

E-Rate Form 470 Request for Proposals
for Wireless Access Points and Wireless Management System

Issued by:

Hillsboro School District 1J

3083 NE 49th Place
Hillsboro, OR 97124

Issue Date: February 8, 2020

RFP Due Date: March 9, 2020 by 2:00 p.m.

Form 470 Number: 210019913

Question Submission: Procedural or inquires about submission may be submitted electronically via email to TSRFPResponse@hsd.k12.or.us.

Proposal Posting and Updates Site: <https://www.hsd.k12.or.us/domain/1260>
Check this site often for updates or addendums. Check this site prior to submission.

Project Name: Wireless Access Points and Wireless Management System

Purpose & Scope:

Hillsboro School District 1J is seeking bids for new wireless access points (WAPs) and an accompanying wireless management system. All bid responses should offer fully operational configurations and related components. All quantities referenced are approximations and the District reserves the right to increase or decrease the quantities in order to meet the needs of the District. It is the intent of the District to procure goods or services that may be adjusted for the addition of new sites, relocation of sites, or adjustments to the quantity and/or capacity of service, in accordance with the terms of any resulting contract or service agreement.

Proposals should include equipment, necessary software, licenses, taxes and fees, shipping, design, configuration, installation, and must be priced out on their own line item within the bid. All equipment and hardware supplied must be new and must have make and model numbers within the quote. Licensing, subscription and support costs shall be included at a 5-year term.

Subsequent optional annual recurring licensing, subscription and support costs for years 6 through 8 shall be clearly identified.

Submission of information:

1. All proposals should be bundled into a single PDF document and emailed to:
TSRFPResponse@hsd.k12.or.us
2. All proposals should be formatted with the below sections in the provided order:
 - a. Section 1: Table of Contents
 - b. Section 2: Company Background & Information
 - i. General company background and E-rate history.
 1. Required for submission: Provide E-rate SPIN
 - ii. Contacts for this RFP
 - c. Section 3: Proposed Wireless Access Point models (requirements and specifications below)
 - i. Provide model(s) and specifications
 - ii. Confirm reference design match to equivalent features list for each specification below by model
 - d. Section 4: Proposed Wireless Management System (requirements and specifications below)
 - i. Provide model(s) and specifications
 - ii. Confirm reference design match to equivalent features list for each specification below
 - e. Section 5: Provide information and documentation of the manufacturers warranty and support for all components and services. HSD prefers to go directly to the manufacturer for technical support following the project closeout.
 - f. Section 6: Describe your proposed method of design, configuration, installation and training that will be provided
 - i. Refer and address all items described in Service Needs and Requirements section below.
 - g. Section 7: Pricing
 - i. Fill out Appendix B or use downloadable Appendix B (on RFP website) to provide pricing
 1. Include total cost to meet requirements.
 2. Provide 5 years of licensing, subscriptions and support costs for all components
 3. Provide annual recurring cost of optional one year extensions of licensing, subscriptions and support costs for all components for years 6 through 8.
 - ii. To support the totals provided on Appendix B, provide itemized pricing list showing all equipment and services that are included.

- iii. Provide any options for purchasing through a state contract, reciprocal government agency contract or consortium purchase
- h. Section 8: References
 - i. Provide contact information for 3 previous school districts
 - 1. Include name, title, school district, and email address
 - 2. Include number of access points
 - 3. Include year of installation
 - 4. Include if this was an e-rate project
 - ii. Preference for like size or larger districts and e-rate projects
 - iii. Identified references will receive an emailed reference survey to be filled out online. This will be sent the evening of March 9 and must be received back by March 11 at 5:00 p.m.. Make sure identified references understand this timeline.

Wireless Access Point Needs and Requirements:

1. Wireless Access Point (WAP) Required Quantity: 1,900
2. Wireless Access Point Reference Design: Aruba AP-515 or equivalent
 - a. https://www.arubanetworks.com/assets/ds/DS_AP510Series.pdf
 - b. Wireless Access Point Specifications
 - Dual radio (5GHz 4x4:4 MIMO, 2.4GHz 2x2:2 MIMO)
 - Integrated internal antennas
 - 802.11ax (WiFi 6)
 - Backward-compatible to 802.11a/b/g/n/ac
 - Minimum 500 client devices per radio
 - Minimum 16 BSSIDs per radio
 - Minimum 1 x 1Gbps RJ45 Ethernet port, preference given to 1 x 2.5Gbps 802.3bz Ethernet port
 - 802.3af/at/bt PoE power options - identify minimum power class for full functionality; identify feature limitations if AP is attached to an 802.3af PSE
 - Identify mounting kit part numbers and unit prices required for mounting to the following locations:
 - Flush tile drop ceiling T-bar (15/16")
 - Recessed tile drop ceiling T-bar (15/16")
 - Wall mount via Oberon 1011-00-WH
 - Wall mount via Oberon 1020-C-RAB
 - Devices shall be cloud-managed. On-premise control / management systems will be disqualified
 - Devices must support WPA2-PSK, WPA2-Enterprise with 802.1X, EAP-TLS, EAP-TTLS, and EAP-MSCHAPv2

- Devices must continue to pass traffic and allow new client connections under the following conditions:
 - No connectivity to the cloud management system
 - Expired cloud management portal license / support contract
 - After a power-loss when no connection to the cloud management system exists (run with last-known configuration)
- Prefer device mounting brackets that do not require tools when attaching to a standard drop-ceiling T-bar
- Prefer devices with a dedicated third radio for continuous WIDS / WIPS / RF management
- Prefer lifetime warranty

Wireless Access Point Management System Needs and Requirements:

1. Wireless Access Point Management System Required License Quantity: 1,900 and/or any equipment or component licensing needed to manage the above Wireless Access Points
2. Wireless Access Point Management System Reference design: Aruba Central Device Management subscription license (5 years) or equivalent
 - a. https://www.arubanetworks.com/assets/ds/DS_ArubaCentral.pdf
 - b. Wireless Access Point Management System Specifications
 - System shall be cloud-hosted. On-premise control / management systems will be disqualified
 - System shall automatically coordinate radio channels and power levels across all APs installed at a site / campus. Site AP counts range from 7 to 133
 - System shall support a method for applying bulk setting changes via a csv file
 - System shall support unique L3-L7 ACLs for each WLAN
 - System shall display RF coverage heat maps on district-imported site layout drawings
 - System shall allow running specific code versions / trains on APs in different areas for testing / QA purposes
 - System shall allow sub-grouping of devices within a site for the purpose of applying a unique configuration to said devices
 - Prefer a system that automatically performs a dynamic packet capture during anomalous events, thus eliminating the need to attempt to reproduce intermittent failures
 - Prefer a system that correlates events with client devices and visualizes these correlations for the purpose of rapid troubleshooting
 - Prefer a system that has the ability to automatically identify unhealthy devices or clients and presents recommended troubleshooting steps

- Prefer a system that can automatically deploy firmware updates without significantly impacting production traffic by coordinating updates across multiple neighboring devices and ensuring continuous coverage throughout the update process
- Prefer system that can identify upstream switching infrastructure issues like a bad cable or a missing VLAN
- Prefer a system that can identify the switch hostname and port ID that each device is connected to
- Prefer a system that automatically opens RMA TAC cases for devices that experience hardware failures
- Prefer a system that allows TAC engineers to remotely view system information so district staff don't need to collect logs and send screenshots
- Prefer a system that continuously measures and can report on individual client / user experience
- Prefer a system that has a dedicated UI workflow for replacing a failed device and automatically copying all settings & map / location info to the replacement device
- Prefer a system that uses a template-based configuration hierarchy to facilitate applying and managing common settings across multiple sites
- Prefer a system that contains all operations in a single, intuitive web UI

Service Needs and Requirements:

1. Design of system with input from HSD Systems Engineers
2. Configuration of wireless management system with input from HSD Systems Engineers
 - a. Build global and per-site device management objects in the wireless management system
 - b. Build an equivalent WLAN architecture based on the existing Cisco wireless system
 - c. Integrate existing Cisco ISE 802.1X NAC system with the wireless management system
 - d. Upload site drawings in the wireless management system's mapping UI
3. Configuration and Installation of all Wireless Access Points
 - a. Print and apply labels to all WAPs based on district-provided hostnames
 - b. Import WAPs into cloud management system and associate them with the appropriate sites
 - c. Place WAPs on the site drawings in the wireless management system's mapping UI
 - d. Remove old WAPs and mounting brackets
 - e. Install new WAPs and mounting brackets in locations where old WAPs were located
 - f. Collect old WAPs in boxes that new APs came in or provide new boxes with no more than ten WAPs per box and deliver to district warehouse

4. System / Device Support
 - a. Ongoing system and device support will be provided by the manufacturer's technical support organization. Provide information about manufacturer-provided technical support for both the WAPs and the wireless management system. Include response time SLAs. Include turn-around time for hardware replacements
5. Administrative level training for HSD Systems Engineers on management of Wireless System
 - a. Provide information about options for training certifications
6. Provide As-Builts
 - a. Showing location of each Wireless Access Point
 - b. Showing full configuration settings of Wireless System

RFP Evaluation Scoring:

Scoring of the proposal shall follow the below weighting:

- Cost of eligible equipment and services (30%)
- Cost of ineligible equipment and services and Years 6, 7 & 8 (10%)
- Wireless Access Point- Meeting Specifications, Warranty and Support (20%)
- Wireless Management System- Meeting Specifications and Support (20%)
- Providing Requested Services (15%)
- References (5%)

Failure to provide all sections of the RFP submission may result in the submission not being considered for scoring/evaluation.

General District Information:

HSD is the fourth-largest public school district in the state of Oregon with 35 schools serving more than 20,000 students from preschool through twelfth grade.

The District passed a bond measure by its patrons on November 8, 2017. The District is currently in the midst of building renovations and planning to build additional sites that includes two new Elementary Schools.

District Sites

- Current
 - 4 High Schools
 - 4 Middle Schools
 - 24 Elementary Schools
 - 1 Multi-Level K-8 School
 - 2 Alternative Education School Sites
 - 1 Career Tech Education Site

- 4 Administrative & Support Sites
 - Data center is located in the Administrative Center
- See Appendix A for site names and addresses
- Future
 - July 2021
 - Atfalati Ridge Elementary School
 - July 2023
 - 1 New Elementary School

Appendix A- District Sites and Addresses- (<https://www.hsd.k12.or.us/Page/5297>)*



ELEMENTARY SCHOOLS

- 1 **Brookwood**
3600 SE Cedar St.
Hillsboro, OR 97123
503.844.1715
- 2 **Butternut Creek**
20365 SW Florence St.
Alona, OR 97078
503.844.1300
- 3 **Eastwood**
2100 NE Lincoln St
Hillsboro, OR 97124
503.844.1725
- 4 **Farmington View**
8300 SW Hillsboro Hwy.
Hillsboro, OR 97123
503.844.1725
- 5 **Free Orchards**
2424 S Beech St
Cornelius, OR 97113
503.844.1140
- 6 **Groner K-8**
23425 SW Scholls Ferry Rd.
Hillsboro, OR 97123
503.844.1600
- 7 **W.L. Henry**
1080 SE 24th Ave.
Hillsboro, OR 97123
503.844.1690
- 8 **Imlay**
5900 SE Lois St.
Hillsboro, OR 97123
503.844.1690
- 9 **Indian Hills**
21690 SW Rock Rd
Alona, OR 97003
503.844.1350
- 10 **Jackson**
675 NE Estate Dr.
Hillsboro, OR 97124
503.844.1670
- 11 **Ladd Acres**
2425 SE Cornelius Pass Rd.
Hillsboro, OR 97123
503.844.1300
- 12 **Lenox**
21200 NW Rock Creek Blvd.
Portland, OR 97223
503.844.1360
- 13 **Lincoln Street**
801 NE Lincoln St.
Hillsboro, OR 97124
503.844.1160

MIDDLE SCHOOLS

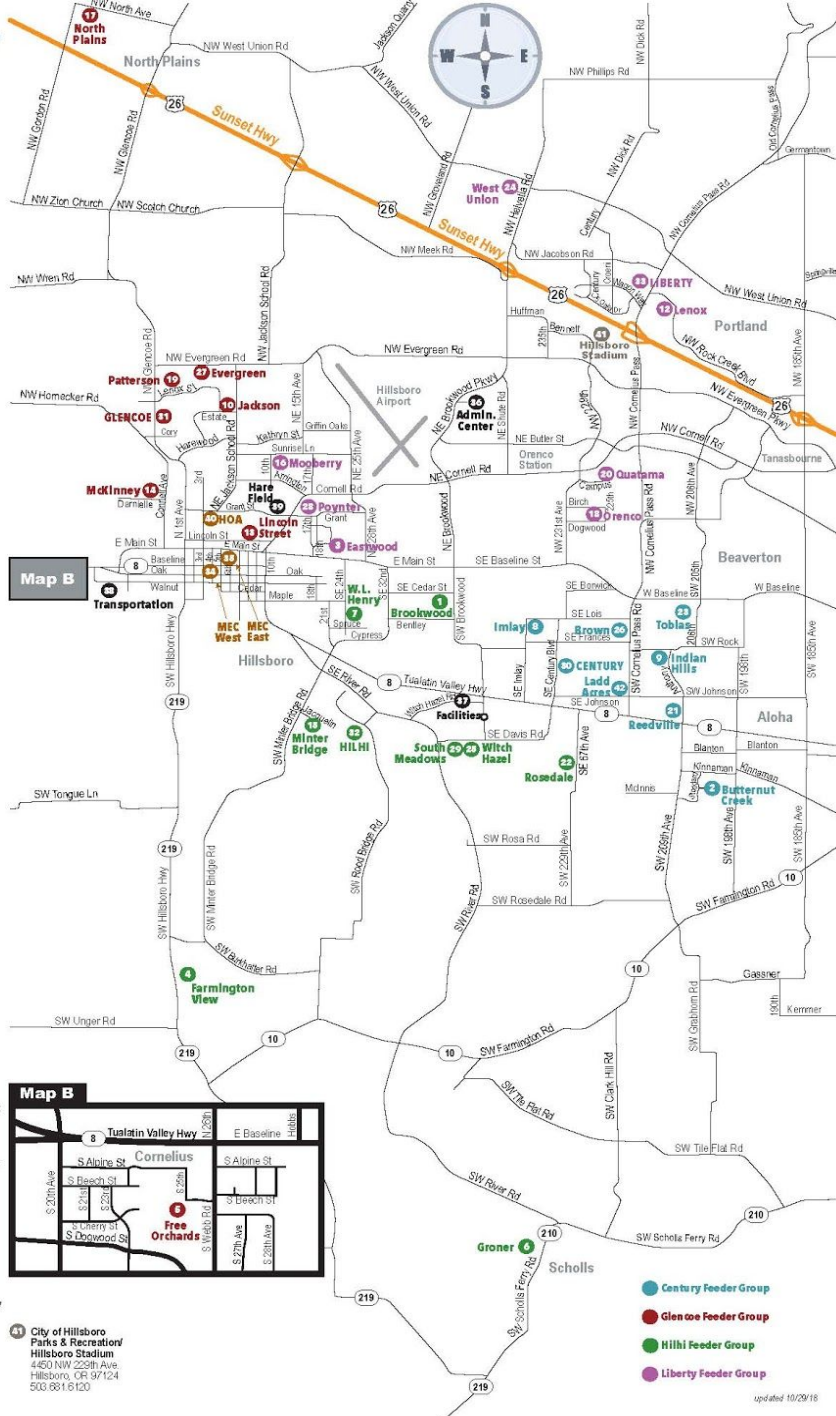
- 14 **W. Verne McKinney**
535 NW Danielle St.
Hillsboro, OR 97124
503.844.1660
- 15 **Minter Bridge**
1750 SE Jacquelin Dr.
Hillsboro, OR 97123
503.844.1650
- 16 **Mooberry**
1230 NE 10th Ave.
Hillsboro, OR 97124
503.844.1640
- 17 **North Plains**
32030 NW North Ave.
North Plains, OR 97133
503.844.1630
- 18 **Orenco**
7320 NE Birch St.
Hillsboro, OR 97124
503.844.1370
- 19 **Paul L. Patterson**
261 NE Lenox St.
Hillsboro, OR 97124
503.844.1360
- 20 **Quatma**
6915 NE Campus Way
Hillsboro, OR 97124
503.844.1180
- 21 **Reedville**
2935 SW 200th Ave.
Alona, OR 97003
503.844.1570
- 22 **Rosedale**
3301 SE 67th Ave.
Beaverton, OR 97078
503.844.1200
- 23 **L.C. Tobias**
1065 SW 200th Ave.
Alona, OR 97003
503.844.1310
- 24 **West Union**
28970 NW West Union Rd.
Hillsboro, OR 97124
503.844.1620
- 25 **Witch Hazel**
4300 SE Daves Rd.
Hillsboro, OR 97123
503.844.1610

HIGH SCHOOLS

- 26 **Brown**
1505 SE Cornelius Pass Rd.
Hillsboro, OR 97123
503.844.1070
- 27 **Evergreen**
450 NE Evergreen Rd.
Hillsboro, OR 97124
503.844.1400
- 28 **Groner K-8**
23425 SW Scholls Ferry Rd.
Hillsboro, OR 97123
503.844.1600
- 29 **South Meadows**
4800 SE Daves Rd.
Hillsboro, OR 97123
503.844.1220
- 30 **Century**
2000 SE Century Blvd.
Hillsboro, OR 97123
503.844.1600
- 31 **Glencoe**
2700 NW Glencoe Rd.
Hillsboro, OR 97124
503.844.1900
- 32 **Hilhi**
3285 SE Reed Bridge Rd.
Hillsboro, OR 97123
503.844.1680
- 33 **Liberty**
7445 NE Wagon Dr.
Hillsboro, OR 97124
503.844.1250
- 34 **Miller Education Ctr. West**
440 SE Oak St.
Hillsboro, OR 97123
503.844.1650
- 35 **Miller Education Ctr. East**
215 SE 9th Ave.
Hillsboro, OR 97123
503.844.1000
- 36 **Hare Field**
1151 NE Grant St.
Hillsboro, OR 97124
503.844.1320
- 37 **Hillsboro Online Academy**
(HOA, grades 3-12) and
Peter Boscow Cont. Ctr.
452 NE 3rd Ave.
Hillsboro, OR 97124
503.844.1050
- 38 **City of Hillsboro
Parks & Recreation/
Hillsboro Stadium**
4450 NW 239th Ave.
Hillsboro, OR 97124
503.881.8120

OTHER DISTRICT BUILDINGS

- 39 **Administration Center**
3083 NE 49th Place
Hillsboro, OR 97124
503.844.1500
- 40 **Facilities & Support Services**
4901 SE Witch Hazel Rd.
Hillsboro, OR 97123
503.844.1320
- 41 **Transportation Services**
1220 SW Walnut St.
Hillsboro, OR 97123
503.844.1123



*Additions to map:

- Aftalati Ridge Elementary School, 29174 NW King Street. North Plains, OR 97133 (July 2021)
- Transportation and Maintenance Support Center, 7705 NE Jacobson Street, Hillsboro, OR 97124 (July 2020)
- Oregon Aerospace Careers for All- CTE Program- Hillsboro Airport, 3355 NE Cornell Rd, Hillsboro, OR 97124 (February 2021)

updated 10/29/18

Appendix B: Pricing Matrix

Summarized pricing must be provided in the following areas. Provide an accompanying itemized description of all equipment and services with prices. Downloadable Excel form on RFP site or this appendix must be used to provide pricing. Place a zero in areas that are not needed or are redundant for your proposal.

PRICING MATRIX	
<i>Eligible Services over 5 Years</i>	Amount
Equipment	
Software (5 Years)	
Licenses (5 Years)	
Design	
Configuration	
Installation	
Training	
Support (5 Years)	
Other	
Shipping	
Taxes and Fees	
TOTAL Eligible Services 5 Years	
Optional Eligible Item #1	
Optional Eligible Item #2	
Optional Eligible Item #3	
Optional Eligible Item #4	

<i>Optional Annual Recurring Year 6</i>	Amount
Equipment	
Software (1 Year)	
Licenses (1 Year)	
Design	
Configuration	
Installation	
Training	
Support (1 Year)	
Other	
Shipping	
Fees	
TOTAL Year 6	
<i>Optional Annual Recurring Year 7</i>	Amount
Equipment	
Software (1 Year)	
Licenses (1 Year)	
Design	
Configuration	
Installation	
Training	
Support (1 Year)	
Other	
Shipping	
Fees	
TOTAL Year 7	

<i>Optional Annual Recurring Year 8</i>	Amount
Equipment	
Software (1 Year)	
Licenses (1 Year)	
Design	
Configuration	
Installation	
Training	
Support (1 Year)	
Other	
Shipping	
Fees	
TOTAL Year 8	
TOTAL Eligible Services 5 Years (from above)	
TOTAL Ineligible Services 5 Years (from above)	
TOTAL 5 Year Cost (Add 2 lines above)	
TOTAL Year 6 Cost (from above)	
TOTAL Year 7 Cost (from above)	
TOTAL Year 8 Cost (from above)	
TOTAL 8 Year Cost (add four lines above)	