SCHOOL BOARD ACTION REPORT

DATE: **April 19, 2021**
FROM: Dr. Brent Jones, Interim Superintendent
LEAD STAFF: JoLynn Berge, Chief Financial Officer

For Ops Committee: **May 6, 2021**
For Introduction: **May 19, 2021**
For Action: **June 2, 2021**

1. TITLE

Approval of the contract with InterVision for WiFi 6 upgrade in secondary school buildings

2. PURPOSE

This Board Action Report details purchase agreements up to the amount of $2,335,047, not including sales tax, for the installation and hardware that would provide new wireless technology capability to middle and high schools starting in the 2021-2022 school year. Students and educators are increasingly relying on devices for learning. This new Wi-Fi system will provide connectivity for more students and more devices running with more bandwidth than the previous system, with less drain on the mobile device batteries.

3. RECOMMENDED MOTION

I move that the School Board authorize the Superintendent to execute a contract with InterVision up to an amount of $2,335,047, not including sales tax, for wireless installation and equipment in the form of the draft Agreement attached to the School Board Action Report, with any minor additions, deletions, and modifications deemed necessary by the Superintendent, and to take any necessary actions to implement the contract.

4. BACKGROUND INFORMATION

a. **Background** Seattle Public Schools requested proposals from Western States Contracting Alliance (WSCA) approved wireless vendors to furnish and install a Wi-Fi 6 wireless network solution, comprised of hardware, such as access points, mounting systems, and controllers, and including management system software, authentication services to serve up to 90,000 client users/devices, and all necessary licenses and support contracts for approximately 27 sites for ~~3~~5 years. WiFi 6, is the newest WiFi specification standard, coming after WiFi 5. ~~WiFi 6~~WiFi 6 is backwards compatible with older WiFi clients, and also has greater speeds and better connectivity, as well as increased support for multiple, high-bandwidth devices. The proposal includes all wireless networking hardware and software (including installation, configuration, basic testing, and coordination) to make that possible. Training on all included hardware and software for Department of Technology Services staff is included.

~~The District wireless network was designed and installed seven years ago in 2014, to accommodate limited device usage in classroom instruction.~~

~~a.~~ The 27 schools this project focuses on include: Ballard High School, Cleveland High School, Franklin High School, Garfield High School, Lincoln High School, Roosevelt High School, Chief Sealth High School, West Seattle High School, Ingraham High School, Rainier Beach High School, Nathan Hale High School, Center School, Denny International Middle School, Jane Addams Middle School, Madison Middle School, Mercer Middle School, Aki Kurose Middle School, Whitman Middle School, Washington Middle School, McClure Middle School, Alan T. Sugiyama High School, Eckstein Middle School, Hamilton Middle School, Robert Eagle Staff Middle School, Meany Middle School, Seattle World School, and NOVA Alternative High School.

The District wireless network was designed and installed seven years ago in 2014, and the system is now End of Life and approaching End of Service. The previous Wi-Fi system could support up to 60 slower devices per access point but would be challenged to support the same number of devices needing more bandwidth per device. This would provide new wireless technology capability to middle and high schools starting in the 2021-2022 school year and was a planned as part of BEX V~~,~~. Elementary schools, Interagency and K-8 schools are not included in this upgrade and would be included in a subsequent levy.

b. **Alternatives** Not approve the new contract for WiFi 6 upgrades. This alternative is not recommended because the existing Cisco wireless access points in place at the middle and high schools were designed to accommodate older, slower devices and much lower device counts. With all schools now 1:1 and with newer Wi-Fi cards starting to be included in laptops, an upgrade is necessary to better support concurrent use of online resources in all secondary classrooms.

c. **Research** Several K12 educational articles call out the advantages of Wi-Fi 6 in schools, as it provides potentially a fourfold increase in throughput, as well as less energy consumed for the same volume of traffic. Schools are relying on Wi-Fi access for improved performance with greater density and to prepare for the new technologies coming to education. (See https://edtechmagazine.com/k12/article/2020/03/how-wi-fi-6-helping-schools-stay-connected and https://thejournal.com/articles/2019/09/19/school-districts-upgrade-to-wifi-6.aspx.)

5. FISCAL IMPACT/REVENUE SOURCE

Fiscal impact to this action will be $2,535,047, before sales tax.

The revenue source for this motion is BEX V and is a planned expenditure in the BEX V levy planning.

Expenditure: ☒ **One-time** ☐ Annual ☐ Multi-Year ☐ N/A; ongoing maintenance after 3 years

Revenue: ☐ One-time ☐ Annual ☐ Multi-Year ☒ **N/A**

6. COMMUNITY ENGAGEMENT

With guidance from the District's Community Engagement tool, this action was determined to merit the following tier of community engagement:

☐ Not applicable

☐ **Tier 1: Inform**

☒ Tier 2: Consult/Involve

☐ Tier 3: Collaborate

This proposal was brought to the Information Technology Advisory Committee (ITAC) on 4/26/2021. ITAC was fully supportive of both the BAR and the technical specifications of the planned deployment.

7. EQUITY ANALYSIS

The district's mission, per the 2019-24 SPS Strategic Plan, states that Seattle Public Schools is committed to eliminating opportunity gaps to ensure access and provide excellence in education for every student, with a focus on African American males who are furthest removed from educational justice.

Consistent and reliable access to technology is key to disrupting legacies of racism in our education system. This plan supports our district's commitment to provide the means for every student to access their education in a classroom setting for college, career, and community participation readiness.

The current deployment plan will have all high schools completed by summer, and we will prioritize middle schools based on SOCFFEJ for installation no later than December 2021.

8. STUDENT BENEFIT

Students and educators are increasingly relying on devices for learning. This new Wi-Fi system will provide connectivity for more students and more devices running with more bandwidth than the previous system, with less drain on the mobile device batteries. The new system also has several more advanced troubleshooting tools built in, meaning problems with student access should be resolved much faster.

9. WHY BOARD ACTION IS NECESSARY

☒ Amount of contract initial value or contract amendment exceeds $1,000,000 (Policy No. 6220)

10. POLICY IMPLICATION

Per Board Policy No. 6220, Procurement, any contract over $1,000,000 must be brought before the Board for approval. The motion also supports Board Policy 2022, Electronic Resources/Use of Internet, in providing electronic resources and technology to "enable educators and students to communicate, learn, share, collaborate and create, to think and solve problems, to manage their work and to take ownership of their lives."

11. BOARD COMMITTEE RECOMMENDATION

This motion was discussed at the Operations Committee meeting on 5/06/2021. The Committee reviewed the motion and moved the item forward with a recommendation for approval by the full Board.

12. TIMELINE FOR IMPLEMENTATION

Upon approval of this motion, work will commence in July 2021 for high schools, and be finished by March 2022 for middle schools.

13. ATTACHMENTS

- RFP 122045, vendor response and associated draft contract

Approval of the contract with InterVision for WiFi 6 upgrade in secondary school buildings

Seattle Public Schools is committed to making its online information accessible and usable to all people, regardless of ability or technology. Meeting web accessibility guidelines and standards is an ongoing process that we are consistently working to improve.

While Seattle Public Schools endeavors to only post documents optimized for accessibility, due to the nature and complexity of some documents, an accessible version of the document may not be available. In these limited circumstances, the District will provide equally effective alternate access.

For questions and more information about this document, please contact the following:

Timothy Hall
Administrative Assistant, Technology Services
Tlhall@seattleschools.org

- RFP122045_Wireless Network
- InterVision Submission for RFP122045

Seattle Public Schools
Contracting Services
2445 Third Avenue South
Seattle, WA 98134
Telephone: (206) 252-0566
Fax: (206) 743-3018
contractingservices@seattleschools.org

Request for Proposal No. RFP122045

Wireless Network Upgrade Project

for

Department of Technology Services

Submittal Deadline:

Date: March 2, 2021

Time: 10:00 a.m.

Instructions

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REQUEST FOR PROPOSAL NO. RFP122045

PROPOSAL CERTIFICATION FORM

TO: Nancy Milgate, Contracting Services Manager

The undersigned provider hereby certifies as follows:

1. I read the Seattle School District's Request for Proposal No. RFP122045 and the following Addenda and to the best of my knowledge I complied with the mandatory requirements stated herein:

Addenda Number	Issue Date
_____	_____
_____	_____
_____	_____

2. I had the opportunity to ask questions regarding the Request for Proposal, and that if such questions have been asked, they have been answered by the District.

3. That the proposer's response is valid for 90 days.

Dated at _____, this _____ of _____ 2021.

_____	_____
(Signature)	(Title)
_____	_____
(Print Name)	(Email Address)
_____	_____
(Company Name)	(Telephone Number)
_____	_____
(Address)	(Fax Number)
_____	_____
(City)	(UBI Number)
_____	_____
(State)	(E-rate SPIN)
_____	
(Zip)	

1.0 INTRODUCTION

Seattle Public Schools (the District, SPS) is requesting proposals from Western States Contracting Alliance (WSCA) approved wireless vendors to furnish and install a wireless network solution, comprised of hardware (such as access points, mounting systems, and controllers), software (such as management systems), and all necessary licenses and support contracts for approximately 27 sites, and authentication services to serve up to 90,000 client users/devices. Any proposal must include all wireless networking hardware, software, and training (including installation, configuration, basic testing, and coordination) to make that possible.

This Request for Proposal (RFP) describes the selection process and documentation required for submitting a Proposal. Any firm failing to submit their proposal in accordance with the procedures set forth in the Request for Proposal may be considered nonresponsive.

The large potentially simultaneous scale of this project requires assurance of capability and scalability from the vendor. Therefore, the District reserves the right to engage one responder from the existing State of Washington WSCA Contract. If a vendor is not currently listed on the existing State of Washington Contract, including a current/valid WSCA contract ID as of the date of submission, the vendor will not be considered.

Further, the District will be using funding from the federal E-rate program in this project. Any firm responding to this RFP must have a Service Provider Identification Number (SPIN) issued by the Universal Service Administrative Company (USAC).

The selection of the firm will proceed in the following manner:

- **Seattle Public Schools shall receive proposals no later than the due date and time specified in Section 2.0 of this RFP.**

- Vendors selected as finalists will be expected to provide a remote, hands-on demonstration of their product as defined in Attachment 8, at a time and a date determined by the District. The District reserves the right to reject any firm who is unable to comply with the District's request for a demonstration.

- The District may award a contract based solely on the written proposals. However, the District may elect to engage in negotiations with a selected short list of vendors in order to improve the proposals and obtain the best contract(s) for the District.

- The final selection will be based upon the criteria set forth below. The District reserves the right to negotiate with the successful firm on pricing, scheduling, or other factors.

2.0 SCHEDULE

2.1. Schedule of Activities

SCHEDULE	
Date	**Selection Process**
January 19, 2021	Advertisement for Request for Proposal Published. (First Notice)
January 26, 2021	Advertisement for Request for Proposal Published. (Second Notice)
January 27, 2021	Last day for Questions from Proposers by 2:00 p.m.
March 2, 2021	**Proposal Due by 10:00 a.m.**
March 3-5, 2021	Initial screening
Approx. March 8, 2021	Notification sent to short list candidate firms
Approx. March 11-12, 2021	Short list firms' setup demonstration environment
Approx. March 15-17, 2021	Short list firm's demonstrations
Approx. March 23, 2021	Notification of award to top candidate firm
Approx. March 31-April 2, 2021	Negotiation of Contract
Approx. April/May 2021	School Board Action
Approx. July 2021	Work begins

3.0 QUESTIONS AND COMMUNICATION

All communication and/or questions shall be submitted in writing at the dates and times indicated herein to:

U.S. Mail:
Nancy Milgate
Contracting Services
Seattle Public Schools
M/S 22-337
P.O. Box 34165
Seattle, WA 98124-1165

Physical Location:
Nancy Milgate
Contracting Services
Seattle Public Schools
M/S 22-337
2445 Third Avenue S.
Seattle, WA 98134-1923

Phone: (206) 252-0566
Fax: (206) 743-3018
E-mail: contractingservices@seattleschools.org

All questions must be submitted electronically by e-mail or fax to Contracting Services by the date and time indicated in Section 2.0. Reference the RFP number in the subject of your email. The District will consider no telephone or in-person inquiries, except at the demos for those firms making the short-list.

Answers to questions will be issued in the form of an addendum that will be provided electronically on the Builders Exchange website at http://www.bxwa.com and on the Seattle Schools website at www.seattleschools.org/district/departments/procurement/current_solicitations/.

Proposals must be submitted electronically to Contracting Services at contractingservices@seattleschools.org with the Request for Proposal number and project title included in the subject heading.

In the event that a firm attempts to contact any official, employee, or representative of Seattle Public Schools in any manner contrary to the above requirements, said firm may be disqualified for further consideration.

This prohibition does not apply to:

- Telephone calls to the District to request copies of this RFP, to confirm attendance, or request directions relative to an interview notification received from the District;
- Delivery of written questions about the proposal;
- Discussion at the demonstration;
- Delivery of the firm's proposal.

4.0 BACKGROUND

Seattle Public Schools (the District, SPS) currently provides wireless networking at 116 locations using a mix of Cisco 802.11n, 802.11ac wave 1 and 802.11ac wave 2 access points, along with centralized controllers first deployed in 2014. Since this time the number IoT devices has increased significantly, and the District has moved to a one-to-one student computing model. In February 2019 Seattle voters passed the BEX V Levy which together with the federal E-rate program will fund this Wireless Network Upgrade project. Seattle Public Schools is requesting proposals from WSCA approved vendors to furnish and install 802.11ax (WiFi 6) wireless network equipment, complete with licenses and management software for approximately 27 secondary (grades 6-12) locations, and authentication services to serve up to 90,000 client users/devices, providing a full turn-key solution. This RFP requests all wireless networking hardware, software, and management (including installation, configuration, basic testing, and coordination) to make that possible.

5.0 PROJECT INFORMATION

5.1. Overview of Desired Services and Products

Seattle Public Schools seeks an upgrade/replacement wireless network which provides:

- Full coverage (measured by a signal strength of -60dbm) at 5 GHz within the school/administrative buildings located on the campuses listed on **Attachment 1**, while minimizing interference from overlapping channels.
- Support for a minimum 60 simultaneous client devices at 5 GHz within each identified classroom space. Classroom spaces will typically have a single wireless access point (WAP, AP) location, which may be ceiling or wall mounted.
- Support for a minimum 200 simultaneous client devices at 5 GHz within each identified common space. Commons spaces will typically have between two and four wall-mounted WAP locations.
- Support for clients at 2.4 GHz is required in all locations.

This wireless networking upgrade project will involve approximately 27 schools. Existing access points, mounting brackets, enclosures, and patch cords (at the access-point only) are to be removed. See **Attachment 2** for details of current AP counts. Vendors should review the site floor plans and existing AP locations shown per **Attachment 7**, and determine optimal installation locations to meet

The cabling plant can be generally assumed to be Category 5e or better, single jack at existing AP locations. See **Attachment 1** for typical cabling type per site. Vendors are encouraged to examine **Attachment 7** (be aware that WAP locations identified are approximate) and determine optimal AP installation locations and required connection speed to meet the above requirements. Where additional cabling is deemed necessary, fill out and include **Attachment 5** with the proposal. While the District's LAN switching infrastructure only provides a single gigabit port to each AP location, vendors should consider where providing multigigabit support to an AP will best meet the requirements. A floor plan for each school from **Attachment 7** showing markup for additional AP locations, which existing locations will be reused, and which locations will require multigigabit connections is required in the final agreement from the selected vendor. Once a final contract is in place the District will arrange for cabling installs and LAN switch upgrades as requested per **Attachment 5** and **Attachment 7** markup.

Currently Seattle Public Schools services clients in the following way:

- SPS-owned user devices on 5 GHz, using WPA2-Enterprise and 802.1x with device-issued certificates, and connect to a locally switched VLAN. This serves the majority of our client devices.
- SPS-owned IoT devices on 2.4 GHz and 5 GHz using either a pre-shared key or 802.1x with user account authentication.
- non-SPS owned devices on 2.4 GHz are permitted persistent connection via 802.1x with user account authentication, or
- non-SPS owned devices on 2.4 GHz connect via a captive guest portal.

Each of the above bullets are separate SSIDs, and additional tunneled SSIDs to other VLANs exist. These SSIDs and function will continue to be used. All SSIDs except those that are locally switched are tunneled to a "core" site (See **Attachment 1**), which are the only locations those VLANs are routed. Our 5 GHz spectrum is configured to use 20 MHz-wide channels, but proposals need not limit the recommended configuration to this if the requirements otherwise listed in the section can be met.

Finally, the District requires a system for Authentication, Authorization, and Accounting (AAA) and can perform device profiling and posture assessment for wired and wireless clients for all schools. Up to 90,000 simultaneous client devices will authenticate via RADIUS, and up to 1,000 infrastructure devices will authenticate via TACACS+.

The contract resulting from this RFP should also include a materials list for which pricing is specified with a flat rate discount over list price, good for a term of three (3) years, with the option to purchase additional equipment for other projects and an option to extend the RFP contract for three (3) additional, 1-year terms. The District also requests that as new equivalent products are introduced over the life of the contract, the new hardware be made available to the District for purchase at the same discount rate.

5.2. Prioritized Project Scope:

Note: Refer to **Attachment 1** for a list of Elementary Schools, Middle Schools, High Schools, etc.

Priority	Description
1	Install 802.11ax capable wireless access points to serve all school classrooms and common areas. Install 802.11ac wave 2 capable wireless access points in all office spaces and administrative locations (27 total sites).

2	Provide single-pane centralized management software for all WAPs and controllers.
3	Provide software to support wired or wireless authentication and profiling for up to 90,000 simultaneous wireless users or devices.
4	Project Management and Deployment support
5	Install 802.11ax capable wireless access points in all locations if budget allows
6	Provide software to support wired or wireless posturing assessment for up to 90,000 simultaneous users if budget allows

The District estimates that available funding will allow the completion of priorities 1-4. The District is interested in creative solutions and innovations that will allow the completion of additional priorities while meeting the project requirements.

The District reserves the right to delete any or all scope from any of the priorities listed above. The District also reserves the right to modify the schedule, specific size or scope.

The District reserves the right to terminate this contract at any time for any reason.

5.3. SPS Proposed Project Timeline:

PROJECT TIMELINE	
Date (Anticipated)	**Project Deliverable**
July 2021	Installation and configuration of centralized hardware and management application(s).
July 2021	Training for SPS engineering staff
August 31, 2021	Installation of WAPs at all 16 High School locations
December 31, 2021	Installation of WAPs at all remaining locations

5.4. Training

Provide training classes in Seattle, WA or online for five (5) of the District's Network technicians, specific to all software and hardware products installed under this project, covering: installation, configuration, operation, and troubleshooting. Access to or copies of any electronic training materials must be provided for continuing reference.

5.5. Requirements

The primary requirement is to provide 802.11ax wireless access to classrooms, hallways, and common areas at the 27 target schools. The District prefers to provide 802.11ax wireless access in office areas at schools but may choose more limited 802.11ac wave 2 for budgetary reasons.

5.5.1. Maintenance and Support Requirements

5.5.1.1. For any hardware deployed which contains an FRU, the District requires either two on-site spares be provided OR for the product support to include next business day replacement.

5.5.1.2. The District requires five spares provided of any model of wireless access point installed under the project.

5.5.1.3. Seattle Public Schools requests options be provided for both 3-year and 5-year (one will be selected) for all term-based license and support or maintenance coverage required under the proposal, which will begin upon project close-out.
5.5.1.4. Limited lifetime warranty preferred on hardware.
5.5.1.5. Software/firmware updates for all proposed products must be available for five (5) years after project conclusion.
5.5.1.6. The proposed support plans must include same-day software support, with a 4-hour response time

5.5.2. Installation Requirements

5.5.2.1. All WAPs and necessary enclosures will be installed by the vendor or vendor's Contractor.
5.5.2.2. Post-installation, electronic documentation (not scanned) will be provided to the District for all WAPs using the provided spreadsheet templates. (**See Attachment 6**)
5.5.2.3. All WAPs will be installed on vendor-provided mounts parallel to the floor, at least 9-feet above the floor or on a drop ceiling grid using the proper mounts.
5.5.2.4. Gymnasium WAPs will be installed with protective covers or inside enclosures provided by SPS, if the current cover/enclosure cannot be reused.
5.5.2.5. All WAPs will be labeled, consisting of:
(on the face): the provided SPS red ownership label, WAP name, network jack ID
(on the back): WAP vendor name/SPS PO#/Install Month and Year
5.5.2.6. Contractor to provide 3-foot white patch cord at AP matching or exceeding the cabling specification for the site listed in **Attachment 1**.
5.5.2.7. There is limited on-premise space available for staging and installation. Contractor is expected to provide their own warehousing and staging space and materials.
5.5.2.8. The IT network shall be fully operational during the hours of 7:00 a.m. to 5:00 p.m. on regularly scheduled school days. Any work that will disrupt the network shall be scheduled and approved by the project manager before work is started. Building have custodial staff on site and are generally accessible from 6:00 a.m. to 3:00 p.m. Monday through Friday outside of the school year. During the school year buildings are generally accessible from 6:00 a.m. until 8:00 p.m. Summer school operates from the 2nd week of July through the first week of August (building accessibility still follows the outside of school year timing during summer school).
5.5.2.9. Noise, dust and fumes must be contained to within the work area.
5.5.2.10. Provide clear and easy access to and egress from spaces at all times during the construction, unless specifically arranged through the Project Manager.
5.5.2.11. Return existing/replaced WAPs and mounts to the District at the JSCEE site.
5.5.2.12. Contractor's Responsibilities:
- Designate delivery date for each product in construction schedule.
- Receive and unload products at Site.
- Promptly inspect products jointly with Owner, record shortages, damaged or defective items.
- Handle products at Site, including uncrating and storage.
- Protect products against damage and discoloration.
- Assemble, install, connect, adjust, and finish products
- Clean, repair, or replace items damaged by Contractor.

5.5.2.13. Use of Owner's property or equipment such as tools, furniture, and supplies, etc., is strictly prohibited.

5.5.2.14. To confirm that signal coverage and strength requirements are met, an Ekahau post-installation site survey walking every room in the school will be required for each site, with electronic project files to be provided to the District.

5.5.3. Technical Requirements

The District has attached general system requirements. Please review **Attachment 3** for details. Note that while the District has listed specific expected devices and features, the vendor should include any additional or alternative hardware and software to best meet the project requirements outlined in the RFP.

The District is willing to consider device alternatives that meet the District's wireless requirements and specifications. Any proposed alternatives will be considered at the **District's sole discretion**, and the District reserves the right to reject any and all alternatives.

5.5.3.1. The proposal is required (but not limited) to:

- support clients at 2.4 GHz and at 5 GHz in all locations.
- minimize channel overlap in both 2.4 GHz and 5 GHz. Proposed designs must meet the density and coverage requirements at 20 MHz wide 5 GHz channels or better.
- demonstrate a signal strength for 5 GHz in the post-installation Ekahau survey on a per school basis of -60dbm or better for acceptance.
- support a captive guest portal on one or more SSIDs.
- support a self-service onboarding portal for BYOD.
- include an Authentication, Authorization, and Accounting (AAA) service, capable of serving RADIUS and TACACS+.
- support client device profiling.
- include a single-pane management for all wireless access points and maps/floor plans.
- Support authentication for management users from Microsoft Active Directory, RADIUS, and TACACS+.

5.5.3.2. The District requires pricing be supplied for the following wireless access point types (meeting the requirements further detailed in **Attachment 3**). Vendors should not consider their proposal restricted to this hardware.

- Indoor dual-band 802.11ax access point with integrated omnidirectional antennas.
- Indoor dual-band wall-plate 802.11ax (preferred) or 802.11ac wave 2 (minimum required) access point, must support at least one gigabit wired client interface, and a pass through interface for other networking or analog telephone.
- Outdoor rated external antenna dual-band 802.11ax (preferred) or 802.11ac wave 2 (minimum required) access point, and the following types of antennas:
- Dual-band capable omnidirectional external antenna
- If access points and antennae do not come with all necessary mounting hardware, the provided parts list/price sheet should include any separate mounting equipment.

5.5.3.3. All proposed wireless access points must be capable of (but not limited to):

- Supporting 20 and 40 MHz channels for 5 GHz.
- Supporting WPA2-Personal and Enterprise.
- Locally switching traffic from one or more SSIDs to either an untagged VLAN, or to tagged VLANs per SSID.
- Tunneling traffic from one or more SSIDs to a defined destination (such as a controller or security gateway) with the destination capable of High Availability.
- All hardware features above supported at or below 802.11at PoE wattage
- At least limited functionality supported at or below 802.11af PoE
- Supporting SSIDs on only 2.4 GHz, only 5 GHz, or both.

- Providing service on additional 5 GHz spectrum via software/firmware upgrade if the FCC changes the regulations for usable WiFi spectrum

5.5.3.4. All proposed 802.11ax wireless access points must be capable of (but not limited to):

- OFDMA on both downlink and uplink.
- MU-MIMO on both downlink and uplink.
- support for WPA3-Personal and Enterprise.
- supporting target wake time.
- support multigigabit (2.5Gb or 5Gb) ethernet over Category 5e or better cabling. Support gigabit ethernet over Category 5 cabling.

5.5.3.5. The District requires in the proposal a system for providing Authentication, Authorization, and Accounting (AAA) services. This system should also:

- support being a RADIUS and TACACS+ server.
- support for authentication and authorization for at least 90,000 simultaneous client devices/users via 802.1x.
- support for Microsoft Active Directory for AAA and for management access.
- output AAA events via syslog.
- support an integrated Certificate Authority.
- support BYOD device onboarding.

5.5.3.6. Hardware other than WAPs

- Any central hardware, whether virtual or physical (such as controllers, security appliances, identity management servers, network access control servers, management servers) must be specified with failover (n + n), and will be installed at a minimum of two District facilities.
- Any central hardware which processes user traffic (such as controllers or security appliances for tunneled traffic) must provide in addition to n + n failover, traffic egress at a minimum of two District facilities – see **Attachment 1** under "Tunneled Traffic Egress at" to understand how tunneled traffic should be distributed.
- Physical hardware must have n+1 or better power supplies
- Physical hardware if requiring bandwidth greater than 1-gigabit, must support 10-gigabit fiber interfaces; the District can also support 40 or 100Gb interfaces if necessary.
- The District can support VMware virtual appliances with up to 16 vCPUs, 64GB of RAM, and up to 5Gb of aggregate total bandwidth.
- Any central hardware, whether virtual or physical, if limitations exist on the number of access points or clients supported, should be specified and sized to support 5% additional access points or clients. This requirement does not apply to limitations imposed exclusively by licensing, for which the limitation can be lifted by procuring additional licenses.

5.5.3.7. Management system

- Provide single-pane management for entire wireless environment – all access point configuration, site maps/floor plans, environment health and inventory, hardware logs, and reports should be accessible from here.
- Support authentication for management users from Microsoft Active Directory, RADIUS, and TACACS+
- (Preferred) Support reporting integration from any other system/application included in the proposal.

5.5.3.8. Configuration testing/lab environment

- The District employs a standard testing practice (where possible) of verifying any configuration change and software upgrade in a lab environment supporting the application of that change to as few as one user/device, then implementing the change to the production environment of a minimum of one to a maximum of six schools. The District requires any necessary hardware and licenses be provided for testing purposes of

any proposed system (for example: in a controller-based environment, a separate controller capable of running a minimum of any one school in the RFP must be included).

- Any hardware and license provided explicitly for testing purposes must have feature parity with, and accept the same configuration as the production environment, but otherwise need not match the proposed production environment.
- Any configuration change made in the test environment must not affect any production system (excepting the school(s) temporarily migrated to the test environment).

5.5.3.9. Optional Features. The following are desired, but not required:

- Integration with InfoBlox DDI;
- Integration with JAMF MDM;
- Support multifactor authentication (MFA) for management users;
- Availability of a REST API with configuration features equivalent to local CLI, GUI, or manufacturer management suite.

5.5.3.10. Priority 6 (per section 5.2) is to provide necessary hardware, software, and licensing to support the addition of posture assessment for up to 90,000 wired or wireless client devices.

Please note that the District will select the successful firm based on the best interests of the District, all factors considered. The District reserves the right to reject any or all proposals, waive minor irregularities and informalities, and make the awards in its best interest.

6.0 SELECTION PROCESS

6.1 Method of Selection

1. The District will review all proposals and select one firm based upon the best interests of the District; all factors considered. The District reserves the right to conduct interviews and/or demonstrations with the top three firms, if deemed necessary.

2. Among the factors to be considered are the following:

EVALUATION CRITERIA	POINTS
Technical Qualifications	**20**
Ability to meet the minimum Technical Requirements	20
Qualifications and Experience	**20**
Team experience, availability and capacity	5
Proven experience in working with similar or larger organizations, preferably in K-12 education	10
Willingness to accept the District's General Terms and Conditions	5
Pricing	**45**
Pricing considerations include: (1) comparative costs and services included in standard pricing; (2) any costs for alternatives not included in standard pricing; and (3) estimated district-born costs for ongoing maintenance and support (included with standard pricing)	
TOTAL POINTS	**85**
Demonstration (Short Listed Firms Only)	**15**
The District will (if it chooses) evaluate the management user interface during the demonstration period.	

Based on the recommendation of the Committee, the District will enter into contract negotiations with a selected firm. Upon receipt of best and final proposals, the Committee will select the best proposal, all factors considered.

6.2 Notifications

The District will provide timely notifications to firms responding to the Request for Proposal upon selection of the recommended firm.

6.3 Seattle Schools Right to Reject

The District reserves the right to reject any and all proposals and re-advertise the RFP at any time prior to approval of the recommended firm and the negotiated agreement. All costs incurred in the preparation of the Request for Proposal process shall be borne by the proposing firm. **Proposals submitted in response to this Request for Proposal shall become the property of the District and be considered public documents under applicable Washington State laws.**

The District reserves the right to modify the scope of services as a result of the written submittals and/or interviews.

6.4 Procedures Requirements

Any firm failing to submit information in accordance with the procedures set forth herein may be considered non-responsive.

7.0 SUBMITTAL REQUIREMENTS

7.1 General Submittal Requirements

The submittal requirements shall be as follows:

SUBMITTAL METHOD: The proposing firm, joint venture or other form of association ("firm") shall submit an ELECTRONIC copy of their Proposal to Contracting Services at contractingservices@seattleschools.org. The Subject Line of the e-mail shall note the RFP number and Project Title. **Please combine sections below into one PDF with each section bookmarked within the PDF**

Each proposal is to be a maximum of fifteen (15) pages (8-1/2" x 11") single sided, not smaller than 12-point type. Please combine sections below into one PDF with each section bookmarked within the PDF.

The District would like firms to submit completed Attachments 3 and 5 in both **.PDF and EXCEL format**. Please email Contracting Services at contractingservices@seattleschools.org to obtain Attachments 3 and 5 in EXCEL format.

1. The cover letter, Proposal Certification Form, table of contents, tabs and attached forms (including appendices included with the forms) do not count toward the page limits.

2. Project cut sheets, including photos, are included in the page limits. Submittals exceeding the page limits may be considered non-responsive**.**

3. **Please Note:** In preparing the firm's submittal, the proposing firm shall clearly identify the designated person of record responsible for any referenced project. If the proposing firm is representing an individual's experience while employed at another firm, the firm of record for the project and the individual's role shall be clearly identified.

7.2 Contents of the Proposal

1. Signed Proposal Certification Form (page 3 of the RFP). This does not count towards the page limit.

2. Table of contents (maximum 1 page).

3. Separate section: Executive Summary.

   Provide a summary highlighting the firm's qualifications and special expertise to provide the services requested in the Request for Proposal.

4. Separate section: Company Profile.

a. Identification of firm (or firms, if a joint venture or association) including address, telephone number, email address and date firm(s) were established.

b. Areas of specialization of the firm such as areas of service excellence and creative installation solutions in a large, multi-site non-profit environment.

c. Provide total size and breakdown of firm personnel by category. A firm organizational chart would be useful.

5. Separate section**:** Project Experience and Past Performance.

a. Provide examples of the firm's work, expressed both in number of projects and in contract dollars. At least one must be in the central Puget Sound area within the last three (3) years.

b. Describe relevant experience. Provide detailed descriptions of a maximum of five (5) contracts that are similar in size, scope and time frame to the District's project. At least one must be in the central Puget Sound area within the last three (3) years.

6. Separate section**:** Team Organization, Availability and Capacity.

Briefly discuss how you propose to organize your team to support this project. Identify each of the key players and define their roles and responsibilities. Describe each of the key team members' relevant professional experience, certification and education in resume form. Briefly discuss the availability of all key personnel for the scheduled time frame of the proposed project and identify their proposed location during provision of the requested services. Additionally, discuss the capacity of the proposed team as a whole to accomplish the work.

7. Separate Section: Wireless Network Requirements.

NETWORK REQUIREMENTS AND SCOPE OF SERVICES: Provide unit pricing with totals based on estimated quantities, and a completed checklist (yes/no column) on Equipment Specifications for each item listed in **Attachment 3**. **Technical specifications for any proposed Device Alternatives and a full bill of materials for the proposal shall also be included with this section.** The bill of materials should indicate the discount rate from list pricing.

The District would like firms to submit completed Attachments 3 and 5 in both **.PDF and EXCEL format**. Please email Contracting Services at contractingservices@seattleschools.org to obtain Attachments 3 and 5 in EXCEL format.

8. Separate section**:** References.

Provide the client name, address, email address, and client's project representative and telephone number for the firm's three (3) most recent projects that most closely relate to the firm's qualifications for this project. If a joint venture or other form of association, provide reference information for each member firm.

9. Separate section**:** Pricing.

a. Include your completed **Attachment 4 Pricing Form**.

b. Include your completed **Attachment 5 Additional Cabling Request** (if needed).

The District would like firms to submit completed Attachments 3 and 5 in both **.PDF and EXCEL format**. Please email Contracting Services at contractingservices@seattleschools.org to obtain Attachments 3 and 5 in EXCEL format.

10. Separate section**:** Terms and Conditions.

Include any comments or proposed changes to the District's terms and conditions (Attachment 9 to this RFP). **Please note that the District reserves the right to reject any firm not willing to accept the District's terms and conditions as shown in the standard form of contract.**

Please also note that the District reserves the right to ask questions and seek clarifications about the Proposal, to request post-proposal modifications, and to engage in negotiations with a selected short list of firms.

8.0 CONTRACT AND CONTRACTING PROVISIONS

8.1 Standard Form of Contract

The District's Standard Form of Contract is included as Attachment 9. The proposal should include any comments or requested changes. **Please note: The District reserves the right to reject any firm that is not willing to accept the District's terms and conditions as noted in the standard form of contract**.

Please note the District reimburses at the per diem rate as established by the U.S. General Services Administration (GSA) for Seattle, WA. For additional information on per diem rates, visit GSA's website at http://www.gsa.gov/portal/category/104711.

8.2 Contract Term

The term of this contract is expected to be approximately July 1, 2021 through August 31, 2024. With mutual agreement, the District and firm has the option to exercise up to three (3) additional, one-year extensions beginning September 1 and ending August 31.

8.3 Additional Contract Document Requirements

The selected firm shall be required to provide the following documents to the District prior to execution of the contract:

- W-9 Form
- Washington State Business License
- Certificate of Insurance, including endorsement pages, with the following limits:

workers' compensation	statutory
employer's liability (stop gap)	$1,000,000 each accident $1,000,000 disease-policy limit $1,000,000 each employee
commercial general liability	(per occurrence/aggregate)
bodily injury and property damage	$1,000,000/$2,000,000
personal and advertising injury	$1,000,000/$2,000,000
products and completed operations	$1,000,000/$2,000,000
fire legal liability	$100,000

automobile liability (owned, non-owned, leased or hired)	$1,000,000 per occurrence
umbrella/excess coverage professional liability	$2,000,000 per occurrence $1,000,000 each occurrence

8.4 Protest Procedures

1. Any actual or prospective Vendor who is aggrieved in connection with the solicitation or award of this contract may protest to the District in accordance with the procedures set forth herein. Protests based on the terms in this Request for Proposal, which are apparent prior to the date established for submitting the proposal must be received seven (7) days prior to the submittal deadline. Protests based on other events must be received within three (3) working days after the aggrieved person knows, or should have known, of the facts and circumstances upon which the protest is based; provided, however, that in no event shall a protest be considered if all proposals are rejected or if the protest is received after the award for this contract.

2. In order to be considered, a protest shall be in writing and shall include: the name and address of the aggrieved person; the contract title under which the protest is submitted; a detailed description of the specific grounds for protest and any supporting documentation; and the specific ruling or relief requested. **Due to Covid-19 work conditions, the written protest shall be emailed to**: contractingservices@seattleschools.org

   ATTENTION:

   JoLynn Berge
   Chief Financial Officer
   Seattle School District No.1
   MS 33-300
   P.O. Box 34165
   Seattle, WA 98124

   And shall be labeled: “Protest”

   Upon receipt of a written protest, the District shall promptly consider the protest. The District may give notice of the protest and its basis to other persons, including Proposers involved in or affected by the protest; such other persons may be given an opportunity to submit their views and relevant information. If the protest is not resolved by mutual agreement of the aggrieved person and the District, the District will promptly issue a decision in writing stating the reasons for the action taken. A copy of the decision shall be mailed by certified mail, return receipt requested, or otherwise promptly furnished to the aggrieved person and any other interested parties. The District decision may be appealed to the Superintendent’s designated representative, Clover Codd, Chief Human Resources Officer, not more than two (2) working days after receipt of the decision by written notice together with all supportive evidence, received at Seattle School District No. 1, MS 33-157, 2445 3rd Avenue South, Seattle, WA 98134. The Superintendent’s decision shall be final and conclusive. **Due to Covid-19 work conditions, any protest response will be delivered by email.**

3. Strict compliance with the protest procedures set forth herein is essential in furtherance of the public interest. Any aggrieved party that fails to comply strictly with these protest procedures is deemed, by such failure, to have waived and relinquished forever any right or claim with respect to alleged irregularities in connection with the solicitation or award. No person or party may pursue any action in court challenging the solicitation or award of this contract without first exhausting the administrative procedures specified herein and receiving the District's final decision.

4. Any Proposer submitting a proposal shall be deemed to have accepted these procedures.

End of Request for Proposal

ATTACHMENTS:

Attachment 1: Building information
Attachment 2: Current WAP Inventory
Attachment 3: Technical Requirements
Attachment 4: Pricing Form
Attachment 5: Additional Cabling Request
Attachment 6: Installation Documentation Template
Attachment 7: Building Floor Plans
Attachment 8: Demonstration Guidelines
Attachment 9: Sample Standard Form of Contract
Attachments are available to view at **Builders Exchange of Washington**

PRICING FORM

TO:
Seattle School District No. 1
Contracting Services Section
2445 Third Avenue South
Seattle, WA 98134

FOR:
Wireless Upgrade Project
RFP122045

U.S. Mail:
Mail Stop 22-337
PO Box 34165
Seattle, WA 98124-1165

In response to the REQUEST FOR PROPOSAL for the above referenced work, the undersigned ("Bidder") offers to furnish all of the following required to perform the work in accordance with the contract and any addenda thereto for the firm and fixed prices set forth below: Labor, materials, tools, supplies, equipment, storage, transportation, supervision, services, goods and other items.

Bidder certifies that:

1) It has examined and is fully familiar with all provisions of the contract including any addenda thereto; it has carefully checked all of the words and figures which comprise this Bid; and it has by careful examination of the contract, any addenda thereto, the site and all other pertinent conditions and matters, satisfied itself as to the nature, location, character, quality, and quantity of the work required by the contract and as to the conditions and other matters that may be encountered at the site or that may affect performance of the work or the cost or difficulty thereof.

2) Under penalty of perjury under the laws of the State of Washington that within the three-year period immediately preceding the date of the bid solicitation, the bidder has not been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of state wage laws, chapter 49.46, 49.48, or 49.52 RCW.

Bidder's Washington State Contractor's Registration No.: AR229 WA 01114
NOTE: Failure to have a license at the time of the bid opening shall result in rejection of the bid.

License Expiration Date: 5/31/2021

Federal Tax Identification Number (TIN): 81-2370820

Legal Name of Bidder: InterVision Systems, LLC

E-Mail Address: kcasto@intervision.com

Business Address: 1750 112th Ave NE Unit B217, Bellevue, WA 98004

503-758-7771
(Phone) (Fax)

Street Address: _____

_____

In submitting this Bid, the undersigned agrees:

1. To hold open its proposal for ninety (90) days from the date designated for receipt of proposal.

2. If awarded the contract, to duly execute the Agreement between the District and the Contractor and deliver materials and services to Seattle School District No. 1 within the timeline of the schedule.
3. To perform the work in accordance with the contract which consists of the Agreement Between the District and Contractor, General Conditions, and all other Contract Documents as set forth in this Request for Proposal, and all addenda thereto; and

4. To commence work under the contract upon receipt of a written Purchase Order and complete by the date specified in the Contract.

As full compensation for satisfactory performance of all obligations under the contract, the undersigned will perform such work for the costs defined on either Attachment 2 or Attachment 4. Attachments 1 and 2 are hereto incorporated by this reference. Failure to complete and submit this form and all attachments or the inclusion of false information shall be considered evidence that this proposal is unresponsive to the terms and conditions of the bid.

Bidder acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the Work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the Work or its cost.

Bidder acknowledges that (1) the District will continue to occupy parts of the site and may employ, under separate contracts, other contractors at or near the site concurrently with the work of this contract, (2) Bidders will have limited use of the premises for work, storage, access, parking, and equipment and (3) Bidder will be required to coordinate the use of the premises under the direction of the District.

This proposal constitutes a firm offer which cannot be withdrawn until a formal contract for the work is signed by Seattle School District No. 1 and another bidder or the expiration of sixty (60) calendar days after the due date for submission of bids.

Bidder acknowledges receipt, understanding and full consideration of Addenda No.: 1
(**List each addendum separately by number**)

OFFICIAL(S) AUTHORIZED TO SIGN FOR BIDDER

"I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct":

Signature of Corporation.

InterVision Systems, LLC (Bidder name)

a Limited Liability corporation

By: DocuSigned by: Kory Casto F38935AC05274E7...

Place of Execution: 1750 112th Ave NE Unit B217 (City) Bellevue (State) WA

Date:

Title: Client Manager

Signature of Partnership or Joint Venture. N/A

(Name of Partnership or Joint Venture)

By (all general partners or joint venturers):

Name

Place of Execution: (City) (State)

Date Signed:

Name

Place of Execution: (City) (State)

Date Signed:

Name

Place of Execution: (City) (State)

Date Signed:

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. See Attachment 2 Requirements.

B. The Vendor shall create a price list on the following Proposal Form containing all information identified herein.

C. The District could choose one, two, or three, line items per vendor depending on Certification of manufacturer.

1.2 QUANTITIES FOR PROPOSAL ANALYSIS

A. The RFP proposal shall be assessed, and a successful Vendor selected as outlined in the Proposal. A pricing comparison worksheet is below and needs to be completed for comparison purposes.

	Product SKU(s)	**SKU Description**	**Estimated Quantities (X)**	**Discount from List Price (%)**	**Unit Price (Y)**	**TOTAL (X * Y)**
Indoor omni-directional AP (802.11ax)						
Access Point	AP32-US	Multigagabit WiFi-6 802.11ax Access Point	2100	71%	$313.18	$657,678.00
Indoor omni-directional AP (802.11ac wave 2)						
Access Point	Providing all AX option					
Indoor wall plate AP						
Access Point	AP12-US	Wallplate WiFi 6 802.11ax Access Point	1	60%	$255.56	$255.56
Outdoor external-antenna AP and omni-directional dual-band external antenna						
Access Point	AP63-US	Outdoor MultiGigabit WiFi 802.11ax Access Point	1	79%	$536.63	$536.63
Omni-directional antenna	ATS-OO-245-57-1NP-IC-W	2.4/5 GHz 5/7 dBi White Indoor/Outdoor Omni Antenna w/N-Style	6 per AP	32%	$61.17	$367.00
Additional AP hardware (if any)						
Additional AX Option	AP43-US	Premium Performance MultiGigabit WiFi 802.11ax Access Point	1	76%	$376.80	$376.80
Controller / Security Appliance						
Optional Tunneling Hardware	ME-X5	Mist Edge Appliance, 2x10GBASE-X (SFP+), Supports 5000 Access Points	2	82%	$5332.44	$10,644.88
AAA System						
Aruba Clearpass	JZ399AAE	Aruba ClearPass Cx000V VM Appliance E-LTU	4	34%	$2640.00	$10,560

	Product SKU(s)	SKU Description	Estimated Quantities (X)	Discount from List Price (%)	Unit Price (Y)	TOTAL (X * Y)
Any Licensing Not Term-Based (if any)						
	N/A	N/A	N/A	N/A	N/A	N/A
VMware Resources Needed (if any – costs defined by the District)						
vCPU count (total)			48		$256.41	$12,307.68
RAM total (in GB)			128		$34.72	$4,444.16
Storage total (in GB)			3600		$2.71	$9,756.00

A) Equipment Total (SUM of "TOTAL" Column above): $706,926.71 (A)

Administration	Estimated Hours (X)	Rate (Y)	TOTAL (X * Y)
Project Management	360	$160	$57,600
Installation and Prep	2394	$165	$395,010
Configuration	806 (L2), 380 (L3)	$165, $195	$207,090
Training	160	$130	$20,800
Additional costs	240	$225	$54,000
Infrastructure changes (costs defined by district)	**Estimated Quantity (X)**	**Cost (Y)**	**TOTAL (X * Y)**
Additional cabling runs or cabling relocations required	N/A	$1,500.00	N/A
Ports required to be multigigabit	N/A	$800.00	N/A

B) Administration Total (SUM of "TOTAL" Column above): $734,500.00 (B)

BASE PACKAGE TOTAL (A + B): $1,441,426.71

Support Options

Support (3 Years)	Quantity (X)	Line Cost (Y)	TOTAL (X * Y)
Licensing	2100	$66.67	$140,007
Software Support/Maintenance			
Hardware Support/Maintenance			
Any additional support costs (option)	2100	$10.00	$21,000

3-Year Support Total (SUM of "TOTAL" Column above):	**$161,007.00**	(C)

Support (5 Years)	Quantity (X)	Line Cost (Y)	TOTAL (X * Y)
Licensing	2100	$105.56	$221,676
Software Support/Maintenance			
Hardware Support/Maintenance			
Any additional support costs (option)	2100	$10.00	$21,000

5-Year Support Total (SUM of "TOTAL" Column above):	**$242,676.00**	(D)

ALTERNATE 1 - Install WiFi 6 capable access points in administrative locations

	Description	Additional Cost beyond above Estimate
E	Adjustments to (A) Equipment Total	$0 (E)
F	Adjustments to (B) Administration Total	$0 (F)
G.1	Adjustment to (C) 3-Year Support Total	$0
G.2	Adjustment to (D) 5-Year Support Total	$0

Alternate 1 Subtotal (E + F): $ 0

ALTERNATE 2 - Support wired or wireless profiling and posture assessment for up to 90,000 clients

	Description	Additional Cost beyond above Estimate
H	Provide hardware/software/licensing to support wired or wireless client profiling, and posture assessment for up to 90,000 wireless clients	$462,000.00 (H)
I	Adjustment to (B) Administration Total	$ 0 (I)
J.1	Adjustment to (C) 3-Year Support Total	$123,747.00
J.2	Adjustment to (D) 5-Year Support Total	$188,945.20

Alternate 2 Subtotal (G + H): $462,000.00

PROPOSAL TOTAL (To be filled in by SPS)

	Description	Line Subtotal
	Base Package Total (A + B)	
	Base Support Total (C OR D)	
	Alternate 1 Subtotal (E + F)	
	Alternate 2 Subtotal (H + I)	
	Alternate 1 Support (G.1 OR G.2)	
	Alternate 2 Support (J.1 OR J.2)	

PROPOSAL TOTAL (SUM of "Line Subtotal column above): $

B. Quantities used for the RFP assessment are shown above and are approximate. The Vendor shall complete the calculation for each segment of work to show Price of Services and Anticipated Price of Services for each segment of work. The results of these calculations shall be entered in the Proposal Form.

C. The quantities listed in the table above are established for proposal analysis. The District reserves the right to procure fewer or more access points per school during the implementation. For example, 100 WAPs might be listed, but the district reserves the right to procure any quantity between 80 and 200 (-20% to +200%) depending on several factors, including the cost of Capacity Management projects in 2021 and 2022.

END OF ATTACHMENT 4

REQUEST FOR PROPOSAL NO. RFP122045

PROPOSAL CERTIFICATION FORM

TO: Nancy Milgate, Contracting Services Manager The

undersigned provider hereby certifies as follows:

1. I read the Seattle School District's Request for Proposal No. RFP122045 and the following Addenda and to the best of my knowledge I complied with the mandatory requirements stated herein:

Addenda Number	Issue Date
1	Feb. 2, 2021

2. I had the opportunity to ask questions regarding the Request for Proposal, and that if such questions have been asked, they have been answered by the District.

3. That the proposer's response is valid for 90 days.

Dated at Bellevue, WA, this first day of March 2021.

DocuSigned by:
Kory Casto
F38935AC05274E7...

(Signature)

Kory Casto

(Print Name)

InterVision Systems, LLC

(Company Name)

1750 112th Avenue NE

(Address)

Bellevue

(City)

WA

(State)

98004

(Zip)

Client Manager

(Title)

kcasto@intervision.com

(Email Address)

503-758-7771

(Telephone Number)

(Fax Number)

603 613 310

(UBI Number)

143051884

(E-rate SPIN)

Wireless Network Upgrade Project Proposal

Response to RFP 122045

Prepared For

Prepared By,
Joe Watson, Account Director
InterVision Systems, LLC
2270 Martin Avenue
Santa Clara, CA 95050

March 2, 2021

1-Proposal Certification

See attached signed document.

2-Table of Contents

1-Proposal Certification **2**

2-Table of Contents **2**

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8-References **13**

9-Pricing **14**

10-Terms and Conditions **14**

3-Executive Summary

Provide a summary highlighting the firm's qualifications and special expertise to provide the services requested in the Request for Proposal.

Seattle Public Schools is seeking a technology partner to complete a wireless network upgrade at 27 locations in the district. InterVision Systems, LLC appreciates this opportunity to demonstrate its capabilities and experience, and the resulting benefits to the Seattle Public Schools.

InterVision has reviewed the requirements in the RFP 122045 and attachments, and we understand that the SPS Department of Technology Services seeks a qualified partner to design, configure and install wireless solution based on best-in-class equipment. As detailed in this proposal, InterVision has the experience and capabilities to meet these requirements.

Solution Approach

InterVision plans to meet these requirements by deploying a best-in-class wireless solution with Juniper Mist Access Points. Juniper-Mist is leading a new era of IT that focuses on delivering unparalleled user experiences while increasing network reliability and saving time and money. We deliver these benefits for end users and IT by leveraging artificial intelligence. This is what we call the "AI- Driven Enterprise Mist built the first AI driven platform in the industry, providing:

- **Wired and wireless assurance.** Set, monitor, and enforce Service Level Expectations (SLE) for key wired and wireless performance metrics such as throughput, capacity, roaming, and uptime.
- **Marvis, an integrated AI engine**. This provides client-level insight, rapid wired and wireless troubleshooting, trending analysis, anomaly detection and proactive problem remediation.
- **Modern microservices cloud.** MIST Cloud is built on a modern microservices architecture that brings the agility of SaaS to networks. On-demand network upgrades and patches take minutes instead of months.
- **Web-scale cloud architecture:** A modern, web-scale cloud architecture with microservices delivering the network full stack for the enterprise. The Juniper-Mist solution leverages a modern cloud architecture for management, built on microservices for agility and scale. This delivers the following unique attributes, which are critical to the AI- Driven Enterprise in the following ways:
- **Agility is the new TCO:** The future favors the fast, and this means that new capabilities cannot be held hostage by traditional waterfall deployment models. By leveraging a cloud-first architecture, Juniper- Mist can make new features available in already-deployed environments without forcing additional upgrades through cumbersome maintenance windows.
- **Unmatched and infinite scale:** No longer are we constrained by the physical limits of a legacy controller or first-gen cloud architecture. Leveraging cloud-delivered components, Juniper-Mist can elastically scale up and down as needed.
- **Performance and resiliency:** These are hallmark attributes of the cloud, and the reason Juniper-Mist takes a cloud-first mentality to design and operate. For example, we use a real-time distributed bus in the cloud for fast processing. The cloud is 100% site survivable, with redundancy against access-layer connectivity failures, and service failures in the cloud. Plus, the architecture offers failover between instances, servers, and Availability Zones in a region with the ability to replay historical data in real time. Customers are insured against loss of data with the ability to recover data from glacial storage.
- **Openness for choice and flexibility:** Juniper-Mist has a design paradigm of "API first," which is key for IT to accommodate fast-changing and diverse business requirements. We have delivered a true

open platform for integration with key systems (e.g., OSS/BSS, management, etc.) and automated operations/workflows.

- **Flexibility:** While most enterprises will adopt cloud, the reality is that there is still a need to support some network functions on-premises. With the Mist Edge, tunnel termination, location services, and VLAN tagging, for example, can be deployed on-premises without losing the operational benefits of cloud-hosted operations. Similarly, Juniper's enterprise management solution can be deployed in the cloud or on premises, granting flexibility for fit-for-purpose designs.
- **Secure:** Utilizing Aruba ClearPass for a AAA and NAC solution the solution presented by InterVision allows for all criteria for Radius, TACACS+, and Posturing/Profiling to be accomplished with an intuitive interface and an agentless network-based endpoint interrogation methodology.

Why is InterVision the Right Choice for Seattle Public Schools?

- **Wireless Solutions Expertise:** Seat will benefit from a vendor with extensive knowledge and experience in designing and installing wireless systems. InterVision had completed numerous wireless projects with Fortune 500 companies ranging from greenfield, to remediation of troubled wireless networks, upgrades and vendor conversions. InterVision has long-standing partnerships with Juniper. We have a dedicated engineering practice for these vendors and works side-by-side with them on pre-sale, design and support activities.
- **Qualified Technical Staff:** InterVision brings strong technical skills and deep networking experience. InterVision's staff of trained, vendor-certified account executives and systems engineers have specialized expertise covering multiple facets of wireless including design, surveys, configuration, RF validation and security. We also maintain close service delivery partnerships whose expertise complements and strengthens InterVision's overall capability.
- **Range of Wireless Services:** InterVision offers a range of WLAN services including Proof of Concepts (POCs), Design, Implementation, Validation, Audit, Remediation, Site Surveys, Patching and Upgrade, Managed services, and full turnkey deployments.
- **Juniper Elite Partner:** InterVision is a Juniper Advantage Elite Partner and holds the top Mist technical certifications. Our partnership started in 1998 and we have completed more than 1,500 client deployments. We have a dedicated team of Juniper architects, installers and support technicians, along with Juniper equipment in our Solutions Lab.
- **Documentation:** Our engineers can provide as-built documentation of the implemented converged infrastructure, detailed Visio diagrams for physical connectivity, and failover testing results documentation. This documentation can help shorten troubleshooting time, facilitate smoother upgrades, improve training outcomes, and increase efficiency.
- **Project Methodology / Management:** InterVision will assign a Technical Project Manager to ensure delivery of the project plan. Development of the project plan starts early in the engagement with the analysis of the customer requirements, mapping key delivery dates, and the development of a preliminary plan that leverages InterVision's extensive experience deploying networks. Regular reviews are conducted with the project team to assess progress and adjust the schedule for any changes that may be required.

Throughout the entire engagement, an InterVision Technical Project Manager ensures delivery of the project plan. Development of the project plan starts early in the engagement with the analysis of the customer requirements, mapping key delivery dates, and the development of a preliminary plan that

leverages InterVision's extensive experience deploying networks. Regular reviews are conducted with the project team to assess progress and adjust the schedule for any changes that may be required.

4-Company Profile

a. Identification of firm (or firms, if a joint venture or association) including address, telephone number, email address and date firm(s) were established.

b. Areas of specialization of the firm such as areas of service excellence and creative installation solutions in a large, multi-site non-profit environment.

c. Provide total size and breakdown of firm personnel by category. A firm organizational chart would be useful.

Identification of Firm (InterVision)

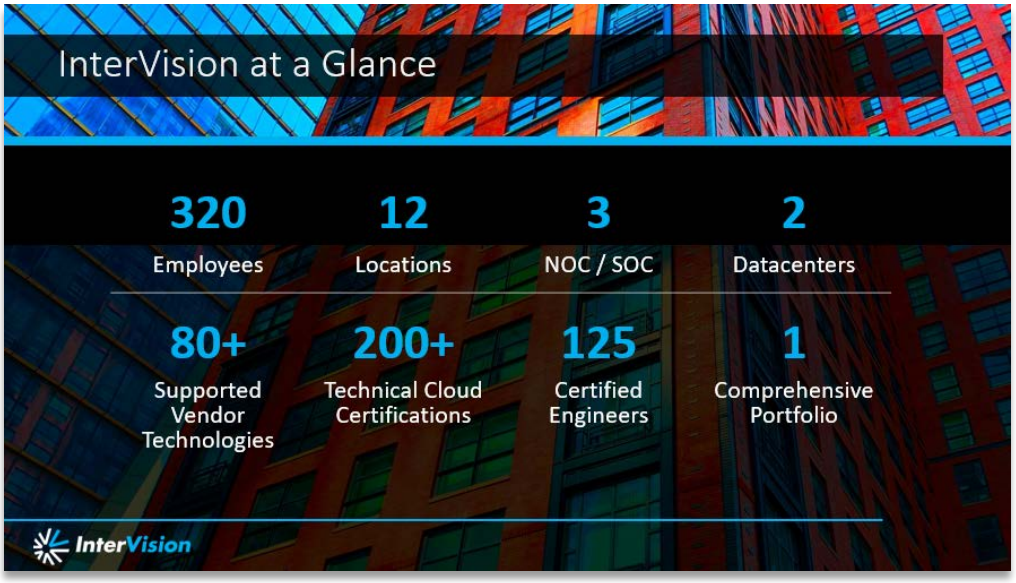
InterVision Systems, LLC,
1750 112th Avenue NE
Bellevue, WA 98004
503-758-7771

Established in 1993, InterVision Systems, LLC, supports many complex, critically important State, Local & Education (SLED) and private sector entities by working collaboratively with our clients. Our strategy is simple – build quality into everything we do. We appreciate that our clients trust us to do things right and that we will do the right things. This involves promoting a sense of integrity on all of our projects and recognizing people who go above and beyond the basic requirements of their job.
InterVision strives to create an atmosphere that allows our staff to excel at their craft and to provide them the tools they need when working in the field at a client site. We provide ongoing training to ensure our consultants enter each project well-equipped to tackle the issues and offer solutions to our clients. We also provide support for our employees so that they have additional resources on which to draw to confirm their findings and validate their work.

InterVision's long-term success is predicated on its commitment to customer success and its ability to attract and develop some of the most talented technical experts in the industry. Our combination of in-house developers, Azure, AWS, and public-sector experience make us a uniquely capable partner for City of Sunnyvale. InterVision's cloud services competencies and experiences include:

- On-Premises Solutions: Datacenter, Networking, Security, Voice, Servers, Storage, Virtualization
- Cloud Services: Private/Hybrid cloud, Hosted collaboration, IaaS, BaaS, DRaaS, Architecture Design, and Datacenter and Application Migrations
- Hosting & Colocation Services: Racks, Cabinets, Load Balancers, Internet, WAN Acceleration
- Managed Services: Network Monitoring, Security Monitoring & Remediation, DevOps Services, Help Desk
- Disaster Recovery: Back-up & restore, Pilot Light, Warm Standby, Multisite
- DevOps: Includes substantial Cloud Formation & Automation)
- SysOps: Includes use of both AWS, Azure, and 3rd party monitoring tools
- Automation: IaaS Automation, Containerizing Applications, Container Orchestration, PaaS Implementation, CICD
- Professional & Advanced Services: Workshops, Assessments, Staff Augmentation, Architectural Planning, Data Center Consolidation, Malware Remediation, Cloud Strategy
- Extensive legacy environment assessment
- Storage Solutions (including 3rd party storage partners)

- Big Data Analytics including predictive analytics, machine learning and data lake management



Identification of Firm (Juniper Networks)

In 1996, Juniper Networks was founded by Pradeep Sindhu under the premise of connecting everything and empowering everyone. Pradeep and his team engineered a revolutionary new product, the M40 Router. This unique design, which for the first time separated the user and control planes, forever changed routing technology industry-wide.

This spirit of taking on difficult challenges and applying the discipline of engineering to create a breakthrough solution is deeply ingrained in our company culture.
Our mission is to Connect Everything. Empower Everyone. Our vision is “Engineering Simplicity.”
Our products feature a number of unique differentiators and accomplishments. Over the years, Juniper has:

- Introduced the world’s only SDN Gateway (in 2013) with our MX Series routers and EX9200 programmable switches, which offer hardware gateway functions for current and future SDN overlay encapsulations without hardware upgrades.
- Built our own switching portfolio from the ground up, ascending to the #3 market share position in just two years. Juniper increased switch revenues by 39.7% in 2013 year-over-year, lifting it to the #2 marketi share spot.
- Delivered a comprehensive security portfolio that secures the entire spectrum of connectivity, applications and content, and platforms. In 2013 Juniper added the world’s first next-generation WAF, our JWAS Intrusion Deception Solution, to the portfolio.
- Introduced vMX, the world’s first full-featured virtualized carrier-class router.
- Introduced Contrail Cloud, a turnkey, open, carrier-class software platform leveraging SDN and NFV for rapid service innovation.
- Introduced Junos DevOps; designed to unify IP and IT, it is the world’s most programmable and automated network OS.
- Developed and shipped vSRX, the industry’s fastest virtual firewall.

Areas of Specialization – Projects Completed

InterVision specializes in data center and network infrastructure for the demanding production environments. Our client base includes state, local and education clients:

- Beaverton School District
- Edmonds School District
- Pacific University
- Portland Community College
- Richland School District
- Snohomish School District
- Snoqualmie School District
- Stanwood-Camano School District
- Wenatchee Valley College
- Ashland School District
- Los Angeles County Office of Education
- California Department of Resources Recycling and Recovery
- California Department of Technology
- California Department of General Services
- California Franchise Tax Board
- California Secretary of State
- California Department of Transportation
- Alabama State Department of Technology
- California Department of Healthcare Services
- California Housing and Finance Authority
- California Health & Human Services Agency/CalHEERS
- California State Teachers' Retirement System
- California Department of Resources
- California State Hospitals
- South Orange Community College District (SOCCD)
- Contra Costa Community College District
- MiraCosta Community College
- Pasadena Community College
- Monterey County
- Los Angeles County
- San Diego County
- Shasta County
- Solano County
- San Francisco County
- Stanislaus County
- Sacramento County
- Yolo County
- Butte County

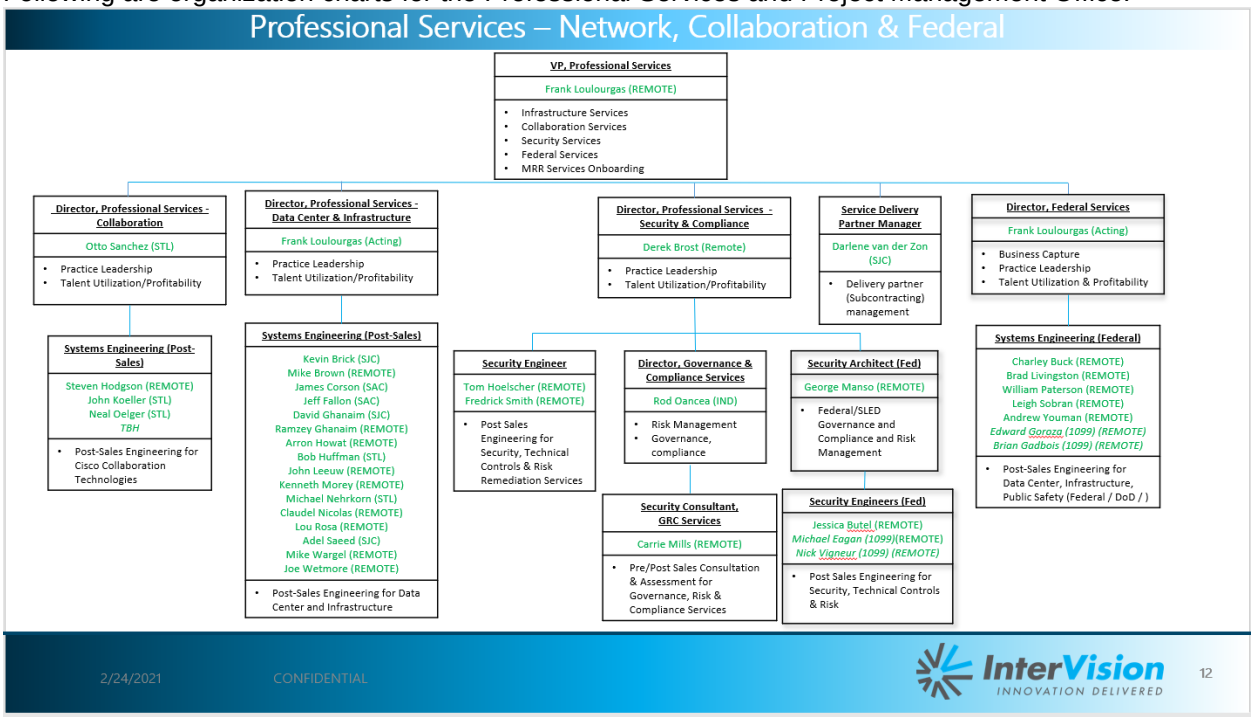
Breakdown of Firm Personnel

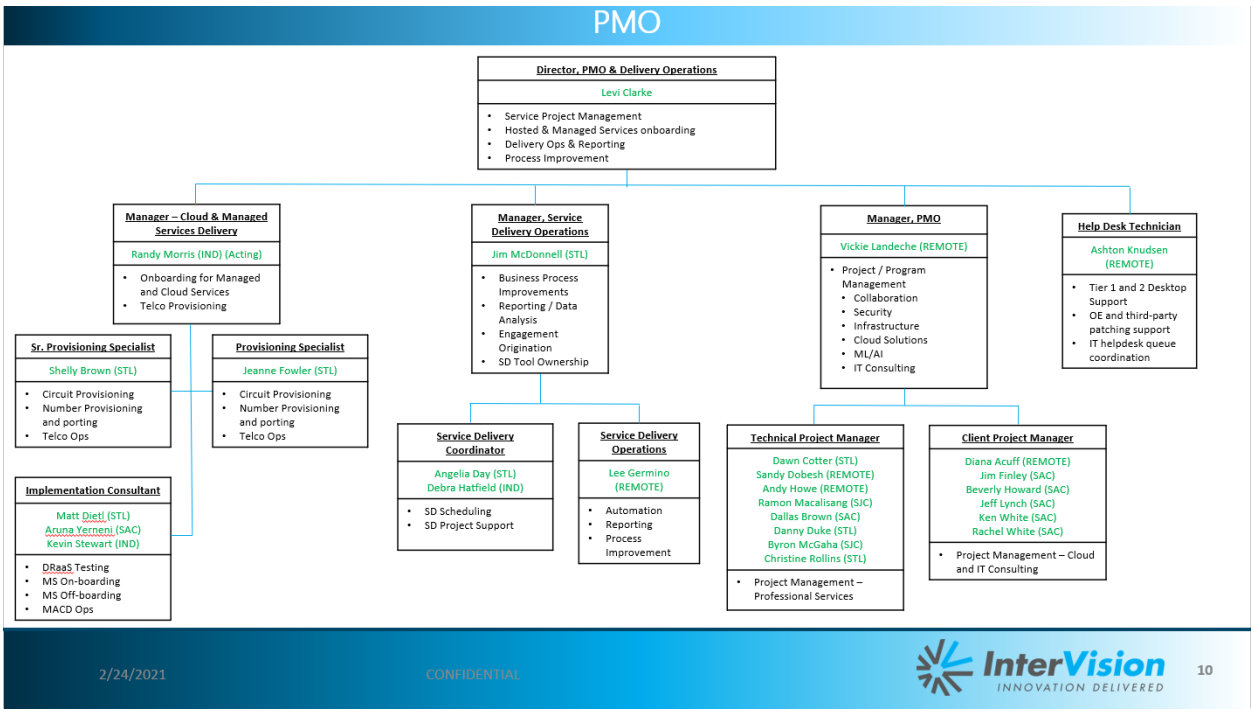
InterVision has 298 employees broken down by the following:

Executives/Administration: 10 employees
Engineering and PMO: 132 employees
Sales/Marketing/Client Success: 81 employees

Finance/Human Resources: 36 employees
Infrastructure/Compliance: 29 employees

Following are organization charts for the Professional Services and Project Management Office.





5-Project Experience and Past Performance

a. Provide examples of the firm's work, expressed both in number of projects and in contract dollars. At least one must be in the central Puget Sound area within the last three (3) years.

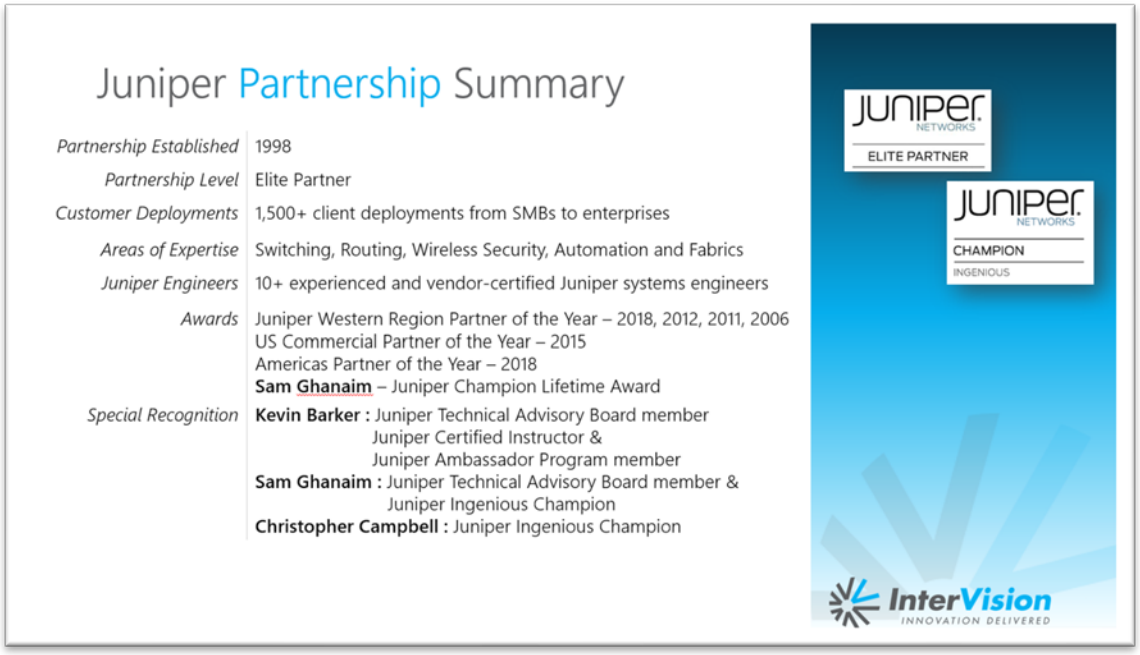
b. Describe relevant experience. Provide detailed descriptions of a maximum of five (5) contracts that are similar in size, scope and time frame to the District's project. At least one must be in the central Puget Sound area within the last three (3) years.

Examples of InterVision's Work

Areas of Specialization – Projects Completed
InterVision specializes in data center and network infrastructure for the demanding production environments. Networking projects at InterVision annually exceed $200M in revenue. Our client base includes state, local and education clients. See "Areas of Specialization – Projects Completed" above for a partial list of SLED clients.

InterVision has partnered with Juniper since 1998 and has completed more than 1,500 networking and wireless deployments with Juniper technology. We have a dedicated team of Juniper architects, installers and support technicians. Our expertise and experience includes:

- Juniper Partner Advantage Elite
- Top MIST technical certifications
- Juniper technical and sales certifications include: JNSA (JUNOS, UAC, EX, SSL, ANI, MT), JNCIA (ER, SSL, AC, FWV, EX, IDP), JNCIS (QF, ENT, FWV, SEC), JNSS-FWV
- Winner of the Juniper Western Region Partner Award three times
- Multiple Juniper Ingenious Champions on staff
- Engineering team that constantly tests and validates the latest Juniper technologies in our Technology Lab
- Equipment currently in Technology Lab includes QFX3000-M, QFX5100, Virtual Chassis Fabric, EX switches, SRX firewalls, MX routers and MAG Appliances



Relevant Experience

Coppell Independent School District
Coppell ISD has roughly 2,000 MIST AP's to date. Initially a Cisco Wireless deployment, the move away from Cisco was due to complexity of the solution, cost, and rigid upgrade paths. The client considered Meraki but found it did not have the enterprise Wi-Fi feature depth that Mist did. They also considered Aruba controllers, but they were no less complex than Cisco, and represented a like-for-like replacement. Coppell ISD wanted to take a forward step in technology. Juniper had much better analytics about client state and experience.

Ashland School District (Ashland OR)
Ashland School District recently started deployment on a Juniper/Mist network after years on a Cisco network with HPE Aruba access points. The district is upgrading nearly 100 IDF/MDF switches and 375 AP's (AP-43, AP-63, and AP-12) throughout their eight campuses, common outdoor spaces, and home offices. Ashland also replaced their data center core switches with Juniper QFX-5110's. Their forward-thinking evaluation of technology was validated when Juniper Networks was named the Gartner Magic Quadrant leader in 2020. With the InterVision team's help, they will soon realize the district's vision of their "network of the future." The simplicity of cloud controller-based AP's, with the integration and visibility on the Juniper switching layer, creates full network visibility and easier troubleshooting. For this reason, the wired and wireless LAN infrastructure Juniper and Mist has created is winning over K-12 districts across the nation.

Apple Valley Unified School District (Apple Valley, CA)
Apple Valley USD was frustrated with the expense and complexity of Cisco controller technology. Their decision for Juniper was that they see the future in Cloud and were looking to move to the cloud. Initially Apple Valley considered Meraki, but after seeing the Mist product demonstration and the benefits of AI technology, APUSD decided they wanted Juniper. In addition, Apple Valley also saw the benefit in Juniper Wired Assurance with AI for switching. AVUSD decided to perform a services substitution within

Erate to move to Juniper EX switching platform and get the full benefit of AI across their complete Access Network. They currently have 1100 AP Deployment with cloud management for APs and EX Switches.

Pokemon: Meraki reporting data wasn't helping for troubleshooting and became a challenge for the IT team, MIST was introduced to help with the powerful AI driven network analytics, reporting, and natural search engine. Mist was deployed across 3 global campus locations and service was improved greatly. Helpdesk tickets were reduced by 30% and meantime to issue resolution across all networking cut down by 50%. Cooperate user satisfaction with wireless experience surveys showed a drastic improvement since Mist was deployed.

Venn TV - VENN is a new TV network launched to deliver streaming content to gaming, pop culture, and esports audiences. Venn occupies television studios, which due to a saturated Wi-Fi environment and multiple RF interference sources, required a complex design placement effort. InterVision developed a Juniper Mist wireless solution to meet these needs.

Clutter – Provides packing, moving and short- and long-term storage solutions for individuals and businesses. InterVision designed and installed Juniper Mist into multiple, large, multi-story warehouse environments. These environments were extremely dense requiring detailed planning to offset RF interference issues and ensure 100% coverage for the numerous Wi-Fi devices used in managing ingress, storage and egress of items to be stored.

6-Team Organization, Availability and Capacity

Briefly discuss how you propose to organize your team to support this project. Identify each of the key players and define their roles and responsibilities. Describe each of the key team members' relevant professional experience, certification and education in resume form. Briefly discuss the availability of all key personnel for the scheduled time frame of the proposed project and identify their proposed location during provision of the requested services. Additionally, discuss the capacity of the proposed team as a whole to accomplish the work.

Approach

InterVision has extensive experience managing and resourcing long term multi-million-dollar projects that require it to deploy dozens of employees and contractors in parallel, who perform a wide variety of duties and responsibilities. Our reputation for providing timely, skilled and affordable resources is unmatched in the industry.

The Network Architect is responsible for planning and staffing the project. They will assign the Systems Engineers and Project Managers. InterVision's commitment to working with public sector has afforded us ample opportunities to gain experience with the specific requirements necessary to ensure networking and wireless projects are completed on time and on budget. We keep an open dialogue between our team and our clients' teams to support the needs of the specific organization. By understanding and adhering to project requirements, along with leveraging the decades of technical knowledge garnered by our experts, InterVision is capable of providing clients with successful projects delivered on time and on budget.

Roles and Responsibilities

Chris Campbell, Network Architect, 20 Years of Experience
Chris Campbell has 15+ years of experience with large scale data center implementations, operations and support. He has expert knowledge of routing, switching, firewall technologies, Virtual Solutions, (VMware, RHEV, XEN, and Hyper V), DIACAP Information Assurance process, and compliance (DISA STIG, NIST, FISMA, Common Criteria, PCI, and HIPPA). Core competencies include Cisco, Brocade, Juniper, Fortinet, Palo Alto Networks, Infoblox, HP, VMWare, F5, Citrix, and Microsoft. His certifications: CCNP and CCNA Wireless (Cisco), JCNIA (Juniper), VCP (VMware), PSE-P (Palo Alto Networks), CompTIA Security + CE, CASP (Advanced Security Practitioner).

Arron Howat, Wireless Network Solution Engineer, 15 Years of Experience
Arron Howat is a seasoned Wireless Network Solution Engineer with 15 years' experience in cellular and WiFi mobility, as well as Network Security (NAC) solutions in many vertical designs and deployments. His Specialties: Wireless, Networking, Cisco, DoD, civilian, purchasing, network design, HPE Aruba switches/Controllers ArubaOS 6/8.x, Instant Access Points /Clearpass Policy Manager 6.7 /Meridian, and Wireless Site Survey (AirMagnet/Ekahau). He hold the following certifications: CCNA, CWNA, ACSA, ACMP,ACDX, ACCA, ACCP. His Gov't Clearance is Active-TS/SSBI

Kevin Brick, Systems Engineer, 25 Years of Experience
Kevin Brick has 20 years of experience designing, deploying, and managing multi-tier high availability environments for SMBs to global enterprises. He has extensive experience in switching, routing, load balancing, and security solutions from leading IT vendors including Brocade, Cisco, F5, Juniper, Palo Alto Networks, and Riverbed. Prior to joining InterVision, Kevin held Network Architect and IT/Operations Manager positions at three Silicon Valley startups. He holds a Certified Network Security Engineer (CNSE) from Palo Alto Networks.

Jose Perez – Director of IT Infrastructure Services, 20 Years of Experience
Jose Perez has greater than 20 years of experience in leadership and execution of white glove services with our team of network engineers in the WLAN deployments including cabling infrastructure.
Manage the daily operations of the professional services team including 30 plus engineers throughout the Western Region. RCDD certification and instructor. Expert at designing cabling infrastructure in all environments.

Marcus Hoxworth – Senior Systems Engineer/RF/Wireless Networking, 15 Years of Experience
Marcus Hoxworth has 15 years of experience in installing, configuring, and maintaining computer networks including 12 years working exclusively with Wi-Fi. Experienced in designing and troubleshooting Wi-Fi networks including large hospitals, universities, warehouses, and office environments. Expert in site surveys and audits utilizing Ekahau and AirMagnet survey tools, wireless packet capture tools and spectrum analyzers.

Art Merideth - Project Team Lead, 15 Years of Experience
Art Merideth has been leading and installing WLAN deployments as well as cabling infrastructure projects for greater than 15 years. He manages the team, customer, and project managers needs while on a project. Provides scheduling to ensure project tasks, equipment and technicians work are completed within the project timeline(s). Has 10+ years of experience doing wired and wireless site survey's and designing wireless and structured cabling infrastructure.

Jody Phillips - Network Technician II, 6 Years of Experience
Jody Phillips has 6 years of experience installing wireless and wired structured cabling and fiber optics. The structured cabling and fiber optics installation also include MDF/IDF closet and cabinet buildouts.

Experienced in testing and troubleshooting cable and fiber optic utilizing Fluke testing gear. As all our team is, he is certified to operate Aerial Boom and scissor lifts. His installation of access points, rack and stacking of equipment and patching in network gear is very organized.

Jack Lai - Network Technician II, 8 Years of Experience
Jack Lai has 8 years of experience installing wireless and wired structured cabling and fiber optics. The structured cabling and fiber optics installation also include MDF/IDF closet and cabinet buildouts. As all our team is, he is certified to operate Aerial Boom and scissor lifts. His experience includes installation of access points, rack and stacking of equipment and patching in network.

Ramon Macalisang, Project Manager, 20 Years of Experience
Ramon Macalisang has extensive experience managing a portfolio of projects and programs, managing production, infrastructure operations, developing IT Strategic Plans, and managing / motivating employees. He has demonstrated the ability to manage cross functional teams to achieve business objectives in dynamic, fast-paced environments. He has held IT Operations Manager, and Division Manager roles at the San Jose International Airport and City of San Jose. He holds a B.S. in computer science and holds a Project Management Professional certification.

Availability of Key Personnel

At any given time, InterVision manages 100-200 technical projects across the US. Some projects require long term resources and some projects and/or resource requests are short in nature. In our response, we are confident we can fulfill all/most of the job categories through in-house resources and our contractor network. Our greatest depth of in-house expertise resides in our comprehensive data center build-outs and management, comprehensive security, communications team with related telephony and call center expertise, managed services of many technologies, and perhaps the largest bench of cloud services resources focused on serving public sector clients in the US.

7-Wireless Network Requirements

Provide unit pricing with totals based on estimated quantities, and a completed checklist (yes/no column) on Equipment Specifications for each item listed in Attachment 3. Technical specifications for any proposed Device Alternatives and a full bill of materials for the proposal shall also be included with this section. The bill of materials should indicate the discount rate from list pricing.

See Attachments 3. No entries for Attachment 5.

8-References

Provide the client name, address, email address, and client's project representative and telephone number for the firm's three (3) most recent projects that most closely relate to the firm's qualifications for this project. If a joint venture or other form of association, provide reference information for each member firm.

InterVision will provide contact information for the following clients upon notification that we have been selected as a short list candidate.

- Coppell Independent School District
- Ashland School District
- Apple Valley Unified School District
- Pokemon

9-Pricing

See Attachment 4 and 5.

10-Terms and Conditions

Include any comments or proposed changes to the District's terms and conditions (Attachment 9 to this RFP). Please note that the District reserves the right to reject any firm not willing to accept the District's terms and conditions as shown in the standard form of contract.

InterVision agrees to the Terms and Conditions without modification.

2270 Martin Avenue
Santa Clara, California 95050
www.intervision.com | 800-787-6707

Nancy Milgate
Seattle Public Schools
Contracting Services
M/S 22-337
2445 Third Avenue South
Seattle, WA 98134
Solicitation RFP 122045

March 2, 2021

Nancy,

Thank you for the opportunity to submit a response for the Seattle Public Schools Wireless Network Upgrade Project RFP 122045. InterVision has reviewed the requirements in the RFP and attachments, and we understand that the SPS Department of Technology Services seeks a qualified partner to design, configure and install a wireless network solution based on best-in-class equipment at approximately 27 sites. The attached proposal and attachments describe our qualifications, experience, hardware solution, professional services, client references and costs.

As detailed in this proposal, we recommend MIST wireless access points and switches from Juniper Networks. InterVision is fully qualified to provide the services described. Founded in 1993, InterVision is a premier technology integrator with offices in the Seattle area. InterVision has worked with thousands of clients to solve their most difficult IT problems and integration challenges. InterVision has expanded its capabilities and services offerings to include managed services, cloud services, automation, and more.

Seattle Public Schools can have confidence in this proposal because InterVision has extensive experience deploying Juniper MIST solutions in the most demanding production IT environments. InterVision is a Juniper Elite Partner, and our engineering team has been trained and certified to architect, install, and support these MIST.

We understand you need a partner that can provide a full range of services from architecture to post-installation support. Below is a summary of your requirements and InterVision's approach. The table on the following pages summarizes the advantages of our solution approach.

Juniper-MIST Wireless Technology

Juniper-MIST is leading a new era of IT that focuses on delivering unparalleled user experiences while increasing network reliability and saving time and money. We deliver these benefits for end users and IT by leveraging artificial intelligence. This is what we call the "AI-Driven Enterprise." Mist built the first AI driven platform in the industry, providing:

- **Wired and wireless assurance.** Set, monitor, and enforce Service Level Expectations (SLE) for key wired and wireless performance metrics such as throughput, capacity, roaming, and uptime.
- **Marvis, an integrated AI engine**. This provides client-level insight, rapid wired and wireless troubleshooting, trending analysis, anomaly detection and proactive problem remediation.
- **Modern microservices cloud.** MIST Cloud is built on a modern microservices architecture that brings the agility of SaaS to networks. On-demand network upgrades and patches take minutes instead of months.
- **Web-scale cloud architecture:** A modern, web-scale cloud architecture with microservices delivering the network full stack for the enterprise. The Juniper-Mist solution leverages a modern cloud architecture for management, built on microservices for agility and scale. This delivers the following unique attributes, which are critical to the AI- Driven Enterprise in the following ways:
- **Agility is the new TCO:** The future favors the fast, and this means that new capabilities cannot be held hostage by traditional waterfall deployment models. By leveraging a cloud-first architecture, Juniper- Mist can make new features available in already-deployed environments without forcing additional upgrades through cumbersome maintenance windows.
- **Unmatched and infinite scale:** No longer are we constrained by the physical limits of a legacy controller or first-gen cloud architecture. Leveraging cloud-delivered components, Juniper-Mist can elastically scale up and down as needed.
- **Performance and resiliency:** These are hallmark attributes of the cloud, and the reason Juniper-Mist takes a cloud-first mentality to design and operate. For example, we use a real-time distributed bus in the cloud for fast processing. The cloud is 100% site survivable, with redundancy against access-layer connectivity failures, and service failures in the cloud. Plus, the architecture offers failover between instances, servers, and Availability Zones in a region with the ability to replay historical data in real time. Customers are insured against loss of data with the ability to recover data from glacial storage.
- **Openness for choice and flexibility:** Juniper-Mist has a design paradigm of "API first," which is key for IT to accommodate fast-changing and diverse business requirements. We have delivered a true open platform for integration with key systems (e.g., OSS/BSS, management, etc.) and automated operations/workflows.

- **Flexibility:** While most enterprises will adopt cloud, the reality is that there is still a need to support some network functions on-premises. With the Mist Edge, tunnel termination,

location services, and VLAN tagging, for example, can be deployed on-premises without losing the operational benefits of cloud-hosted operations. Similarly, Juniper's enterprise management solution can be deployed in the cloud or on premises, granting flexibility for fit-for-purpose designs.

- **Secure:** Utilizing Aruba ClearPass for a AAA and NAC solution the solution presented by InterVision allows for all criteria for Radius, TACACS+, and Posturing/Profiling to be accomplished with an intuitive interface and an agentless network-based endpoint interrogation methodology.

Throughout the entire engagement, an InterVision Technical Project Manager ensures delivery of the project plan. Development of the project plan starts early in the engagement with the analysis of the customer requirements, mapping key delivery dates, and the development of a preliminary plan that leverages InterVision's extensive experience deploying networks. Regular reviews are conducted with the project team to assess progress and adjust the schedule for any changes that may be required.

InterVision looks forward to presenting this proposal and discussing how we can work together to make you successful. If you have questions or would like clarification on any areas of this proposal, please contact me at kcasto@intervision.com or 503-758-7771.

Sincerely,

DocuSigned by:
Kory Casto
F38935AC05274E7...

Kory Casto, Client Manager

February 25, 2021

Dear Customer:

Thank you for your interest in Juniper Networks' WiFi networking platform. The intent of this letter is to address your concern regarding the certification by the Wi-Fi Alliance of Juniper Networks 802.11xx WiFi access points for compliance with industry-agreed standards for interoperability, security, and a range of application specific protocols. Please see https://www.wi-fi.org/certification for more information.

Juniper Networks is already a member of the Wi-Fi Alliance. Juniper Networks' current plans are to select a testing lab and submit all product samples with a goal of achieving certification by end of 2021.

In the meantime, we want to reassure you that Juniper's Mist WiFi access points have a proven track record of interoperability. Juniper's Mist access points have been deployed in thousands of locations, with thousands of different types of devices connecting to them. The AP43 access point uses a Broadcom chipset that is already Wi-Fi 6 certified. As a vendor, Juniper has achieved a 5.0 rating on the Gartner peer insights review. This rating has been achieved in part by maintaining interoperability across all devices (not just one time in a test lab).

Please note that this letter does not constitute a warranty of any kind. This letter is a statement of product direction and not intended to serve as a binding commitment to the recipient that Juniper will provide the aforementioned certification by a specified date. Juniper Networks shall not be liable for any direct, indirect, special, consequential or any other form of damages or loss suffered by you should Juniper Networks fail to achieve Wi-Fi Alliance certification. Please treat this letter as confidential and subject to the non disclosure agreement (if any) that has been signed by both parties

Sincerely,

Sanjoy Dey
Sr. Director, Product Management

1133 Innovation Way
Sunnyvale, CA 94089

o +1 408 745 2000
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www.juniper.net