



Department of Procurement Services

160 South Hollywood Street · Room 126 · Memphis, TN 38112 · (901) 416-5376

QUESTIONS AND ANSWERS

IFB 11302022AW IT Network Upgrade Equipment All Locations & 10 Pilot Locations Install

1. Could you please elaborate on the number of ports and speed of each that is required?
 - a. MSCS provided the list of equipment in the IFB that is currently being utilized at the 10 - Pilot sites. The new equipment should provide support for 1000Gb port speed to the desktop.
2. On page 15 of the IFB 11302022AW PDF, it motions "Vendor shall deliver hardware equipment in 120 days from date of PO".
 - Due to supply issues of most networking equipment, is there any flexibility on the 120 days?
 - Is the 120 days for the pilot or is the 120 days for the full amount of the equipment?
 - a. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.
3. For the network core switches in the school and the DC, do you have a total port count, or if you could share a vendor data sheet sample for those switches and all the network hardware in the RFP? That would be helpful
 - a. Port counts can be derived from the hardware specifications detailed in the IFB.
4. Should the RFP show pricing for all the quantities from the spreadsheet or just single units since you will not be making a bulk purchase? And if the RFP pricing is for the total quantity, can you confirm that you need quantity 400 of Network Data Center Core switches?
 - a. "1) Pricing should be provided by unit purchase.
 - b. 2) This is an estimated quantity required to complete equipment replacement throughout the district. "
5. What the specifications for the items below:
 - 180 Core router / Switch
 - 5000 Network Switches
 - 10,000 Access Points
 - a. Details were provided in the IFB
6. When is the award date?
 - a. Details were provided in the IFB
7. Will you supply a forecast to meet the 120-day requirement listed in the RFP?
 - a. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.
8. How many of each type of port is needed for the 400 Core Switches?

Network Data Center Core Switch 40G SFP+ Stack Cable
Support of 1G, 10G, 25G & 40G SFP's module
10G SFP+ LC SR 300m MMF Transceiver
1G SFP RJ45 T 100m Cat5e Transceiver
Support for multi-chassis aggregated ports
Support for user profiles
115 Volt US AC power cord

Integrated network application firewall
Warranty & license

- a. Details were provided in the IFB
9. Will the core switches be in a 2 post of 4 post rack?
 - a. 2 post
10. We see transceivers and stack cables listed in the switch line description. Does that mean we need to add the cost for those transceivers and cables (qty 1 each) in the switch total or at the bottom where the transceivers are listed separately?
 - a. "a) The switch details listed are the minimum specifications.
 - b. b) Add cost per transciever where requested."
11. The Transceivers at the bottom of the spreadsheet do not specify if they need to be LR, SR, ER etc. Please specify
 - a. LR & SR
12. There are no DAC cables/Stack cables listed under the transceiver section. Please specify requirement.
 - a. This will be dependent upon the solution configuration by vendor.
13. There is no length mentioned under the switch description for the Stacking cables. Please specify
 - a. All details pertaining to the 10 pilot sites is part of this IFB.
14. With the current supply chain issues, the penalty requirements for receiving equipment within 120 days seem a little stringent? Is Shelby County Schools willing to relax those requirements?
 - a. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.
15. For the remote management via cellular connectivity, how should these devices be priced?
 - a. Unit Pricing
16. For the remote management via cellular connectivity do you want this device included in each IDF/MDF or just one central device per school?
 - a. We will make that determination at a later date. For now, the plan would be one at each MDF.
17. For the remote management via cellular connectivity do you want this device included in each IDF/MDF or just one central device per school?
 - a. We will make that determination at a later date. For now, the plan would be one at each MDF.
18. For the remote management via cellular connectivity, what type of access is required for this solution? For example, web access to the devices, console access to the devices, etc?
 - a. Console access to the equipment and possibly web.
19. For the patch cables at each location, does this imply for only the AP connection or will new patch cables be required in each of the IDFs as well?
 - a. These will only be required for interconnection between devices and from Patch panel to switch.
20. For fiber patch cables in the MDFs, what quantities should be assumed?
 - a. ~1 per switch port
21. For fiber patch cables in the IDFs, what quantities should be assumed?
 - a. ~1 per switch port
22. How should the vendor determine the qty needed for these required cables, and how should the pricing be incorporated into the bid response? Ex. For each AP, 2 x 3ft Patch Cables will be included in aggregate cost of the item in bid response.
 - a. The requested cables are for Patch panel to switch and interconnectivity between switch hardware. The vendor can add a line or provide an addendum for additional items and cost(s).
23. Should a Patch Cable be included for each Switch Port in the IDF?
 - a. Include patch cables for the 10 pilot schools.
24. How many Patch Cables should be included for the AP uplink (one or two?)
 - a. One
25. For patch cables, does the district have any standards in place to dictate the type of cable used other than color (Thin cables, jackets, etc)?

- a. CAT 6 or higher
- 26. What is the operational difference between a network access switch and a network edge switch?
 - a. There are possibly more flexible options for connectivity provided via an Edge Switch and may also have a relay output of power-failures warning and broadcast storm.
- 27. Are 3rd Party optics approved for this bid? If yes, do you have a preference in manufacture?
 - a. Prefer Native Support for Transceivers (Or compatible)
- 28. What is the desired PoE Budget per port on each "Network Access Switch"?
 - a. Details were provided in the IFB
- 29. What is the desired PoE Budget per "Network Access Switch"?
 - a. Details were provided in the IFB
- 30. What is the desired PoE Budget per port on each "Network Access Switch"?
 - a. Details were provided in the IFB
- 31. What is the desired PoE Budget per "Network Edge Switch"?
 - a. Details were provided in the IFB
- 32. What is the desired PoE Budget per port on each "Network Access Switch"?
 - a. Details were provided in the IFB
- 33. What is the desired PoE Budget per "Network Edge Switch"?
 - a. Details were provided in the IFB
- 34. What port count is required on each "Network Data Center Core switch"?
 - a. Please respond with 48 port configurations
- 35. What is the breakdown of Port Type for each "Network Data Center Switch"?
 - a. Details were provided in the IFB
- 36. What SFP port count is required on each "Network Data Center Access Core switch"?
 - a. Please respond with 48 port configurations
- 37. What is the breakdown of SFP Type for each "Network Data Center Access Switch" (10G vs 25G)?
 - a. 25GB
- 38. What port count is required on each "Network Data Center Core switch – School"?
 - a. The Network Core Switch - Schools should be a 48 Port.
- 39. What is the breakdown of Port Type for each "Network Data Center Switch – School"?
 - a. This will depend on the solution provided.
- 40. For the "Network Access Switch" 24 port, can a switch with alternative wattage be provided if it meets the desired PoE Budget?
 - a. Yes
- 41. For the "Network Access Switch" 48 port, can a switch with alternative wattage be provided if it meets the desired PoE Budget?
 - a. Yes
- 42. Do you require hot-swappable power supplies on "Network Access Switches"?
 - a. No
- 43. Do you require redundant Power Supplies on "Network Access Switches"?
 - a. No
- 44. Do you require hot-swappable power supplies on "Network Edge Switches"?
 - a. No
- 45. Do you require redundant Power Supplies on "Network Edge Switches"?
 - a. No
- 46. Can you define the functionality required by the "integrated network application firewall"?
 - a. Application Firewall allows network traffic rules to be applied at the edge device (switch or access point) based on application type. IP firewall allows network traffic rules to be applied at the edge device (switch or access point) based on ip address.
- 47. Due to a global component shortage impacting all manufacturers of technology that would be associated with this request, there are varying and fluid changes to product availability. The industry expects improvement in these shortages by the anticipated purchasing timeline outlined in this IFB. Given that these may improve or at minimum be fluid, can the bidders provide an estimated lead time for the components in their bid response?

- a. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.
- 48. Most of the Switches in the response document include stacking cables, transceivers, or both in the requirements. Are all of these items required for all qty of this Item?
 - a. No, but the design would be up to the vendor.
- 49. There are no Wi-Fi Alliance Certified APs, supporting the 6GHz Band (Wi-Fi 6E) today, which are rated for the environment specified for outdoor use and operating temperature of -40°C to +55°C. Outdoor APs, APs with external antennas, or APs that use standard power (>30 dBm EIRP) can be rolled out into service yet. Wi-Fi Alliance®, in coordination with the U.S. Federal Communications Commission, is designing a system known as Automated Frequency Coordination (AFC), which will manage spectrum usage requests in outdoor environments to ensure that these incumbents do not experience harmful interference from Wi-Fi systems. AFC is expected to be approved in the United States in early 2023. Until then, network designers should focus their efforts for 6 GHz on indoor networks and monitor development of AFC and similar systems to inform their decision on when to extend Wi-Fi 6E to outdoor locations. Should bidders provide instead their recommendation for Wi-Fi 6 APs that meet these environmental ratings?
 - a. Vendors can offer another solution as long as it meets requirements.
- 50. Can you provide an assumption of the % of APs that would require lifts or equipment other than a standard ladder to reach for installation?
 - a. None
- 51. Should equipment removed be consolidated centrally or left at each school for further disposition?
 - a. The awarded vendor must unrack, inventory, and assist MSCS associates in loading old equipment into an authorized MSCS vehicle for 10 Pilot sites. The installation and deployment for the remaining sites will be part of an RFP that will follow.
- 52. Will the District be able to provide staging and working space at each school for the deployment, including adequate power and air conditioning? If no, will there be a central staging facility available?
 - a. Yes
- 53. Will the district be providing label to affix to the APs and switches?
 - a. MSCS Asset Management will provide asset tags
- 54. Can the district provide a breakdown of mounting type assumptions? For example, x% of APs will be surface mounted to a concrete ceiling, another y% will be mounted to a ceiling grid, etc.
 - a. MSCS has surface mounted AP's via ceiling grid and wall/surface mounted
- 55. Will any APs need to be suspended from anything other than a ceiling grid? For example, threaded rod to lower the AP below obstructions such as HVAC. If yes, can you provide an estimated percentage for guidance?
 - a. Yes, <2%
- 56. The requirements on page 15 of the RFP for the WLAN APs specify WiFi6 – 802.11ax but the spreadsheets provided indicate WiFi-6E (6Ghz). Which standard should be followed for this response?
 - a. This is not an RFP, it is an IFB. Please utilize the specifications listed in the spreadsheet.
- 57. The requirements on page 15 of the RFP for the WLAN APs specify operational requirements of temperatures as low as -20F but the spreadsheet provided indicate -40C, which guideline should be followed for the response?
 - a. This is not an RFP, it is an IFB. Please utilize the specifications listed in the spreadsheet.
- 58. Are chassis switches acceptable for Core / MDF deployments? If yes, are redundant management modules required?
 - a. a) Chassis can be offered as a solution for the Datacenter(s) Core.
 - b. b) MSCS would like to utilize single/pair switches for MDFs.
 - c. c) Redundant Management Modules would be required.
- 59. With the current due date of RFP "It Network Upgrade Equipment all locations and 10 Pilot Locations install" 11/30/22 and the Thanksgiving holiday, will you consider an extension of 10 days?
 - a. No
- 60. FCC rules plus 6E outdoor issues, is wifi 6 OK?

- a. No
- 61. What is the intended Wi-Fi wired dataplane architecture? I.e.: Is traffic required to be tunneled to a central point?
 - a. Not today
- 62. What is meant by "User profiles"?
 - a. User profiles are network traffic settings assigned at the edge device (switch or access point). The profiles may be assigned by RADIUS attributes or statically assigned. The user profiles should contain settings for Date/Time restrictions, throughput, QOS, and Network Security.
- 63. What is meant by "Application firewall"?
 - a. Application Firewall allows network traffic rules to be applied at the edge device (switch or access point) based on application type. IP firewall allows network traffic rules to be applied at the edge device (switch or access point) based on ip address.
- 64. What Is the use case for the "Network Edge Switch" class of device?
 - a. The term "edge switch" can be used to describe a generic "access" switch
- 65. With supply chain constraints, how flexible is the 120-day delivery following the receipt of PO?
 - a. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.
- 66. Please confirm there will be no new horizontal cabling drops / runs to provide connectivity for the newly installed APS.
 - a. This is True for the Pilot.
- 67. Please confirm all new APs will be a swap and replace for the existing APs and will remain in the same location as the existing AP?
 - a. This is True for the Pilot.
- 68. Will Insight have any responsibility for testing or troubleshooting of the existing cabling plant?
 - a. No
- 69. Due to the bid submittal deadline being right after the Thanksgiving holiday, and the requirement for hard-copy submittals, would the District consider extending the due date one week to December 7th?
 - a. No
- 70. Will the district accept bids where the equipment lead time is over 120 days without penalty?
 - a. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.
- 71. Will objecting to the 3 year price hold invalidate a bid?
 - a. Yes
- 72. Can example switch/wireless configurations be provided for the 10 buildings in scope? If not, could a technical Q/A call be scheduled to discuss requirements?
 - a. No, new configuration will be created at time of deployment.
- 73. Is the district open to consolidating switches where possible (example being a single 48 port switch when there are two 24 ports switches in an IDF)?
 - a. Yes
- 74. 10. Does the single pane of glass requirement extend to the datacenter equipment or just the distribution/access switching and wireless?
 - a. It is to manage all device configurations, policies, and monitoring throughout the district.
- 75. What are the routing protocol(s) being used?
 - a. BGP
- 76. What are the number of VLANs?
 - a. ~<20
- 77. Are there any campus plans / pictures that can be provided so we know if we need lifts?
 - a. a) No, its only a hardware replacement.
 - b. b) There is no need for a lift.
- 78. Are we doing a 1:1 replacement on the wireless?
 - a. Yes
- 79. Are we doing a 1:1 replacement on the switches?

- a. Yes
80. Can you provide the number of closets and drops per closet for each location?
- a. No
81. The RFP document (PDF) requires Wi-Fi 6, the Excel document is asking for Wi-Fi 6E via (6GHz). Which specification is the required minimum?
- a. This is not an RFP, it is an IFB. Please utilize the specifications listed in the spreadsheet.
82. Regarding the AP temperature resistance requirement of -20 F, is this operating or survival temperature? Is this a requirement for both indoor and outdoor AP's?
- a. a) This is not an RFP, it is an IFB. Please utilize the specifications listed in the spreadsheet.
- b. b) There are multiple options, please respond accordingly.
83. Is all the hardware equipment for all 10 sites needed within 120 days of PO issue, or do you have a roll out schedule?
- a. Yes, we can provide a rollout schedule for the 10-Pilot sites.
84. Of the 180 core router/switches, 5,000 network switches, and 10,000 APs listed in the RFP, is this for every school in the district or only the 10 pilot locations? Out of these quantities in the RFP, can you specify what types of each equipment is required, for example, classroom vs high density vs extreme weather.
- a. Details were provided in the IFB
85. Can you please provide some clarity around how Shelby County BOE is looking to purchase the network equipment in this RFP? Are you looking to purchase the equipment for the entire district up front, or spread the purchases across 3 years during the initial contract? Or are you looking to spread the cost across 4 years (per the appendix J spreadsheet), and you need the cost for each of the first 3 years and a final 4th year?
- a. MSCS will be using the IFB to procure all required network equipment. In addition, there will be a purchase of hardware and installation for the 10-pilot sites mentioned.
86. On Appendix J of the spreadsheet, the quantities of hardware are the same for each option year; does that mean the sum of all 4 years is the total quantities for the entire contract? Or are the per year quantities listed in the spreadsheet the proposed total equipment counts for the entire contract?
- a. No, Vendor can use Appendix J to illustrate costing.
87. On Appendix J of the spreadsheet, the equipment quantities for the first year do not match up to the quantities mentioned for the first 10 schools in the RFP. Is this in error? Can you explain?
- a. a) There is a list of equipment to be replaced within the 10- Pilot sites mentioned in the IFB.
- b. b) MSCS is also asking for a cost per item based on estimated quantities throughout the district. The vendor can use the spreadsheet to illustrate costing.
88. There seems to be a conflict in the RFP listing a 3-year contract with 2 option years vs the spreadsheet showing 4 option years, can you explain the difference?
- a. This is a IFB, the request is for a 3yr contract with optional (2) 1yr extensions. MSCS is also asking for a cost per item based on estimated quantities throughout the district. The vendor can use the spreadsheet to illustrate costing.
89. On the spreadsheet there are no port count requirements listed for the Network DC Core and Network Core Switches. What are the port count requirements for these switches?
- a. a) Network DC Core - 48 port count
- b. b) Network Core Switches - will be a mixture of 24 and 48 port counts
90. Can you expand on the integrated network application firewall requirement in each switch?
- a. Application Firewall allows network traffic rules to be applied at the edge device (switch or access point) based on application type. IP firewall allows network traffic rules to be applied at the edge device (switch or access point) based on ip address.
91. Will MSCS support 100% access to the facilities during the work process (even after hours)?
- a. Yes
92. What will happen to old equipment? Does MSCS want the old equipment when it is removed?
- a. The awarded vendor must unrack, inventory, and assist MSCS associates in loading old equipment into an authorized MSCS vehicle.
- b. Yes

93. Can Access Points be installed during operating hours?
a. Yes for the 10 Pilot sites and after hours and weekends
94. In a lot of the MSCS facilities there are switches in the data racks that are not functioning, what is the process for identifying them?
a. An MSCS IT Associate will be working along-side the awarded vendor and will provide direction.
95. Part IV: Scope of Work pg. 13 -States "All equipment must be able to integrate with existing MSCS systems." What systems does MSCS currently have?
a. Will need to integrate with the following items: Network access control, Door Access, Camera Software, Alarms, etc.
96. Professional Services and Implementation Expectation Line 8 pg.15 – "Vendor shall deliver hardware equipment in 120 days from date of PO issue." With the amount of equipment that is being requested and current industry shortages, will more time be given if shortages occur due to manufacture shortages?
a. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.
97. Professional Services and Implementation Expectation Line 8 pg.15 – "install equipment on 10-sites by 60 days from that date." Will time be extended due to unexpected school closures and is the 60 days to run consecutively including weekends and holidays?
a. The time will run consecutively as IT will have access to the schools. The 60 day install time will be adjusted for any unforeseen circumstances for a mutually agreed upon date between Vendor and MSCS.
98. Will a separate PO be issued for each school, or will there be one PO for the entire project?
a. The PO will be provided based on the mutually agreed upon deployment schedule.
99. Will MSCS be supplying the Asset tags that are to be applied by the vendor?
a. MSCS Asset Management will provide asset tags
100. In item 1.0 on page 11, MSCS requires that respondents must submit one original and also "... submit one (1) USB ... of the bid submission at the date and time that bids are due." and previously mentions on page 5 in item 14.0 that respondent "...must also be registered in EschoolMall ESM in order to submit an electronic copy of their bid proposal, if required in addition to the hard copy proposal ...". Would the district please clarify how the proposal must be submitted.
a. Bidders must submit one (1) original and must submit one (1) USB (with Bid formatted into a single pdf file) of the bid submission at the date and time that bids are due. The Electronic USB media shall bear a label on the outside containing the IFB number and name as well as the name of the Bidder and include all requested information and documents.
101. On page 13, MSCS requires "40 Hours/ four (4) two-week training sessions annually".
a. Is the district seeking 40-total, training hours over four, two-week sessions or four, two-week sessions comprising 40 hours for each session?
b. In the immediately preceding paragraph, MSCS outlines that training shall culminate "... in an opportunity for employee to participate in the Vendor's certification program.". Is it required that the training in-fact result in respondent-provided, manufacturer's certifications' testing, or will MSCS network engineering staff seek individual certification testing on their own?
c. How many individuals will the district require this training for?
d. Will the district require sessions to be performed by an on-site instructor or may this be provided via instructor-led, live online webinars?
a. 1a) The district is requesting 40hrs of training per session, (4) training sessions. Each session can be covered over two-weeks.
1b) MSCS Associates will seek certification testing on their own.
1c) 4 associates
1d) On-site instructor-led
102. On page 13 and item 8 on page 15, MSCS requires a hardware deployment schedule with delivery to begin "120 Days from issue of PO". With the current world-wide supply chain constraints, how flexible is the 120-day delivery following the receipt of PO and subsequently, the penalties associated with the schedule requirement?

- a. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.
103. On page 14, MSCS requires a very aggressive Hardware Maintenance and Customer Support schedule. In accord with the certifications' training for its own staff, what concessions might the district make so respondents may provide a lower-cost, warranty, and support solution?
- a. None
104. Item 7 on page 14, MSCS requires a solution for "... remote management of all routers and switch hardware via cellular connectivity...".
- a. Will MSCS be expecting that all data traffic be survivable over this same solution thereby creating an out-of-band resilient network at each location or merely to provide remote console services?
- b. Will MSCS require that the whole cellular solution be held to item 13 on page 14 ("The same manufacturer...")?
- a. a) The request is for a solution that provides Network Engineers access to remotely manage network equipment from the Technology Training Center rather than having to physically visit each location.
- b) It is preferred
105. Item 5 on page 15, MSCS requires "Vendor shall apply an MSCS asset tag onto each asset.". Which party will be responsible for purchasing, printing, and delivering the MSCS asset tags?
- a. MSCS Asset Management will provide asset tags
106. Item 7 on page 15, MSCS requires that "All service disruption activities are to occur after hours":
- a. Will MSCS accept 'after-hours' to mean 'after school hours' so that service disruption activities may occur after the students are dismissed and before 5:00 PM?
- b. Will MSCS allow respondent to install APs during school hours?
- a. a) Yes
- b) Yes, If school officials permit
107. Items 13 and 16 on page 16, MSCS describes participation and responsibilities regarding the installation tasks.
- a. Which party will be responsible for identification and de-installation of unnecessary cabling, patch cords, and equipment?
- b. Which party will be responsible for the clean-up of MDFs/IDFs within each facility and the removal and transport of said unnecessary cabling, patch cords, and equipment to a central location?
- c. Is MSCS anticipating the need for new data racks and if so, which party will be responsible for identifying, designing, providing, and installing them?
- a. a) The awarded vendor and MSCS
- b) The awarded vendor and MSCS
- c) No
108. In multiple locations within the provided XLSX file, MSCS mentions "Support for user profiles" and "Support for multiple user profiles per SSID". Would the district please elaborate on the expected support and functionality with respect to the different appliances the statements refer to and how this may need to interoperate with existing authentication process and procedures?
- a. a) User profiles are network traffic settings assigned at the edge device (switch or access point). The profiles may be assigned by RADIUS attributes or statically assigned. The user profiles should contain settings for Date/Time restrictions, throughput, QOS, and Network Security.
- b) Support for multiple user profiles
109. With the current FCC power regulations and potential restrictions near satellite providers' beams, will MSCS accept a 5 Ghz solution rather than requiring 6 Ghz for outdoor wireless coverage in support of a lowest-cost solution?
- a. No
110. Would MSCS please clarify its desired outcome in providing IPsec encrypted wired throughput regarding the intended Wi-Fi wired data plane architecture, i.e., is traffic required to be tunneled to a central point?
- a. Not at this time
111. Would MSCS please clarify its desired outcome in its requirement for "Integrated network application firewall"? How will they interoperate with current security processes and appliances?

- a. Application Firewall allows network traffic rules to be applied at the edge device (switch or access point) based on application type. IP firewall allows network traffic rules to be applied at the edge device (switch or access point) based on ip address.
112. Would MSCS please clarify its desired outcome in its requirement for “Network Edge Switches (Stackable)”?
- a. Will these devices be intended for WAN routing at a facilities’ demarc location (MDF), and if so, what protocols and functionality will need to be supported?
- b. Are these devices intended for LAN routing within a facilities’ MDF/IDF level, and if so, what protocols and functionality will need to be supported?
- a. This is part of the overall solutioning that takes place after RFP award and before implementation.
- b) Depends on products offered by Vendor
- c) They could be, again depends on solution offering by vendor.
113. Would MSCS consider removing the requirement of 25G SFP modules in support of a lowest-cost solution?
- a. No
114. The solution must offer a “single-pane-of-glass” management platform for network devices.
3. The solution must include a cloud management platform that is fully redundant across multiple US-based data centers.
- Is the Cloud Management platform in requirements 1 and 3 above required to manage all device configurations and network policy orchestration, or is the requirement to only be able to monitor all of the devices
- a. It is to manage all device configurations, policies, and monitoring throughout the district
115. All software & hardware licensing must be included in the vendor response.
- Licensing is available typically in 1,3,5,7, or 10 year terms. The term of the agreement has been specified as 3 years, however, the maintenance / support requirement has been defined as 5 years. What length term for the software should be included in the pricing?
- a. Align licensing with Maintenance/Support
116. All equipment must be able to integrate with existing MSCS systems.
- What existing systems should be considered, and should these integrations be included in the costs in the bid response for either the products/software and/or implementation scope
- a. Will need to provide a list of Software IE: Network access control, Door Access, Camera Software, Alarms, etc.
117. An annual manufacturer maintenance agreement for the hardware warranty and onsite technician resolution when required (24 hours X 7 days a week X 365 days a year). MSCS has the discretion to purchase this agreement either annually, or in-full after equipment delivery and installation.
- PART IV: SCOPE OF WORK Includes Hardware Maintenance defined for a period of 5 years. Should the pricing of this maintenance be incorporated into each item (where required) in the bid response form? If so, for what term length? Pricing for this service would be in 1,3,5 year terms with pricing benefits being given for multi-year terms
- a. Align licensing agreement with Maintenance/Support.
118. Vendor is required to annually provide four (4) two-week training sessions for MSCS designated employees, with the expectation each two-week session culminates in an opportunity for employee to participate in the Vendor’s certification program.
- How should the pricing for this requirement be incorporated into the bid response? Should this be added as an attachment
- a. The district is requesting 40hrs of training per session, (4) training sessions. Each session can be covered over two-weeks. MSCS Associates will seek certification testing on their own. 4 associates from MSCS utilizing On-site instructor-led.
119. Vendor is expected to replace all patch cables, at each location, to a required length”
- How are the required quantities of cables needed to be calculated?
- Is this cost to be included in any or each of the Items in the Response Document, or as a separate attachment?
- a. a) It is connectivity between the devices being sold. It will depend on the manufacturer specifications and solution for the Pilot sites. Device Count by location was provided.

b) Feel free to add the cost in an addendum, if needed.

120. Vendor will supply all fiber jumpers. These shall be 3 Meter LC-LC.

- How are the required quantities of cables needed to be calculated?

- Is this cost to be included in any or each of the Items in the Response Document, or as a separate attachment?

a. It is connectivity between the devices being sold. It will depend on the manufacturer specifications and solution for the Pilot sites. Device Count by location was provided.

b) Feel free to add the cost in an addendum, if needed.

121. Vendor shall deliver hardware equipment in 120 days from date of PO issue and install equipment on 10-sites by 60 days from that date. Vendor will be responsible for liquidated damages (LD) in the amount of 0.1% of the total contract amount for each 30 days late (prorated).

- 2022 has been marked by production disruptions across many fronts and to include ALL manufacturers of technology goods and services. While the industry expects improvement in supply chain and component availability in 2023 and likely before the estimated start of services outlined in this IFB, the service provider would not be able to make this commitment in certain as there dependencies on the component manufacturers. Would it be appropriate or even required to provide an equipment lead time for each component on the bidders response? This lead time guidance could include a schedule from initial notice of award, in anticipation of a following PO Issue.

a. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.

122. Each Vendor is to provide a solution allowing remote management of all routers and switch hardware via cellular connectivity or other means for the quick

- Can this remote management solution include an onboard agent to monitor, diagnose, and automate the recovery actions?

- If not onboard, how should the number of external devices needed be calculated (per managed device, per location, etc.) and how should those costs be shown in the response template?

For the Pilot (10) Sites, information has been provided to reflect the current inventory at each of the locations. There may be recommendations available to "right size" the equipment needed in each site / MDF/IDF to include consolidation of use cases. As an example, the number of switches required in an IDF may be reduced by standardizing on switch model(s), implementing per device/user policy enforcement, and designing based on total ports needed in the IDF instead of use case dictating separate hardware. Understanding the bid response document is not broken down per site/IDF, will there be an opportunity to showcase recommendations for these performance and cost improvements

a. No onboard agents will be allowed

b. b) The request is for a solution that provides Network Engineers access to remotely manage network equipment from the Technology Training Center rather than having to physically visit each location. MSCS is only requesting (1) per site.

123. The IFB provides that the same manufacturer must manufacture all equipment. Do all of the proposed switches need to also be of the same single switch operating system from edge/access, data center, and core switches?

a. This would be preferred

124. Most of the Switches in the response document include stacking cables, transceivers, or both in the requirements. Are all of these items required for all qty of this Item? As an example, when stacking cables are included and stacking of the switches is implemented, not all of the switches in the stack also require transceivers for uplinks. Should these components be included in the total cost of this item as an aggregate price, or broken out as individual component costs?

a. No, each item was expected to be quoted individually

125. Item #s 1 and 2: "Supported Bandwidths 2.4GHz, 5GHz, and 6GHz". Should this be "Supported Bands" instead of Bandwidth?

a. Supported Bands

126. Item #s 6 and 9: The required spec for this item # 6 and item # 9 are almost identical except for the stated Wattage. Was this intended, and if so what is the planned use case for each? As a follow-up, what is the desired PoE Power Budget per port and per switch or the minimum wattage required per port, per switch? Most manufacturers have multiple options for power supplies to allow you to select the

appropriate option based on need and cost. Most PoE requirements in K-12 are based on the common PoE devices like APs. Can the bidder propose an item that includes a different wattage based on the PoE requirement of the APs they are proposing combined with the manufacturer's recommendations for the use case?

a. This was intended. Item 6 has higher POE budget to accommodate the higher power draw devices.

b) Minimum power requirement os 30w/port

c) no

127. Item # 7: Similar to the above question, what is the desired PoE Power Budget per port and per switch or the minimum wattage required per port per switch? Most manufacturers have multiple options for power supplies to allow you to select the appropriate option based on need and cost. Most PoE requirements in K-12 are based on the common PoE devices like APs. Can the bidder propose an item that includes a different wattage based on the PoE requirement of the APs they are proposing combined with the manufacturer's recommendations for the use case?

a. 30 w/port

b) No

128. Rack Question: Are the racks currently arranged to accept 1' to 3' patch cables

a. MSCS IT associates will move patch panels and wire management as needed.

129. Could you please provide port counts and types (copper / fiber) for the Cisco 6504 MDF switches at each location?

a. Most sites have 1 16 port fiber cards and large schools may have an added 8 port fiber line card. The Cisoc SUP 32 has 8 SFP ports & SUP 720 has 2 SFP ports.

130. The Avery DC lists several different types of switches. Could you please provide port counts and types (copper / fiber) for:

6504

6509

Nexus 5K

Nexus5k FEX

Nexus 9K

3120X module

a. No, the details of what is to be replaced is in the 10 - Pilot Site detail.

131. Are dual power supplies required for each switch?

a. Only in the Datacenter(s)

132. Will any existing licenses you use today for your current equipment be used/migrated over for the new equipment?

a. Depends on solution offering

133. Requirement #7 states: Vendor to provide solution allowing remote management of all routers and switches via cellular connectivity or other means for the quick recovery.

Is this in addition to the network refresh? Is this a requirement for each school location? Please clarify.

a. This is a new add to improve remote support capabilities.

b. This is a requirement for each location MDF

134. Is power stacking a requirement?

a. No

135. What specific length stacking cables are required?

a. 1' - 6' cable

136. For switches that support a network module which speed do you want specified assuming a network module only supports a single rate. Does MCSC want 10G or 25G or 40G network modules?

a. MSCS would like a quote for all three 10G, 25G, and 40G.

137. Can switch power budgets be met with a single or combined power supplies?

a. Depends on solution offering

138. SFP requirements - Each Switch (Items 4-9) lists SFP to be included but also request SFPs in Item 10. Are these redundant or should there be 23830 SFPs in total on bid?

a. These were included by line item and should be quoted as such.

b) These were listed as a possible total across the district and should be priced per item.

139. Do you require us to provide the cellular solution for backup connectivity in our proposal? What cellular provider(s) do you prefer? Do you prefer a solution with external antennas or internal antennas?

- a. This is not for backup connectivity. These are for remote management/connectivity into each MDF if there was a power outage.
- b) Preferred would be for MSCS to have the ability to add a SIM based on current provider of choice (AT&T or T-Mobile).
- c) Either solution is fine as long as a strong connection can be established. External antenna may work better considering the location of the unit.
140. For the 3 year lock in price will MCSC accept a discount off list lock in?
- a. Yes
141. Will all networking hardware be placed with one order? If not please detail the estimated ordering quantities over the life of the contract.
- a. The 10-Pilot sites will be a single purchase.
- b) This will be dependent upon the completion of an RFP and project schedule.
142. Will fiber jumpers and Cat6 patch cords be required for the entire project or just the initial 10 pilot sites? The RFP states "All patch cables (Fiber & Cat6) must be included in vendor response." Please clarify.
- a. The IFB is only requesting the cables to be included for the completion of the 10-Pilot sites.
143. If all patch cords are required to be priced in the RFP response will you please alter the excel with specific quantities required? If a new pricing excel is not distributed shall we alter the provided excel to include patch cord pricing?
- a. Vendors can provide an addendum to the proposal including this additional pricing.
144. What is the process if 1ft or 3ft Cat6 patch cords are not long enough for a particular school implementation?
- a. We will use the current cables for the MDF/IDF
145. Shall the fiber jumpers be Single Mode or Multimode? Please detail type of multimode if multimode is required. OM3? OM4?
- a. Multimode
- b) OM4
146. Please provide the estimated number of access points to be installed that require a lift.
- a. No lift required
147. Will MCSC provide test results for all 10,000 existing Access Point cables or should we assume all cables are tested and currently working today?
- a. All cables are currently working.
148. Will drawings be provided for all Access Point locations for each school?
- a. No, MSCS will assist in directing vendor as to the location of all Wireless Access Points in the 10-Pilot sites.
149. Network Data Center Core Switch (Item 4) doesn't explicitly list minimum port density requirements. What minimum port density/count should be provided?
- a. 48 port
150. Do Scope of Work requirement responses need to be designated as an additional Tab (Tab C)?
- a. No
151. To fully understand the liquidated damages risk can you please provide a specific estimated ordering schedule for all hardware components?
- a. No. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.
152. Section 21.0 in the RFP states "This is an all or none" bid. Shall we assume for pricing purposes all network components within the RFP will be ordered in full and shall not be less than the totals given in the RFP?
- a. This is an IFB, not RFP. MSCS is requesting best pricing based on quantities of items throughout the district.
153. The RFP states: Vendor is required to annually provide four (4) two-week training sessions for MSCS designated employees, with the expectation each two-week session culminates in an opportunity for employee to participate in the Vendors certification program. Please clarify if this is to provide a two week training session for (4) MSCS employees yearly.

Or if this is to provide (4) two week training sessions for an undesignated amount of MSCS employees yearly. (This seems highly excessive).

- a. The district is requesting 40hrs of training per session, (4) training sessions. Each session can be covered over two-weeks. MSCS Associates will seek certification testing on their own. 4 associates from MSCS utilizing On-site instructor-led.

154. The RFP states:

"Vendor shall deliver hardware equipment in 120 days from date of PO issue and install equipment on 10-sites by 60 days from that date. Vendor will be responsible for liquidated damages (LD) in the amount of 0.1% of the total contract amount for each 30 days late (prorated)."

Question: The liquidated damages % speaks only to the pilot sites. Shall we assume liquidated damages is also relevant to other orders after the pilot installation?

- a. Yes. The Vendor shall deliver the Equipment in 120 days for the Pilot sites. For the remaining Network Equipment the delivery will be on a mutually agreed upon date between the Vendor and MSCS. Penalties will be applied if the agreed upon date is not met.

155. Appendix J excel lines 1-108 seem to include all hardware for all sites including the 10 Pilot sites. Appendix J excel lines 111-114 also includes the Pilot Sites hardware. We assume we are not to back out the Pilot sites network hardware from Appendix J excel lines 1-108. Please confirm or clarify our assumption.

- a. The 10-Pilot sites were not included in Appendix J.

156. What is the proposed contracting process for the installation of the remaining schools not within the 10 Pilot sites?

- a. An RFP is to be released at a later date.

157. Does E Rate allow installation of remaining non 10 Pilot schools to be added to this contract if not bid initially in our RFP response?

- a. The installation for this IFB only includes only 10 pilot sites.

158. Can you please explain the purpose of the multiple year pricing options in Appendix J, to ensure a proper response regarding pricing? There is currently no option for 5th year on the Appendix J.

- a. MSCS is asking for a cost per item based on estimated quantities throughout the district. The vendor can use the spreadsheet to illustrate costing.

159. A list of the product needed

- a. Details were provided in the IFB

160. The locations for the Network Upgrade

- a. Details were provided in the IFB

161. The product required for the ten pilots and the locations

- a. Details were provided in the IFB

Thank you,

Procurement Services