



## NETWORK SWITCH AND WIRELESS EQUIPMENT REQUEST FOR PROPOSALS

Amendment 1, Issued January 8, 2021

RFP Issued: December 28, 2020

Original Deadline for Proposals: January 25, 2021 at 9 a.m., E.S.T.

Deadline for Vendor Questions: January 11, 2021 at noon, E.S.T.

**Revised Deadline for Proposals: February 5, 2021 at 2 p.m., E.S.T.**

The Pittsburgh Public Schools hereby issues Amendment 1 for the Network Switch and Wireless Equipment RFP.

**Revised Due Date and Time:** The deadline for bids to be hand delivered to the District's Bid Box has been changed to February 5, 2021 at 2:00 p.m., E.S.T.

**Heat Maps:** Wireless heat maps will be required in all 59 of the District's schools, not 54 as originally stated in the RFP. The District will not be supplying building maps during the RFP stage of this procurement for security reasons. Such information will be provided to the awarded vendor, if needed, prior to commencement of work.

**Wireless Equipment Specifications:** The RFP seeks 6x6 AC Wave 2 or higher access points (and states that 8x8 is acceptable if manufacturer does not sell 6x6). 6x6 or 8x8 are strongly preferred due to their ability to provide more bandwidth for high density areas like gymnasiums, cafeterias, auditoriums etc. However, should a manufacturer not sell 6x6 or 8x8 access points, bidders may submit an alternative proposal with all 4x4 access points, along with a certification that their manufacturer does not produce/offer 6x6 or 8x8 access points. Bidders should be aware that the District strongly prefers bids that include the specified 6x6 or 8x8 access points.

**Wireless Controller Specifications:** Due to the large number of access points being deployed, the District seeks at least 3 wireless controllers.

**Fiber Infrastructure Switches:** The RFP requirement that Fiber Infrastructure Switches require PoE has been removed.

**Appendix A Revised:** Appendix A has been revised to reflect these changes, with modifications identified in red.

**Vendor Questions and Answers:** The District received an unprecedented number of vendor questions to which it has tried to answer fully the questions that were relevant to this procurement and for which were not already answered in the RFP. Answers are as follows:

1. Are there requirements for the wireless controller uplinks? Type (fiber SM, fiber MM, or copper), speed (1G, 10G, etc.) and quantities (1 or 2 for LAG) for each controller?  
**PPS prefers multi-mode fiber. Design specifics are up to the vendor based upon their controller specifications and recommendations.**
2. Do wireless controllers require redundant power supplies?  
**No.**
3. You are asking for 3,650 AP's but require controller support for up to 6,000. Is the 6,000 quantity for redundancy and/or future growth?  
**Due to the large number of access points being deployed, the District seeks at least 3 wireless controllers. This will provide load balancing as well as account for anticipated growth.**
4. Should the solution be licensed for 6,000 or just the licensing required to deploy this solution.  
**Proposals should provide licenses for the 3650 Aps, per the RFP, with the understanding licenses will only be purchased for the equivalent amount of access points ultimately purchased.**
5. Are 10G-SR or 10G-LR transceivers required for the each of switch types?  
**10GB-SR transceivers are required.**
6. Will some of these switches be stacked and if so, how many?  
**Not all manufacturers require stacking and therefore this is not a minimum requirement for this procurement.**
7. Are redundant power supplies required for the switching?  
**Switches must be able to provide their full POE+ budget. Redundant power supplies are not required.**
8. Are the MGIG Infrastructure switches required to support 1, 2.5 and 5Gbps?  
**Yes.**
9. The RFP mentions that the Fiber Infrastructure switches need to be full PoE+ however they are SFP+ and do not support PoE. Should the PoE requirement be removed?  
**Yes, the PoE requirement should be removed for the Fiber Infrastructure switches.**
10. Should the proposed system for PPS utilize Artificial Intelligence (AI), Machine Learning (ML), Microservices and Analytics to simplify WLAN maintenance and deployment?

The RFP requires wireless management software. There are no advanced feature sets defined in the RFP. The only requirement is that the solution cannot be cloud-based.

11. Should the proposed system for PPS be able to collect pre- and post-connection states in near real-time from every user, every minute and measure the overall user experience?

The RFP requires wireless management software. There are no advanced feature sets defined in the RFP. Vendors may explain in their bid response the features that are provided in their solution.

12. Should the proposed system for PPS automatically perform Dynamic Packet Captures to record an issue without the need to reproduce it for troubleshooting?

The RFP requires wireless management software. There are no advanced feature sets defined in the RFP. Vendors may explain in their bid response the features that are provided in their solution.

13. Should the proposed system for PPS be able to auto detect Firmware issues based on network status and perform automatic software upgrades to only affected Access points and/or advise an Admin to do so?

The RFP requires wireless management software. There are no advanced feature sets defined in the RFP. Vendors may explain in their bid response the features that are provided in their solution.

14. Should the proposed system for PPS offer a proactive model of highlighting auto discovery of issues in the network without the need to troubleshoot and/or waiting for user to complain in a full un-supervised manner?

The RFP requires wireless management software. There are no advanced feature sets defined in the RFP. Vendors may explain in their bid response the features that are provided in their solution.

15. Should the proposed system for PPS include an AI engine to provide AI assistance of troubleshooting and an easy way for the PPS admin to reach RCA in addition to predict issues before they get escalated.

The RFP requires wireless management software. There are no advanced feature sets defined in the RFP. Vendors may explain in their bid response the features that are provided in their solution.

16. Should the proposed system for PPS have Bluetooth and Real Time Location services integrated (not as an external module) into every access point and managed from the same console, included with the base management license?

The RFP requires wireless management software. There are no advanced feature sets defined in the RFP. Vendors may explain in their bid response the features that are provided in their solution.

17. Is there a requirement for 1/10Gb optics? Most fiber optics are 1Gb or 10Gb.

Yes, all SFPs must be 1/10GB that can auto-negotiate between the two bandwidths.

18. Do you require DAC/Virtual chassis cables?

No. This is not a requirement, per the RFP.

19. Will procured equipment be received at a PPS receiving center or at each facility?  
Equipment will be received at the District's data center at 8 S. 13<sup>th</sup> Street, Pittsburgh, PA 15203.
20. Is secure storage available at each receiving location for incoming equipment?  
Yes.
21. Can a prioritized list of sites be provided based upon their order of importance?  
A prioritized list of sites will be provided prior to the start of the project to the awarded vendor.
22. Will the implementation efforts take place during the calendar school year, summer vacation, or both?  
The goal will be for the project to be completed during the summer break but is dependent on the timing of E-rate funding awards.
23. Based upon COVID-19, what consideration needs to be given to future facility consolidation and closures at PPS that could affect the proposed product and effort scope?  
COVID-19 is an ever-changing situation in public education. Currently, we do not foresee any issues; however, that is subject to change. Any onsite visits will require adhering to the current CDC guidelines.
24. Will electronic server and storage space be provided as a collaborative workspace for all project resources and documentation?  
There is no current intention to provide such resources.
25. Are there any union/labor rules we should be aware of for the installation or deinstallation of any hardware or cabling?  
There is no such requirement in the RFP.
26. What expectations exist by PPS to perform site surveys of:
- The wireless and physical closet inspections
  - Closet environmental conditions
  - AP wireless coverage (heat map)
  - AP count and locations
  - PoE capabilities of existing cables
  - Cabled switch count and port count
  - Power protection/UPS closet needs
  - Cable plant modification needs
- Per the RFP, only heat maps are required.
27. How does PPS wish to handle product count needs following the site survey results?  
As stated in the RFP, PPS reserves the right to increase or decrease the AP count at any point in time.
28. What % of project activities does PPS expect to provide resources?

PPS will not provide exact percentages of what resources their staff will be committed; however, District staff will work collaboratively with the awarded vendor on the implementation of this project.

29. What PPS resources will be made available throughout the configuration, deployment, and post deployment support of this engagement?

PPS Tier 3 technical resources will be available on a consult basis for the entire project through all phases.

30. What known critical issues exist in the PPS infrastructure that need to be considered in our design efforts?

There are no known critical issues that exist in the PPS Infrastructure that need to be considered at this time.

31. What facility maps and AP location documentation will be provided for review?

Facilities maps and existing AP locations (AP floor locations and assumed room number) will be provided to the winning bidder. Such maps are not being provided during the RFP stage of this procurement due to security reasons.

32. Will PPS be utilizing a local structured cabling vendor, or will awarded vendor supply?

Per the RFP, there is no structured cabling included in this RFP.

33. Will existing cabling need certification prior to deployment?

Per the RFP, there is no structured cabling included in this RFP.

34. How will configured equipment be distributed to each facility prior to its implementation?

PPS staff will be transporting equipment via internal PPS truck transportation to each school.

35. Who is PPS planning to perform the mounting of new equipment in each closet?

Refer to RFP for the answer to this question.

36. What % is PPS resources expecting to perform implementation efforts compared to awarded vendor?

Vendor is responsible for installation of all hardware.

37. What are PPS expectations for testing plan creation, pass/fail criteria, and issue resolution following each test?

District expects that all delivered and installed equipment will pass and it will be the responsibility of the awarded vendor to ensure such an outcome. A testing plan and timeline will be developed between PPS and the awarded vendor including establishment of pass/fail criteria. Issue resolution will be the collaborative responsibility of PPS and the awarded vendor.

38. Who is PPS planning to collect and centralize decommissioned equipment?

Awarded vendor will be required to place decommissioned equipment in a central location at each school, likely where the new equipment was obtained.

39. What is PPS planning for the disposition of all decommissioned equipment?

This is outside the scope of this RFP.

40. What post-implementation wireless validation surveys is PPS considering?

Heat maps are required pre- and post-install for all sites.

41. What sites would PPS consider for post-implementation wireless validation?

Awarded vendor will be required to validate that all equipment has been installed, configured, and is in perfect working condition prior to project completion.