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TO: Dr. Carol Kelley, Superintendent

FROM: Michael Arensdorff, Director of Technology

SUBJECT: Technology Plan Update

DATE: January 24, 2017

Names of presenters: Michael Arensdorff

Type of report: Technology Plan Review and Update

Report format: Informational report; follow-up report in Spring 2017

Preview of purpose and content of report: Update for year two of the technology plan and information on work of Technology Advisory Committee

Budgetary Impact: TBD

Data to be presented: January 24, 2017

District goals aligned with report:

Goal Area 1 (Strengthen Teacher and School Leadership Capacity), Goal Area 2 (Build Collaborative Expertise), Goal Area 3 (Engage with Families and Community) Goal Area 4 (Resource Stewardship)

Technology Advisory Committee

A call went out in June 2016 for students, staff, parents/guardians and community members to apply for the committee. We then sent out another call in August prior to the start of school. We received more than 18 applications from staff, parents/guardians and community members, but did not get any from students. We sent out a targeted message to 4th-8th graders and reached out to principals and staff to pass on the message to students who might be interested. We then received 10 student applications. In September 2016, we finalized the team with members coming from almost all of the buildings. We have and will continue to work to get members from all of our schools, and will utilize various avenues to ensure that each building has a voice in this work.

The team is comprised of five students, four building/district office administrators, two teachers, four parents/guardians and one community member. During October and November, the members attended three meetings that were focused on grounding our work and tying it back to the district vision. During these meetings, we reviewed the district vision and two big rocks, and discussed how they relate to the work being done by the committee. In another meeting during this time period, the committee reviewed the enclosed article drafted by Education Reimagined. The group had a great conversation about the five elements in the article and how the outcomes beyond school are very different than they were during the industrial age (when the current system was devised). The group talked about what learning looks like to them and the best learning experiences they had during school. This led to conversations about how those impactful and game-changing learning experiences can take place more often.

In December, the group participated in an exercise that pushed them to think big. Part of this experience was based on a professional learning experience I participated in this summer with Dr. Kelley in conjunction with the AASA summit, which was held at Google and focused on prototyping. We focused on thinking 10X (brainstorming ways to improve something by 10 times), and what the learning experience could look like from our perspective in the future. The groups were asked to keep the district goals and the elements of the Education Reimagined article in mind during this activity. Finally, I pushed the committee members to challenge themselves by drawing pictures and using fewer words when brainstorming, which helped activate their right brain thinking.

For our upcoming meetings in January and February, the committee will be planning the focus groups that are scheduled to take place in all 10 of our schools. I will be leading these groups with the help of any other committee members who are available. The goal of the sessions will be to get feedback from students about their learning experiences, including how these experiences are influenced/impacted by technology.

The next steps and goals of the group are to complete the focus group sessions in February, and analyze the data to assist in identifying the recommendations for next year's technology plan that will continue to support the success of our students and staff. In March, I will share these recommendations along with any related costs, an analysis of our 1:1 iLearn program, and updates on the other initiatives our department is actively working on to support the vision and two big rocks.

Following this report I have attached my goals/department chart that includes the key district metrics that are aligned to the technology department goals, action steps and indicators of success for them.

Metric	2015-2016 Baseline	2016-2017 Target	Excellence Target
5Essentials – Teacher-Parent Trust (PLE) (Goal 1) 1. "Teachers & parents are partners in improving student learning 5Essentials – Human & Social Resources in the Community 2. "Students come from communities where there are adults they can trust who provide a safe environment"	Most Implementation (84th percentile)	Most Implementation (85th percentile)	Most Implementation 80 th percentile
5Essentials – Teacher Influence (PLE) (Goal 1) 5. "Teachers have influence in a broad range of decision regarding school policies & practices"	Average Implementation (45th percentile)	Average Implementation (48th percentile)	Most Implementation 80 th percentile
Education For the Future (Equity) (Goal 2) % favorable responses to "When I am at School, I feel:" 6. "I am challenged by the work my teachers ask me to do" 7. "I have fun learning"	To be gathered Fall 2016 (both)	80% favorable (both)	90% favorable (both)
PARCC (Goal 4) % of students meeting or exceeding expectations by: 11. Creating & justifying logical mathematical solutions & analyzing & correcting the reasoning of others 12. Solving real-world problems, representing & solving problems with symbols, reasoning quantitatively, & strategically using appropriate tools 13. Showing they can read & analyze fiction, drama, & poetry 14. Showing they can read & analyze nonfiction, history, science, & the arts 15. Showing they can compose well-developed writing, using details from what they have read	11. 47% 12. 50% 13. 53% 14. 53% 15. 50%	11. 51% (124 more students) 12. 54% (124 more) 13. 57% (124 more) 14. 57% (124 more) 15. 54% (124 more)	80% (for all)

Generate Indicators of Progress and Success for each goal:

	Interim Indicators (How will I measure my own progress within the priority area?) Action Steps	What will provide evidence of progress and attainment?
Goal 1 - Maintain a secure	1) Monitoring our network	Monthly measurements of
district-wide	on a daily and monthly	uptime and data collection
network/infrastructure,	basis via our	spreadsheet. Also the
equipment and systems that	infrastructure and	number of tickets created

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result in 99.5% uptime that is measured monthly and averaged over the entire year.	Comcast database and tracking via spreadsheet. (on target, in progress) 2) Tracking via Comcast provided tool to compare data collection (on target, in progress) 3) Monitor network ensure on stable versions (on going) 4) Review help desk data on a daily and monthly basis to identify trends (Complete, on going)	related to network and phones or anything related to network services. 1) 99.5% infrastructure uptime 2) Target – 50 days or less of 75% usage exceeded
Goal 2 - Create a system of resources that will provide staff and students access to gain knowledge and develop how they leverage the use of the 4C's.	 Dept staff to break up and take a focus area to create resources. (Jan. 2017) Design and organize materials. (Feb. 2017) Collaborate with webmaster to create new website layout of resources (Dec. 2016 – Complete) Collect resources from staff and highlight/promote pioneers (March 2017) Complete weekly learning walks to buildings. (Ongoing, in progress) 	1. Updated website with current and relevant information 2. Number of website clicks improves 3. Bright Bytes Survey Results - Target Goal – 1100- 1115
Goal 3 - Maintain a department of lifelong learning and collaboration to retain and maintain fully staffed to support the instructional goals of our students and staff.	1. Agreement of new ESP contract terms (complete) 2. Identify professional learning resource (Dec. 2016 – complete) 3. Dept staff goal setting including one goal focused on professional learning, initial planning meeting. (Jan. 2016 - Complete) 4. Following completion of	1. Individual staff member goal setting documents 2. Completion of online learning resources 3. Additional department certifications 4. Decrease in the ticket completion time to under 22 hours with all staff average time frame under 24 hours

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Goal 4 - Complete 500 learning walk visit data points to ensure our students and staff are having experiences of leveraging technology to support the 4C's and the ISTE standards (focused on standard 2 & 3).	dept. staff goal setting. (Feb. 2017) 5. Department staff documentation of progress toward goals and online professional learning (On going) 1) Create and finalize learning walk form. (Aug. 2016, complete) 2) Begin and collect data on learning walks (In progress and ongoing) 3) Review and Report out data on monthly basis to cabinet at end of each month (beginning Jan. 2017)	1. Google form with data collection results 2. Notes on monthly reporting 3. Growth within the BrightBytes survey data and above metric target goal of 1100-1115
Goal 5 - Conduct an inventory of teachers' technology capabilities in each school, which will enable the district to target training/professional development where it is needed most.	 Using the BrightBytes survey identify the questions/data that ties to goal – (Complete) List the questions and track the growth last year (Feb. 2017) Collaborate with teaching and learning and special education around professional learning to see how and when capabilities can be tied to professional learning sessions (Jan. 2017 - Complete, & ongoing) Schedule BrightBytes survey with professional learning calendar for staff meeting day (Dec. 2016 – Completed) Administer the BrightBytes survey in April/May during a staff meeting and student work time (May 2017) 	1. Document of questions from BrightBytes to identify the focus around technology capabilities desired in District 97 based on goals 2. Completion of survey in spring 2017 with updated data 3. Communication email sent out to families, students and staff. 4. Summary of BrightBytes data compiled of results and growth to target level of 1100-1115

2016-2017 - Year 2 - Technology Plan Update

Admin/Admin Assistant Device Lease

Infrastructure Upgrades –

Servers, Switches, Routers

Kindergarten/PE Teacher iPad Refresh
Disaster Recovery Site
Fiber move to new admin
Oak Park Fiber Design Planning

\$ 26,255 - Complete
\$ 188,000 - Complete
\$ 38,000 - Complete
\$ 10,500 - Complete
\$ 10,000 - Spring 2017

Infrastructure Enhancements

The BrightBytes data we collected in spring 2016 shows that we rate as advanced and Exemplar in terms of our infrastructure and network. However, we must maintain this level of quality and dependability if we are going to be able to effectively support staff development and student learning moving forward. With this in mind, our department completed a comprehensive scan of our network infrastructure via a resource called Cisco Active Advisor and will complete another one in February 2017. This scan will be done annually as part of our short- and long-term planning. Through the use of this resource, we were able to identify what aspects of our system need to be upgraded (i.e., existing hardware that is no longer under warranty or has reached the end of its life), as well as how much it will cost to complete the work. These upgrades for 2016-17 included:

- Servers
- Wiring
- Server racks
- Firewall for disaster recovery purposes
- Move to the new district office
- Network storage (NAAS)
- Switches
- Core switches
- Wireless access points
- IDF switch*

*We elected to hold off on this endeavor in hopes of reducing the total costs through the eRate process. We were successful, which resulted in savings of approximately \$42,000 during 2016-17 school year (received in the form of revenue via eRate refunds per expenditure from 2015-16 SY Tech Plan).

Below you will find a breakdown of the equipment needed for the backend/infrastructure enhancements for the current year, and confirmation that these enhancements have been completed.

2016-2017

- Main core layer three switches (10 sites) (\$188,000 apply for eRate funding)
 Completed
- 2. Create a DR (Data Recovery) site at Julian (\$38,000 apply for eRate funding) **Completed**

- a. New firewall (\$30,000)
- b. NAS/SAN storage (\$8,000)
- 3. Fiber move to new admin building (estimated \$10,500) Moved from the 2015-16 year tech plan as the timing has changed. **Completed**

2017-2018

Based on the Cisco Active Advisor scan, no additional upgrades will be needed until the 2019-20 school year. The next major refresh will consist of the access points; however, those will not need to be upgraded until our district has the equipment that is capable of handling the newer technology standards required by these access points.

Oak Park Fiber (Potential Option for 2019-20)

We have continued to collaborate with the Village of Oak Park, districts 90 and 200, the Oak Park Public Library and the Park District of Oak Park on a possible Oak Park Fiber project. Based on conversations we have had, we will undertake the work with the Village first, as we both have the largest number of sites and our sites are in close proximity. The other organizations have expressed interest and considering participation as the project progresses. At this point, the Village and District 97 have met with two design consultants to assist in the planning of the joint project. We will be meeting with a third vendor soon, after which we will evaluate all three and select one to begin working with on the potential design and cost. For this work, we will be leveraging the eRate process to identify savings. Our goal is to have a design consultant selected and begin working with them by the end of February. We are also looking to have an eRate 470 application (with RFP) out to vendors by September 2017, which will be for next eRate season. This will provide vendors with ample time to respond with complete proposals for an Oak Park Fiber project. This proposal will include a cost comparison of all forms of fiber (private fiber, which we are seeking for greater capacity, and leased fiber, which is what we currently have with Comcast). As part of the eRate process, we will select the best and most cost effective option for District 97. Following the application process, we will wait for approval of funding via eRate prior to awarding and beginning of work. If all goes well and the best option is constructing private fiber, the work would begin in spring 2018, with completion by June 2019.

I will continue to keep the board and superintendent updated on the status of this situation throughout the planning process. For your information, since this process is scheduled to begin in 2018, we will be seeking a two-year contract of Internet and WAN (this will also continue to be part of the eRate application).

Refresh Kindergarten Devices and all iPad 2s (PE Department)

We have completed the refresh for all kindergarten student devices, as well as kindergarten teacher and physical education teacher devices. We will be selling the older kindergarten devices at the end of the school year.

Student Technology Fee Collection/Expenditure/Repairs

I am currently compiling a list of the repair totals and costs spent in conjunction with the 1:1 iLearn devices over the past few years. I will provide a more detailed analysis of those numbers, as well as a recommendation for the fee structure for the upcoming year. We will include trend data to provide a more comprehensive picture of the collection and expenditures.

Data and Security Audit

We completed the data and security audit of the district in December 2016. We are waiting for the final report from CDWG, and will provide more information when it is complete.

BrightBytes

We will be administering this survey again in April/May 2017 to all faculty and staff, as well as students in grades three through eight. After we receive these results, I will provide a summary of the data. West40 has committed to supporting this tool for the 2017 SY, which means there will be no cost to District 97.