

1. **Q:** We picked up the CD with all of the detailed maps and pictures, and we noticed that it does not include maps for Forest Trail Elementary School, the NOC and the DOC. Will maps with AP and closet details be provided for these locations?

**A:** 1. Plans and pictures for FTE have been e-mailed to all integrators. 2. The NOC is identified and pictures are included with the West Lake High School plan. No UPS required. 3. The DOC is a new structure and it will have a full rack dedicated to horizontal cabling that serves 10 APs and right at 300 horizontal cables for workstations, cameras, service desks, phones, etc. There is also a dedicated second full rack for the WAN equipment, which is all fiber connected. The DOC has a dedicated UPS System for the whole room. No local UPS required.

2. **Q:** For the switch refresh portion of the bid, can you provide us with a list of current switches per closet or a total port count to be covered per closet?

**A:** A port count of 10/100/1000 switches is being prepared for distribution tomorrow morning. It will have counts per school and per closet. No UPSs required for these switches.

3. **Q:** Bridge Point Elementary School – The IDF on the 2<sup>nd</sup> Floor – Does it have 48 or 49 APs? The total says 48, but then it says “24 1st FLOOR CLASSROOMS & 25 2nd FLOOR CLASSROOMS”

**A:** Plan on 49 APs with the assumption that each classroom will have a dedicated AP. By the doctrine of a 20% capacity for growth, even a 48-count of APs would require an additional switch if 24-port or 48-port switches are proposed. Other switch configurations may require a different mix of switches to address this “borderline” device count.

4. **Q:** Valley View Elementary School – How many APs will be pulled back to the Gym IDF? Currently it shows one AP located in the room itself, but will this be the placement with the new wireless rollout?

**A:** The gym has one AP and is not slated to have another. A dedicated multi-port MultiGig PoE+ switch is not required in this position. A dedicated mid-span power injector will be used. Please provide pricing to install such a device to support an Aruba 300-Series 802.11ac Wave2 Access Point. BTW: the existing switch is connected to the MDF via a UTP Cat6 cable.

5. **Q:** Valley View Elementary School Gym – Is new fiber run to this location?

**A:** No, no fiber to the gym but given the answer to Question 4, planning for an uplink in this area is not necessary.

6. **Q:** Does the district desire network management cards for the UPS solution?

**A:** The desired card should be able to monitor temperature and humidity within the IT Room and report it to central network monitoring software as it poles District network equipment in all facilities.

7. **Q:** Does the district desire temperature sensors for the UPS solution?

**A:** Yes, IT Room conditions are intended to be monitored with network status monitoring SW. Please provide pricing to equip one UPS in each closet with onboard temperature and humidity monitoring cards.

8. **Q:** Will new Ethernet cables be required per switch port as requested in the RFP, or will existing patch cables be utilized?

**A:** No. Existing patch cables are intended to be reused to connect APs. Each port with an AP has been identified and the patching exercise will be to remove the patch cord from the existing switch; connect it to the new switch and make sure it is a good connection by pinging the existing, already-connected AP.

**A<sub>2</sub>:** On the other hand, MM and SM fiber patch cords will be required to connect the new switches to the new fiber plant. We are expecting that LC-to-LC links will be the standard for both cable types.

**A<sub>3</sub>:** As a point of clarification, each school will need an aggregation switch or some other method to provide redundant uplinks, one each to the NOC and DOC which, in turn, are connected to each other. In cases where there are more than a couple of closets at any given school, I'd speculate that a core switch would be required to aggregate the closet connections and provide a pair of uplink ports for the WAN connections. Service to a school with only two closets (e.g. VVES or BPES) might be provided without requiring an aggregation switch if the switches provided have more than one uplink slot to accommodate multiple FOC connections. Under scenarios like this, one of these uplink slots in each closet could be used to connect to the other closet via MM FOC and the other slot(s) could be used for SM FOC uplinks to the WAN Cores.

- a. Scenario A: Specifically, at VVES, the MDF would require 2@ 24-port switches to support 22 APs (if that's the configuration your firm provides) and the IDF would also have 2@ 24-port switches to support 31 APs. Assuming each switch can support at least two (2) FOC uplink modules (again, if your firm provides a switch like this), you would have available 8 uplink modules. Subtracting a slot in each for the closet interconnects and one for the link to the portable classrooms; any or all of the remaining 5 uplink slots could be used to provide a pair of uplinks to the WAN Cores. Bear in mind that the two closets are interconnected to each other with 12 strands of OM4 MM fiber *and* 6 strands of OS2 SM fiber. One might be able to connect to the DOC with one of the MDF switches and to the NOC with one of the IDF switches using the SM Interconnect to then cross-connect to the WAN links.
- b. Scenario B: Bridge Point ES might require only one of the type of switch mentioned above in the MDF, but there would be 3 of them in the IDF. The multiple WAN connections to the two WAN core locations could be made out of the IDF via the SM interconnect fiber that could then be connected to the SM WAN uplinks. This school may require 10Km-capable modules.

9.

**Q:** In locations that reference an additional rack or mounting solution may be required, will the district be providing this or does the vendor need to include that in their bid response?

**A:** At this time, most school equipment rooms have spaces for new network equipment and a UPS to be slotted into the rack currently housing existing switches, but this may take some rearranging of existing equipment to gain contiguous spaces to accommodate it. In some cases, the new network equipment and UPS may be mounted in an adjacent rack other than the one housing network equipment (e.g. in the lower or upper reaches of a rack containing mostly patch panels or other technology gear).

There are two schools where additional rack space may have been required at the time of the most recent network survey:

- a.** West Ridge MS in Mechanical Room IDF (RM-217B) serving 3 APs – Please provide pricing for a small swing gate rack and labor for installation into this area as indicated in the IT Room Pictures for that school. (The District may have a spare rack for installation in this area, but this has not been confirmed at this time.)
- b.** Barton Creek ES in 300-Wing IDF (RM-314) serving 16 APs where a swing gate has already been placed. No action required.