



Oak Park Elementary School District 97

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TO: Dr. Carol Kelley, Superintendent of Schools

FROM: Michael Arensdorff, Senior Director of Technology

SUBJECT: E-rate Update

DATE: February 26, 2019

Names of presenters: Michael Arensdorff

Type of report: E-rate

Report format: Informational report, with Q&A at board table

Preview of purpose and content of report: Included below is an overview of the bid process, bid summary and recommendation for the E-rate proposal.

Budgetary impact:

Category 1 - (Dedicated Internet Access): Impact is \$2,100 per month to the operating budget and no additional impact to the technology budget. As this is part of our E-rate application in Category 1, we are seeking a 40 percent reimbursement, which would bring the total expense to the district down to \$1,260.

Category 1 - (Wide Area Network): Impact is \$11,400 for a one year contract and \$9,900 for a two year contract to the operating budget and no additional impact to the technology budget. As this is part of our E-rate application in Category 1, we are seeking a 40 percent reimbursement. However, at this time we are waiting to get feedback from the Village of Oak Park on the planning for the joint fiber project. We expect to have clarity by the March 12, 2019 board meeting, in order to make a recommendation of a one or two year contract to be approved at the April 9, 2019 meeting.

Category 2 - (Access Points (AP)): Impact is \$134,997.30 to the technology plan budget and no impact to annual operating budget. As this is part of our E-rate application in Category 2, we are seeking a 40 percent reimbursement, which would bring the total expense to the district down to \$80,998.38. We are also exploring options for selling these units, which would further offset the cost. This expense was part of the technology plan created in 2018 for the 2019-2020 school year.

Data to be presented: February 26, 2019

Equity: In order to provide students and staff of District 97 with valuable resources for learning, all items that are proposed in this memo are crucial. Our digital systems and tools and online instructional resources rely on Internet access, and our staff must also be able to efficiently and effectively access resources that are centered at the district office through our Wide Area Network (WAN). If we did not have the WAN each building would operate as an island and overall costs would expand. This would also lead to potential inequalities throughout the district. Then to access these resources our students and staff need to have the access points throughout each building to ensure they can connect to the resources at anytime and any place.

Communication with Key Stakeholders: Throughout the development of our most recent technology plan (approved in May 2018), the items included were reviewed and vetted by the Technology Advisory Committee, which included students, staff, parents and community members.

Evaluation and Ongoing Improvement: We are a constantly evaluating and seeking to improve our access. We monitor traffic speeds and capacity of use on a daily basis. Based on the daily numbers we will be better informed if changes need to be made to maximize the speeds or overall capacity. We look at the number of days we have met 75 percent bandwidth capacity, measure ourselves against SEPTA standards, monitor helpdesk tickets in a variety of categories to determine areas of success and areas of improvement, and measure uptime.

Resource Requirements: Included below are the expenses that will go into this recommendation and the savings that the district will realize over the next one to three years. In regards to staffing, the Internet and WAN contracts will not require much time, as we are currently contracting with Comcast and they will just need to increase our bandwidth speeds. The access points require approximately two weeks worth of work for two to three staff members to fully implement this project. This includes inventory, labeling, configuring, distributing, hanging access points and removal of old access points.

Dedicated Internet Access and Wide Area Network (WAN) - Category 1 Wide Area Network (WAN)

The WAN is our interconnected leased lit network that connects all 12 of the district's buildings. As part of the recent E-rate season, we provided a wide range of options in our 470/Request for Proposal (RFP) for vendors to respond. This was done in an effort to get an updated scope of pricing structures and options for various bandwidth in a WAN, ranging from 1 GB (current) up to 10 GB. We also asked for responses for Internet speeds of 1 GB (current), 2 GB, 5 GB and 10 GB. We also requested proposals for a one-year, two-year and three-year term.

For this E-rate season, we have reviewed proposals from five vendors: AT&T, Comcast, ICN, Unite Private Networks, EM3 and Vero. More information to come on the term of this contract for the March 12, 2019 board meeting.

Dedicated Internet Access

We are recommending that we sign a three-year Internet contract with Comcast at a

speed of 2 GB. Because prices for bandwidth have decreased significantly over the past year for longer-term contracts, we are able to get twice the amount of bandwidth for \$1,200 less per month than our previous agreement. Through the joint fiber project, we have continued to plan and collaborate with the village and school districts 200 and 90 to find ways to leverage our resources. As part of those plans we have all aligned our proposed contracts to end at the same time in order to leverage Internet partnerships in three years, when the planned joint fiber project is complete. The total cost to the district on a monthly basis for both services is \$800 less per month.

Wireless Access Point E-rate Proposal - Category 2

The district submitted a proposal via E-rate for a wireless access point project. This project includes a refresh of 270 wireless access points that are end of life and can no longer be updated, and will complete the refresh of all of our district-wide access points. The project will also cover the increase of access points needed for both the Lincoln and Longfellow additions/renovations.

The E-rate proposal for wireless access points went out to vendors on December 20, 2018, and we received all proposals by the January 17 deadline. We received and evaluated a bid from one vendor, CDWG. We believe that CDWG was the only bidder due to our specific request for Cisco infrastructure, as we would need to align with our refresh cycle and purchase last year. Although we only received one bid, we are confident that we are not receiving the best price that can be offered by CDWG and Cisco, because through E-rate they are obligated to provide “lowest qualified pricing.”

Similar to past E-rate awards, all proposals have been reviewed and evaluated individually by three staff members. The proposals are evaluated in the following ways, in order of highest consideration: cost, completeness/quality of proposal, technical experience/recommendations, familiarity with the district and service quality. Following this evaluation, our recommendation is to award the contract to CDWG, and refresh the second half of our fleet of Cisco access points, which are between seven and eight years in production. The access points will be allocated in the [following manner to replace the older model](#). This work is directly connected to our technology plan and refresh cycle of access points.

Our district operates almost entirely on wireless connections, so our devices would struggle to operate efficiently and effectively without current modern access points. Cisco and Apple have worked very closely to optimize the wireless connection in newer versions, so the update would allow us to improve Internet speed and provide greater reliability for our student and staff devices.

Following this work, we do not expect to need another update of our wireless infrastructure (access points or controllers) for four to six years.

I also want to emphasize that the wireless access point project was part of the recent technology plan that will be presented in May 2018. These dollars are not in addition to, but included in, the overall technology plan recommendation developed by the Technology Advisory Committee.

Future E-rate 470 Bids

We have an ongoing practice of reviewing new technologies to determine how they fit with our current and future plans. During a recent planning meeting we identified the potential of savings on firewall services that were not feasible when we first explored them a few months ago. As a result, we sent out two E-rate bids on February 15: one for replacement firewalls for the district's administration building and a secondary data center and the other for dedicated Internet access to the secondary site.

The replacement firewalls will provide greater security processes and practices for our department, and the secondary location will provide greater capacity and segmentation of our guest and staff (non-district issued) traffic. It will also provide us security in any disaster recovery situation if one were to arise.

Because we have budgeted for our current firewall licensing renewal and secondary Internet location and expect to realize savings in other areas, we do not expect there to be any increase in funding to execute this project. We have also budgeted for the dedicated Internet access to our secondary site. However, we are now eligible to apply for E-rate funding due to the change in how we segment traffic in the district.

We will receive both E-rate bids back by March 15, and anticipate bringing a recommendation to the board on April 9 if the proposals meet our desired outcomes.