

FY15 (July 1, 2014 - June 30, 2015) Focus

Discovery Education - Single Sign-on

The ability to support single sign-on (SSO) via Discovery Education is being investigated. Currently, staff and students must login to Discovery Education using an account that is separate from their KPBSD account. Discovery Education now supports single sign-on services; we are in the process of working through the required infrastructure necessary on our end to support this.

Completion: August 2014

Microsoft Office 2013 Upgrade

Office 2010 is currently installed on all KPBSD computers. In order to provide the latest enhancements to this product, work is ongoing to upgrade computers to Office 2013.

Completion: July 2014

Microsoft Office 365

As part of our Microsoft Education licensing, we are entitled to Microsoft's online collaboration suite, Office 365. Work is ongoing to enable the platform for use by KPBSD users.

This platform provides a rich online environment that tightly couples the desktop Office suite (Word, Excel, PowerPoint) with online counterparts that allow for collaboration and document editing without requiring a full Office installation.

No plans are currently in place to replace our existing Google Apps for Education implementation with Office 365, although the tools are similar. By enabling the Office 365 infrastructure as an *optional* tool, we can be exploring how this best fits within our existing environment.

Target Completion: August 2015, ongoing

QSP - Lunch Point-of-Sale Upgrade

Work is ongoing to upgrade the platform used to facilitate lunch sales districtwide. In coordination with the KPBSD Student Nutrition department, KPBSD Information Services is working with the product vendor to upgrade our 33 point-of-sale computers over to the Windows 7 platform running the latest QSP 4 software product.

One notable feature provided by the new upgrade include a move to a centralized model, allowing Student Nutrition staff to quickly push out changes to the system without requiring manual school point-of-sale updates. In addition, the system provides key functionality utilized by other ongoing focus projects in FY15, including the RevTrak payment processing system for remote payment of fees/lunch accounts.

Completion: August 2014, RevTrak integration about February 2015

Polycom Infrastructure Upgrade

We are continuing to expand our Distance Education options for students in the District. Part of this is our Polycom Videoconferencing hardware used for creating Virtual Meeting rooms and managing the connections of our Videoconferencing Endpoints. Work is being done to more tightly integrate our Polycom setup with our Lync 2013 environment to take full advantage of each platform's strengths in order to give our students and teachers the best configuration possible for Distance Learning.

The upgrade for the Polycom Hardware will double our current capacity for simultaneous calls and better support remote dial-in clients. Another important improvement will be full content sharing between Polycom and Lync callers in the same meeting room regardless of what type of endpoint they are using to connect to the call.

Completion: August 2014

Core Data Center Ethernet to 10Gb/s

In support of new EqualLogic gear, 10Gb/s fabric was introduced into our existing M1000E blade chassis units. Each M1000E unit received two Force10 MXL switches, and existing blades had 10Gb/s cards installed.

This upgrade provides a 10Gb/s channel for SAN (storage-area-network) traffic to traverse, and provides the connection point for our replacement EqualLogic units.

Completion Date: February 2015

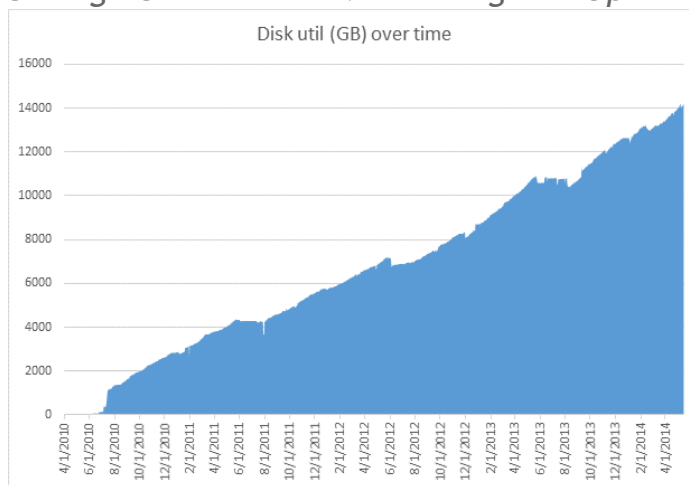
Storage Equipment Upgrades (EqualLogic)

Two devices in our EqualLogic storage network will reach “end of service life” in January 2015. This equipment is pivotal in supplying storage supporting our virtualization platform, which in turn supports nearly all user-facing storage resources.

Work to secure replacement units will begin October 2014, with a targeted in-service date for replacement equipment of December 2014.

Completion: January 2015

Storage Utilization - Monitoring and Optimization



We have experienced steady storage growth during the past 48 months, during which time we've experienced nearly a 14-fold increase in storage demand.

When our current storage architecture was deployed in 2010, we gained a number of insights into storage utilization. Although we had seen dramatic growth in storage demands prior to deployment, the new system allows us to better track overall utilization across all storage pools throughout the District.

In 2010, our total overall storage utilization across all District storage pools was approximately 1.2 TB. On May 23, 2014, we reached a new utilization high of 13.95 TB (14,285.76 GB) districtwide.

Research is ongoing into deployment of data deduplication and compression technologies in order to better utilize our existing storage architecture. Through June 2014, we've begun the process of moving a subset of our storage over to deduplicated storage technologies. Work is ongoing, with the ultimate hope that we can realize a 20%-30% reduction in storage footprint without deployment of additional hardware.

Target Completion: Ongoing FY15

Windows Server Infrastructure Upgrades

Work is ongoing to replacing those physical servers that have reached end-of-life in FY15. A total of 8 school servers are scheduled for replacement this summer.

This cycle also includes the introduction of Windows Server 2012 R2 into our infrastructure. Work is ongoing to move a number of core services over to Windows Server 2012 R2, providing the latest desktop and server support for the Microsoft platform.

Completion: August 2014 (3 of 8 completed as of June 11, 2014)

PowerSchool - Support Personnel to Attend PowerSchool University (PSU)

Two members of our department are traveling to San Francisco to attend PowerSchool University. The primary focus will be to learn the skills needed to perform the custom field to schema table conversion in July / August.

Target Completion: July 2014

PowerSchool - Custom Field to Schema Table Conversion

Because of changes made to our student information system (PowerSchool), it will be required that we convert our 1000+ custom fields into newly created tables. Begun in summer 2014, this is a very involved process and will require us to modify most of the corresponding screens / reports / automated processes. Once completed, screens / reports / processes using custom fields will see a noticeable performance increase.

Target Completion: August 2015

Revtrak Integration (Online Lunch / Fee payments / School Store)

The IT department in coordination with the Finance department are integrating online student lunch and fee payments in partnership with Revtrak. Students and Parents will be able to pay school fees and fund hot lunch balances via an online website. This integration requires modification to both our existing Finance system as well as PowerSchool.

July 2015 - Food Service payments are being accepted at all schools. Schools have the ability to provide an online school store for selling things like Yearbooks, School branded clothing etc. that function is working but requires the schools to work one-on-one with the Finance department on the set up. Paying fees through the PowerSchool Parent Portal has been delayed on the Revtrak end, but that modification has been created and payment of school fees should be forthcoming.

Target Completion: July / September 2015

Summer 2014 - Year 15 of the Tech Plan

This summer's Tech Plan implementation saw 1138 new computers come into the district: 587 Dell Latitude e5430 laptops, 286 Dell Optiplex desktops, 14 iPads, and 251 Microsoft Surface 2 Windows 8 tablets. 21 computer charging carts were also purchased. 10 temporary staff were hired for the summer to supplement our KPBSD field techs.

Completion Date: Aug 2014

2014 E-Rate request funded

\$844,920.44 of subsidy was approved for our 2014 E-Rate funding. Funding was unusually early this year. The district is continuing to shift more E-Rate responsibility from Information Services to the Business Office. Significant Business Office staff training is ongoing.

Completion Date: Jun 4, 2014 on funding; Training ongoing

36 Smartboards placed in schools - summer 2014

Teachers rely heavily on the Smartboards to deliver instruction and being without a working Smartboard is a major inconvenience. We have strategically replaced a variety of different model Smartboard projectors with 36 of the current model. The older displaced Smartboard projectors will be used to build a broad replacement pool that will give us capability to quickly replace failed projectors throughout the district.

Completion Date: Aug 2014

Nanwalek and Port Graham Microwave build-out

These two villages across Kachemak Bay have historically been connected to the district via satellite service. Bandwidth was extremely limited due to the high cost of satellite and was woefully inadequate for the needs of the school. In 2013, we requested proposals to build land-based communications facilities servicing these two remote villages. The district accepted Alaska Communications bid to provide 20Mb of service to each community via a microwave shot from Homer. Unrealistically anticipated in July 2013, construction was completed and the circuit was ready in December 2014. This project was the catalyst for bringing commercially available DSL internet into the villages.

Completion Date: December 2014

Broadband Assistance Grant from the State

The State of Alaska offered school districts additional financial assistance to bring schools up to 10Mb of Internet service. Our Internet service is provided in Soldotna and we disburse it to the schools primarily through data circuits leased through phone companies. So for us, that means

upgrading data circuits carrying Internet traffic to 10Mb. Most of our schools were beyond 10Mb, but these schools were increased: Hope from 3Mb to 10Mb, Seldovia from 9Mb to 10Mb, and Tebughna from 3Mb to 6Mb. The amount of the award was \$21, 687.07 for Feb – June 2015. We also applied for, and received, \$23,949.83 for FY 2016. For 2016, Marathon School from 6Mb to 10Mb was also added to the previous three schools.

Completion Date: May 2015

East End Road moved to E-Rate-able data circuits

For decades we have had suffered from a lack of telecommunications capabilities out Homer's East End road, To gain more bandwidth than was available from Alaska Communications, years ago we supplied Razdolna, Kachemak-Selo, and Voznesenka with district-owned radios pointed at the schools from the Bradley Lake hydro-electric generation facility. That worked, but was not without some reliability issues, particularly at Kachemak-Selo during tide swings. When options became available from a wireless internet service provider we jumped on the chance to again improve what we could provide these schools. For 2014 we re-bid the service under E-Rate so as to take advantage of the FCC subsidy, eventually including Nikolaevsk and McNeil Canyon, both schools where we needed more bandwidth than we could get from Alaska Communications.

Completion Date: July 2014

Have we finally arrived at our destination?

It seems like we always have schools where the need outstrips the supply of available bandwidth. It is seldom fixable by a simple phone call to the service provider. It is nearly always what the providers call "a lack of facilities". There just isn't the physical infrastructure in place to support additional bandwidth. Maybe that the cabling into the school from the road is inadequate. Or maybe there isn't the last mile wiring capability in the neighborhood. Or the problem may lie elsewhere in the phone company wiring grid. With the microwave build-out at Nanwalek and Port Graham, the improvements made due to the Alaska Broadband Assistance Grant, or the Wireless Internet Service Provider data circuits out East End Road, today – just for the brief moment in time- we have the bandwidth we need. All schools have enough. For Today. It's a good feeling.

Completion Date: May 2015

Nanwalek School gets Apple ConnectEd grant - The Only AK School!

Nanwalek School was 1 of 114 schools in 29 states to be awarded a ConnectEd grant from Apple Corporation in fall of 2014. Basically, a 1:1 iPad implementation along with MacBooks, software, and substantial training for teachers, it is a phenomenal opportunity for the kids of Nanwalek. Nanwalek Principal, Nancy Kleine, made a compelling case for Nanwalek in the grant application, and Apple has made a First Class effort to see that Nanwalek has what it needs to succeed in this effort. Information Services has been supporting the project with resources since the beginning. Teachers have their equipment and have begun receiving training. The iPads are in Nanwalek now and will be disbursed to students during a special ceremony August 18, 2015.

Completion Date: August 2015 and then the real work starts!

Evaluated Fax server software

In an effort to reduce the number of analog phone lines the district pays for each month, we spent considerable effort analyzing phone bills and set up a fax server for evaluation that would allow

sending and receiving of faxes from staff PCs. In the end, we didn't feel the concept was a good fit for us, however the exercise allowed us to further pare down our district-wide phone line count. It is always important we remain diligent on controlling all our recurring telecommunicating costs, even more now as E-Rate is gradually phasing out subsidy on voice lines.

Completion Date: June 2015

E-Rate expertise moving from Information Services to Business Office

Business Office staff have been preparing to take over the E-Rate responsibilities for quite some time and now are fully trained and prepared to do so. Shelley Stockdale has taken over that responsibility. E-Rate subsidy to the school district is anticipated at about \$1 million in FY2016.

Completion Date: March 2015

PowerSchool software changes

PowerSchool is the commercial Student Information System software the district has used since 2012. The software provides a framework for customization and we actively make improvements to better meet our needs. Here is some of the software changes made this year:

1. New attendance screen to help secretaries better track excused and unexcused absences.
2. New screen tracking Key Performance Indicators by school.
3. New screen for Graduation Requirements by student.
4. New process for tracking students while on activity or field trips including medical release forms available electronically.
5. New screen for marking student behavior by classroom teacher
6. Updates for High School Qualifying Exam
7. Quick Picks added to the front page of PowerSchool making it easier to select commonly used sub-groups of students

Completion Date: Throughout the year

Additional computers to three schools to accommodate Online Testing

This was the first year of the state required Alaska Measure of Progress (AMP) test for students and the test was delivered online. Our technology was fairly well prepared having gone through technology readiness surveys with both SmarterBalanced and DRC, prior to the state settling on the test from Kansas University. The Dell 2100 series netbooks in wide use here did not meet the specifications for the test. We had three schools that didn't have adequate acceptable equipment so we supplied each of the three schools a cart with 30 new laptops and eventually supplemented those with some older but still acceptable laptops.

Completion Date: August 2014

AMP Online Testing - our technology was ready!

The Alaska Measure of Progress (AMP) test required considerable effort - even months prior to the testing window. Consider that each of the district's 8,000+ computers required specialized software to be installed on each machine. And that there were multiple versions of that software as it was improved, so the effort had to be duplicated over and over and over. Other software was

required on school servers. And it all had to be retested on each version iteration. Eric Soderquist did a masterful job of preparing us for the test, including diagnosing program errors and identifying corrections to the code to the AMP test providers!

Completion Date: April 2015

Security cameras

The school security camera effort is ongoing. The Borough Maintenance department has been instrumental in wiring and placing the security cameras in the schools, the count now at 915 cameras. The project is fundamentally complete, but training and support are ongoing efforts.

Completion Date: August 2014

Upgrade Aruba Wireless network district-wide

Changes in the E-Rate program provide the first real opportunity we have had since 2008 to receive equipment funding through E-Rate. We submitted for Category 2 funding through the FCC E-Rate program for a replacement of our wireless access point and controllers district-wide hoping for a summer 2015 install. As of July, our application hasn't been reviewed. Our request is likely to be approved, but installation will be pushed back into the school year, or possibly next summer. The delay will certainly complicate the installation.

Target Completion Date: May 2016