



A REQUEST FOR PROPOSAL (RFP)

WIRELESS NETWORK FOR BALLARD MIDDLE SCHOOL

January 15, 2019

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1 PURPOSE AND SCOPE

The purpose of the Request for Proposal (RFP) is to solicit from vendors proposals to upgrade the wireless infrastructure for Ballard Middle School. General information about the District can be found on the District's website at <http://www.ballard.k12.ia.us> (*under District Information*). The District is seeking to implement extended, secure coverage inside of Ballard Middle School. The acquisition will include APs/controllers, centralized management, and security software.

A copy of this Request for Proposal (RFP) may be obtained from the District's Web Site <http://www.ballard.k12.ia.us/district/rfp/>

It is the sole responsibility of the "proposer" to check back on this site for any amendments to the RFP. For the purpose of this document the terms proposer, vendor and contractor are those entities representing the submission of a response to this RFP. The "customer" is the Ballard Community School District. The reference to "controller" is the main management appliance, server, or application used for the central control and reporting aspects of the wireless system. The "system" refers to the overall collection of all equipment, software and licensing proposed for the Ballard Middle School internal wireless project.

QUANTITY 17 – Cisco Meraki MR53 Wireless access points
QUANTITY 17 – 3 and 5 year license costs in separate quotes

1.1 Ballard Community School District Request

The Ballard Community School District is requesting a proposal for the purchase of wireless classroom technology as specified in the following documented requirements and technology specifications for Ballard Middle School. Please provide the following:

- Section 1 Company Information
- Section 2 Architecture and Technology
- Section 3 System Requirements
- Section 4 – Technical Specifications
- Section 5 – Access Point Specifications
- Section 6 – Controller Specifications
- Section 7 – Pricing Spreadsheet
- Section 8 – Client Reference List

Responses are expected to match each of these sections. The responses should refer to the proper section, using the same sequence and numbering. For each requirement, provide a detailed explanation of how each requirement can be met or cannot be met.

1.2 About Ballard

The Ballard Community School District encompasses approximately 85 square miles, with a district population of almost 7000 residents. The communities of [Cambridge](#), [Huxley](#), [Kelley](#) and [Slater](#) came together in 1957 and formed the Ballard Community School District. The first graduating class was 1959. The name Ballard is derived from a creek that once flowed throughout the District. Ballard Community School District is located in the "Golden Circle" 10 miles south of Ames and 20 miles north of Des Moines. Its location provides the opportunities of small town living while enjoying access to metropolitan activities.

The Ballard Community School District in keeping with its self-improvement philosophy, the District developed and administered an on-line technology assessment in the winter of 2014-15. The assessment, targeting 3-12 students, staff and parents. The results of which were reported in the District's 2014-2015 Information and Technology Plan. In keeping with the Technology Plan posted within the district, the district recognizes the need to grant technology

resources for staff and students at anytime, anywhere, and with open technical architectures. In order to provide the resources needed for the 21st century skills, the district recognizes the need to allow access to the wide world of electronic opportunities available within the electronically based curriculums through Intranet, Internet and Extranet resources. Therefore, the district is now seeking to provide those services within the schools.

1.3 Evaluation Process

The evaluators will consider how well the vendor's proposed solution meets the need of the District as described in the vendor's response to each requirement and form. It is important that the responses be clear, concise and complete so that the evaluators can adequately understand all aspects of the proposal in a succinct fashion. The evaluation process is not designed to simply award the contract to the lowest cost vendor. Rather, it is intended to help the District select the right vendor with the best combination of professional attributes, experience, and relevant skill-sets, including that of price, based on the evaluation factors. The District reserves the right to require that a subset of finalists make a presentation to the evaluation team for consideration.

This RFP provides general and technical information as well as the required format for responses. Your submitted responses will be the primary source of information used for the system evaluation and selection. Please include all required and appropriate information with your proposal. No other source of information submitted, written or verbal will be considered part of your proposal.

At the completion of the RFP process, the Ballard Community School District will determine the viability of moving forward and complete negotiations with the chosen vendor to provide equipment and services, representing, but not limited to, solutions that best meet the need of the District's criteria in design, cost, vendor requirements and references.

1.4 Schedule

An Approximate schedule for selection is as follows:

Issue RFP / Publish to the District Website	1-14-2019
Vendor Notice of Intent to Propose	1-15-2019 3:00 PM CST
Deadline for Questions	2-8-2019 3:00 PM CST
Proposals Due	2-15-2019 3:00 PM CST
Tentative Vendor Selection (Final 3 vendors)	5-6-2019 3:00 PM CST
Clarification of final vendors' responses	5-6-2019 to 5-10-2019
Final Vendor Selection	5-13-2019 3:00 PM CST

1.5 Notice of Intent to Propose

Those submitting proposals are requested to e-mail a Letter of Intent no later than February 1, 2019 via e-mail to dmcgill@ballard.k12.ia.us Subject of "Wireless RFP 2019" or by fax to 515-597-2965. The letter must be submitted on the vendor's letterhead. Please identify the name, manufacturer(s) represented, address, phone number, fax number, and e-mail address of the person who will serve as key contact for all correspondence regarding this RFP.

Submission of the Letter of Intent constitutes the vendor's acceptance of the procedures, evaluation criteria, and all administrative instructions of this RFP. Letters may be withdrawn at any time before the deadline for submission. A list of all vendors submitting a letter of intent will be available upon request.

1.6 Deadline for Questions

Questions with regard to the RFP maybe asked via e-mail or facility tours. Questions may be submitted by e-mail to dmcgill@ballard.k12.ia.us up to 3:00 PM CST on February 8th, 2019. Responses will be posted on the RFP site.

1.7 RFP Submission

- a Electronic bids are due on or before February 15th, 2019 at 3:00 PM, CST using a standard Microsoft Office format. Please use the subject of Wireless RFP 2019 Forms are to be e-mailed to dmcgill@ballard.k12.ia.us
- b Submission of the proposal will signify the vendor's agreement that their proposal and the content thereof are valid for 180 days following the submission deadline and will become part of the contract that is negotiated between the District and the successful vendor.
- c Pricing for equipment within the proposal shall not exceed quotes within the proposal for a period of 2 years unless otherwise specified within the proposal.

1.8 Right of Selection/Rejection – Waiver of Informalities or Irregularities

The District reserves the right to reject any or all proposals, to waive any minor informalities or irregularities contained in any proposal, and to accept any proposal deemed to be in the best interest of the District. Selection of a vendor solution shall not be construed as an award of contract, but as a commencement of contract negotiation, including but not limited to the contract price proposed.

1.9 Commitments

All quotes should be submitted initially on the most complete basis and with the most favorable financial terms available. The selected vendor's proposal may, at the Ballard Community School District's option, be made part of the final purchase contract and all representations in the vendor's proposal may be considered commitments to supply the system as described. Vendors may submit more than one proposal in response to this RFP. However, each proposal must be a separate, complete package, which can be considered independently of any other proposals from the same vendor.

1.10 Compensation

No payment of any kind will be provided to the submitting vendor, or parties they represent, for obtaining any of the information solicited. Procurement of all equipment and services will be in accordance with subsequent contractual action.

1.11 Contract Award and Execution

The District reserves the right to make an award without further discussion of the proposal submitted. Therefore, the proposal should be initially submitted on the most favorable terms the vendors can offer. It is understood that the proposal will become a part of the official file on this matter without obligation to the District. The general conditions and specifications of the RFP and the successful vendor's response, as amended by agreements between the District and the vendor, will become part of the contract documents. Additionally, the District will verify vendor representations that appear in the proposal. Failure of the vendor's products to meet the mandatory specifications may result in elimination of the vendor from competition or in contract cancellation or termination. The vendor selected as the apparently successful vendor will be expected to enter into a contract with the District on terms similar to those presented in the copy of the District's standard Professional Services Agreement. If the selected vendor fails to sign and return the contract within ten (10) business days of delivery of the final contract, the District may elect to cancel the award and award the contract to the next highest-ranked vendor.

No cost chargeable to the proposed contract may be incurred before the vendor has received a fully executed contract.

1.12 Payment Terms and Conditions

The proposal must contain a fee schedule that includes line items for equipment, software, professional services, warranties, project management, and installation and training fees.

1.13 Insurance Requirements

The District will require the selected vendor to comply with the insurance requirements as outlined below.

- a The contractor shall procure and maintain for the duration of this agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the contractor, his agents, representatives, employees or subcontractors. The cost of such insurance shall be paid by the contractor. Insurance shall meet or exceed the following unless otherwise approved by the District.

Scope of Insurance – The amount of such bodily injury and property damage insurance shall not be less than: Commercial General Liability written on an occurrence basis with limits not to be less than:

- Each occurrence: \$ 500,000
- Personal Injury \$ 500,000
- General aggregate \$1,000,000
- Products and completed operations liability \$1,000,000
- Fire damage \$ 50,000
- Vehicle Liability
- Bodily injury \$ 50,000/ \$500,000
- Property damage or \$ 100,000 single limit liability \$ 500,000
- Workers compensation \$1,000,000 each occurrence
- Umbrella \$1,000,000 aggregate

1.14 Verification of Coverage

Contractor shall furnish the District with certificates of insurance affecting coverage required by this clause. The certificates for each insurance policy is to be signed by a person authorized by that insurer to bind coverage on its behalf and shall name the District as an "additional insured". The certificates are to be received and approved by the District before work commences. The District reserves the right to require complete, certified copies of all required insurance policies at any time.

1.15 Subcontractors

Contractors shall include all subcontractors as insured under its policies or shall require subcontractors to provide their own coverage. All coverage for subcontractors shall be subject to all of the requirements stated herein.

1.16 Asbestos or Hazardous Materials Abatement Work

If Asbestos abatement or hazardous materials work is performed, contractor shall review coverage with the District's Director of Buildings and Grounds and provide scope and limits of coverage that are appropriate for the scope of work. No asbestos abatement work will be performed until coverage is approved by the Director of Buildings and Grounds.

1.17 Other Compliance Requirements

In addition to nondiscrimination and affirmative action compliance requirements, the proposer awarded a contract shall comply with federal, state and local laws, statutes, and ordinances relative to the execution of the work. This requirement includes, but is not limited to, protection of public and employee safety and health; environmental protection; waste reduction and recycling; the protection of natural resources; permits; fees; taxes; and similar subjects.

1.18 Exceptions

Respondents may take exception to any of the stated requirements so long as all such exceptions are expressly noted and clarified in the response. Alternatives may be shown and quoted as options.

1.19 Primary Provider of all Services

If a vendor's proposal includes equipment, hardware, software, or services to be supplied by entities other than the proposing vendor, it is mandatory for the proposing vendor to act as the prime contractor for the entire procurement of all products and services proposed with the possible exceptions noted below. The vendor acting as the prime contractor must be the sole point of contact with regard to contract stipulations including payment of any and all charges resulting from the purchasing of the proposed equipment, hardware, software, and/or services. The vendor acting as the primary contractor must take full responsibility for the demonstration, delivery, installation, and acceptance testing of the items proposed to be supplied by its subcontractor. The only two possible exceptions will be cabling and the procurement of network switches.

1.20 Current Network

The BALLARD COMMUNITY SCHOOL DISTRICT campus is made up of 4 buildings. Our enrollment is currently over 1800 students plus 250 faculty and staff. All buildings and wiring closets are connected via fiber optic cable connections. All buildings connect to the Middle School Core Switch.

All building networks are routed at the distribution layer. Today we offer a single core wireless services. We offer the following SSIDs: district-owned equipment via a private SSID on our Internal LAN. The private service uses WPA2 with PSK authentication. AEA owned equipment use the private SSID on our internal LAN with the same security specs. The third SSID is for our guests. The GUEST network offers no security, and routes directly to the internet.

1.21 Wireless Services Goals

Our current wireless service has been deployed for over six years. Our primary objectives are to replace the existing infrastructure with a new solution with the following key goals:

- a Move to a solution that can support five years of density growth in the number of users, applications, and demands for increased performance in a 1:1 device environment.
- b Increase throughput to enable streaming media, advanced graphics, large data transfers, and to exceed expectations for performance in high-density environments.
- c Increase wireless network security options.

2 COMPANY INFORMATION

2.1 Show your Product History, Roadmap, and Practices

- a Provide a brief history of your organization. Describe the ownership of your organization, i.e., is it privately or publicly held, is it a subsidiary of a larger firm, etc.? Provide an organization chart and number of employees. This information should be provided for the both the OEM and any Value-added Reseller involved in the proposal. In the event the Proposer is a Value-added Reseller they should provide documentation that they are authorized by the OEM to distribute the products.
- b Describe your experience with K12-education clients. What unique challenges have you experienced with their needs? Provide a list of K12-education institutions that use your solution. This information should be provided for the both the OEM and any Value-added Reseller involved in the proposal.
- c Describe any relationships with other organizations and their products that provide enhancements or integration with your solution. Do you partner with or recommend a specific 3rd party 802.1x supplicant product?

3 ARCHITECTURE AND TECHNOLOGY

Describe your currently available wireless technology and include a typical school building wireless deployment architecture that would best fit our environment and goals as outlined in sections 2.1 and 2.2. In your solution, include only products that are currently shipping or will ship by June 1, 2019. Specify which specific product families the proposed architecture would utilize including model numbers, software versions and date both were released. Provide diagrams. What are the advantages of this architecture? Specify any disadvantages or limitations of this architecture. If your solution supports multiple configurations, describe the advantages and disadvantages of each. If the solution requires multiple controllers and multiple management devices, how are they integrated and managed from a single point of view?

In addition, provide any warranty, support and maintenance information that you would recommend for an installation of our size. At a minimum, it should include 8:00 a.m. to 5:00 p.m. CST access to technical support both via the web and telephone, next day advanced replacement, access to software maintenance including future releases. This information should be used to establish pricing for the cost proposal. Describe any exceptions to the minimum standard.

The proposal should address or include the following items:

- a Logical Network diagram
- b Hardware proposed (part number(s) and description of part function) for each item.
- c Operating system software (part numbers, software release) and features licensing.
- d Assumptions used to develop the system proposal (if any)
- e Tell us how the proposed system meets our identified required, desired and additional capabilities. Your response must include:
 - Technical characteristics, current features and capabilities, and limitations of the wireless system.
 - Competitive advantages of the proposed solution – particularly with K-12 education institutions.

4 SYSTEM REQUIREMENTS

4.1 Physical Attributes

- a Give a textual overview and include an image of each product model included in this response for the complete wireless system, including recommended usage scenarios and placement guidelines for each model.
- b What are the dimensions and power requirements for the controllers? Do the controllers support front to back cooling?
- c What are the dimensions and weight for each AP proposed? What mounting options are supported? Which models support vertical mounting?
- d How are the APs powered? How does each model operate on 802.1af vs. 802.1at? How does 802.1af impact RF power, throughput, MIMO capability, and support for both 2.4GHz and 5GHz band operation?
- e Are the APs and antennas fully plenum rated? If not, please indicate which APs (or parts of the AP) and antennas are not plenum rated.
- f What options exist for external antennas? What mounting capabilities do they have? Are antenna cables plenum rated?

4.2 Scalability

- a Describe the number of APs and clients supported per controller. How would the system be arranged to support over 200 APs and 2,000+ clients across a large geographical area with a single SSID? How does load balancing work across controllers?
- b How does the system support large scale roaming for both IPv4 and IPv6 where thousands of users can be moving across controllers or geographical boundaries at once (such as between class periods)?
- c How should subnetting of IP resources (both v4 and v6) for clients be handled?
- d How does the system handle a large amount of centralized traffic? How many 10G ports are supported per controller? Can LACP or comparable features be used to increase bandwidth and/or resiliency?
- e What options exist for controller redundancy? How do the APs and existing user traffic handle loss of a controller? How does the system handle AP failure?

4.3 Client Features

How does the system handle a mixed 802.11a,b,g,n environment? What throughput is supported per client for each mode when clients are connecting at various data rates?

- a What optimizations are made to achieve the highest throughput possible for each user? How does the system handle clients preferring to connect on 2.4GHz when 5GHz capabilities exist?
- b How is the system optimized to suppress excessive broadcast traffic?
- c How can high rate multicast traffic, such as video, be supported? How is traffic pruned as much as possible?
- d How is QOS supported?
- e In high density environments, how does the system achieve high throughput for users? How are users balanced across APs and channels? How can fairness be achieved without formal QOS?