

FY14 (July 1, 2013 - June 30, 2014) Accomplishments

APECS 2.0 Upgrade

The APECS 2.0 cutover in November 2013 marked the culmination of countless efforts of many individuals across multiple departments to implement, test, and execute the upgrade from the previous version of our financial package, APECS 1.0.

In addition to supporting roles in the conversion and upgrade process, Information Services reviewed, tested, and changed a number of key down-level systems that source information from the Human Resources component of the APECS product in order to properly connect these systems to the new data structures provided by APECS 2.0.

Completion Date: November 2013

Commvault Backup Upgrades

Commvault Backup solution was upgraded to Simpana v10. The upgrade takes advantage of some new developments in our VMware infrastructure to decrease the time needed for backups. The upgrade also enhanced our toolset for recovering files from completed backup jobs.

Completion Date: February 2014

Security Camera Installation

This year marked the completion of a multi-year project to ensure both indoor and outdoor security camera coverage at 34 school district facilities. Our department worked closely with Borough Maintenance to install and configure 901 cameras and 34 recording servers in total. Part of the installation required additional hard drive recording space at each site to reach our goal of a minimum 30 days' worth of recordings. Over the course of the installation we have added a combined total of 200 Terabytes of video storage capacity. As part of the process each site that had cameras installed also received training on how to best use the camera system software.

Completion Date: June 2014

Discovery Education - H.264 Conversion

Our Discovery Education implementation involves a local server that houses copies of nearly all media contained within the Discovery Education system. When staff or students utilize the Discovery Education system from within the KPBSD network, video content is served from our datacenter, rather than utilizing bandwidth provided by our public internet feed. This architecture significantly improves performance for Discovery Education within our network.

In early 2014, the format of this media cache was upgraded from Windows Media to H.264. The conversion to H.264 allows for a much wider array of supported devices accessing Discovery Media content. In addition to the format conversion, an upgraded 21 Terabyte disk array was deployed to handle the roughly 20% size growth required by the format conversion, as well as anticipated growth in the Discovery Education media library.

Completion Date: February 2014

Lync 2013 Upgrade/Federation

Our existing Lync 2010 platform has been upgraded to Lync 2013, which has brought additional connectivity and functionality to our existing voice/video/conferencing platform.

The Lync 2010 platform was internal only to the KPBSD network. With the upgrade to Lync 2013, we've expanded the platform to include the ability to federate (share) communication with remote Lync organizations. In addition, KPBSD users can now connect to the Lync platform from any supported Lync device (including mobile devices) anywhere in the world.

Completion Date: June 2014

ParentLink - District Mobile App

In cooperation with the Communications department, Information Services staff provided technical guidance for implementation of the KPBSD ParentLink application available on iPhone and Android mobile devices.

This service consolidates information streams from various sources (school blogs, sports and event calendars, lunch menus, etc.) into a single application.

Custom data exports were developed to automatically synchronize our systems with the ParentLink system. In addition, a custom LDAP (Lightweight Directory Access Protocol) server was developed to support integrated authentication, allowing students and staff to sign into the application using their previously-established PowerSchool account credentials.

Completion Date: May 2014, ongoing

Windows Server Infrastructure Upgrades

Our Windows Server infrastructure now consists of roughly 50 physical servers providing a wide range of services at the building level. File, print and infrastructure services support staff and student computer usage, as well as providing infrastructure services necessary to support our ever-growing wireless infrastructure.

During the summer of 2013, we have continued to replacing aging servers by replacing approximately 20% of our physical servers on a rolling 5 year cycle. A total of 12 school servers were replaced during July 2013.

Completion Date: July 2013

Virtual Infrastructure Upgrades

During the summer of 2013, a second blade server chassis was provisioned into our existing virtualization environment (VMware). The addition of this hardware has both expanded our capacity to continue supporting the wide array of services housed in our datacenter, as well as providing an extra level of redundancy in terms of hardware failover capacity.

We now host nearly 110 virtualized servers on our virtualization platform, providing the compute resources that drive a wide range of services such as our PowerSchool platform, voice/video conferencing with Lync, email services, website services, Moodle, as well as numerous other supporting roles.

Completion Date: July 2013, ongoing

Contract with Alaska Communications to provide data service via Microwave to Nanwalek & Port Graham

On March 13, 2013 a contract was signed to provide 20Mb data circuits to both Nanwalek and Port Graham with an installation target of 7/1/2013. Although, the microwave service was delayed this year due to a number of permitting and regulatory issues, construction work began in earnest in late spring 2014. New telecommunications offerings in these isolated communities are expected to quickly follow the KPBSD implementation.

Completion Date: Anticipated August 2014

Data Circuit Bandwidth improvements

Tebughna at Tyonek from 3Mb to 4.5Mb (Alascom)

Hope 2Mb to 3Mb (ACS)

Nikolaevsk from 1.5Mb (ACS) to Shared 60Mb (Horizon Satellite)

Kachemak Selo, Voznesenka, Razdolna from KPBSD/Bradley Lake Shared 6Mb to shared 60MB (Horizon Satellite)

Nikiski High 8Mb to 100Mb (ACS)

Nikiski-North Star 8Mb to 100Mb Fiber (ACS)

K-Beach 8Mb to 100Mb Fiber (ACS)

Susan B. English at Seldovia 5Mb to 9Mb (ACS)

Kenai Alternative 8Mb to 40Mb (ACS)

Homer Flex 8Mb to 20Mb (ACS)

From District Office to Seward MS 20Mb to 50Mb (ACS)

Paul Banks 6Mb to 20Mb (ACS)

Sterling 9Mb to 15Mb (ACS)

Completion Date: by June 2014

Internet Bandwidth improvements

From 150Mb to 200Mb (GCI)

Completion Date: Jan 6, 2014

Dustin Boeshart attends JAMF Casper Suite training May 11-14

JAMF provides Casper, a best-of-breed Mobile Device Management (MDM) system for Apple iOS devices. This training was necessary due to changes Apple made. There have been significant improvements for managing i-Devices in the enterprise environment. Dustin implemented many changes that will improve future i-Pad use in the district.

Completion Date: May 14, 2014

Significant role in Districtwide/Regional in-service

Information Services played the key support role in the beginning of the school year regional in-services the past two years. Simultaneous video of Superintendent Steve Atwater and in a split screen a Microsoft Lync session sharing his PowerPoint presentation was broadcast from SOHI and was shown real time to gathered staff in Kenai, Homer, Seward, and Nikiski. The entire Information Services staff was utilized in some capacity for this event.

Completion Date: August 2013

Two tech readiness surveys completed in preparation for online testing in spring 2015

The state required the district to participate in test surveys with testing companies Smarter Balanced and DRC. The surveys included a comprehensive inventory of computer equipment, an assessment of network capability at the district and school levels, provisioning cache servers at local schools, testing and recording various performance metrics, and technical interviews with our staff. Using information gleaned from this effort, we compiled a report identifying 13 schools with potential technical issues that will need to be addressed. Ultimately, the state chose neither testing company, choosing instead AAI associated with the University of Kansas, but much of what was learned from these exercises will be of value to us in preparation for spring 2015 testing, regardless of the testing company.

Completion Date: Ongoing

State Reporting

Each year, our department generates various state reports to comply with student data reporting requirements. This requires frequent data validation / modifications to our student records system (PowerSchool) to keep up with changing reporting requirements.

Fall Oasis: Used to determine district funding - November
Participation (Spring Oasis): Used in determining school ASPI / AMO / Star ratings - April
Student Growth (Health) - Used in tracking student growth (aggregate) - May
Migrant Course History - Used to track migrant student progress - May
Homeless EOY - Homeless (SIT grant) reporting - May
Discipline / Truancy (SET): Suspension / Expulsion / Truancy reporting - June
Carl Perkins (CTE): Grant requirement reporting - June
Summer Oasis: Student enrollment reporting, used to set student Cohort – July

Completion Date: Ongoing

PowerSchool - Continued Development and Customizations

Over the course of the last year, our in house PowerSchool development team has continued to further customize PowerSchool to better meet the needs of our district's users. This development work has included new reporting screens to make student data more accessible to school administrators, new ways to enter student data to streamline record keeping, and a multitude of other minor enhancements.

Completion Date: Ongoing

Algebra Credit by Choice

The KPBSD school board decided to retroactively grant graduation credit to students who had taken Algebra during 8th grade. As this had an effect on student GPA each student was given the choice to accept the credit. This process took coordination and considerable effort between our district counseling and IT staff.

Future middle school student Algebra credits will require ongoing intervention by IT staff.

Completion Date: May 2014

Summer 2013 - Year 14 of the Tech Plan

This summer's Tech Plan implementation saw 955 new computers come into the district: 224 Dell Latitude e5430 laptops, 71 Dell Latitude e3330 laptops, 568 Dell Optiplex desktops, and 81 Microsoft Surface 2 Windows 8 tablets. 12 computer carts and 600 LCD flat screen displays were also purchased. 12 temporary staff were hired for the summer to supplement our KPBSD field techs to provide the manpower for this endeavor. All computers at the 16 schools that received Tech Plan computers were also migrated from Microsoft Windows XP to Microsoft Windows 7. This substantively completed the multi-year effort to move to Windows 7. Only specialty computers remain on Windows XP.

Completion Date: Aug 2013