

Memo

To: Board of Education
Dr. Ben Collins, Superintendent

From: Mr. Matthew Tombs, Director of Innovation & Instructional Technology
Dr. Adam Parisi, Chief School Business Official

Date: January 25, 2024

Re: Information on E-Rate Projects for 2024



The federally funded E-Rate program offers discounts for telecommunication and information services for eligible schools. Discounts range from 20-90% based on poverty level. District 64 qualifies for a 40% discount on Category 1 (C1) services, such as wide area networks and Internet, and on Category 2 (C2) equipment, such as network infrastructure and cable wiring installations. For Category 2 specifically, District 64's eligible spending cap has been calculated to be \$167.00 per student over the 5-year term. This federal C2 funding program is in its second term (third set of 5 years) and this term is set to sunset in FY2027. The District has been using C2 funds to support the refresh cycles of our network equipment (i.e. switches, firewall...etc.) and associated subscriptions and maintenance contracts.

Herein outlines the Category 2 network infrastructure projects planned for the summer 2024. The District is currently out to bid for these planned projects in alignment with the E-Rate process.

Wireless Network Upgrade

In the fall of 2022, the District migrated its Internet Service Provider to the Illinois Century Network (ICN) expanding its bandwidth from a 4 GB to a 10 GB capacity. To take full advantage of the added bandwidth, the District then upgraded 40 of its network switches to Juniper switches in the summer of 2023. The new switches use the new Juniper MIST cloud, which allows for easier management and better diagnostic capabilities, as well as AI assistance. It is now time to refresh the 403 Aruba access points within the District. These access points went end of life in 2021 and will no longer be supported after 2026. Furthermore, this upgrade falls in time with its planned refresh cycle as the current Aruba access points have now been in place for 7 years.

The District is currently seeking bids for 403 Juniper MIST access points to meet our updated needs and will reset the refresh cycle schedule to 2030. The new access points will leverage the MIST Cloud, which will allow us to manage both the switches and access points under a single solution and will provide us a better view of our network devices as well as quicker diagnostics and repair. The upgrade will also take advantage of newer wireless technology available with our current laptops and Chromebooks. The new wireless technology will improve speed, reliability, and provide better wireless coverage. Furthermore, stronger wireless encryption is an added benefit with the new Juniper access points, enhancing security for our wireless network.

This bid will also include a 3-year maintenance and support plan that includes a premium level replacement and support within 4-hours, should the need arise. A premium level of support would mean faster response time from Juniper support to assist with any problems that may arise.

The wireless upgrade is projected to be an estimated \$370,000.00 with the 3-year support plan, subscriptions, and initial hardware purchase, before the E-Rate discount. This cost has already been budgeted accordingly in the FY24 Technology Department Budget.

Uninterrupted Power Supply

An Uninterrupted Power Supply (UPS) is a continual power system that provides automated backup electrical power when a main source of power fails. UPS systems are installed and used in all of the data centers throughout the District in order to protect our network hardware and our District from service disruption and/or data loss when power loss occurs.

Based on a recent audit of our UPS systems, we currently have four systems that are inoperable. The cost of four new UPS systems is projected to be an estimated \$8,000.00, before the E-Rate discount. This cost has already been budgeted accordingly in the FY24 Technology Department Budget.

Next Steps

The District is currently participating in the E-Rate structured bidding process for these projects and is trying to be proactive in navigating product availability and the expected delayed shipping times. At the upcoming February Board of Education meeting, the District will bring to the Board for approval the recommended contracts for the Wireless Network Upgrade and Uninterrupted Power Supply projects.