

MVLA Network Upgrade Plan & Timeline

Overview:

The current MVLA network is at a crossroads and is reaching its end of life. At the time of its design, the district did not anticipate the growing influx of devices that would be used by staff members and students, as well as other services such as the district’s phone and video safety systems. The Information Technology Services department receives many concerns on a daily basis regarding the performance of the network, with many staff members and students being frustrated with the inability to stay regularly connected to the network, thus disrupting instruction and productivity.

During October, the district contracted with Portola Systems to provide an overall analysis of our network. We learned that the core network switch, which should only be operating at 20-25% of its power capacity, is at 99%; the wireless access points throughout our campuses would perform better if they had more favorable placements.

After consultation, we have developed the following plan/timeline to ensure our network will meet the needs of all stakeholders and “future proof” it.

Date	Task(s)
November 2019	Assessed network design; ordered two new core network switches to provide redundancy, expansion, and more power.
Week of December 16, 2019	Installation of new core switchgear; cut-over to new core switches Monday, 12/23
January 13-24, 2020	Proper networking segmenting and security to eliminate security vulnerabilities.
Week of January 20	Information Technology Services staff to be thoroughly trained on all new switches and wireless access points at Meraki headquarters
February 18-21, 2020	Installation of new network switches in IDF’s throughout the district; installation of new wireless access points at existing locations throughout the district. Consultants are providing all of the programming and installation. IT staff will be on hand to supervise.

The above work will certainly boost network performance, reliability, while also ensuring security for the district and its users. Networks will no longer be wide open with a pre-shared key; users will have specific user names and passwords on a specific SSID (network).

Date	Task(s)
Late February 2020	Determine proper access point locations, needs for more access points, and wiring needs; advertise RFP for this work and use of eRate funding to offset costs.
June/July 2020	Installation of additional wireless access points. Placement of existing access points in more optimal areas. Update wiring as needed and where needed.

All items will be properly inventoried along the way, ensuring future budget planning and projecting future network needs.

Network switches and access points require licensing. MVLA is entering into an eight-year license for the cost of seven years on all items.

Cost breakdown:

Entire Project:	\$1,610,563.04	Payment Terms:	
		January 2020	\$200,000.04
		July 1, 2020	\$282,112.60
		July 1, 2021	\$282,112.60
		July 1, 2022	\$282,112.60
		July 1, 2023	\$282,112.60
		July 1, 2023	\$282,112.60

**MVLA is receiving a \$130,000 incentive. No interest financing in exchange for our old switchgear.

IMPORTANT NOTE: The overall cost of this project will decrease; we are making a last-minute modification to the core switchgear at each school site (five total). ***The current switches MVLA is using are beyond sufficient, this should decrease the overall cost of this project by over \$150,000. This reduction will be reflected in the annual payment schedule.***