any manner necessary to serve the best interest of the District.

No Proposals may be withdrawn for a period of ninety (90) days subsequent to the deadline for receipt of Proposals without the prior written consent of the Board of Trustees, Eanes Independent School District.

Sincerely,

A handwritten signature in blue ink that reads "Sylvie Pouget". The signature is written in a cursive style with a large initial 'S'.

Sylvie Pouget
Purchasing Coordinator

Section I – Proposal Submission

1. Introduction

Eanes Independent School District invites your firm to submit a written proposal response for **Data Network Switches** in all Schools and the Network Operations Centers to the District. EISD is seeking a firm within two hundred (200) miles that has both experience and expertise in all aspects of the Data Networking Industry.

It is the intent of this Request for Proposal (RFP) to establish the terms, conditions and prices for Data Networking Systems Installation / Configuration. Contractor to provide all equipment, labor, material, superintendence, tools and equipment necessary for completion of assigned work and to provide appropriate documentation, including manufacturer's warranty certifications concerning the work completed. The Contractor shall be able to complete all tasks normally encountered when procuring, installing, testing, certifying and warranting new Data Networking Systems. These tasks include but are not limited to IT Room surveys / evaluation; installation of equipment; installation of patching cables when/if required; testing / configuration of network system; and maintenance of newly installed network elements; as well as pre-installation surveying and testing of existing Network Systems, as required.

2. General Terms, Conditions and Requirements for Solicitations

This Solicitation shall be governed by the following documents unless an exception is otherwise taken within this Solicitation. Documents are incorporated by reference only, and are not attached to this Solicitation. A copy may be obtained at <http://www.eanesisd.net/dept/purchasing/bid>.

2.1 Texas Education Code 44.031.

2.2 Purchasing and Acquisition, EISD Policy CH (Legal).

2.3 Purchasing and Acquisition, EISD Policy CH (Local).

3. District Overview

EISD covers an area of approximately 31.2 square miles and includes parts of Austin as well as the municipalities of Rollingwood and Westlake Hills. A map of the District is available at the following District website address: <http://www.eanesisd.net/district/maps>. EISD currently has one (1) high school (housing the central network operations center), two (2) middle schools, six (6) elementary schools, one (1) administration building, one (1) district operations center (under construction), and one (1) warehouse.

By definition, the term "Campus" and/or "Department" used in the collective means the entire premises of each and every school and facility owned or operated by the District either now or in the future, including without limitation, all elementary, middle, and high schools, athletic facilities, offices, and maintenance facilities.

4. Request for Clarification, Interpretation and Questions

The District has created an e-mail address (networkrfp@eanesisd.net) that is intended for interested Proposers to direct requests for clarification, interpretations, and/or questions of current solicitations offered by Eanes ISD. All requests must be submitted before or by 5:00 PM on April 27, 2017, and only fully completed requests for valid and current solicitations will receive a response by 5:00 PM on April 28, 2017; late or delinquent requests will not be entertained or answered. See the solicitation for the final date a request may be submitted.

Each question, clarification or interpretation request must include all pertinent information required to receive a response. Failure to provide all information may delay a response from the District. The District reserves the right to inform the requestor that the response to their request will be submitted through an addendum to all interested vendors and not be addressed directly through their request.

Once a request is received, a notification of receipt by the District will be forwarded to the contact e-mail address.

Proposers are reminded that verbal responses or conversations are not binding. Only questions answered by formal written addenda will be binding and will be made part of the proposal documents.

Contact with employees of the District, other than the IT Director or the Purchasing Coordinator, is prohibited during the RFP process unless directed by the Purchasing Coordinator. Proposers that fail to adhere to this requirement risk having their Proposals disqualified.

5. Requirement to Meet All Proposal Provisions

Each Proposer shall respond to all of the specifications and RFP terms and conditions. By virtue of the Proposal response, the Proposer acknowledges agreement with and acceptance of all provisions of the specifications except as expressly qualified in the RFP.

6. Submission of Proposal Responses

This RFP states the overall scope of services desired, procurement terms and conditions, as well as the scope of services to be provided. All Proposal responses should clearly detail how the proposed services can best satisfy the District's requirements.

The Submitted Proposal must follow the rules and format established within the RFP. Adherence to these rules will ensure a fair and objective analysis of all Proposal responses.

A Proposal response shall represent a true and correct statement and shall contain no cause for claim of omission or error. As directed by the Solicitation, the Proposer shall provide any and all certifications, forms and documents as stated within the Solicitation.

6.1 Response Submission Location

Proposal responses shall be received by **mail or hand delivered** to Purchasing Coordinator at Eanes ISD at 601 Camp Craft Rd, Austin, Texas 78746.

In addition, it would be greatly appreciated if you could send an electronic copy of your proposal to:

purchasing@eanesisd.net. **The subject line on your email should be:**

Proposal Response for RFP #201617-010 NETWORK GEAR UPGRADES & SUPPORT

The District is not responsible for responses submitted to a different location, incorrectly delivered by the USPS or common carrier. **Responses delivered after 2:00 pm May 2, 2017 may not be considered. Faxed responses will not be accepted.**

6.2 W-9 Taxpayer Identification Number

Proposer shall submit with their Proposal Response a copy of a W-9 Proposer Identification Number Certification to expedite the payment process if awarded a contract.

7. Standard Provisions

7.1 Supplemental Instructions or Changes made by Addendum

Any supplemental instructions or changes will be in the form of written addenda to this Solicitation. Verbal instructions or guidance shall not be considered binding. Any addenda will be posted on the Eanes ISD website bid page (<http://www.eanesisd.net/dept/purchasing/bid>) and available to prospective Proposers, prior to the due date for submittal of Proposals.

It shall be presumed by the District that any addenda so issued have been received by the Proposer and such addenda shall become part of the Proposal submittal. Proposers who have not obtained this Proposal solicitation document directly from EISD shall be responsible for immediately notifying EISD to receive all written addenda on a timely basis. Proposers who do not so notify EISD and submit Proposals without receipt of all addenda issued may be deemed to have submitted Proposals not responsive to this RFP.

7.2 Conflict of Interest: Disclosure of Certain Relationships with Local Government Officials

Any individual or business entity that contracts or seeks to contract for the sale or purchase of property, goods, or services with Eanes ISD must file a Vendor Conflict of Interest Questionnaire with the EISD Purchasing Office in accordance with Texas Local Government Code Chapter 176, no later than the 7th business day after the recipient becomes aware of the facts that require filing. This requirement also applies to a person who is an agent of a vendor in the vendor's business with the District. (See Section V)

7.3 Conflict of Interest: District Employee Relationships

As referenced in EISD Policy DBD (Local) Employment Requirements and Restrictions, all Proposers must disclose the name of any EISD employee who owns, directly or indirectly, an interest in the Proposer's firm or any of its branches. Failure to provide such information may be grounds for disqualification of the Proposal response or cancellation of a contract resulting from this Solicitation. Purchase of services or equipment from a business owned in whole or in part by a District employee shall be permitted only when approved by the Superintendent and executed through a documented competitive process. Services that might be provided by the employee as an extension of the employee's regular job responsibilities are exempted from consideration. (See Section V)

7.4 Proposal Retention

The District reserves the right to retain all Proposal responses for a period of 90 days after the Proposal closing date for examination, evaluation, comparison, and potential negotiations.

7.5 Withdrawal of Bids

Any Proposer who is extended the privilege of withdrawing a Proposal response because of having proven mechanical error in their response may not be allowed to submit a response to a future EISD solicitation on similar products and/or services for a period of not more than two (2) years.

7.6 Confidentiality of Documents

All documents submitted as part of a Proposal response to this Solicitation will be deemed confidential during the evaluation process. Proposal responses will not be available for review by anyone other than EISD Purchasing personnel, the evaluation team, or its designated agents, if so applicable. There shall be no disclosure of any Proposer's information to a competing Proposer prior to award of the contract. Following award of contract, all Proposal responses, with the exception of documents deemed confidential by the Texas Office of the Attorney General, become public documents and are available for public viewing upon written request to EISD.

7.6.1 All documents, floor plans and campus maps shared with Proposers will be deemed confidential for security reasons. Documents, floor plans and maps may not be used for any other reasons other than responding to this Request for Proposal (RFP).

7.7 District Waiver

The District reserves the right to waive any minor informality in any Proposal procedure; reject or cancel any or all Proposals; reissue a Proposal invitation; extend the Proposal opening time and date; consider and accept alternate Proposals, if specified in the Solicitation, when it is considered in the best interest of the District.

8. Evaluation, Negotiations, and Contract Award

THIS IS A NEGOTIATED PROCUREMENT, and as such, award will not necessarily be made to the Proposer submitting the lowest priced Proposal. The District shall accept the Proposal response it deems to be in the best interest of the District through the evaluation process. Proposal responses will be evaluated based on the requirements set forth in Section II, Special Terms and Conditions.

– END OF SECTION I –

SECTION II SPECIAL TERMS & CONDITIONS

1. Deviations to any/all requests in this proposal are subject to approval by the Eanes ISD prior to any resultant proposal award.
2. The length of this contract shall be for a one-year period with 5 annual renewals, contingent upon written agreement by both parties. For any contract that is greater than one year, the District may terminate that contract if the District's Board fails to appropriate sufficient funds for any budget year.
3. During the term of the contract, items that may not have been included on the initial proposal may be included by mutual written agreement of the successful LAN/WAN Contractor and the District. The District shall notify the successful Contractor, in writing, of its intent to include new items under this contract. The successful Contractor must supply, in writing, its prices on the items plus any discounts it intends to include in the purchase price.
4. All prices shall include freight and be FOB; Eanes ISD at the location equipment is to be installed.
5. Eanes ISD reserves the right to request copies of original invoices for any materials purchased by the successful Contractor(s) and charged to Eanes ISD. Further, Eanes ISD reserves the right to purchase and supply materials for any work performed by the successful Contractor(s) under this contract.
6. PRICE ADJUSTMENTS:
 - 6.1 If during the term of the time and materials or cost-plus contract, the Contractor's labor costs are increased, the Contractor may apply to the Purchasing Coordinator for a corresponding contract price adjustment. Such application must be accompanied by sufficient information in writing to justify approval.
 - 6.2 If during the term of the time and materials or cost-plus contract, the Contractor's costs for labor are lowered and such savings are passed along to other customers, it is understood and agreed that the benefits of such reduction shall be extended to the Eanes Independent School District.
 - 6.3 Only one (1) price review is allowed per calendar year during the term of the time and materials or cost-plus contract.
 - 6.4 The percentage for markup quoted for a time and materials or cost-plus contract shall remain firm for the entire term of the contract, and any subsequent renewals. No adjustment will be allowed.
7. The District reserves the right not to consider a Proposal containing a service charge, minimum dollar requirement, or minimum quantity requirement.
8. The Proposer agrees that supplies or services furnished under any resultant purchase order issued by Eanes Independent School District shall be covered by the most favorable commercial warranties the manufacturer gives to any customer for such supplies or services. All warranty information and certificates shall be furnished and become the property of the District upon delivery of said items and all rights and remedies stated in the warranties must be honored by the manufacturer.
9. All supplies/equipment supplied under this contract shall be new and without defect.
10. All products offered must have passed the first line quality standard as set by the manufacturer and no seconds, blemished articles, or items containing defective workmanship are allowed.
11. The District will evaluate proposals and select a vendor based on all of the information required. While cost is an important factor, it should be understood that the District is not under any obligation to accept the lowest priced proposal. In determining the best proposal, the following selection criteria will be used:
 - 11.1 Initial Procurement, Installation Costs and Post-Installation Testing and Configuration: which are made up of the prices for pre-installation engineering/design/surveying; the price for materials including shipping and handling, the price for installation labor and the price for post-installation testing and configuration – up to 25%.

- 11.2 Ownership Costs: Service and Maintenance: which is made up of the price of ongoing services and the price & terms of ongoing support / maintenance – up to 15%
 - 11.3 Extent proposal meets District needs (quality/clarity of proposal, overall scope, exceptions taken, installation timeline, ability of proposed equipment to be integrated into and work with existing networking systems) – up to 20%;
 - 11.4 Vendor Reputation as established via primary and secondary reference checks – up to 15%;
 - 11.5 Quality of vendor’s goods and services being proposed (Proposed Manufacturers’ Reputation and Warranty) – up to 15%;
 - 11.6 Vendor past relationship with the District – up to 10%.
12. Eanes ISD reserves the right to make secondary awards. The secondary Contractors will be considered for projects when the primary Contractor cannot meet our time requirements for a particular project.
13. **Contractor’s Liability Insurance:** During the term of this contract, any vendor or Contractor working on Eanes School District facilities or property must provide the required insurance. Any large equipment or vehicles brought onto Eanes School Property must also provide the required insurance.
- 13.1 Minimal coverage shall be \$1,000,000 for general liability, each occurrence.
 - 13.2 Minimal coverage shall be \$500,000 for automobile liability, each occurrence.
 - 13.3 Minimal coverage shall be \$100,000 for workers compensation, each occurrence.
 - 13.4 Policy must be in effect during the time of contracted work.
 - 13.5 Additional Insurer must be: Eanes ISD, its officers, employees and agents.
 - 13.6 Certificate Holder must name:
Eanes Independent School District
601 Camp Craft
Austin, TX 78746
 - 13.7 Copy of Certificate of Insurance shall accompany proposal.
 - 13.8 Upon Award of Contract Certificate of Insurance shall be emailed to lfarry@eanesisd.net, and a hard copy original mailed from the insurance company to:

Laura Santos-Farry
Eanes ISD
601 Camp Craft
Austin, TX 78746
14. If applicable to the Project, a Payment Bond in an amount equal to 100% of the contract sum will be required on single projects that exceed \$25,000. A Performance Bond in the amount equal to 100% of the contract sum will be required on single projects that exceed \$100,000. Please note that all bonding companies presented must be acceptable to the District.
15. Costs for Payment and Performance Bonding shall be included in the Pricing Spreadsheet at the end of Part 4 of Section III – pro-rated amounts to be included on a per-school basis to cover the total bond required for the project.
16. The prevailing rates of wages must be paid in conformance with all applicable laws of the State of Texas. This project may include minor ancillary construction services.
17. The successful Contractor must provide current copies of all necessary permits and licenses needed to provide the service stated herein in the City of Austin, Travis County and the State of Texas. Current copies of all permits and licenses must be provided within 5 working days of request.
18. The Contractor shall secure, and pay for, if applicable to the project, the building permit(s) and all other permits, governmental fees, licenses and inspections necessary for the proper execution and completion of the work. Actual costs of specific job related permits and fees should be considered as part of the work and should NOT be submitted to the Director of Technology Services for reimbursement.
19. The successful Contractor may not assign this contract or may not subcontract to another party for performance of the terms and conditions hereof without prior written consent of the Purchasing Coordinator.

20. Subcontractors, if allowed, shall meet the same Insurance, Liability and Bonding requirements asked of the Prime Contractor as well as all other terms and conditions for work at the District as contained within this document and referenced other documents.
21. The District may terminate this contract for any reason by giving thirty (30) days written notice to the Proposer. Upon the effective date of termination, the District shall compensate the proposer only for the goods received and accepted by the District up to the effective date of termination. Upon the effective date of termination, the District has no other legal or monetary obligations or responsibilities to the Proposer.
22. Contractor shall be excused from performance hereunder during the time and to the extent that he/she is prevented from obtaining, delivering, or performing in the customary manner, due to natural disaster, fire, war, loss or shortage of transportation facilities, lockout or commandeering of raw materials, products, plants or facilities by the government. Contractor shall provide Owner satisfactory evidence that non-performance is due to other than fault or negligence on his/her part.
23. If during the term of this contract, the successful Contractor fails to perform for any cause other than those listed above, it may be due cause for forfeiture of the balances of the contract, and subsequent removal from the active bidder's list for a period to be determined by the Purchasing Coordinator. Repeated instances of unsatisfactory performance shall be cause for cancellation of the contract. Unsatisfactory performance shall be defined as no service, consistent late service or failure to comply with the minimum requirements of the solicitation.
24. The successful Contractor shall furnish all labor, any tools, equipment, materials and supplies to perform the services as specified. All parts/materials and installations shall comply with provisions of the appropriate codes as required by the authority having jurisdiction.
25. The successful Contractor or his/her personnel shall not proceed with any work on District sites without the prior approval of the Director of Technology Services or designee.
26. The successful Contractor shall perform all non-emergency work during regular working days and hours of the Network Equipment Installation trade for schools and outside of the regular working days and hours of student activities in the District (Monday through Friday, 7am to 4pm) unless otherwise approved by the Director of Technology Services or designee. Facilities are usually available until midnight on school days when janitorial crews are working in facilities. Arrangements to work outside of these hours will require approval of the Director of Technology Services or designee and approval of the District Security Department to arrange for access control badging and security codes (PINs) in any given district facility.
27. The Contractor shall have a constantly monitored twenty-four (24) hour a day phone number to contact for emergency service. If the Contractor fails to respond to emergency calls within two (2) hours, the District reserves the right to contact another Contractor to perform the work required.
28. The Director of Technology Services or designee shall decide all questions which may arise as to the quality and acceptability of any work performed under the contract. If, in the opinion of the Director of Technology Services or designee, performance becomes unsatisfactory, the District shall notify the Contractor. The Contractor shall have twenty-four (24) hours to remedy unsatisfactory performance.
29. Any damages to Eanes ISD property as the result of negligence caused by the Contractor or his personnel shall be repaired at the Contractor's expense by a Contractor approved by the District.
30. Contractor's Responsibilities:
 - 30.1 Contractor and his/her personnel shall not enter District sites without prior approval of the Director of Technology Services or his designee.
 - 30.2 Contractor and his/her personnel must notify the front office of any given school of their presence in the building. Workers must sign in and out with the front office each time they leave the campus.
 - 30.3 Contractor and his/her personnel shall have appropriate identification at all times.

- 30.4** The District shall provide the successful Contractor with full and free access to the area to render service therein.
- 30.5** The Contractor and his/her personnel shall confine their activities to the work site and area(s) designated for their use.
- 30.6** The job site shall be kept in a clean, safe and orderly condition at all times. It shall be the Contractor's responsibility to remove all debris, materials, and equipment from the job site upon completion of the work specified.
- 30.7** Successful Contractor shall not request keys to the District facilities without prior approval from the Director of Technology Services or his designee. Under no circumstances shall Contractor or his personnel remove keys from the premises or reproduce keys to any District facility.
- 31.** Successful Contractor shall provide a "not to exceed" cost for each project assigned, with actual costs billed at the time and material unit costs established as a result of this award.
- 32.** The successful Contractor warrants, guarantees and agrees to remedy all defects and to replace, at no additional costs to the owner, any and all labor, materials, equipment, transportation, part or parts of the equipment or materials to be furnished under this contract which are or become defective within a period of not less than one (1) year from the date of Final Acceptance of the work.
- 33.** The use of tobacco, drugs, or alcohol is prohibited in all District buildings, vehicles, and on the grounds of all District facilities.
- 34.** All machinery, equipment, and/or tools must comply with O.S.H.A., U.L., all Safety Regulations and other standards. This includes various safety accessories and it is the Contractor's responsibility to meet the necessary requirements.
- 35.** The successful Contractor shall keep fully informed on all federal and state laws, all local bylaws, regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority which in any manner affect those engaged or employed on the work or which in any way affect the ordinances, regulations, orders and decrees in force at the time of award. The successful Contractor shall protect and indemnify the District and its representatives against any claim or liability arising from or based on the violation of any such law, bylaw, ordinance, regulation, order or decree whether by itself or by its employee(s). No extension of time or additional payment will be made for loss of time or disruption of work caused by any actions against the successful Contractor for any of the above reasons.
- 36.** The parties expressly agree and understand that the provider is not an employee or agent of the District in any sense, but is a sole independent Contractor.
- 37.** Contractor must not and will not during the performance of this contract employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986.
- 38.** Prior to commencing any work on this Project, Proposer will certify that for each employee of Proposer has obtained, as required by Texas Education Code, Section 22.0834:
- 38.1** National criminal history record information from a law enforcement or criminal justice agency for each employee of Proposer hired before January 1, 2008; and
- 38.2** An employee of proposer who will have direct contact with students must not have been convicted of an offense identified in Texas Education Code Section 22.085.
- 38.3** Any Contractor doing business with a school district shall obtain all criminal history record information that relates to a person who was hired on or after January 1, 2008, through the Criminal History Clearinghouse as provided by Section 411.0845, Government Code.
- 38.4** Directions for using the Texas Department of Public Safety's Clearinghouse are attached below as Exhibit A.
- 39.** Contractor shall insure that no one in their employment shall be in the possession of explosives or firearms on District property.

40. All contract workers must be properly dressed while on Eanes ISD property. Clothing with inappropriate words or pictures is strictly prohibited. It would be preferable for employees of the Contractor to have uniforms or matching shirts bearing the name and logo of the Company so they may be easily recognized by District Staff and Students as Contractor employees.
41. Eanes ISD reserves the right to bid any project separately.
42. All invoices will be sent to:
EISD Accounts Payable Department at accountspayable@eanesisd.net
43. Violation of any part of the Special Conditions listed may be cause for termination of the contract by the Eanes Independent School District.

Questions concerning these Special Conditions should be addressed via e-mail to Sylvie Pouget at spouget@eanesisd.net

– END OF SECTION II –

SECTION III SPECIFICATIONS & PRICING

Data Networking Systems³ Multigigabit and PoE+ Capable With RJ45 UTP Connection Ports and SFP+ and/or QSFP+ FOC Uplink Ports

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A.** The Drawings, General, Special and Supplementary Conditions of this RFP and associated Addenda apply to the Work of this Section.
- B.** All project documents correspond to this Section.
- C.** The work of other trades (Electricians, Carpenters, Interior Finishers, Etc.) and EISD groups related to this Section, insofar as coordination and the requirements for interconnection with the work of these groups are required, and insofar as they apply.
- D.** Manufacturers' Installation and Data sheets for the proposed equipment / systems.
- E.** All related documents: this solicitation and specification, accompanying drawings and Contractor's responses (RFP response, submittals, schedules, RFIs, testing and commissioning documents, etc.) will become a part of the overall contract for the Work described herein.
- F.** Information collected by contractor during pre-installation site surveys and testing of the existing network system and supporting cabling along with recommendations for installation of the new system components.

1.2 GENERAL

- A.** It is the purpose and intention of Eanes ISD to solicit qualified local vendor(s) to provide services to procure, install, connect, configure and test an upgraded, Multigigabit PoE+ Data Network System³ for schools and facilities throughout the District. The District anticipates entering into negotiated agreement(s) with qualified Network Equipment Vendor(s) upon approval of the Board of Education during spring semester 2017 for Data Network Systems installation during Academic Year 2017 and into the Summer Term. The following project steps and timing for the project are anticipated:
 - 1** Pre-installation surveys & interoperability testing with legacy equipment beginning late spring, 2017;

³ Multigigabit, PoE+ Data Network Systems as applicable to this document

- Certified by IEEE – with “generally available” equipment from multiple manufacturers
- Connectivity: Multiple 10/100/1000 MB/s RJ45 UTP ports to accommodate wired equipment, as required
- Connectivity: Multiple 1, 2.5, 5 and 10 GB/s RJ45 UTP ports to accommodate 802.11acWave2 Access Points on Cat5e, Cat6 or Cat6a UTP cabling, as required
- Connectivity: SFP, SFP+, QSFP, QSFP+ and/or QSFP28 optional fiber-based uplink and/or aggregation modules/ports (to include 10G, 25G, 40G and up to 100G capabilities over multimode and/or singlemode fiber optic cables over distances ranging from less than 100 meters up to 10Km)
- Powering Provisions: PoE and PoE+ (and beyond) Support for Wireless Access Points, VoIP Phones, CCTV Cameras, Multimedia Audio/Video Equipment, Access Control/Intrusion Detection Equipment, Downstream Network Switches, etc.
- Routing: Layer 2 and/or Layer 3, as required, with the ability to support QoS for voice, video and data applications to the network edge
- Means for backplane connections between blades or switches within rack
- Redundant power supplies/fans with a means for direct power connections between stacked or adjacent switches

- 2 Procurement and installation of newest-generation Multigigabit/PoE+ Networking Equipment to begin during spring semester 2017 and into the summer; and
- 3 Wrap-up, configuration, acceptance testing and final billing to be completed by the end of summer 2017.

B. Basis of Design:

- 1 This RFP and the Associated Drawings showing Overall School Floorplans with general, existing IT Closet locations depict a conceptual design showing functional requirements intended to address specific needs for a New Data Networking System at Elementary and Secondary Schools and Network-Specific Administrative Locations.
- 2 Contractor is to design, configure, show, propose and price Data Network Systems that address identified needs selecting from among the identified manufacturers' components called out in this specification or from among equipment known to the Contractor to perform the same or similar functions just as well or better at a potentially lower price.
- 3 If Contractor feels they can offer an alternative design and/or manufactured equipment that is significantly different from that requested herein which will *better meet needs of the District at a lower price*; they are to show, propose and price their own recommended alternative solutions using different equipment and designs and explain why it is a better alternative.
 - a. All proposed equipment (including that listed in this specification) is to be identified by the Contractor and presented to the IT Director and designee in a submittal folder for approval **prior** to ordering any equipment or materials.
 - b. Equipment that is purchased / delivered / installed without **prior written approval** may be rejected and not paid for by the District.
 - c. Costs for removal, return shipping and restocking fees for rejected equipment will not be paid for by the District.
 - d. Significantly different alternate systems **will not** be accepted or evaluated unless accompanied by a base proposal that meets criteria identified in the RFP. *EISD will be the sole judge of the significance of the differences between the system as described herein and the system proposed by the Contractor.*

C. Existing Conditions: Although efforts have been made to provide drawings and photograph showing IT Rooms and Racks in which new Network Equipment is to be placed, this specification and the attached drawings are being provided with the understanding that the Contractor will conduct their own surveys using the scale drawings of each facility and/or by actually walking each facility to generate their own drawings and designs.

Contractors are strongly encouraged to do their own site walk-throughs to confirm IT Room locations and drop counts for installation of new equipment into the schools. (IT Director and/or Technology Consultant or designee will be happy to accompany potential proposers during the week at the end of school days and on Saturdays during the last two weeks in April. Contractor is to notify IT Director's Office – 512.732.9090 – that they would like to tour facilities at least a day in advance so school staff may be notified and arrangements may be made to accompany them. Groups from any one company should be limited to two individuals.

The accompanying floorplans (T200NW-Series Drawings) show locations of closets and backbone cabling pathways with notes regarding basic wireless drop counts in each. Although the drawings themselves are drawn to scale, **elements within rooms are not shown to scale.**

Device /Room Counts: Overall device and room counts are specifically not provided as a part of this RFP. Contractor is to conduct their own counts from the associated drawings and site walkthroughs to arrive at their own tallies in each school.

As a part of their response to this RFP, the Contractor is strongly advised to visit each school and do their own device/drop counts, validate device locations and rack conditions and observe other conditions where new Network Equipment is to be installed.

Contractors must be accompanied by District IT staff or designee while on campus.

As part of the closeout submittal process, Contractor will be required to submit “as-built” drawings or “drawings of record” showing the locations and listings of newly installed Network Equipment. The included T200NW-Series base drawings will be made available to the installing Contractor in PDF format for their use in preparing these documents.

- D. Contractor shall verify dimensions and conditions at the job site prior to installation of equipment in any area, and perform installation in accordance with these specifications, manufacturer's recommendations, industry "Best Practices" and all applicable code requirements.
- E. Contractor shall provide complete system configuration, testing and system documentation.
- F. Contractor shall provide all equipment and system guarantees and warranties.
- G. Contractor shall provide Time and Materials pricing for ongoing system maintenance and Moves / Additions / Changes (MACs) for a period of 3 years after system acceptance.

1.3 SUMMARY

- A. The Network Equipment will provide high-bandwidth / low latency connectivity for students and staff using school-issued wireless personal computing devices (1:1) at each school including iPads, PC-based notebook computers and Apple-based notebooks.
- B. As a secondary consideration, wired workstations of various types and generations, cameras and VoIP phones may also be attached to this equipment if ports beyond those required to support wireless devices are available.
- C. The Network Equipment Project includes the following major items and activities:

ITEMS:

- 1 Access Layer Switches to provide autosensing 10/100/1000 MB/s connections for wired network equipment and 1/2.5/5/10 GB/s connections for wireless access points and future, high bandwidth wireless devices each with fiber-based uplink ports capable of 10, 25, 40 and/or up to 100 GB/s at each school's IT Rooms as required to support downstream devices.
- 2 Distribution Layer Switches to provide multiple 10, 25, 40 and up to 100 GB/s aggregation/uplink ports at each school's MDF.
- 3 Core Layer Switches to provide multiple 25, 40 and/or 100 GB/s connections for each school or set of schools in the District to the Network Operations Center (located in the High School) and the District Operations Center (currently under construction near the District Administration Building).
- 4 Support elements for new Network Equipment if existing support elements cannot be reused.
- 5 Submission of network designs in each school, including manufacturer's, model numbers, port counts and other relevant information as well as network typology drawings in Visio, AutoCAD and/or PDF format.
- 6 Submission for approval of cut sheets for all proposed equipment.
- 7 Submission of sample equipment for evaluation and approval, if requested.
- 8 Presentation of Manufacturer's Warranty Certificates for newly installed equipment.

ACTIVITIES:

- 1 Attending pre-bid meeting(s) and walk-throughs for each school with IT Director and/or designees to review design package for coordination
- 2 Submission of Design and Pricing Information for all equipment, materials and labor.
 - a. Include Verbal Description of System Parts – to assure contractor/owner understanding of system requirements; necessary parts inventory; and physical installation requirements
 - 1) Provide Hardcopy – four bound copies
 - 2) Provide Electronic Copies – Visio, AutoCAD, Excel, Word and/or PDFs
 - b. Include Verbal Description of System Functions – to assure contractor/owner understanding of system operational requirements.
 - 1) Provide Hardcopy – four bound copies
 - 2) Provide Electronic Copies – Word and/or PDFs
 - c. Include IT Room / Port / Switch Counts at each school – **Contractor to develop their own device / drop / room counts and equipment layouts.**
 - d. Include Preliminary Design Drawings – Schematic Block Diagrams, Elevations, Sections, etc.
 - 1) Provide Hardcopy Drawings – Arch Size D – four bound sets
 - 2) Provide Electronic Copies – Visio, AutoCAD and/or PDF Format
 - e. Include Pricing Spreadsheets (Templates shown at the end of this section.)
- 3 Contractors must include in their submissions the entire scope of work.

- a. The entire scope of work at each and all facilities.
 - b. The entire Data Network Scope of Work.
 - 1) Conducting Pre-Installation Surveys
 - 2) Qualifying existing network equipment for its fitness to be used within new network system.
 - 3) Replacing existing equipment as required.
 - 4) Placing new equipment and UPSs as required addressing connectivity and powering needs of new 802.11ac Wave2 wireless access points.
 - 5) Providing and installing all additional support infrastructure for relocation or placement of new devices such as patching cables, cable support elements, mounts, screws, power cables, etc.
 - 4 Negotiation of “Best and Final Prices” and contract terms and conditions.
 - 5 Participation in “Award / Kick-off” Meeting
 - 6 Attending pre-construction/pre-submittal meeting(s) for each school with IT Director and designee to review design package for coordination
 - 7 Submittal preparation, processing and evaluation prior to ordering equipment
 - 8 Verification of dimensions and conditions at each job site
 - 9 Installation in accordance with the Specifications and Drawings, the approved Contractor-prepared Construction Design Documents, Manufacturer’s recommendations, all applicable code requirements and “Industry Best Practices” guidelines
 - 10 Coordinating installation with the work of cabling contractors and AP installation vendors as required to install systems with as few interruptions of students, faculty and staff to network services and Internet Access as possible.
 - 11 Protecting District Facilities finishes and equipment
 - 12 Maintaining construction materials and refuse within the area of work
 - 13 Cleaning the work area at the end of each day
 - 14 Initial tests and adjustments, written reports, demonstration for approval, final adjustments, and documentation
 - 15 Testing, Certifying and Demonstrating all components for substantial completion and final acceptance
 - 16 Preparation of submittals, shop drawings and final “as-built” or “Record Drawings” information
 - 17 Final Certification Testing / Mapping and resulting printouts for all newly installed equipment.
- D. The Contractor shall provide all materials, equipment, labor and all other incidental material, tools, appliances and transportation as required to procure, install, connect, test and certify complete Network Equipment Systems in designated Elementary- and Secondary-Schools as well as in Administrative and Support facilities.
 - E. The Contractor shall include all costs associated with the provisioning of fully operational, tested, certified and warranted Data Network Systems in the bid amount.
 - F. Maintenance services; warranty period: 3-years
 - G. Service Agreements – long-term maintenance after warranty period: T&M rates to be good for a period of 5-years after workmanship / maintenance period expires.

1.4 PERFORMANCE REQUIREMENTS

- A. The New Data Networking System shall include the complete turnkey installation and commissioning of these systems in all designated areas at all schools shown in the drawings regardless of whether all individual bits and parts specifically shown in said drawings or called out in the specifications.
- B. All installed Networking Systems shall be installed, configured and tested per “industry best practice” to include certification for manufacturer’s performance warranty.

1.5 RELATED WORK

- A. The Contractor should interface with other trades and District Services Personnel to provide fully functional systems as described in the specifications, drawings and accompanying documents.

1.6 REFERENCES

The latest versions of the following codes, standards, guidelines shall be followed. Bring to Owner's immediate attention conditions that differ from requirements in codes, standards, or guidelines.

- A.** Codes – as required by law (use most recent version)
 - 1** National Electric Code (NEC)
 - 2** Occupational Safety and Health Administration (OSHA)
 - 3** Any and all requirements of the Local Authority Having Jurisdiction (LAHJ)
- B.** Standards: Consideration should be given to the latest versions of at least the following:
 - 1** American National Standards Institute (ANSI)
 - 2** Federal Communications Commission (FCC)
 - 3** Institute of Electrical and Electronics Engineers (IEEE) including, but not limited to:
 - a.** IEEE 802.3ab 1000BaseT Gigabit Ethernet (as applicable)
 - b.** IEEE 802.3bz-2016 2.5G/5GBASE-T Multigigabit Ethernet (as applicable)
 - c.** IEEE 802.3-2015 10GBASE-T 10 Gigabit Ethernet (as applicable)
 - d.** IEEE 802.3 (various standards) 25, 40, 50, 100, 200 and beyond Gigabit Ethernet (as applicable)
 - e.** IEEE Standards related to SFP/SFP+ 1GB/10GB over optical fiber cables (as applicable)
 - f.** IEEE Standards related to QSFP/QSFP+/QSFP28 25/40/50/100 GB over optical fiber cables (as applicable)
 - g.** IEEE Standards related TDM/WDM Strategies for multi-channel data transmission over optical fiber cables (as applicable)
 - h.** IEEE 802.3af (PoE)
 - i.** IEEE 802.3at (PoE+)
 - 4** American National Standards Institute (ANSI)
 - 5** Telecommunications Industries Association (TIA)
 - 6** Electronic Industries Alliance (EIA)
 - 7** Specific ANSI and TIA/EIA Standards Relating to Network Connectivity
 - a.** ANSI/TIA/EIA-568-C.0, Generic Telecommunications Cabling for Customer Premises
 - b.** ANSI/TIA/EIA-568-C.1, Commercial Building Telecommunications Cabling Standard
 - c.** ANSI/TIA/EIA-568-C.2, Balanced Twisted Pair Telecommunications Cabling and Components
 - d.** ANSI/TIA/EIA-568-C.3, Optical Fiber Cabling Components Standard
 - e.** ANSI/TIA/EIA-569-C, Commercial Building Standard for Telecommunications Pathways and Spaces
 - f.** ANSI/TIA/EIA-606-B, Administration Standard for Telecommunications Infrastructure of Commercial Buildings
 - g.** ANSI/TIA/EIA-607-B, Commercial Building Grounding and Bonding Requirements for Telecommunications
 - 8** Technical Service Bulletins
 - a.** TSB -162 Telecommunications Cabling guidelines for wireless access points
 - b.** TSB -184 Guidelines for supporting Power Delivery over Balanced Twisted Pair Cabling
 - 9** Underwriters Laboratories (UL) including, but not limited to:
 - a.** UL Standard 2043, 2nd Edition "Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces".

1.7 CONTRACTOR QUALIFICATIONS

- A.** Bidder shall be a Contractor, normally engaged in the full time business of data network equipment installation and configurations. Show proof, as a part of the bid, that bidder has been in the data network equipment installation business for a period of not less than five years and has completed projects of similar size and scope. The District reserves the right to reject any bids submitted by firms without sufficient experience in projects of this size.
- B.** Contractor shall be certified by manufacturers for and experienced in the installation of equipment and/or accessories of the type identified in this specification.
- C.** Contractor shall be an authorized manufacturer's representative for all products they furnish or install, or have direct relations through direct affiliates and/or subcontractors.
- D.** Contractor and/or subcontractor shall be factory certified to install, program, train and repair all major components or systems to be used in the project.

- E.** Contractor shall have local in-house engineering and project management capability consistent with the requirements of this project. The Contractor shall provide a project manager that shall be the same individual throughout the project and shall be the person responsible for system programming, preparation of Operation and Maintenance Manuals, Training Programs, Schedules and Test Protocols, documentation of system testing, maintenance of record drawings and coordination and scheduling of all labor.
- F.** Contractor shall have a local organization capable of providing ongoing maintenance and service for the specified systems. Contractor's shop / fabrication / warehouse / storage facilities shall be no more than 200 miles from the District.
- G.** Contractor shall not subcontract the installation of the networking equipment without the written approval of the IT Director. If any work is subcontracted, it shall be to a Manufacturer Certified Installation Company.
- H.** Contractor shall not subcontract temporary labor. All the Contractor employees shall be full time. Proof showing full time employment of all on-site personnel must be on file.
- I.** Contractor is responsible to assure that the workmanship and installation practices are in accordance with the Manufacturer's Certification Programs.
- J.** Any subcontractor or supplemental labor personnel must be approved Manufacturer Certified Installers and meet the experience requirements listed elsewhere in this document. Contractor shall provide copies of certifications as proof of compliance. The Contractor shall not use Subcontractors or Supplemental Labor without prior written approval from the IT Director or designee. If approved, the subcontractor or supplemental labor force shall be bound by this document.
- K.** IT Director or designee may make such investigations as deemed necessary to determine that the Contractor is responsive, responsible and qualified in the area of work contemplated in this Scope. In this regard, the Contractor shall furnish to the Owner such information and data as shall be requested for this purpose. Information and data may include, but not necessarily be limited to: 1) Date of organization and/or incorporation and number of years engaged in this business under present firm's names; 2) listing of facilities and major equipment owned by the company; and 3) a listing of company principals and personnel who will be involved in the Work with the experience and qualifications of each person.

1.8 INFORMATIONAL SUBMITTALS

- A.** Qualification Data: Contractor to provide qualified technicians, installation supervisor and field testers / inspectors.
 - 1** For each installer, qualified layout technician, installation supervisor, and field inspector, submit the individual's resume, certifications and manufacturer certifications on the equipment being installed.
 - 2** Submit copies of the manufacturers' certifications of the company and names of staff who will be performing the installation, configurations and testing/mapping to provide proof of compliance of this specification. Include names of subcontracting or supplemental labor personnel along with proof of compliance.
- B.** References -- Provide a minimum of three (3) verifiable local references that can provide information concerning the successful completion of projects of similar size and complexity.
- C.** Source quality-control reports: Open and inspect/test equipment prior to installation to assure that it functions properly.
- D.** Field quality-control reports — Contractor to provide meeting notes from all field coordination meetings and inspections.

1.9 ACTION SUBMITTALS

- A.** Product Data: For each type of product.
- B.** Provide shop drawings and record drawings using the following scales:
 - 1** Details - not less than 1"=1'-0"
 - 2** Scaled Plans - not less than 1/8"=1'-0"
- C.** Mark all submittal documents to show the project name, date, Owner, Contractor and this RFP Number.

- D. Submit three (3) sets of shop drawings, product data and samples together in one package within thirty (30) days after award of the Contract and prior to ordering equipment.
- E. Submit 3 sets catalog data sheets, neatly bound with title page, space for submittal stamps, and tabbed dividers between Sections. Provide a complete list of proposed equipment with reference to its corresponding specification paragraph number or equipment title in specification paragraph order. Also identify room number in which equipment will be placed. Denote all approved substitutions.
- F. Identify support elements or patching cords required at any give school or in any area of any given school as required to make for a full and complete and working network. Include complete parts lists for “other-than-network-equipment” items unless they are included with the network equipment.
- G. References may be made in specification paragraphs to a requirement for shop drawings for that particular item. Such references do not define the only items requiring shop drawings.
- H. Approval of shop drawings or submittal indicates only the acceptance of the manufacturers and quality. Specific requirements, arrangements, and quantities still must comply with the intent of this Data Network Upgrade Project as interpreted by the IT Director and designee.

1.10 CONTRACT CLOSEOUT SUBMITTAL

- A. When the installation is substantially complete in any given school, submit two (2) preliminary contract closeout submittal copies and one electronic PDF copy and/or the corresponding Visio or AutoCAD file set to the IT Director or designee for review. Include any additional information noted by the IT Director or designee and provide three additional copies after approval and acceptance of the preliminary manual.
- B. Project Record Drawings (As-Built Drawings) shall contain:
 - 1 Title Page with Name of School and Date
 - 2 Table of Contents
 - 3 Contractor’s name, address and service department telephone number
 - 4 Name and contact information (including cell phone number of Contractor/s on-site construction manager).
 - 5 Approved shop drawings updated to accurately document the final conditions of the system installation
 - 6 Field changes of dimensions and details
 - 7 Changes made by Revision Order, Directive or other contract modifications
 - 8 Details of construction used not in original contract drawings or approved shop drawings
 - 9 Any other miscellaneous items installed under this contract
 - 10 Layouts of system devices showing device locations
 - 11 Electronic Photographs of equipment as installed in each closet with school name and room number in title of photographic file.
 - 12 Results of all Field Quality Control Tests specified in this section
- C. Cut Sheets: For installed systems for all individual components as well as for the overall system.

1.11 QUALITY ASSURANCE

- A. Contractor Staff Qualifications: Contractor must have full-time personnel certified by major equipment manufacturer on staff.
 - 1 Installation Supervision: Installation shall be under the direct supervision of a full-time, fully experienced technician who shall be present at all times when Work is performed at project site.
 - 2 Field Inspector / Testing: Currently certified by equipment manufacturer and testing equipment manufacturer to perform the on-site inspection, testing and mapping.
 - 3 Deviations from the aforementioned qualification criteria may be approved only by the IT Director or designee.
- B. Review architectural, civil, structural, mechanical, electrical, and other physical features of all schools and facilities relative to this Work.
- C. Coordinate the specified Work with all other trades as well as with EISD Facilities and Maintenance Department and Local School Administrators.

- D. Provide all items not indicated on the drawings or mentioned in the specifications that are necessary, required and appropriate for this Work to realize complete, stable and safe operation.
- E. Review project documentation and continuously make known any conflicts discovered and provide all items necessary to complete this Work to the satisfaction of the IT Director's or designee without additional expense. In all cases where a device or item or equipment is referred to in singular number or without quantity, each such reference shall apply to as many such devices or items as are required to complete the Work.
- F. Provide additional support or positioning members as required for the proper installation and operation of equipment, materials and devices provided as part of this Work as approved by the IT Director or designee without additional expense.
- G. Regularly examine all construction and the work of others, which may affect the Work to ensure proper conditions for the equipment and devices before their manufacture, fabrication or installation. Contractor shall be responsible for the proper fitting of the systems, equipment, materials, and devices provided as part of this Work.
- H. Promptly notify the IT Director or designee in writing of any difficulties that may prevent proper coordination or timely completion of this Work. Failure to do so shall constitute acceptance of construction as suitable in all ways to receive this Work, except for defects that may develop in the work of others after its execution.

1.12 PERMITS AND INSPECTIONS

- A. Obtain all required permits and inspections.
- B. Furnish material and workmanship for this Work in conformance with all code requirements.
- C. Perform all tests required herein, or as may be reasonably required to demonstrate conformance with the specifications.
- D. Obtain review from compliance officials responsible for enforcement of applicable codes and regulations to establish that the Work is in compliance with all requirements of reference codes indicated herein. Make corrections, changes acceptance, operation, and/or compliance with the final submittal as described herein.

1.13 DATA NETWORK EQUIPMNET CONTRACTOR'S RESPONSIBILITY

- A. Submittals - If the IT Director or designee rejects the Contractor's submittals: "Rejected, Revise and Resubmit" more than two (2) times, the Contractor shall compensate Owner for all subsequent reviews, whether partial or comprehensive. The amount of such compensation will be incorporated by Change Order and withheld from the WLAN Contractor's Application for payment.
- B. "As-Builts" (Record Drawings) – As-Built Documentation that is incomplete, deviates significantly from the requirements of the RFP, or contains numerous errors will be returned without review for rework and re-submittal. If the IT Director or designee rejects the Contractor's As-Built Documentation more than two (2) times, Contractor shall compensate Owner for all subsequent reviews, whether partial or comprehensive. The amount of such compensation will be incorporated by Change Order and withheld from the WLAN Contractor's Application for payment.
- C. Punch Lists and System Acceptance – Upon inspection of the Contractor's Work at substantial completion or re-inspection of Work to determine Contractor's clearing of punch list items, should IT Director or designee find the Work to be incomplete, requiring additional trips and hours to complete final system acceptance, Contractor shall compensate Owner for all subsequent site visits in the amount of \$1,200 per man-day plus expenses plus \$240 per hour in excess of eight (8) man hours at no additional cost to the Owner. The amount of such compensation will be incorporated by Change Order and withheld from the WLAN Contractor's Application for Payment.

1.14 DELIVERY, STORAGE, AND HANDLING

- A. Store and secure equipment and materials safely and securely indoors at the job site in a manner that will not interfere with the work of others. Rooms will be set aside at each school for the duration of the project

at that school. Room must be approved by the local administrator and returned to a clean, undamaged state at the end of the project in that school.

- B.** Deliver all materials to the job site in manufacturer's containers, as applicable, with each container and each item within each container clearly marked as to item, quantity, size and/or model number. Retain all original manufacturer's invoices and packing lists for inspection by the IT Director or designee. Provide copies of each with project record drawings.
- C.** Replace all damaged or defective work or material at no additional cost, prior to acceptance.
- D.** Check, and if necessary, clean all systems, equipment, devices and components included in the Work after acceptance and completion of the work of all others.
- E.** Store materials in designated areas.
- F.** Provide and maintain suitable barriers, guards, fences and signs wherever necessary for the safety of others relative to and/ or for the protection of this Work.
- G.** Protect all materials and equipment to prevent the entry or adhesion of concrete, plaster, unintended paint or other damaging debris or materials.

1.15 PROJECT CONDITIONS

- A.** If project conditions indicate a need to vary from the Specifications or Drawings, Contractor is to notify the IT Director or designee in writing. Make recommendations and proceed with the necessary changes only after receipt of written approval from the IT Director or designee.

1.16 SEQUENCING AND SCHEDULING

- A.** Coordinate Work with others and coordinate scheduling with the building administrator to minimize delays without interrupting school days in any way.

1.17 WARRANTY

- A.** For equipment not automatically provided with a Manufacturer's Limited Lifetime Warranty, provide a One-Year Warranty – with the term beginning at the time of system acceptance that shall have renewable annual warranties/maintenance/service agreements to be provided at the Owner's Option.
- B.** Provide an Installer's 3-Year System Warranty to be assigned to the Owner.
- C.** Warranty shall contain the following:
 - 1** Date, project title and number
 - 2** Contractor's name and address
 - 3** Title and number of each as-built document
 - 4** Certification that each document as submitted is complete and accurate
 - 5** Notarized signature of Contractor, or authorized representative
 - 6** Name of a contact person or department for service or maintenance
 - 7** Definition of the limits of the warranty
 - 8** During the System Warranty period, answer service calls and requests for information within twenty-four (24) hours. Repair or replace faulty items and correct faulty workmanship on site within twenty-four (24) hours of notification of a fault.
- D.** Conduct all warranty repairs and service at the job site unless in violation of manufacturer's warranty. In the latter event, provide substitute systems, equipment, and/or devices, acceptable to the Owner, for the duration of such off-site repairs. Transport warranty materials, parts, and personnel to and from the job site at no additional cost to the Owner.
- E.** Register warranties in the Owner's name for products with manufacturer's warranties lasting more than one (1) year.
 - 1** Contractor workmanship warranty should be in force for a minimum of three (3) years after system acceptance

1.18 MAINTENANCE / SERVICE

- A. Include as part of the bid a final follow-up service call to test and observe systems operation and integrity in any given instructional area, campus or facility at a period of 24 months after final acceptance before the workmanship warranty runs out. Repair/correct any abnormalities at this time at no additional cost to the Owner – unless equipment provided shows abuse.
- B. Contractor to provide costs for ongoing maintenance and repair of system and system components for a two-year period following the initial 3-year warranty service term – to be enacted during the third year after system acceptance to start at the end of the Warranty period. If, during the term of the this maintenance / repair period the Owner and Contractor agree to subsequent terms, they should be negotiated and agreed to prior to the end of the current term.

PART 2– PRODUCTS

2.1 GENERAL

- A. All equipment and materials shall be new, latest version at time of installation, and shall conform to applicable ANSI, CSA, IEEE and/or UL provisions. Re-manufactured or “B” stock equipment will not be accepted without prior written consent from the IT Director and designee. Evidence of unauthorized remanufactured, or “B” stock equipment on the project site will be deemed evidence of the Contractor’s failure to perform the Work. Equipment with major physical damage (beyond cosmetic) shall be considered used and may require replacement.
- B. All Network Switches with accessories shall meet all published manufacturer’s specifications, regardless of the length or completeness of the descriptive paragraph within the specification and drawings. Verify performance as required.
- C. All Uninterruptible Power Supplies (UPSs) with accessories shall meet all published manufacturer’s specifications, regardless of the length or completeness of the descriptive paragraph within the specification and drawings. Verify performance as required.
- D. No Asbestos-containing materials shall be used under this section. The Contractor shall insure that all materials incorporated in the project are Asbestos Free unless specifically authorized in writing by the Owner.

2.2 BRAND NAMES AND ACCEPTABLE ALTERNATES

- A. The preferred brand name, model number(s) (if any) and performance standard criteria mentioned for this specification are for equipment from “First Tier” manufacturers with long term interest in and successful performance records for producing this type of equipment and delivering and servicing it in the US Market.

Products should include the capacity to support 802.3bz Ethernet-over-Twisted Pair Copper Wire (Cat5e, Cat6 or Cat6a) at speeds of 2.5 GB/s and 5 GB/s as well 802.3ab and 802.3ae Ethernet at speeds of 1GB/s and 10GB/s and 802.3ba 40GB/s and 100GB/s over Fiber Optic Cables. Furthermore, this equipment should have the ability to provide Standards-based Power-over-Ethernet (PoE/PoE+) at up to 30 watts and beyond over its RJ-45 copper-based connections.

- 1 ALE – Alcatel-Lucent Enterprises⁴
- 2 Avaya⁵
- 3 Brocade / Foundry⁶
- 4 Cisco⁷
- 5 Dell / Sigma / EMC⁸
- 6 Extreme Networks⁹

⁴ Known to have PoE/PoE+ w/ SFP/QSFP Equipment in the Marketplace / MultiGig capacity unknown

⁵ Known to have PoE/PoE+ w/ SFP/QSFP Equipment in the Marketplace / MultiGig capacity unknown

⁶ Known to have 2.5G over UTP / PoE/PoE+ w/ SFP/QSFP Equipment in the Marketplace

⁷ Known to have Multi-Gig PoE/PoE+/UPOE w/ SFP/QSFP Equipment in the Marketplace

⁸ Known to have Multi-Gig PoE/PoE+ w/ SFP/QSFP Equipment in the Marketplace

⁹ Known to have PoE/PoE+ w/ SFP/QSFP Equipment in the Marketplace / MultiGig capacity unknown

7 HP/Aruba¹⁰

8 Juniper¹¹

- B.** *The District reserves the right to reject and deny any equipment/system that they deem unfit for their purposes and these decisions shall be accepted by the bidder as final and binding.*

PART 3– EXECUTION

3.1 GENERAL

A. NOTICE TO PROCEED

The Contractor shall not proceed with any ordering of equipment or installation until a formal notice to proceed has been provided by the District. Within ten (10) days from the notice to proceed, the contractor shall mobilize and commence with the project. Equipment shall be ordered on a “just in time” basis. Equipment with long lead times shall be ordered accordingly for delivery for an on-time installation.

B. PRE-INSTALLATION SITE SURVEY

Prior to start of systems installation, meet at the project site(s) with the IT Director and designee and/or District and School representatives to coordinate efforts. Review areas of potential interference and resolve conflicts before proceeding with the work. Examine areas and conditions under which the new equipment is to be installed. Do not proceed with the work until satisfactory conditions have been achieved.

3.2 FIELD QUALITY CONTROL

- A.** Contractor to employ experienced project manager during the course of the installation to provide coordination of work of this specification and of other trades, and provide technical information when requested. Project manager shall be responsible for quality control during installation, equipment set-up, and testing.

- B.** Installation personnel shall meet manufacturer’s training and education requirements for implementation of extended warranty program.

3.3 IMPLIMENTATION

- A.** Upon award of a contract, or after a notice to proceed has been issued, the Contractor shall submit a Project Management Plan and System Installation Schedule, preferably in the form of a GANTT chart, which clearly illustrates the sequence and duration for the implementation of the system(s) being bid at each school and facility included in this RFP. At a minimum this implementation plan should include the following installation activities:

- 1** Equipment delivery to buyer’s facility (any given school);
- 2** Equipment assembly, programming, testing and installation (by school, wing, area, etc.);
- 3** System Startup (in phases, as required);
- 4** Post-Installation Site Surveys (dictated by installation);
- 5** Final walk-throughs and approval for closeout and any given facility and/or for the overall project.

- B.** The Contractor shall be responsible for the complete “turnkey” procurement, installation, connection and configuration of all data networking equipment. “Turnkey Work” includes patching and configuring all in-closet equipment not already connected/configured (including patching in additional drop cables to network equipment ports) and procurement, installation and configuration of all hardware and materials required to complete the scope of work.

- C.** The Contractor shall install the system in accordance with the manufacturer specifications and in compliance with all applicable local, state and federal laws, municipal codes, ordinances, regulations, and direction of inspectors appointed by proper authorities having jurisdiction. If there are violations of codes, the Contractor will correct the situation at no additional cost. Working conditions must meet the installation

¹⁰ Known to have Multi-Gig PoE/PoE+ w/ SFP/QSFP Equipment in the Marketplace

¹¹ Known to have PoE/PoE+ w/ SFP/QSFP Equipment in the Marketplace / MultiGig capacity unknown

industry standards for safety and work procedures and protection of property established by prevailing rules, regulations, ordinances, and codes..

- D. The Contractor shall be responsible for loss or damage of equipment, parts, and goods sustained during shipment and on-site storage until such, parts and goods are installed at the jobsites.
- E. The Contractor shall obtain written permission from authorized EISD Maintenance & Operations staff before proceeding with any work which involves cutting into or through any part of the building structure such as girders, beams, concrete, roofs, tile/marble floors, partitions, or ceilings. This does not apply to the installation of lag screws, expansion bolts, and similar fastening devices used for securing equipment to floor, columns, walls, and ceilings.
- F. The Contractor shall obtain written permission from authorized EISD Maintenance & Operations staff before cutting into or through any part of the building structure where any fire proofing and/or moisture proofing may be impaired.
- G. The Contractor shall immediately report any damage to buildings caused by the Contractor's employees or subcontractor(s). The Contractor shall be responsible for repairing and restoring to original condition all such damage. The Contractor shall exercise reasonable care to avoid any damage to the property.
- H. Any unacceptable or defective work found to exist, whether the result of the use of defective materials, poor workmanship or carelessness on the part of the employees or subcontractor(s) of the Contractor, or any other cause attributable to the same, shall be removed and replaced by work and materials which shall conform to the requirements of this RFP or shall be remedied otherwise in a manner acceptable to the District and at the expense of the Contractor.
- I. The District shall provide the Contractor's employees and subcontractors' access to all buildings, rooms and other areas as required by the Contractor for the successful and complete installation of the proposed system(s).
- J. The Contractor shall install and test all equipment and related cabling in accordance with the equipment manufacturer's requirements; IEEE/EIA/TIA guidelines; and "Best Practices" for the Industry.

3.4 HANDLING AND PROTECTION OF EQUIPMENT, MATERIALS AND FACILITIES

- A. Contractor should be responsible for safekeeping of their and their subcontractors' property, such as equipment, materials and tools on the job site. The District assumes no responsibility for protection of above named property against fire, theft, and environmental conditions.
- B. Protection of Owners Facilities
 - 1 Contractor is to effectively protect the District's facilities, equipment, and materials from dust, dirt, and damage during installation.
 - 2 Contractor is to effectively protect the District Personnel's (teachers, administrators, staff and students) equipment, and materials from dust, dirt, and damage during installation.
- C. Receive, check, unload, handle, store, and adequately protect equipment and materials to be installed as part of the contract. Store in areas as directed by the IT Director or designee. Include delivery, unloading, setting in place, fastening to racks and walls, floors, ceilings, or other structures where required, interconnecting wiring of system components, equipment alignment and adjustment, and other related work whether or not expressly defined within this RFP.
- D. Install materials and equipment in a neat and workman-like manner and in accordance with applicable standards, codes, requirements, and recommendations of national, state, and local authorities having jurisdiction, *National Electrical Code*[®] (NEC) latest version, and per manufacturers' recommend procedures.

3.5 CONNECTIVITY

- A. UTP Patch Cables, Fiber Optic Cords and Power Connections – Vendor is to provide and install all required closet-side Category 6 UTP Patch Cords as well as all required Multimode and Singlemode Fiber Optic Patch Cords. Vendor is also to provide and install all required power cables for all proposed

equipment. Vendor shall “dress” all patch and power cords so that closets and cabinets will have a neat and orderly appearance.

- B. Vendor is to provide and install all closet-side UTP Patch Cords between identified patch panel ports (primarily supporting new 802.11ac Wave 2 Wireless Access Points and other predetermined devices) and network switching equipment ports. Vendor is to provide one patch cord per port on all provided equipment (e.g. Scenario #1: If two 24-port switches are provided to be installed in a closet, a total of 48 patch cords are to be delivered to that closet. Scenario #2: If an eight port switch is provided, 8 patch cords are to be provided.).
- C. All Indicated UTP Horizontal Drops are to be “patched in” to the data networking equipment (e.g. If there are 30 active data drops in the first of the aforementioned scenarios, these drops are to be connected to 30 of the 48 available equipment ports and the other 18 UTP patch cords are to be set aside. If there are 4 active drops in the second scenario, use 4 patch cords and set aside 4 patch cords for future use.).
- D. All “extra” patch cords are to be left in their original packaging and stored in boxes in the appropriate closet or location identified by the District IT staff (e.g. The 18 patch “extra” patch cords in the aforementioned example are to be left, in original packaging in the closet where they can be used, if necessary, at a later date. Since low count switches will more-than-likely be installed in portable building classrooms, excess patch cables should be stored in the MDF of that school or at a location identified by District IT staff.).
- E. Installation will require a mix of patch cord lengths – generally 3’ to 6’, but also as short as 1’ and up to 12’ patch cords may be required. Experience has shown that the majority of cords will be less than 6 feet long. Installers are to survey each closet at each school proposed for equipment placement and required patching cords prior to installation and lay in appropriate counts and lengths of cords as required.
- F. Currently, Category 6 cabling is installed in all facilities. All patch cords should be factory made and rated Cat6.
- G. UTP Patch cords vary in color according to the services being supported: **GREEN** colored patch cords are designated for Wireless Access Points (Most installed cords will be green.); Workstation and VoIP cables are **BLUE**; Security Equipment cables for Cameras and Access Control Gateways are **YELLOW**; and cables routed to classroom-based AV Enclosures are **ORANGE**.
- H. UTP Patch Cables are to be installed and bound with Velcro tie wraps such that cords are supported and protected and a neat and orderly appearance may be maintained in the equipment rooms and cabinets.
- I. Duplex Singlemode and Multimode LC-to-LC Fiber Optic Patch Cords shall be provided and installed where required. In some cases, connectors for these cords are to be non-bonded – that is to say that although the cords themselves are bonded together for transmit and receive channels, the TX and RX connectors on each end of the cables are to be independent of each other.
- J. FOC Patch Cords are to be provided for all active equipment ports. Installer should be aware of the number of ports requiring connectivity and lay these cords in as necessary.
- K. All FOC links, including their intended patch cords, are to be tested with appropriate link-testing equipment for end-to-end continuity and to assure that acceptable attenuation levels are maintained in all network equipment links.
- L. Generally speaking, FOC patch cords shall be 3 meters (or less) in length. In some instances, longer cords may be required. Installers are to survey the plans and site prior to installation and lay in appropriate lengths of cords as required.
- M. FOC Patch Cables are to be installed and bound with Velcro tie wraps such that cords are supported and protected and a neat and orderly appearance may be maintained in the equipment rooms and cabinets.
- N. Power Connections shall be made between wall outlets and UPSs and then from the UPS to newly installed surge-protection/power strips (where installed) for distribution within the rack or cabinet. Equipment will be connected to the surge protectors (if installed) or directly to the UPS where separate surge protection is not available. UPSs are **NOT** to be connected to or powered by other UPSs.

- O. All power cords are to be installed and bound with Velcro tie wraps such that they are supported and protected and a neat and orderly appearance may be maintained in the equipment rooms and cabinets.
- P. Vendor shall “dress” all newly procured patch and power cords so that closets and cabinets will have a neat and orderly appearance on front- and back sides and so that cabinets and swing gate racks (if installed) may be fully opened and closed without endangering or binding any cables. Power and data cords shall not be run together or tied off to each other.

3.6 IDENTIFICATION/LABELING

- A. Identify system components and cabling complying with ANSI/TIA-606-A.
- B. Administration Drawings: Show building floor plans with AP labeling scheme. Identify labeling convention and show labels for APs, patching cables and horizontal cables used for connectivity. Follow convention of ANSI/TIA-606-A. Furnish electronic record of all drawings, in software and format – AutoCAD and/or PDF.
- C. Labels shall be preprinted or computer-printed type with printing area and font color that contrasts with AP housing and cable jacket color but still complies with requirements in ANSI/TIA 606-A, for the following:
 - 1 APs use flexible vinyl or polyester labels for the device that may be observed and read while standing immediately below the device.
 - 2 Cables use flexible vinyl or polyester that flexes as cables are bent.

3.7 CLEAN-UP

- A. Remove all unnecessary tools and equipment, unused materials, packing materials, and debris from each area where Work has been completed unless designated for storage.
- B. Clean all areas around system equipment and be sure that the inside of each equipment rack is free of wire strippings and other debris.
- C. Repair any and all damage resulting from the Contractors’ work or presence in District Facilities.

NOTE: There will be a final walkthrough to develop an itemized “Punch List” to assure that all areas worked in or occupied by Contractors have been thoroughly cleaned and that any damage that may have been caused by or during the Contractors’ work is brought back to its original “pre-work” condition. This activity may reoccur if Contractor does not fully remediate any condition or damage cause by the Contractor. If, after two trips through facilities, the Contractors have not satisfactorily cleaned up after themselves or remediated any and all damages, a Third-Party Contractor specializing in cleanup and repairs may be brought in to do this work. Costs for such activities and inspections will be deducted from the Contractor’s Final Payment.

3.8 FINAL TESTING, DEMONSTRATION AND ACCEPTANCE

- A. When the system is complete in any given facility, the Contractor shall notify the IT Director and designee. The Contractor shall conduct and provide a team to work with the IT Director and designee to demonstrate compliance and completeness of the New Data Networking Systems. Upon satisfactory completion the IT Director and designee will sign off on completion documents for contractor to submit with as-built documentation package for final acceptance.
- B. Test Reports:
 - 3 Demonstration Activities will include Contractor Supervisory Personnel accompanying District IT Director and designee around each school to randomly test network drops in selected areas of each school or facility. Demonstration should provide IT Director and designee with a read that allows them to be confident that the system is performing at its design intent and capacity.
 - a. Demonstration Activities are not required to be documented other than, if satisfactory network performance is demonstrated, the IT Director and/or designee will “sign-off” on the project as complete.

3.9 FINAL PROCEDURES

- A. Perform any and all remedial Work to correct inadequate performance or unacceptable conditions of, or relating to any of this Work, as determined by the IT Director or designee at no additional expense to the Owner.
- B. In the event the need for further work and additional testing becomes evident during acceptance testing, the Contractor will continue work until system is acceptable at no addition to the contract price. If approval is delayed because of defective equipment or cabling or failure of the system to meet the requirements of these specifications, the Contractor will pay for any additional time and expenses on behalf of the District during any extension of the acceptance testing/demonstration period.

PART 4– PRICING

4.1 PRICING

NOTE: Pricing should be broken down into groups at each EISD school and facility that align with the categories and usage identified earlier in this RFP: 1) Multigigabit-capable network equipment and UPSs and accessories for supporting PoE+ 802.11ac Wave 2 Wireless Access Points; 2) Fiber-based LAN Core and WAN Connection and Central Facilities Core Equipment with required UPSs and required accessories; 3) 10/100/1000 PoE network equipment and accessories for replacing existing legacy equipment (no UPSs required).

- A. The Pricing Proposal shall include all fees and charges for Work described in **This Section for Network Equipment -- MultiGigabit and PoE+ Support with UPSs, 10/40/100 FOC Core Equipment and, secondarily, 10/100/1000 MB/s Network Equipment for Wired Devices** In All IT Rooms/Spaces in All Schools and Facilities: (See Table Listing Below).

Elementary Schools

1	Barton Creek Elementary School	K-5	1314 Patterson Lane	Austin, TX	78733
2	Bridge Point Elementary School	K-5	6401 Cedar Street	Austin, TX	78746
3	Cedar Creek Elementary School	K-5	3301 Pinnacle	Austin, TX	78746
4	Eanes Elementary School	K-5	4101 Bee Cave Road	Austin, TX	78746
5	Forrest Trail Elementary School	K-5	1203 Loop 360	Austin, TX	78746
6	Valley View Elementary School	K-5	1201 Loop 360	Austin, TX	78746

Middle Schools

1	Hill Country Middle School	6-8	1300 Walsh Tarlton	Austin, TX	78746
2	West Ridge Middle School	6-8	9201 Scenic Bluff Drive	Austin, TX	78733

High School/NGC/TLC/Robotics/ATS

1	Westlake HS and 9 th Grade Center	9-12	4100 Westbank Drive	Austin, TX	78746
2	The Learning Center	9-12	1337 Westbank Drive	Austin, TX	78746
3	Robotics Building	9-12	4100B Westbank Drive	Austin, TX	78746
4	Adult Transition Services	12+	1020 Walsh Tarlton	Austin, TX	78746

Data Centers

1	Network Operations Center (NOC)	NA	4100 Westbank Drive	Austin, TX	78746
2	District Operations Center (DOC)	NA	4300b Westbank Dr.	Austin, TX	78746

- B. Pricing shall be provided in a per-school / per-facility itemized listing and include all equipment, licenses, materials, supplies, shipping; transportation and labor to install fully functional Data Networking System all facilities. (Itemize all pricing elements as shown on the example spreadsheet below.)

- C. Pricing shall include any fees for documentation and drawings (Testing, Shop Drawings and Drawings of Record), if required.
- D. Pricing shall include costs for Payment and Performance Bonds for the project as described in Section II.
- E. Pricing shall be shown on a per-school / per-facility basis in the format of the Pricing Spreadsheet shown below.
- F. Pricing shall include fees for any negotiated pre-paid multi-year maintenance agreements.
- G. Pricing shall also include fees for any subsequent “Fixed Fee” service agreements covering equipment after the agreed-to pre-paid term. Alternately, pricing may include fees related to a “Time and Materials” contract.
- H. Eanes ISD **DOES NOT PAY ANY SALES OR USE TAXES**. Taxes are not to be included in the pricing documents.

4.2 FORMAT OF CONTRACTOR’S PRICING PROPOSAL

- A. Contractor shall submit with bid a paragraph-by-paragraph compliance statement indicating understanding and compliance or exception to the specification requirements. The statement shall consist of a copy of the specification notated with one of the following terms: Understand and will comply, Product not compliant with specification requirement, Description of means or method of providing similar or equal feature or performance level to specification requirement.
- B. In addition to all other required bid forms, Contractor shall prepare and present to IT Director or designees pricing based on the requirements of this specifications and complementary drawings.
- C. Pricing shall include the list of equipment and labor in tabular form for each school including; part number, item description, unit price, number of units, extended price and totals, as indicated in the example table provided in this section. The pricing shall breakdown the material and labor in the categories as shown in these specifications.
- D. Following is the format of the Price Form – (Excel Spreadsheet Template can be made available for use). Additional pages may be used to show details of unit costs and options. Contractor may use the Excel Spreadsheet or they may develop their own – provided it contains the elements listed in the following example.

Project:	
School Name:	
Closet Count:	
Contractor:	
Project Manager:	
Date:	

Line No.	Item Description	Manufacturer Part No.	Manufacturer	Quantity	Material Unit	Material Unit Cost	Material Total Cost	Labor (hours)	Labor Cost (p/hour)	Labor Total Cost	Sub-Total	Total
1					ea.		\$ -			\$ -	\$ -	\$ -
2					ea.		\$ -			\$ -	\$ -	\$ -
3					ea.		\$ -			\$ -	\$ -	\$ -
4					ea.		\$ -			\$ -	\$ -	\$ -
5					ea.		\$ -			\$ -	\$ -	\$ -
6					ea.		\$ -			\$ -	\$ -	\$ -
7					ea.		\$ -			\$ -	\$ -	\$ -
8					ea.		\$ -			\$ -	\$ -	\$ -
9					ea.		\$ -			\$ -	\$ -	\$ -
10					ea.		\$ -			\$ -	\$ -	\$ -
11					ea.		\$ -			\$ -	\$ -	\$ -
12					ea.		\$ -			\$ -	\$ -	\$ -
13					ea.		\$ -			\$ -	\$ -	\$ -
					ea.		\$ -			\$ -	\$ -	\$ -
Documentation												\$ -
1	Submittal Documents				ea.		\$ -			\$ -	\$ -	\$ -
2	Shop Drawings				ea.		\$ -			\$ -	\$ -	\$ -
3	As-Built Drawings				ea.		\$ -			\$ -	\$ -	\$ -
4	Close-out Documents				ea.		\$ -			\$ -	\$ -	\$ -
5					ea.		\$ -			\$ -	\$ -	\$ -
Other												
1	Payment Bond				ea.		\$ -			\$ -	\$ -	\$ -
2	Performance Bond				ea.		\$ -			\$ -	\$ -	\$ -
3					ea.		\$ -			\$ -	\$ -	\$ -
4					ea.		\$ -			\$ -	\$ -	\$ -
5					ea.		\$ -			\$ -	\$ -	\$ -
6					ea.		\$ -			\$ -	\$ -	\$ -
											Cross-check	\$ -
Materials										Labor	Project	

- END OF SECTION III -

SECTION IV
PROPOSER'S QUESTIONNAIRE & INFORMATION FORM

Federal Tax ID # _____

Business Name: _____

Address: _____

City/ State/ Zip _____

Phone # _____ Fax # _____

Contact Name: _____ Title: _____

E-Mail: _____

Web Site: _____

Type of Business Entity: Corporation LLC Partnership Sole Proprietor Other _____

Proposer's Certification

The undersigned, by his/her signature, represents that he/she is authorized to bind the Proposer to fully comply with the terms and conditions of this Proposal Solicitation, including all forms and attachments included and/or referenced herein, for the amount(s) shown on the accompanying Proposal form(s).

Proposer's Signature _____ Date _____

Contact Phone # _____ Email _____

– END OF SECTION IV –

Section V

Certifications and Required Forms

Proposals without fully executed forms and certifications may be deemed to have submitted Proposals not responsive to this RFP.

1. References
2. Suspension or Debarment Certificate
3. CTPA Adoption Clause
4. Certificate of Residency
5. Performance Bond

Links to the following forms can be found on the Eanes ISD Purchasing page at <http://www.eanesisd.net/dept/purchasing/vendor>

6. W-9
7. Felony Conviction Notice
8. Conflict of Interest Questionnaire
9. 1295 Form

REFERENCES

All Proposers shall submit a list of at least three references for which similar contracts are in effect or have been completed. Austin area references are preferred.

1. Customer: _____
Contact name: _____ Phone number: _____
Description of services provided: _____

2. Customer: _____
Contact name: _____ Phone number: _____
Description of services provided: _____

3. Customer: _____
Contact name: _____ Phone number: _____
Description of services provided: _____

SUSPENSION OR DEBARMENT CERTIFICATE

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of \$100,000.00 contractors receiving individual awards for \$100,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, the bidder:

1. Certifies that the owner/operator has not been convicted of a felony except as indicated on separate attachment to this offer, in accordance with Section 44.034 of the Texas Education Code, and
2. Certifies that no suspension or disbarment is in place, which would preclude receiving a federally funded contract under the Federal OMB, A-102, Common Rule (____.36)

Vendor Name: _____

Address: _____ City: _____ Zip Code: _____

Telephone: () _____ Fax Number: () _____

E-mail Address: _____

Authorized Company Official Signature: _____

Please Print Company Officials Name: _____

Title of Official: _____

Date: _____

CENTRAL TEXAS PURCHASING ALLIANCE ADOPTION CLAUSE

USE OF CONTRACT(S) BY MEMBERS COMPRISING THE CENTRAL TEXAS PURCHASING ALLIANCE (CTPA).

- A. If authorized by the Vendor(s), resultant contract(s) may be adopted by the member districts of the CTPA as indicated below. Authorized members may purchase goods and/or services in accordance with contract pricing and purchasing terms established by the Contract Lead District.
- B. A list of members that may utilize the Vendor's contract is listed on the CTPA website, <http://209.184.141.5/ctpa/members.htm>.
- C. Any district member wishing to utilize such contract(s), will contact the Vendor to verify that the contract is available to them and will place its own order(s) directly with the successful Vendor. The Successful Vendor may contact the member districts to inform them about the contract award. There shall be no obligation on the part of any participating district to utilize the contract(s).
- D. A negative reply by the Vendor will not adversely affect consideration of the Vendor's Solicitation response.
- E. Each participating district has the option of executing a separate contract with the successful Vendor, which may contain general terms and conditions unique to that contracting district. If, when preparing such contract, the general terms and conditions of a district are unacceptable to the successful Vendor, the successful Vendor may withdraw its extension of their offer to that district.
- F. The Contract Lead District shall not be held liable for any costs or damages incurred by another district as a result of any award extended to that district by the Successful Vendor.

BY SIGNATURE BELOW, THE VENDOR HEREBY AUTHORIZES THE MEMBER DISTRICTS AS INDICATED BELOW TO ADOPT ANY CONTRACT RESULTING FROM THE VENDOR'S RESPONSE TO THIS SOLICITATION:

- _____ YES
- _____ NO
- _____ YES, with the exception of the following districts:

Vendor Name: _____

Printed Name of Authorized Company Official: _____

Signature of Company Official: _____

Date: _____

CERTIFICATE OF RESIDENCY

The State of Texas has passed a law concerning non-resident contractors. This law can be found in Texas Government Code under Chapter 2252, Subchapter A.

<http://www.capitol.state.tx.us/statutes/docs/GV/content/htm/gv.010.00.002252.00.htm>. This law makes it necessary for Eanes ISD to determine the residency of its bidders. In part, this law reads as follows:

Section: 2252.001

- (1) 'Non-resident bidder' refers to a person who is not a resident.
- (2) 'Resident bidder' refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

Section: 2252.002

A governmental entity may not award a governmental contract to a nonresident bidder unless the nonresident underbids the lowest proposal submitted by a responsible resident bidder by an amount that is not less than the amount by which a resident bidder would be required to underbid the nonresident bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is located."

I certify that

(Name of Company Bidding)

is, under Section: 2252.001 (3) and (4), a

_____ Resident Bidder _____ Non-resident Bidder

My or Our principal place of business under Section: 2252.001 (3) and (4), is in the city of

_____ in the state of _____.

Signature of Authorized Company Representative

Print Name

Title

Date

- End of Document -