Vashon Island School District

Request for Proposal

ERATE 470# 170058606

VISD 2017 Wireless LAN and Switch Upgrade
released: January 9, 2017

Proposal Due Date: 12 Noon**: February 6th 2017**

Visit http://rfp.vashonsd.org for more information and addenda

Contents

1.0   Background Information

The Vashon Island School District (VISD) wishes to receive quotes for Wireless Local Area Network (WLAN) Access Points, wireless equipment and layer3 switches as part of a multi-year refresh of VISD's WLAN. This equipment will enable VISD to provide a solid foundation to offer next-generation network services over our wireless and wired backbone. VISD plans to procure the equipment no later than September 30th 2017. VISD prefers to procure the equipment from vendors who participate in Washington State/NASPO buyers contracts or similar approved cooperative purchasing vehicles. This RFP is issued in conjunction with VISD's Form 470, Category 2, E-Rate submission.

The district has three schools comprised of Chautauqua Elementary School (CES) , McMurray Middle School (McM) and Vashon High School (VHS). The successful vendor will provide a separate quote for the specified equipment at CES, McM and VHS. Do to USAC requirements bids for each location must be itemized separately and include all applicable taxes, fees, surcharges and shipping.

VISD is seeking three bids:

- **BID ONE "CES Access-Point Upgrade"**. With this bid VISD is seeking to upgrade forty-two (42) access points at Chautauqua Elementary School. All access points must be 100% interoperable with our existing Aruba Wireless controllers. No installation or configuration services are required. The decision to replace or upgrade the WLAN equipment at CES, McM and VHS will be a cost benefit decision. Refer to the Per building equipment matrix for more information about this bid.

- **BID TWO "Upgraded Wireless Controllers"**. With this bid VISD is seeking to upgrade its aging wireless controllers. The controllers in this bid will replace current controllers, (3 Aruba wireless controllers in a Master/Slave configuration). We are seeking 3 wireless controllers, one for each of our school locations. Each bid for each controller location must be itemized separately and include all applicable taxes, fees, surcharges and shipping.   For clarity, label the bid for each location in the following manner:
  1) "**BID TWO-Controller CES**"
  2) **"BID TWO-Controller McM"**
  3) **"BID TWO-Controller VHS"**

The wireless controllers bid by the VAR must be able to support a minimum of 256 access points across the LAN environment. The controller must support 10 Gig SFP connections, and support redundant power supplies. The proposed controllers must be 100% interoperable with our existing Aruba 215 AND 225 Series Wireless access points as well as any access points proposed as part of BID ONE (above).   The decision to replace or upgrade the WLAN equipment at CES, McM and VHS

will be a cost benefit decision.   Refer to the Per building equipment matrix for more information about this bid.

- **BID THREE "Upgraded Layer 3 Switching"**. With this bid VISD is seeking to upgrade its aging Layer 3 Switches with new Layer 3 Switches. We are seeking a total of four (4) switches: two (2) for CES and two (2) for VHS . Each bid for each location must be itemized separately and include all applicable taxes, fees, surcharges and shipping.   For clarity, label the bid for each location in the following manner:
  1) **"BID THREE- CES Upgraded Layer 3 Switching"**
  2) **"BID THREE -VHS Upgraded Layer 3 Switching "**

The switches bid by the VAR should have between 16 and 24 (16 - 24) 10 Gig ports, redundant power supplies, support stacking, RIP V2, OSPF V2, layer 4 ACLS etc. All ports must be able to operate at wire speed, non blocking.. Port over-subscription is not desireable. The decision to replace or upgrade the switching equipment at CES, McM and VHS will be a cost benefit decision. Refer to the Per building equipment matrix for more information about this bid.

Per building equipment matrix

Building	BID ONE "CES Access-Point Upgrade"	BID TWO "Upgraded Wireless Controllers"	BID THREE "Upgraded Layer 3 Switching"
CES	**Qty Forty-two (42) Aruba AP 315 (or eqiv)** **VISD will reuse existing AP licenses** **VISD will handle all installation, configuration, and termination tasks internally**	**Qty (1) Aruba 7205 (JW736A) or equivalent wireless controller, power cable, rack wings** **3 year software license and hardware Support** **VISD will handle all installation, configuration, and termination tasks internally**	**Qty (2) HPE/Aruba 3810M 16SFP+ Switch (JL075A)** **Qty (4) HPE/Aruba 3810 Power Supplies** **Qty (2) HPE/Aruba 3810 Stacking Modules** **Qty (2) HPE/Aruba 3810 Stacking Cables** **Qty (1) HPE/Aruba Single Mode LR Transceiver 10G compatible with HPE/Aruba** **Qty (3) 3rd Party optics Single Mode LR Transceiver 10G compatible with HPE/Aruba** **Qty (4) 3rd Party optics Multimode SR Transceiver 10G compatible with**

			HPE/Aruba ● **QTY (15) 3rd Party Certified 10G DAC cables 10 M compatible with HPE/Aruba** ● **3 year software license and hardware Support** ● **VISD will handle all installation, configuration, and termination tasks internally**
McM		● **Qty (1) Aruba 7205 (JW736A) or equivalent wireless controller, power cable, rack wings** ● **3 year software license and hardware Support** ● **VISD will handle all installation, configuration, and termination tasks internally**	
VHS		● **Qty (1) Aruba 7205 (JW736A) or equivalent wireless controller, power cable, rack wings** ● **3 year software license and hardware Support** ● **VISD will handle all installation, configuration, and termination tasks internally**	● **Qty (2) HPE/Aruba 3810M 16SFP+ Switch (JL075A)** ● **Qty (4) HPE/Aruba 3810 Power Supplies** ● **Qty (2) HPE/Aruba 3810 Stacking Modules** ● **Qty (2) HPE/Aruba 3810 Stacking Cables** ● **Qty (1) HPE/Aruba Single Mode LR Transceiver 10G compatible with HPE/Aruba 3810M 16SFP+ Switch (JL075A)** ● **Qty (3) 3rd Party optics Single Mode LR Transceiver 10G compatible with HPE/Aruba** ● **Qty (5) 3rd Party optics Multimode SR Transceiver 10G compatible with**

			HPE/Aruba
			● QTY (15) 3rd Party Certified 10G DAC cables 5M compatible with HPE/Aruba
			● **VISD will handle all installation, configuration, and termination tasks internally**

Vashon Island School District reserves the right to award all, only a portion of the equipment listed in the purchase agreement, or none, to any one vendor. Please be aware of this when providing a price quote for your services. **If the vendor is willing to bill USAC directly for VISD's subsidized portion (60%) using SPI invoicing please note this in the bid.**

The preferred method of receiving bids is via email. Please provide a follow-up hard copy postmarked within 10 days of the due date of this request.

1.1 Schedule of events:

Event	Date
RFP Released	Jan 9th, 2017
Last day for clarifying questions	January 30 th, 2017
Bid Due date	February 6th 2017
Paper copy postmarked no later than	February 16th 2017
Final Board reading	March 9, 2017
Bid award announcement	March 10th, 2017

1.2 School Building location information:

Vashon High School   9600 204th St. , Vashon WA 98070

McMurray Middle School   9329 Cemetery Rd., Vashon WA 98070

Chautauqua Elementary School 9309 SW Cemetery Rd., Vashon, WA 98070

Proposal Due Date: 12 Noon: February 6th 2017

1.3 Instructions to Vendors

1. One (1) written and (1) electronic response packets/proposals shall be submitted to:

    John Stanton

    Technology Director

    Vashon Island School District

    P.O. Box 547, Vashon. WA 98070-0547

    206-463-8633

    jstanton@vashonsd.org

2. All responses must be received via email, via post, or be delivered to the VISD District Office, 3rd floor, 9309 Cemetery Rd SW, Vashon Island Washington, no later than 12:00pm PST, February 6th 2017. If response is submitted via email, please provide a follow-up hard copy postmarked no later than February 16th 2017.

3. The district has three schools comprised of Chautauqua Elementary School (CES) , McMurray Middle School (McM) and Vashon High School (VHS). The successful vendor will provide a separate quote for the specified WLAN equipment at CES, McM and VHS. Each bid for each location must be itemized separately and include all applicable taxes, fees, surcharges and shipping.

4. Questions regarding the Request for Product shall be directed to:

    John Stanton

    Technology Director

    Vashon Island School District

P.O. Box 547, Vashon. WA 98070-0547

206-463-8633

jstanton@vashonsd.org

5. All questions must be submitted in writing via email to jstanton@vashonsd.org. No questions will be accepted after Monday January 30th, 2017. VISD will attempt to provide answers to questions within 24 hours of receipt of questions, but cannot guarantee a response to all questions. All vendor questions and answers will be posted to http://rfp.vashonsd.org . Vendors are responsible for monitoring their emails and the above website for addendums, changes and questions and answers regarding this RFP.

6. The Vendor must demonstrate to VISD's satisfaction that both the Vendor and the manufacturer(s) of the proposed equipment/systems/services are financially sound and are to remain strongly committed to the proposed equipment and the Puget Sound area for the next 5 years

7.   Please provide manufactures EOL dates for hardware and software on equipment being bid.

8. Identify and list all intended subcontractors to be used for this project. The selected vendor shall be responsible to VISD for all work performed either by its own personnel or its subcontractors.

9. An individual authorized to legally bind Vendor must sign quotes.

10. Proposals must include a separate, clearly definable quote for each location (CES, McM, VHS) detailing the maintenance, support and licensing costs for the equipment and software being proposed for a period of three (3) years.

11. Proposals must include warranty terms for all equipment being proposed. This should include initial warranty, warranty periods, and warranty RMA procedures and costs if any.

 10. Proposals will be evaluated based on the following categories in no specific order:

- ● Acquisition Price
- ● Ability to meet technical specifications
- ● Three (3) year support costs
- ● Interoperability and Management functionality

- Installation costs if applicable
- Warranty

Cost is the most important category, but not the only decision-making factor. Including cost and other factors, VISD reserves the right to award not to the lowest cost provider, but the most cost-effective vendor based on the highest total amount of points awarded across all categories

2.0 Requirements for Wireless Local Area Network

To be considered responsive to this request for product, the vendor must provide a WLAN Access points meeting the requirements outlined in sections 2.1 and 2.2 as a minimum, as well as insurance requirements in section 2.5

Submit a proposal that explains how the proposed system will address each of the following areas

2.1 BID ONE "CES Access-Point Upgrade" - General Requirements

Answers must be numbered according to the numbering system in this section. Limit response section 2.1 to a maximum of 2 pages

Explain how your WLAN system meets the following criteria and/or needs:

2.1.1   Low labor resource impact to existing staff

2.1.2   WLAN system scalable with minimum effort

2.1.3   WLAN system supports -controller deployed configurations and upgrades with secure configuration and monitoring from a central location

2.1.4   WLAN system should support fast, secure client roaming and handover

2.1.5   Provide ongoing access to corporate support, software/firmware updates and configuration tools needed to maintain the wireless system for 5 years

2.2 BID ONE "CES Access-Point Upgrade - Technical Requirements

Explain how your WLAN system meets the following technical requirements

Answers must be numbered according to the numbering system in this section. Limit response section 2.2 to a maximum of 2 pages

2.2.1   WiFi Alliance certified for interoperability

2.2.2   Concurrent, tri-band 802.11a/n/ac and 802.11b/g/n connectivity with minimum full MIMO 2x2

Operation for 802.IIn and 802.11ac with band steering capability minimum.

2.2.3   Multiple antennas and remote antenna connections per Access Point

2.2.4   Access points should be powered via industry standard POE (802.3af) and have optional inline power or AC adapter capabilities as the situation warrants

2.2.5   Access Point should support plug and play installation and be controlled/configured by a controller with reliable failover and redundancy capabilities

2.2.6   WLAN system should support high-performance mesh technologies to cover hard to wire locations or to provide network resilience in the event of a wired network failure.   Mesh configuration failover should be automatic

2.2.7   Access point should allow for local user management if desired

2.2.8   Access Points should provide both LAN and NAT capability from the access points on a per SSID basis

2.2.9   Access points support RF Management, such as automatic channel selection and transmit power controls, with spectrum analysis

2.2.10   QoS supported throughout the entire solution proposed by vendor- including the ability to guarantee service to a specific SSID, should there be bandwidth contention

2.2.11 Should integrate into existing wired and wireless network infrastructure without significant reconfiguration or resource impact. All access points to be 100% compatible with existing Aruba AP-215 and Aruba AP-225 access points. **Note any exceptions to this standard here**.

2.2.12   Supports GUI-based management, list requirements/limitations, especially if browser based

2.2.13   Capacity to connect 60 wireless users per AP. Common areas such as libraries and cafeterias should plan for 100+ users

2.2.14   AP's should have the ability to mount to a "T-Grid" style drop ceiling.

2.2.15 Prefered AP and mounting kit color is white

2.3 BID TWO "Upgraded Wireless Controllers"

Answers must be numbered according to the numbering system in this section. Limit response section 2.3 to a maximum of 2 pages

If including a bid for upgraded wireless controllers explain how your WLAN system meets the following criteria and/or needs:

2.3.1   Provide ongoing access to corporate support, software/firmware updates and configuration tools needed to maintain the wireless system for 5 years

2.3.2   WLAN system scalable with minimum effort

2.3.3   WLAN system supports -controller deployed configurations and upgrades with secure configuration and monitoring from a central location

2.3.4   All wireless security and services should continue to serve existing clients if connectivity to the controller is lost when configured to do so.

2.3.5   WLAN system provides guest wireless capability- while protecting the private wireless network (guest isolation)

2.3.6   Robust infrastructure in each building for BYOD computing support for multiple platforms (web/laptops, tablets, smartphones, etc.)

2.3.7   Capacity to connect 60 wireless users in every classroom. Common areas such as libraries and cafeterias should plan for 100+ users

2.3.8   Ability to segregate users by dynamic VLAN as well as Wireless Controller ACLS based on identity. (District Staff, School Staff, Students, Guests, etc.)

2.3.9   Ability to grant selective guest users access to internal services such as printing

2.3.10   Ability to prioritize traffic by destination, (i.e. Academic sites vs. YouTube, iTunes, etc.)

2.3.11   WLAN system should support high-performance mesh technologies to cover hard to wire locations or to provide network resilience in the event of a wired network failure.   Mesh configuration failover should be automatic.

2.3.12   Controller should allow for local user management if desired.

2.3.13   WLAN System should report on wireless devices and types (device fingerprinting) and alert/report when an access point requires attention. Device fingerprinting information should be updated automatically via the -controller

2.3.14   WLAN system supports latest secure authentication and encryption standards including, but not limited, to 802.1x, and should integrate with standard RADIUS, Active Directory, LDAP servers to prevent use by unwanted devices

2.3.15   WLAN system supports a customizable, centralized captive portal

2.3.16   WLAN system should be capable of walled garden configuration

2.3.17   WLAN system supports RF Management, such as automatic channel selection and transmit power controls, with spectrum analysis

2.3.18   WLAN system supports rogue Access Point detection, alerting and containment

2.3.19   QoS supported throughout the entire solution proposed by vendor- including the ability to guarantee service to a specific SSID, should there be bandwidth contention

2.3.20   Supports layer 7 application aware traffic-shaping

2.3.21   Supports layer 3 and layer 4 firewall capabilities

2.3.22   Should integrate into existing wired network infrastructure without significant reconfiguration or resource impact

2.3.23   Supports at least up to 10 SSIDs per wireless network

2.3.24   Supports GUI-based management, list requirements/limitations, especially if browser based

2.3.25   Supports assignment of different client policies without requiring segmentation

2.3.26 Controller Supports Redundant power supplies

2.3.27 Controller Supports dual control planes

2.3.28 Controller Supports 1Gig SPF and 10 Gig sfp+/10 Gig Base-T DAC cables

2.4: BID THREE "Upgraded Layer 3 Switching"

Answers must be numbered according to the numbering system in this section. Limit response section 2.4 to a maximum of 2 pages.

If including a bid for upgraded Layer 3 Switching explain how your system meets the following criteria and/or needs:

VISD requires equipment to fulfill needs at two (2) schools: Chautauqua Elementary School (CES) and Vashon High School (VHS).

Specifications:
   a. All equipment must contain redundant power supplies.
   b. The successful bidder must provide ongoing access to corporate support, software/firmware updates and configuration tools needed to maintain the switches for five (5) years
   c. Equipment may be stacked or chassis based for redundancy and ease of management.
   d. Proposals must include detail for the maintenance and support costs for the equipment and software being proposed for a period of three (3) years
   e. Proposals must include warranty terms for all equipment being proposed. This should include initial warranty, warranty periods, and warranty RMA procedures and costs if any.
   f. It is prefered but not required that the switch should provide redundant management processors.
   g. All equipment should provide at a minimum support for the following standards and protocols. If the equipment does not meet one or more of the following specifications, please include a brief explanation:

General Protocols	IPv6	QoS/CoS
IEEE 802.1AX-2008 Link Aggregation	RFC 1981 Ipv6 Path MTU Discovery	RFC 2474 DiffServ Precedence, including 8 queues/port
IEEE 802.1D MAC Bridges	RFC 2375 Ipv6 Multicast Address Assignments	RFC 2597 DiffServ Assured Forwarding (AF)
IEEE 802.1p Priority		
IEEE 802.1Q VLANs	RFC 2460 Ipv6 Specification	

IEEE 802.1s Multiple Spanning Trees

IEEE 802.1v VLAN classification by Protocol and Port

IEEE 802.1w Rapid Reconfiguration of Spanning Tree

IEEE 802.3ad Link Aggregation Control Protocol (LACP)

IEEE 802.3af Power over Ethernet

IEEE 802.3x Flow Control

RFC 768 UDP

RFC 783 TFTP Protocol (revision 2)

RFC 792 ICMP

RFC 793 TCP

RFC 826 ARP

RFC 854 TELNET

RFC 868 Time Protocol

RFC 951 BOOTP

RFC 1058 RIPv1

RFC 1350 TFTP Protocol (revision 2)

RFC 1519 CIDR

RFC 1542 BOOTP Extensions

RFC 2030 Simple Network Time Protocol (SNTP) v4

RFC 2131 DHCP

RFC 2453 RIPv2

RFC 2548 (MS-RAS-Vendor only)

RFC 3046 DHCP Relay Agent Information Option

RFC 3576 Ext to RADIUS (CoA only)

RFC 3768 VRRP

RFC 4675 RADIUS VLAN & Priority

RFC 2464 Transmission of Ipv6 over Ethernet Networks

RFC 2710 Multicast Listener Discovery (MLD) for Ipv6

RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only)

RFC 3019 MLDv1 MIB

RFC 3315 DHCPv6 (client and relay)

RFC 3484 Default Address Selection for Ipv6

RFC 3587 Ipv6 Global Unicast Address Format

RFC 3596 DNS Extension for Ipv6

RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for Ipv6

RFC 4022 MIB for TCP

RFC 4087 IP Tunnel MIB

RFC 4113 MIB for UDP

RFC 4213 Basic Transition Mechanisms for Ipv6 Hosts and Routers

RFC 4251 SSHv6 Architecture

RFC 4252 SSHv6 Authentication

RFC 4253 SSHv6 Transport Layer

RFC 4254 SSHv6 Connection

RFC 4291 IP Version 6 Addressing Architecture

RFC 4293 MIB for IP

RFC 4294 Ipv6 Node Requirements

RFC 2598 DiffServ Expedited Forwarding (EF)

Security

IEEE 802.1X Port Based Network Access Control

RFC 1492 TACACS+

RFC 2865 RADIUS (client only)

RFC 2866 RADIUS Accounting

RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP)

Secure Sockets Layer (SSL)

SSHv2 Secure Shell

Layer 2-4 Access Control Lists

Remote port mirroring

OSPF

RFC 2328 OSPFv2

RFC 3101 OSPF NSSA

RFC 3623 Graceful OSPF Restart (Unplanned Outages only)

RFC 5340 OSPFv3 for Ipv6

RFC 4419 Key Exchange for SSH

RFC 4443 ICMPv6

RFC 4541 IGMP & MLD Snooping Switch

RFC 4861 Ipv6 Neighbor Discovery

RFC 4862 Ipv6 Stateless Address Auto-configuration

RFC 5095 Deprecation of Type 0 Routing Headers in Ipv6

RFC 5340 OSPFv3 for Ipv6

RFC 5453 Reserved Ipv6 Interface Identifiers

RFC 5519 Multicast Group Membership Discovery

IEEE 802.1 LLDP

2.5 INSURANCE REQUIREMENTS for Bid Winner

If Vendor bid includes line items for installation or on-site configuration:

1. Provide an accurate summary of any claims initiated against your firm in the past five (5) years and any currently pending claims.
2. Provide a copy of your firm's insurance, confirm that your firm will maintain in effect at all times during the performance of work, insurance coverage with limits not less than those set forth below and with insurers and under forms of policies satisfactory to Vashon Island School District:

Worker's Compensation: Statutory

Employer's Liability: to extent included under Worker's Compensation Insurance Policy

Comprehensive General Liability:

Bodily Injury: $100,000.00 each person, $1,000,000.00 each occurrence

Property Damage: $1,000,000.00 each occurrence

Comprehensive Automobile Liability: (Owned, hired, and co-owned)

Bodily Injury: $100,000.00 each person, $1,000,000.00 each occurrence

Property Damage: $1,000,000.00 each occurrence

Certificates evidencing such coverage must be furnished to Vashon Island School District prior to the start of service. The certificates shall be provided by the Insurance Carrier and name Vashon Island School District as holder and additionally insured. Certificates shall not be cancelable without thirty (30) days prior written notice.

END OF RFP