



Santa Barbara SCHOOL DISTRICTS

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TO: Dr. J. Brian Sarvis, Superintendent

FROM: Dr. Davis Hayden, Director of Research, Evaluation and Technology

SUBJECT: Technology Infrastructure Upgrades

Upgrading technology in the Santa Barbara School Districts is a never ending process. Below are the upgrades that we processed during the 2008-09 school year, a few of which are still being carried out over the summer.

Infrastructure

We installed Cisco switches replacing older hubs at four of the elementary schools (Adams, Cleveland, Franklin and Harding). These switches were funded by an E-rate grant written by the technology and facility staff and funded last year. There is another E-rate grant to provide VOIP (Voice Over Internet Protocol) at these same schools but it has not received word on funding.

Bandwidth

We entered into a new contract with COX this year, and in that contract we are increasing our internet bandwidth from 50MB to 150MB. We will also add an additional 50MB to make sure that the Read180 program is successful. This means that our total internet bandwidth will be increased to 200MB for fall 2009. We are also changing the location and rewiring our head end where COX delivers this bandwidth to be more efficient and to handle bandwidths up to 1 GB. In addition, we are doubling the transport bandwidth to all of the schools in both districts. The increase in internet and transport bandwidth should significantly improve internet usage for everyone. However, we will be monitoring usage and quality very closely in the fall to make sure we have download speeds that match what we are getting from COX. If not, we will follow up with checking switches and connections for upgrades or corrections. The contract with COX allows us to upgrade to even higher bandwidths if necessary. With more applications being hosted through the internet, bandwidth will increasingly be an issue and we need to make sure that we are prepared.

E-mail

Several years ago we decided to go to an exchange server to deliver emails, and began setting it up last summer. Although an exchange server is often the route taken by large businesses, we quickly discovered that we did not have the staff time to support the exchange server. We also knew that we had to buy an archiver once we had the

Adams Elementary School	McKinley Elementary School	Roosevelt Elementary School	Goleta Valley Junior High School	Dos Pueblos High School
Cesar Chavez Charter School	Monroe Elementary School	Santa Barbara Charter School	La Colina Junior High School	La Cuesta Continuation High School
Cleveland Elementary School	Open Alternative School	Santa Barbara Community Academy	La Cumbre Junior High School	San Marcos High School
Franklin Elementary School	Peabody Charter School	Washington Elementary School	Santa Barbara Junior High School	Santa Barbara High School
Harding Elementary School				Home School Santa Barbara

exchange server set up, which was expensive and had a continual maintenance cost to the district. We became aware that Google had started a free g-mail service to school districts and Dos Pueblos decided rather early on to adopt this free g-mail offer. Although a little skeptical, we watched and evaluated g-mail at Dos Pueblos and found that it was a good deal and decided to pursue it for the entire district. At this point, we have everyone switched over to g-mail, except the district office, which will probably be switched over by the time this Board Brief is printed. We will allow the exchange server to continue to run for another month, and then turn it off. This month's wait is to allow everyone to notify contacts of their new e-mail address. Once g-mail is fully engaged, we will start archiving e-mail through the g-mail archiver, which is considerably less expensive than the archiving solution we were going to use for the exchange server. It will also cost less as we can archive only those individuals which were specified by legal counsel as necessary.

Cloud Computing

G-mail also allows us to use Google Applications (Google Apps), which are fully compatible with Microsoft Office products. We will evaluate our options here and might make a decision to discontinue purchasing Microsoft Office for all but a few users in the district. This will also end up saving the Districts considerable money. Added advantages of Google apps is the ability to share in the "Cloud" documents, calendars, Web sites and have Chat (Internet messaging) ability within the domain. For that reason, the district has purchased and will maintain domain names for each school. This allows schools to have multiple calendars for scheduling room activities, announcing monthly events and daily meals as well as shared personal calendars that can be accessed from anywhere there is internet accessibility. It is for these additional options that we recommend that all teachers and staff regularly use their school e-mails for school business.

Power Management

We have been looking at power management solutions for several years, but began to seriously look at companies in 2009. After inviting multiple companies to the district for demonstrations and investigating what other districts had to say about different companies, we decided on a company called BigFix. We have installed the activating software on over half of the district's computers in both districts and will start managing computers this summer. The cost to the district for this software should be completely covered by the rebate we will get from Southern California Edison. There will be an ongoing maintenance agreement of a few thousand dollars (it depends upon the final total of computers activated), but the anticipated power savings (around \$75,000) will be many times higher than the cost of the maintenance. As an added bonus, we will finally have an inventory of all district computers (eventually including laptops) and we will be able to push programs out to computers. Remote monitoring will also be possible so that if a person at Dos Pueblos has a problem, we might be able to fix the computer remotely in a few minutes time without driving to Dos Pueblos and back.

Aeries over the Internet

We recently requested and received from Eagle Software a 50% discount on their new internet based student information system, Aeries.net (total cost was \$4,000 which we will submit for reimbursement from Microsoft Vouchers). We are the 12th district in California to set up Aeries.net. Aeries.net will not replace our current version of Aeries for at least one year as not all of the features of Aeries are available on Aeries.net. However, it is perfect for running our summer schools this summer and by the time school starts, many of our users will find Aeries.net to be a better way of accessing Aeries. It is faster, easier to use, and available anywhere in the world. It has enhanced security features, which will allow us to share some data with places like the Santa Barbara County Education Office or the University of California at Santa Barbara.

GradeWorks

We purchased GradeWorks last year, but the deployment of GradeWorks was not successful. GradeWorks had problems as did our district in terms of how prepared we were. The program was and still is a very easy to use grade book and grade report program for a standards-based system. The owners of GradeWorks realized that their program was not fully functional for our district and offered to provide us with a free version, which we accepted. We will continue with GradeWorks this year, but only on a voluntary bases. It will still be available to print out report cards, but the grade book function will probably be only used by a few schools.

Interactive White Boards

Although a complete count has not been taken, it appears that we have around 20 electronic interactive white boards at the following schools: Santa Barbara Community Academy, McKinley, Santa Barbara Junior High, Goleta Valley Junior High, and La Cuesta, and a few more are probably at other schools. Unfortunately, close to half of the boards are either not being used or are quite old. There are multiple reports of how beneficial interactive white boards are for student learning, yet both of our districts are way behind in the purchasing of these boards. Some reports indicate that 1 in 5 classrooms in the United States have interactive white boards installed. We are actively evaluating all the major companies and will come up with a standard by next year.

Emergency Telephone Response

Our contract with our phone response system came up for renewal this year, which prompted us to investigate our options. Our old system was land lined based and for emergencies could take us hours to reach all the homes in just one high school. We scheduled demonstrations with six companies and in the end selected Teleparent. We immediately had to use the system for the first of three subsequent fires and it worked perfectly. We now have close to 9 months experience with this new, internet based, system and it has been working exceptionally well. With Teleparent, we can contact every home in the district in ten minutes, unless the phone is busy or nobody answers.

The system also is helping us to update all phone numbers for students and their parents.

Scanning Documents for Archiving

Every year the graduating seniors need to have their cumulative records scanned and stored. We have been doing this with microfilm, but this technology is really archaic and we decided that we needed to stop this practice. In our investigation we discovered that there are many ways to go about archiving data; and, in addition to the cumulative records, many other departments desperately needed a solution to microfilming or just storing boxes. We have decided on one company to test out a storing solution and will use it for the cumulative records this summer. If this solution works well, then we will discuss expanding it to other departments. In the end, we will not only be making the storing and retrieval of archive documents much easier, it will also save us money as all of the current solutions that we are using are quite expensive.