Technology Plan Summary - 2018

History

When ISD 709 engaged in the long range facilities plan, certain standards were put in place for the technology tools that would be incorporated into classrooms. As standard practice all district classrooms were outfitted with the following, as a minimum:

- SMARTBoards SB680i & SB885 Systems (Projector, Interactive Board, Wireless Connection as well as the Height Adjustable Wall Mount) were installed in all standard classrooms
- Classroom/Teacher Sound Amplification Systems
- Audio and video outlet/cabling was installed in all classrooms to support a SMARTBoard System or projector as well as a classroom/teacher sound amplification system
- Minimum of two (2) 6A network data cables installed in all occupied/non-classroom areas
- Minimum of seven (7) 6A network data cables installed in all standard classrooms
- Minimum of 41 6A network data cables installed in all computer labs
- Panasonic video security systems installed in all of our buildings (video cameras, network digital network recorders (NDR), hard drives, etc.)
- Casio LED projectors or SMARTBoards systems in all computer labs
- DVR/VCR Players were part of the initial classroom standard (Lakewood, Stowe, Homecroft and Lowell), but were removed due to funding and technology upgrades.
- Cisco wireless Access Points (AP's)
- Cisco Collaboration/Telephony - Cisco IP phone in every classroom and most occupied areas
- New Cisco POE Switches installed to support the Panasonic video security camera system, Cisco IP phones and Cisco wireless AP's
- 100's of new Dell desktop systems were installed during the initial startup of each new or remodeled school
- New network printers were also installed during the initial startup of each new or remodeled school

The Technology Department was responsible for the purchase and installation of the above equipment as part of meeting those standards. We leveraged both long range facilities and technology department funding to accomplish these purchases. The equipment and infrastructure were incorporated as part of the work to modernize facilities and was in place as buildings were reopened.

Each of the technology components was selected to serve a specific purpose in supporting teaching and learning.

In light of budget constraints, it has become apparent that we are not able to continue to fund the types of equipment installed during the modernization of our buildings. Coupled with improvements in technology, it was pertinent to review our teaching and learning, as well as safety needs, and provide a plan that fits our current budget environment.

An initial review was conducted in December of 2016 by the technology department manager, innovation coordinator and director of curriculum and instruction. The purpose of this review was to outline the basic teaching and learning, as well as safety needs for classrooms and determine what equipment package would meet those needs at a sustainable price point. We are calling this our Interim Technology Plan. It should be noted, any desired qualities above the basic needs identified in this interim plan can always be considered for addition with the allocation of new revenue to support installation and maintenance. In that spirit, we will incorporate the costs for other options that could be considered above the interim plan. It should also be noted that the interim plan could strongly benefit from the perspective of different employee groups within the organization.

Interim Technology Plan

The base priorities identified for supporting teaching and learning and student/staff safety were as follows:

- Emergency communication
- Device for teacher access to the student information system (Infinite Campus)
- Connection to the internet to access web platform and information for teaching and learning
- Device to display information digitally to share with students
- Device to support required state assessments
- Student use devices for the purpose of teaching and learning activities
    - Access information via the web
    - Create products to exhibit learning: documents, spreadsheets, digital presentations, etc.

To support these basic needs, the interim technology plan outlines equipment that will be replaced within district allocated technology budgets. This equipment may be replaced with devices different from those provided during the modernization of our facilities. The interim technology plan will also outline existing equipment that will continue to be supported by our technology department, but will not be replaced at the end of it’s functional life.

The Technology Department will continue to invest and provide support in the following areas as part of the interim technology plan:

- Emergency communication
    - Network Infrastructure (Cisco POE switches, Spectrum Fiber Optic Services, Microsoft Servers, etc.)
    - Cisco Collaboration/Telephony - Cisco IP phone system

- Device for teacher access to the student information system (Infinite Campus)
    - Continue support and move district staff to Chromebooks. 750 is the number of Chromebooks we will be supporting for teaching staff moving forward.

- Connection to the internet to access web platform and information for teaching and learning
    - Network Infrastructure (Cisco wireless access points-AP's, Cisco POE switches, Spectrum Fiber Optic Services, Spectrum Internet Services, Palo Alto Firewall, Content Filter, Microsoft Servers, etc.)

- Device to display information digitally to share with students
    - Replace roughly 60 SMARTBoards annually with non-interactive LED displays (see schedule below)

- Device to support required state assessments
    - Continue support and move student devices to Chromebooks. 960 is the number of Chromebooks we will be supporting for students moving forward.

- Software as a Service-SaaS (Google G-Suite for Education, Infinite Campus, Sungard Business Plus, SysCloud, etc.)
- Cybersecurity/Security (Firewall, SysCloud, Training, etc.)

The Technology Department will continue to provide support in the following areas but will not repair or replace the following systems due to insufficient funding:

- Panasonic video security systems (video cameras, NDR, hard drives, etc.)
- Classroom/teacher sound amplification systems
- 2,500 plus Dell Windows 7 desktop and laptop system
    - We will be upgrading all existing Dell desktop and laptops to Windows 10 during the summer of 2019. Microsoft Windows 7 support ends on January 2020. Our older desktop models (745, 755 and 760) will be very slow.
- 250 plus network HP and Dell printers
- 40 plus fax systems
- Interactive SMARTBoard systems (projectors, boards, lamps, etc.)
- Chromebook support outside the core 1,710 systems
- Auditorium and lab projectors

Non-interactive display systems: will be replacing roughly 60 SMARTBoard systems per year with non-interactive displays using the tentative schedule below:

- Lakewood and Stowe summer of 2019
- Homecroft and Lowell summer of 2020
- Denfeld summer of 2021
- East summer of 2022
- MacArthur summer of 2023
- Lester Park and Piedmont summer of 2024
- Lincoln Park summer of 2025
- Ordean summer of 2026
- Congdon Park and Myers-Wilkins summer of 2027
- AEO and Residential schools summer of 2028

Working directly with building leaders, curriculum and instruction, business services and technology staff, we propose to begin implementing the Interim Technology Plan starting the summer of 2019. We recommend at least a year of planning time be allowed for teachers to consider any changes that may need to be made to support teaching and learning as a part of these changes.

We also highly recommend starting a more formal process, including necessary stakeholders, to identify the technology equipment and support needs for the district with a focus on teaching and learning, student safety and long-term maintenance and support of technology equipment and infrastructure to create a formal technology plan. This formal technology plan could then supercede the interim plan once appropriate funding has been allocated to support the plan.

Additional Options with Cost

The following items installed under the standards established during the long range facilities plan could be continued, assuming the annual budget noted is added to the current technology budget.

- Panasonic video security systems (video cameras, NDR, hard drives, etc.)
    - ~$90,153 annually using a 10 year replacement cycle
- Dell Windows desktop and laptop systems
    - ~$141,200 annually using a 5 year replacement cycle based on ~1,000 systems only
- Classroom/teacher sound amplification systems
    - ~$62,800 annually using a 15 year replacement cycle
- Networked printers
    - ~$125,000 annually using a 8 year replacement cycle on 125 total printing devices

- Interactive display systems
    - ~$390,500 annually using a 8 year replacement cycle
- Auditorium and lab projectors
    - ~$8,1000 annually using a 8-10 year replacement cycle

1 to 1 Chromebook Program Additional Costs

- Elementary 1 to 1 Chromebook Program
    - ~$590,414 annually. Includes PD/Training for staff, Chromebooks, Licenses, Case/Sleeves and spare/repairs
- Middle School 1 to 1 Chromebook Program
    - ~$441,547 annually. Includes PD/Training for staff, Chromebooks, LMS Licenses, Case/Sleeves and spare/repairs plus two innovation/technology staff.
- High School 1 to 1 Chromebook Program
    - ~$546,198 annually. Includes PD/Training for staff, Chromebooks, Licenses, Case/Sleeves and spare/repairs plus two innovation/technology staff.