



SCHOOL BOARD ACTION REPORT

DATE: January 17, 2019
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For Introduction: February 27, 2019

For Action: March 13, 2019

1. TITLE

BTA IV: Approve purchase of Metropolitan/Wide Area Network (MAN/WAN) hardware upgrade and five-year support with Dyntek, Inc in the amount of \$1,923,106.54.

2. PURPOSE

The purpose of this Board action is for the review and approval of an upgrade of our Metropolitan/Wide Area Network with Dyntek, Inc. as the value-added reseller of Infinera hardware, software, and support.

3. RECOMMENDED MOTION

I move that the School Board authorize the Superintendent to execute a five-year contract with Dyntek, Inc to provide a Metropolitan/Wide Area Network upgrade for a total Not-To-Exceed amount of \$1,923,106.54 (plus applicable Washington state taxes).

4. BACKGROUND INFORMATION

- a. **Background** – Seattle Public Schools (SPS) Metropolitan/Wide Area Network (MAN/WAN) was installed in 2001. There are 2 aspects to this network: optical fiber cabling and the hardware nodes that connect this fiber to our schools. This upgrade is for the hardware nodes. All network and internet traffic travels over this network. The increase in the number of schools, students, and devices on the network and increased use of digital online resources has increased bandwidth usage both internally and externally exponentially each year and the nodes themselves have reached end-of-life, therefore the hardware nodes need to be replaced. The fiber itself is suitable well into the future. In addition, the increase in security at schools has increased the need to install more cameras and AI Phone entry systems for external doors, which use more of the network's capacity. To make sure all students, staff, and guests have required access, acceptable experience, and needed security, the District needs to upgrade to higher bandwidth capabilities. The system was identified to receive an upgrade/replacement as part of the BTA IV Capital Levy approved in February 2016 and has become part of the 2019-2023 5-year technology plan.

In February 2018, SPS issued a Request for Proposal 02850 (RFP) process to purchase a new network system of hardware nodes that manage traffic on our existing optical fiber network that meets the future technology and bandwidth needs and leverages eligible Universal Service Schools and Libraries Program (E-Rate) discounts. Hardware, software and support purchased with E-rate Program discounts are approved by the Universal Service Administrative Company (USAC) following requirements for eligibility. USAC has strict requirements for the E-rate program which is in place to ensure schools have adequate internet access and must approve all equipment and services. The result of the RFP and E-rate application was a credit reimbursement in the amount of up to \$762,000.00 being approved and issued to Dyntek, Inc. by USAC. These discounts are applied to invoices from Dyntek. Discount amounts will be applied to the BTA IV account.

This project will provide a capability of 10Gb dedicated (up from 1 Gb) to all schools by 2023 with grades 6-12 having it by 2020. Under this project the District will get the core network and infrastructure in place to maximize bandwidth and enable future upgrades.

- b. **Alternatives** – We can decide not to upgrade our network. This option would mean schools will max out their available bandwidth making online resources difficult or impossible to access. Hardware would also get more expensive to support as it approaches end of life, making it more difficult to find spare parts.
- c. **Research** – Monitoring graphs showing how much bandwidth each school has been using over time and how much the consolidated bandwidth impacts the overall internet connectivity illustrates the need to upgrade the current infrastructure. Data from each school and a projection of what devices wired and wireless are being added in the future points to a trend of increased usage and strain. Demands for more security cameras and devices using more bandwidth at each site adds to the projections of sustained minimum bandwidth needed for each site.

The State Educational Technology Directors Association (SETDA) recommends that for the 2020-21 school years, districts should have at least 10 Gbps per 1,000 users for wide area network (WAN) access. (<https://www.setda.org/wp-content/uploads/2016/09/SETDA-Broadband-ImperativeII-Full-Document-Sept-8-2016.pdf>).

5. **FISCAL IMPACT/REVENUE SOURCE**

The initial fiscal impact to this action will be up to and not to exceed \$1,923,106.54 (plus applicable Washington state taxes) from BTA IV funds that covers all hardware and warranty for a five-year period. The actual net impact to the district will be approximately \$1,238,000.00 once the E-Rate reimbursements are applied to invoices. We have allocated the full amount into the BTA IV budget and will apply the discounted amount back to this budget.

The revenue source for this motion is Capital Levy Buildings, Technology and Academics (BTA IV) Wide Area Network (WAN) Modernization and Expansion (Y07310000T).

Expenditure: One-time Annual Multi-Year N/A

Revenue: One-time Annual Multi-Year N/A

6. COMMUNITY ENGAGEMENT

With guidance from the district’s Community Engagement tool, this action was determined to merit the following tier of community engagement:

- Not applicable
- Tier 1: Inform
- Tier 2: Consult/Involve
- Tier 3: Collaborate

Initially, the upgrade was part of engagement for the BTA IV Levy. This specific proposed upgrade was discussed at the December 17, 2019 Information Technology Advisory Committee (ITAC) meeting with the committee getting the chance to review the technology proposed and offer feedback. The district’s community engagement tool kit was applied to this proposed upgrade with Tier 2: Consult/Inform being the most applicable level of engagement identified.

7. EQUITY ANALYSIS

Initially the upgrade was part of the Equity Analysis for the BTA IV Levy decision making. The Network is a central core piece of infrastructure that all internet and intranet traffic passes through. Every user (Student, Staff, and Guest) along with building automation and security devices have the same path being used from every school building. This upgrade will increase the speed for every school to make sure we keep equity in the availability to all that allows for more bandwidth where it is needed.

8. STUDENT BENEFIT

Students will experience higher quality internet and intranet access to digital online sources and information encompassed within district resources. They will be able to use online tools including Office 365, applications, and learning systems both internally and on the internet. Higher bandwidth will be available to teachers to use digital content related to student learning.

9. WHY BOARD ACTION IS NECESSARY

- Amount of contract initial value or contract amendment exceeds \$250,000 (Policy No. 6220)
- Amount of grant exceeds \$250,000 in a single fiscal year (Policy No. 6114)
- Adopting, amending, or repealing a Board policy

Formally accepting the completion of a public works project and closing out the contract

Legal requirement for the School Board to take action on this matter

Board Policy No. _____, [TITLE], provides the Board shall approve this item

Other: _____

10. POLICY IMPLICATION

Per Policy No. 6220, Procurement, any contract over \$250,000 must be brought before the Board for approval.

11. BOARD COMMITTEE RECOMMENDATION

This motion was discussed at the Operations Committee meeting on February 7, 2019. The Committee reviewed the motion and moved the item forward to the full Board with a recommendation for consideration.

12. TIMELINE FOR IMPLEMENTATION

Upon approval of this motion, the vendor will start working with the district to plan the upgrade to the district equipment.

13. ATTACHMENTS

- Not Applicable