

Sayre Area School District

IT Plan

Fiscal Year July 1 2008 to June 30 2009

“Standardize, Simplify, & Save Money”

Reviewed & Created by Rick Rava
Wednesday, January 30, 2008

DRAFT – Under Development

Disclaimer: The IT Plan is a draft and is dependent on the final approval of the Sayre Area School District budget.

Purpose

This document will detail the IT Plans for the Sayre Area School District for the **Fiscal Year 2008 – 2009**. This document contains the recommended actions that are to take place with respect to technology for this fiscal year. **As our superintendent, Dean Hosterman commonly states, “proper planning produces good results”.**

The overall focus of this year’s IT Plan is to continue to Standardize, Simplify, and Save money. Throughout this document will be many proposals to standardize the equipment. This makes it easier to manage and easier to use. This results in a modern, yet simplified environment that is much more cost effective. The following is the list of tentative technology initiatives for the SASD. Please go to the cited page to for more details on each initiative.

“Standardize, Simplify, & Save Money”

One of the biggest challenges with technology is maintaining the technology (and keeping the cost manageable). In order to achieve this, the following procedures are used:

1. Standards: Standards (like Dell for desktop PCs) – enables us to standardize the images (software) so that the installation is much faster and cost effective. Additionally, by buying a standard desktop brand, ensure that the troubleshooting and maintenance is much less time consuming than utilizing a variety of brands. This is not just done with desktops, but with all technology within Sayre Area School District.
2. College Internships / Work: Leveraging the help of college internships / work allows us to cost effectively implement and maintain the technology within the school district. This not only helps the district, but gives the college students a valuable hands on experience that aids them in acquiring jobs in Information Technology. Colleges that have participated in this program are Bloomsburg University, University of Phoenix, Penn College of Technology, Lock Haven University, Penn State University, University of Pittsburgh, York Techology Institute, and Edinboro University of Pennsylvania.
3. Grants: Sayre Area School District recently was awarded a \$160,000 Technology grant plus a \$30,000 technology coach grant for this fiscal year. Sayre plans to continue to pursue grant opportunities that will enable us to provide additional technology without incurring additional costs to the district. With any grant, we can not depend on the funding, but we will continue to pursue such funding.
4. Desktop Management Software: Sayre Area School District will research and leverage desktop management software so that we can more efficiently manage the number of desktops within the district. As part of the 2008-2009 IT Plan, we are looking to implement a desktop management solution from ScriptLogic (Desktop Authority).
5. Good Stewardship / Purchasing: Sayre Area School District will continue to negotiate lower prices for technology and continue to utilize BLaST / State purchases (buying in bulk for lower costs).

Table of Contents

Purpose.....	2
Needs Assessment.....	5
Method Used.....	5
2006-2007 Findings	5
2007-2008 Findings	5
2008-2009 Findings	5
VMWare Server Consolidation.....	6
Overview.....	6
Advantages.....	7
Rollout.....	7
Wired Networking Upgrade.....	8
Core Switch Current Configuration	8
Core Switch Proposed Configuration	10
Various Wiring Projects.....	11
Wireless Networking	12
Proposal.....	12
Snyder Fiber Run Upgrade to 10 GB.....	13
ScriptLogic: Desktop Authority.....	14
Proposed Solution	14
MS DataProtection 2007.....	15
Proposed Solution	15
Classroom For The Future Grant (CFF)	16
Implementation	16
Upgrade High School Lab PCs Room 235	17
Equipment	17
Layout – Room Notes	17
Install Lab Projector High School Lab 237	18
Equipment	18
Layout – Room Notes	18
Upgrade Litchfield PC Lab.....	19
Equipment.....	19
Layout – Room Notes	19
Upgrade High School Learning Support Resource Room 258.....	20
Equipment.....	20
Maintenance Room Notes.....	20
LCD Monitors (energy savings)	21
Equipment.....	21
WAN.....	25
Media Streaming.....	25
Content - SuccessMaker	25
Video Content	26
Software	27
Inspiration Site License.....	27
Background.....	27
Proposed Solution	27
MS Office 2007 Suite	27

Open Source.....	28
Background.....	28
Proposed Solution.....	28
Operating System.....	29
Education.....	30
Technology Staff.....	30
Background.....	30
Proposed Solution.....	30
SASD Staff.....	31
Background.....	31
Proposed Solution.....	31
Financials.....	32
Budget.....	32
Background.....	32
Proposed Spending Breakdown.....	32
Consulting / Engineering.....	33
BLaST IU17.....	33
Background.....	33
Proposed Solution.....	33
Technology in Classrooms.....	34
Sample.....	34
Energy Savings.....	35
Flat Panel Monitors.....	35
Recycling.....	36
Annual Recycling.....	36
College Student / Internship Program.....	37
Work Projects.....	37
Printers.....	38
Security.....	38
Student Picture ID.....	39
Overview.....	39
Other Initiatives – Time Permitting & *If Funding Exists.....	40
Additional CSIU APPS.....	40
Accelerated Reader Web.....	40
High School Auditorium.....	40
Moodle – Online Courseware.....	40

Needs Assessment

Method Used

- This is the third year of our needs assessment.
- For this fiscal year, we will meet individually with each teacher in the school district to gather their needs.
- The results will be added to this document.

2006-2007 Findings

The top need identified was the replacement of old teacher PCs including both elementary and high school building.

2007-2008 Findings

The top need identified was roll out of computer projectors, screens, and smart monitor tablets.

2008-2009 Findings

TBD from this year's needs assessment – this will be completed in the next 2 months. Robyn and Bonnie will meet with each teacher in the district to gather their needs. This will be consolidated and prioritized in this document.

VMWare Server Consolidation

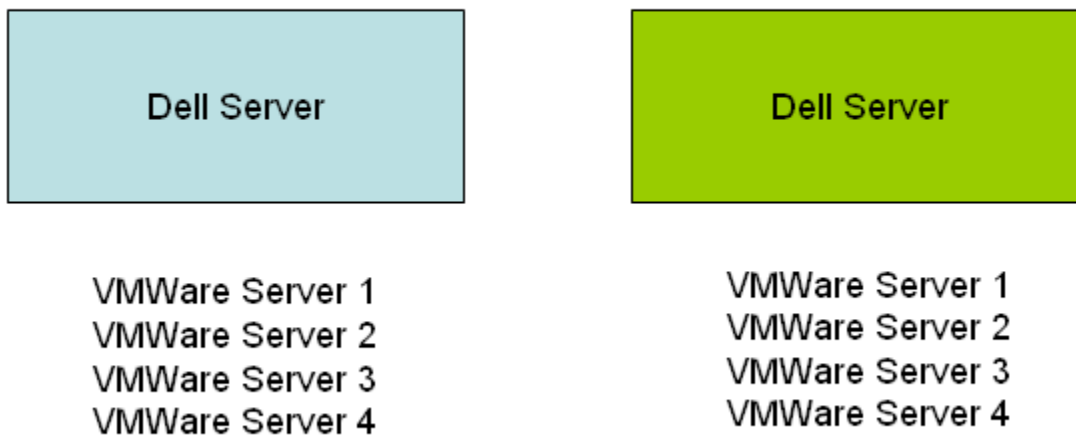
VMWARE SERVERS: Will begin implementing VMWARE Server technology (running multiple servers on server – save electricity and hardware costs).

- Will purchase and implement 2 servers that will run 4 or more servers.
- We will continue to use distributed server technology – which entails breaking up the applications so that each server has a main purpose, the reliability and maintenance of the servers will be much easier.
- The only change is that we will begin to leverage the cost saving of VMWare server technology.

Additional material may be found at: www.vmware.com

Overview

We will purchase 2 physical Dell Servers. Each Server will have VMWare software installed so that each server has actually 4 servers on each box. These 2 physical boxes will be redundant backups of each other. So we actually have 8 servers (redundant backups of each of the 4 VMWare servers).



Advantages

There are many advantages with this solution including but not limited to:

1. **Maintainability:** SASD has greatly expanded the available technology to our students, teachers, and staff. VMWare will allow the technology department to better manage and support the technology using the maintenance benefits of VMWare.
2. **Energy savings** (for example, instead of having 8 physical servers → only needing 2 physical servers and VMWare to create virtual servers).
3. **System rollout efficiencies:** To roll out a new server with the old technology takes at least 1 day to configure / build the server. With VMWare new servers can be built in a few minutes.
4. **Testing:** With the old server technology, testing of servers requires an identical setup on identical hardware (which is costly and we do not have the luxury of purchasing testing server). With VMWare, we can quickly create another server and test.
5. **Reliability:** With the old server technology, if a server fails, we need to wait for parts or a replacement of that unit. With VMWare's iMotion technology, a failed server rolls over to another VMWare server with no down time.
6. **Backup / Disaster Recovery:** Since VMWare is not tied to a specific hardware, if a disaster occurred – the servers can be quickly recreated at another site.
7. **Optimal Server Setup:** Applications running on servers run best when they are the only application on that server. VMWare allows SASD to segment the servers to the specific applications.

Rollout

SASD plans to rollout VMWare 1 server at a time to pilot and get used to this new technology. For example, one current physical server will be converted to a VMWare solution. This server will be put into production and tested for any problems. Once this is complete, the next server will be converted.

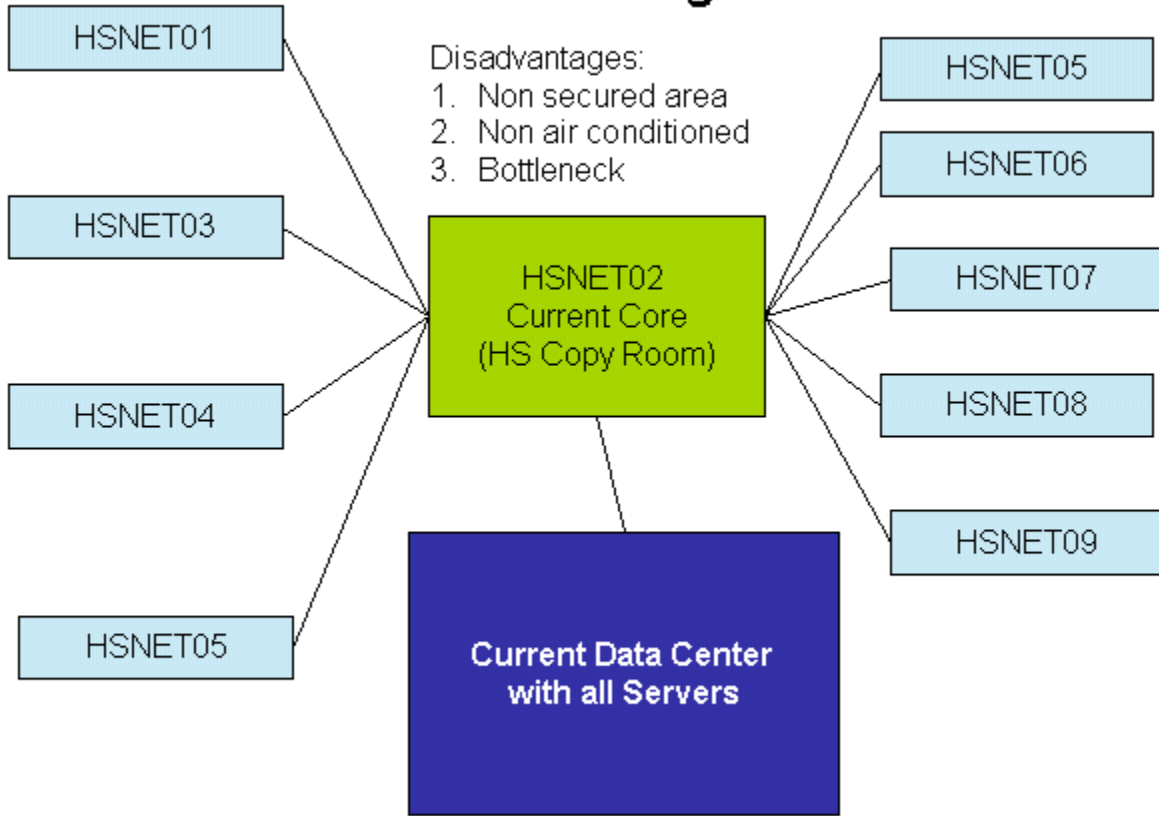
Wired Networking Upgrade

- WIRED NETWORKING UPGRADE: Rerun Fiber to create Core Switch (Star Network) in datacenter, upgrade Snyder to High School fiber run to 10 GB, rewire various rooms.

Core Switch Current Configuration

Currently we have a network design that is a combination of Star, Bus, and other designs. This results in many disadvantages as summarized in the following diagram.

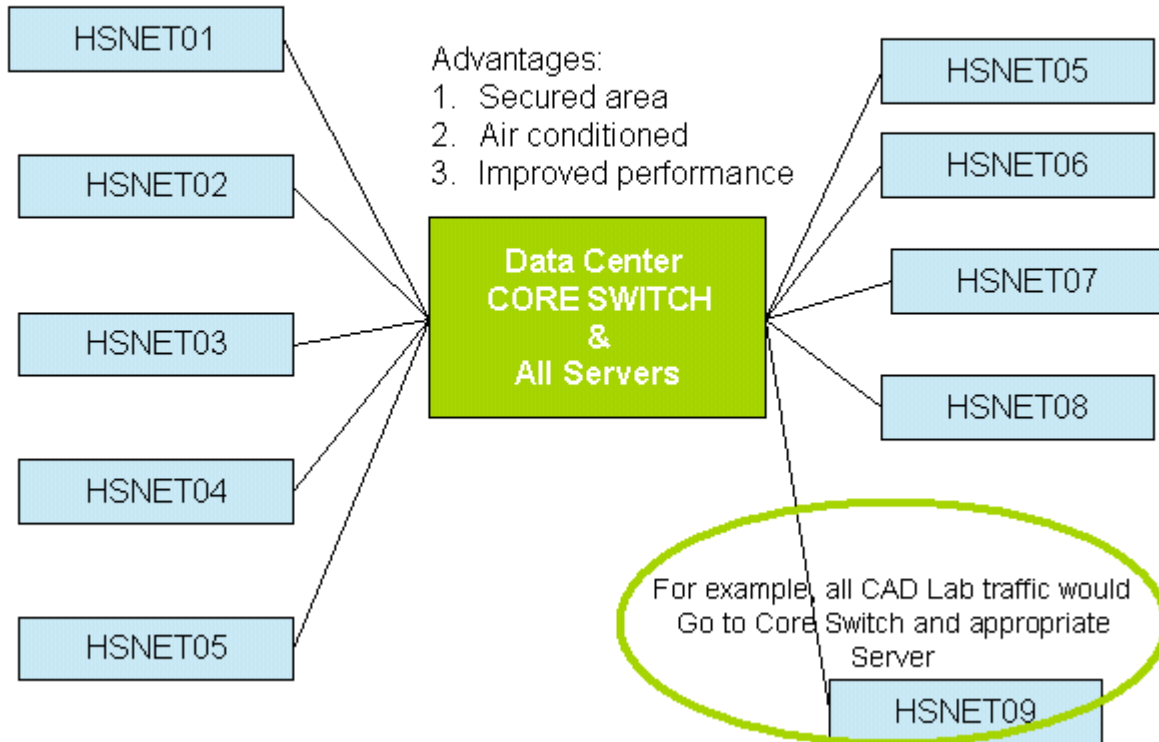
Current Configuration



Core Switch Proposed Configuration

The following proposal converts the current core switch design into a true Star Network design which has many advantages as listed in the following diagram.

Proposed STAR Network Configuration



Various Wiring Projects

The following areas need additional / upgraded / fixed network CAT5 wiring:

1. HS Library Jacks not working – currently maxed out at 19 workable ports in the library due to multiple ports not working.
2. HS CAD/CAM Lab - increase to 22 jacks - fiber run from gym closet to lab - wall mounted enclosure – short term solution has 10/100 MB switch in CAD area with not enough jacks.
3. HS Art Room - Fix existing jacks and add 6 new runs. Current jacks have performance issues (some do not work, some only work at 10/100 mb).

Proposed solution – contract work out with BLAST IU 17 to complete the above work.

Wireless Networking

- **WIRELESS NETWORKING:** As a result of the CFF grant, Sayre High School now has wireless access in many classrooms and a couple of shared rooms (ex. HS 120, cafeteria, auditorium). As a result of this new infrastructure, the building will be reviewed for additional wireless access points.

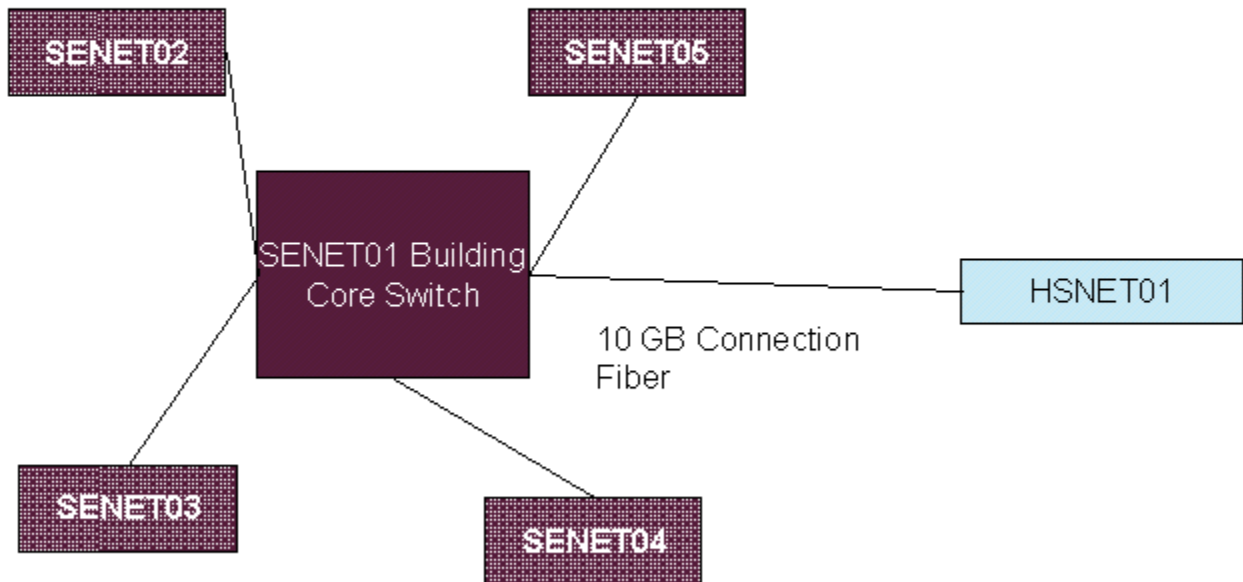
Proposal

As requested by the Sayre Athletic Director, wireless access is requested in the High School Gym. Additionally, wireless access in the swimming pool, Lockhart Street Bowl, and other areas will be researched.

Snyder Fiber Run Upgrade to 10 GB

- Currently we have a 2 GB connection to Snyder. In order to leverage our current equipment, we can at a reasonable cost upgrade our connection to Snyder to a 10 GB connection.
- This extra bandwidth can be utilized in a variety of higher bandwidth projects – not limited to the security cameras / computer project.

Proposed 10 GB Connection to Snyder



ScriptLogic: Desktop Authority

Desktop Authority comprehensively manages the Windows desktop throughout the desktop lifecycle, reducing the total cost of desktop and application ownership by enabling administrators to proactively manage, inventory, secure and support desktops from a central location.

Manage	Comprehensive configuration of the user's environment
Inventory	Enterprise hardware and software inventory with built-in and custom reporting
Secure	Patch, Anti-Spyware and Device management of desktops from a centralized console
Support	Remote management and control from any java-enabled browser

More information can be found at their website at:

<http://www.scriptlogic.com/products/desktopauthority/>

Proposed Solution

Purchase licenses to manage all desktops within the district. This enables:

1. Quickly install or upgrade software on the districts desktops. For example, to upgrade to the latest version of Geneva Logic classroom management software is no done either on a desktop to desktop basis or by re-imaging the desktops. Both solutions are time consuming and labor intensive.
2. Remotely troubleshoot and reconfigure PCs while the end user is still on their PCs. This product has 2 methods of remote access, hidden and non-hidden. The hidden access allows IT to work behind the scenes.
3. Manage our MS environment efficiently. For example, this system allows us to configure MS Outlook clients (non web) without using the user's login account.

MS DataProtection 2007

- MS DataProtection 2007: SASD will be migrating off of Symantec Backup Exec for our backup and recovery solution for next fiscal year. We are leveraging the substantial cost savings for the MS solution (excellent savings for educational institutions).

Proposed Solution

Implement MS DataProtection 2007 for the district backup and recovery.

Classroom For The Future Grant (CFF)

Sayre applied for a Classroom for the Future Grant in spring of 2007 and was awarded a grant of 160,000 dollars for technology and an additional 30,000 for the salary of a CFF Coach to train the CFF teachers on the new technology.

Implementation

Sayre High School is very fortunate to have had all eligible English, Math, Social Studies, and Science teachers volunteer for the CFF project. This shows the commitment that our teachers have for new technology, and most importantly, our students.

GRANT EQUIPMENT SUMMARY: Sayre received all of the technology as submitted in the grant award. It consists of the following:

1. 5 Laptop Carts with a timer based charging system for laptops (for use by student in our CFF classrooms).
2. 173 Lenovo Laptops with a lot of software installed
3. 6 HP digital cameras
4. 24 Mitsubishi computer projectors

CFF COACH: Our CFF Coach is Mary Cole. SASD is very fortunate to have our Business / Technology teacher volunteer for ½ time to teach our teachers.

Mary has accomplished a lot in her short time in this role.

She has set up 2 sets of weekly training:

1. Imbedded learning (changing the way teachers teach)
- 2.
3. Technology training (showing how to use the new technology tools)

She and our CFF leadership team have attended / completed many workshops and trainings related to the CFF project.

SASD TECHNOLOGY PURCHASED: We purchased and implemented the following technology to support the CFF Grant.

1. One 3COM 2200 Wireless Controller: This product ensures a managed and secured wireless network.
2. Four 3COM POE 4500G Switches: These products allow our wireless access points to connect to our network and gives power to the wireless access points.
3. Twenty four 3COM AP3750 Wireless Access Points: These products allow our wireless laptops to connect to our network.
4. ScriptLogic Image Center: This imaging product allows SASD to more quickly create and distribute new software images to our CFF laptops and computers.

Upgrade High School Lab PCs Room 235

HIGH SCHOOL LAB 235: Currently PCs are 4 years old and this lab will be replaced with new PCs for students.

Equipment

The new lab will consist of:

1. 30 new PCs
2. Standard suite of SASD software
3. Printer (already in this room)
4. Add computer projector
5. Add projection screen
6. LCD Monitors (energy efficient LCD Monitors are already in this room)

Layout – Room Notes

Maintenance will need to add electric and mount projector and projector screen in lab.

Install Lab Projector High School Lab 237

HIGH SCHOOL LAB 237: Installation of computer projector

Equipment

The updated lab will need:

1. Add teacher computer projector

Layout – Room Notes

Maintenance will need to add electric and mount projector. Please note that no projector screen is needed due to large white wall in front of room.

Upgrade Litchfield PC Lab

LITCHFIELD PC LAB: Currently PCs are 5 years old and this lab will be replaced with new PCs for students.

Equipment

The new lab will consist of:

1. 26 new PCs
2. Standard suite of SASD software
3. Printer (already in this room)
4. Teacher computer projector (already installed in room)
5. Flat panel LCD monitors (replace old CRT devices for energy savings)

Layout – Room Notes

- Bonnie will review total number of devices needed for this lab and how the lab will be setup.

Upgrade High School Learning Support Resource Room 258

HIGH SCHOOL LEARNING SUPPORT RESOURCE ROOM 238: Currently has 6 PCs for usage in the Learning Support Resource Room and more PCs are needed.

- Review and finalize requirements with Cheryl Wilbur

Equipment

The new lab will consist of:

1. 6 new PCs to increase total PCs for students to 12.
2. Standard suite of SASD software
3. Printer (already in this room)
4. Add computer projector – Mistubishi
5. Add projection screen – remove old smart board
6. 6 LCD Monitors (energy efficient LCD Monitors)

Maintenance Room Notes

Maintenance will need to replace the projector with a Mistubishi, remove the old smart board, and install a new projector screen.

LCD Monitors (energy savings)

LCD Monitors: Replace the remaining amount of CRT monitors with LCD Monitor (to recoup the energy savings). These are the remaining devices that are utilizing the old CRT Monitors. The rest of the district's equipment is utilizing LCD Monitors.

Equipment

There equipment needs is as follows:

High School will need 59 Monitors for the following PC's:

HS Students Classroom Only	
PCName	
HS014S01	
HS015S01	
HS016S01	
HS017S01	
HS017S02	
HS017S03	
HS025S01	
HS025S02	
HS025S03	
HS025S04	
HS111S01	
HS111S02	
HS122S01	
HS122S02	
HS150S01	
HS150S02	
HS152S01	
HS152S02	
HS152S03	
HS152S04	
HS152S05	
HS152S06	
HS153S01	
HS153S02	
HS153S03	
HS153S04	
HS155S01	
HS155S02	
HS155S03	
HS155S04	
HS163S01	

HS Students Classroom Only

PCName
HS163S02
HS211S01
HS211S02
HS215S01
HS215S02
HS219S01
HS219S02
HS223S01
HS223S02
HS227S01
HS227S02
HS227S03
HS227S04
HS227S05
HS229S01
HS229S02
HS230S01
HS230S02
HS231S01
HS232S01
HS232S02
HS232S03
HS232S04
HS234S01
HS234S02
HSGUIS01
HSGUIS02
HSMUSS01

Snyder will need 35 Monitors for the following PC's:

SE Classroom Students

PCName
SEPD2S04
SEPD2S02
SEPD2S03
SEPDKS05
SEPDKS06
SEPDKS07
SEPDKS08
SEPDKS09
SEPDKS10
SERE4S02
SEPD1S01
SEPD1S02

SE Classroom Students

PCName
SEPD1S03
SEPD1S04
SEPD3S01
SEPD3S02
SEPD3S03
SEPD3S04
SEPD4S01
SEPD4S02
SEPD4S03
SEPD5S01
SEPD5S02
SEPD5S03
SEPD5S04
SEPD6S01
SEPD6S02
SEPD6S03
SEPD6S04
SEPDKS01
SEPDKS02
SEPDKS03
SEPDKS04
SERE4S01
SEPRKS01

Litchfield will need 11 Monitors for the following PC's"

LE Classroom Students

PCName
LEGR1S01
LEGR2S02
LEGR2S01
LEGR3S01
LEGR3S02
LEKDGS01
LEKDGS02
LEGR4S01
LEGR4S02
LEGR4S03
LEGR4S04

Litchfield will need 6 Monitors for the following Thin Client Devices"

LE Library Thin Client Students

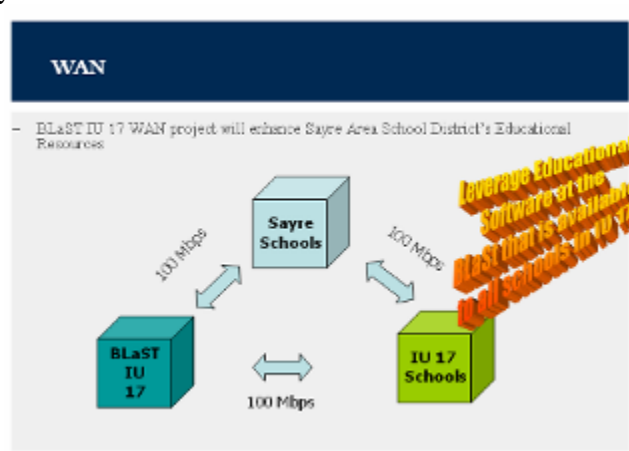
PCName
LELIBC01

LE Library Thin Client Students

PCName
LELIBC02
LELIBC03
LELIBC04
LELIBC05
LELIBC06

WAN

This is the third year of our WAN project which is a joint project among the school districts in the IU17 area. This project is lead by the BLaST in IU17.



As part of the WAN BLaST IU 17 project, we will be hooked up with a 100 MB network among all 22 school districts within the IU 17 area and the BLaST IU 17. This will provide us with software from BLaST and opportunities to share resources and save money.

Media Streaming

The WAN will provide @60GB of media storage so that we can stream videos to our students, parents, and community. The Williamsport BLaST will have a streaming server that will allow use to stream the videos of such things as student animation projects, school events, sporting events, and much more. This fiscal year we will work off our few pilot test projects (including the Class of 2007 graduation) → to expand the utilization of our media streaming capabilities.

Content - SuccessMaker

The WAN project will allow us to implement SuccessMaker in the Snyder Elementary Lab. This software focuses on developing the core subject matter skills of the elementary students. The WAN project funded the majority of the software costs for this technology. Our licensing allows us to install this on all of the SE Lab PC devices (30). The actual server is located in the IU17 Williamsport office. For this fiscal year we will work to implement a wider adoption of this product within Snyder Elementary School.

Video Content

The WAN project provides our district with video content that is now accessible in the classrooms. In order to show the video content in the classroom, our district will be purchasing projectors for selected classrooms to continue to leverage the power of the WAN (ex. to show such educational software as United Streaming). We will continue to leverage this technology in the classrooms and expand the utilization due to the increase in the number of computer projectors in the classroom.

In fiscal year 2005-2006 the district had 7 computer projectors. After implementing the IT Plans of 2006-2007 & 2007-2008, we now have 53 computer projectors.

Software

Inspiration Site License

Background

The SASD has the opportunity to leverage licensing reductions (due to existing licenses and licenses from our Classroom for the Future Grant) – so that purchasing a district wide site license. Software is currently available on only pockets of PCs due to lack of licenses.

[Inspiration®](#) for grades 6 to 12

The essential tool to visualize, think, organize and learn

Powered by the proven strategies of visual learning, Inspiration supports improved achievement for secondary students and adults. Inspiration strengthens critical thinking, comprehension and writing across the curriculum.

[Kidspiration®](#) for grades K to 5

The visual way to think, write and comprehend

Kidspiration provides an easy way for primary students to build visual diagrams to represent thoughts and organize information. With Kidspiration, students learn to express their thoughts, organize their ideas for writing and improve comprehension.

Proposed Solution

Install on all SASD PC's Inspiraton and Kidspiraton using a site license. Please note:

1. Site wide licensing (Kidspiration and Inspiration) 1 time cost
2. Upgrade cost: only for years that upgrades come out (@ every 3 years)

MS Office 2007 Suite

OFFICE 2007: Install Office 2007 on all district PCs this will be the new standard (teachers will upgrade to new Office 2007 training materials).

Open Source

Background

The SASD has the opportunity to leverage Open Source software for improving the utilization of the technology within the district. Open Source software is free to use with no licensing fees.

Proposed Solution

Install on all SASD PC's the following software (many of these programs are already on the PCs but we will upgrade the software to the latest release):

Software Name	Purpose
Audacity	Audacity is free, open source software for recording and editing sounds.
Open Office	Office suite which is equivalent to MS Office with added tools such as a program for mathematical type equations.
Cute PDF	Program that allows a computer user to produce PDF's from any application (works by letting the user select the Cute PDF print driver and it creates a PDF file).
Gadwin Print Screen	Program that captures any part of a screen – great for creating educational materials.
Google Earth	Google Earth combines the power of Google Search with satellite imagery, maps, terrain and 3D buildings to put the world's geographic information at your fingertips.
Google Sketchup	Developed for the conceptual stages of design, Google SketchUp is a powerful yet easy-to-learn 3D software tool that combines a simple, yet robust tool-set with an intelligent drawing system that streamlines and simplifies 3D design.
The GIMP	Graphic editing program similar to Adobe Photoshop.
Nvu	Web page editing program similar to the basic features of MS FrontPage.
InkScape	Vector based graphic program.
Firefox	Web browser equivalent to MS Internet Explorer
Stellarium	Stellarium is a free open source planetarium for your computer. It shows a realistic sky in 3D, just like what you see with the naked eye, binoculars or a telescope.

Operating System

WINDOWS VISTA: We will purchase new PCs with the Vista License. We will continue to use Windows XP Professional as the standard desktop PC operating system. (There will be a limited rollout in some of the PC's (mainly IT) so that we can work on developing our support skills with this new technology).

Education

Technology Staff

Background

The IT Plan includes a vast amount of new technologies. In order to effectively support these technologies, proper training is needed. Briefly, the following are areas that the IT Staff needs training in (please note that not each staff member has the same needs):

1. VMWare Server Consolidation (New)
2. Email Filtering (New)
3. WAN BLaST technologies (New)
4. Backup System (New)
5. Student Computer Monitoring System (New)
6. Ghost / imaging (New upgrade)
7. Protect-on (New Upgrade)
8. Computer Projectors – remote management (New)
9. Smart Boards – desktop setup (New)
10. Classroom for the Future technology (if selected – New)
11. MS Networking
12. MS Administration including Active Directory
13. Internet Filtering
14. Rediker administration / support
15. Jackson GradeQuick administration / support
16. MS Exchange server
17. IIS Administration
18. Distance Ed technology (including video conferencing)
19. 3COM Network Administration
20. Dell Server Management tools
21. Dell Desktop tools and support

Proposed Solution

To provide for the IT Staff training, a variety of mechanisms will be used not limited to:

1. Training conducted by BLaST (part of the consulting work – 1 session on site per month)
2. Continue to develop Standard Operating Procedures that detail how to complete common tasks with respect to SASD technology
3. Technology books
4. In house training (led by Rick)
5. External training (including college and seminars)

SASD Staff

Background

The IT Plan includes a vast amount of new technologies. In order to effectively leverage these technologies in the classroom, proper training is needed. Briefly, the following are areas that the SASD staff / teachers need training in (please note that not each staff / teacher has the same needs):

1. How to log on to our new network and MS Networking Basics (including individual network storage, student storage, and group / shared storage areas).
2. How Our New Internet Filtering Works (including procedure on how to get web sites blocked).
3. How Our New Email Filtering Works (including procedure on how each user can delete or deliver blocked emails).
4. How to use new WAN BLaST technologies
5. Rediker tips and tricks
6. Jackson GradeQuick tips and tricks
7. CSIU including custom queries and reports
8. How to use our new email – MS Outlook
9. How to publish to our new IIS web server
10. Distance Ed technology (including video conferencing & how to use)
11. Computer policies (including proper usage, security, viruses)
12. Removable storage (including pen drives)
13. Video projectors
14. MS PowerPoint (how to leverage this in your classroom teaching)
15. Scanning
16. Saving files in the right format
17. Gadwin print screen
18. CutePDF
19. Searching the internet effectively
20. MS Office
21. Smart Board training
22. Utilizing cameras, recorders, with PC's
23. How to publish materials to school web site

Proposed Solution

To provide for the Teacher training, a variety of mechanisms will be used not limited to:

1. Continue to deliver weekly Technology Tips that detail how to complete common tasks with respect to SASD technology
2. Technology books
3. In house training (led by IT Staff)
4. External training (including external companies and colleges)

Financials

Budget

Background

The IT Plan is focused on excellent stewardship of tax payer's dollars. By utilizing the Technology Needs assessment, the money is focused on the district's needs. As part of the accountability of the financials, a detailed report is presented to the school board IT Committee to review. Each purchase in the IT Budget is documented in this financial report. Additionally, the IT department is committed to constantly review financial purchases and negotiating with each vendor to get the most technology for each dollar spent. Good stewardship consists not only of getting a good price but buying technology that is reliable, meets the needs of the SASD, and is financially cost effective to support in the long run.

Proposed Spending Breakdown

A crucial component of any IT Plan is the budget. The following is the proposed spending plan for the SASD technology. Please note that a Needs Assessment was conducted and the breakdown are a result of this Needs Assessment.

Rick will place chart of Tech Spending breakdown...

Consulting / Engineering

BLaST IU17

Background

The SASD has major projects (including the VMWare Server Consolidation, Backup Server, Network Work including the WAN, Media Streaming, Archiving data) that require additional consulting / engineering work. Part of any successful plan, is to include not only the correct technology, but the necessary people skills and resources to make the plan successful. We have had the opportunity during the past year to work with BLaST on our Network work and their expertise has been invaluable.

Proposed Solution

Contract BLaST IU17 on a year long contract where most of the hours will be used during the spring & summer to complete the majority of migration / server / network / desktop projects. By contracting for a year long contract (48 days) the district will save on per day costs and will have available the necessary resources to help make this IT Plan successful.

Technology in Classrooms

Technology In CLASSROOMS: Integrate technology in the classrooms (ex. Create centers of learning in classrooms by adding PCs to the classroom - this allows teachers to more effectively meet the various learning needs of each student).

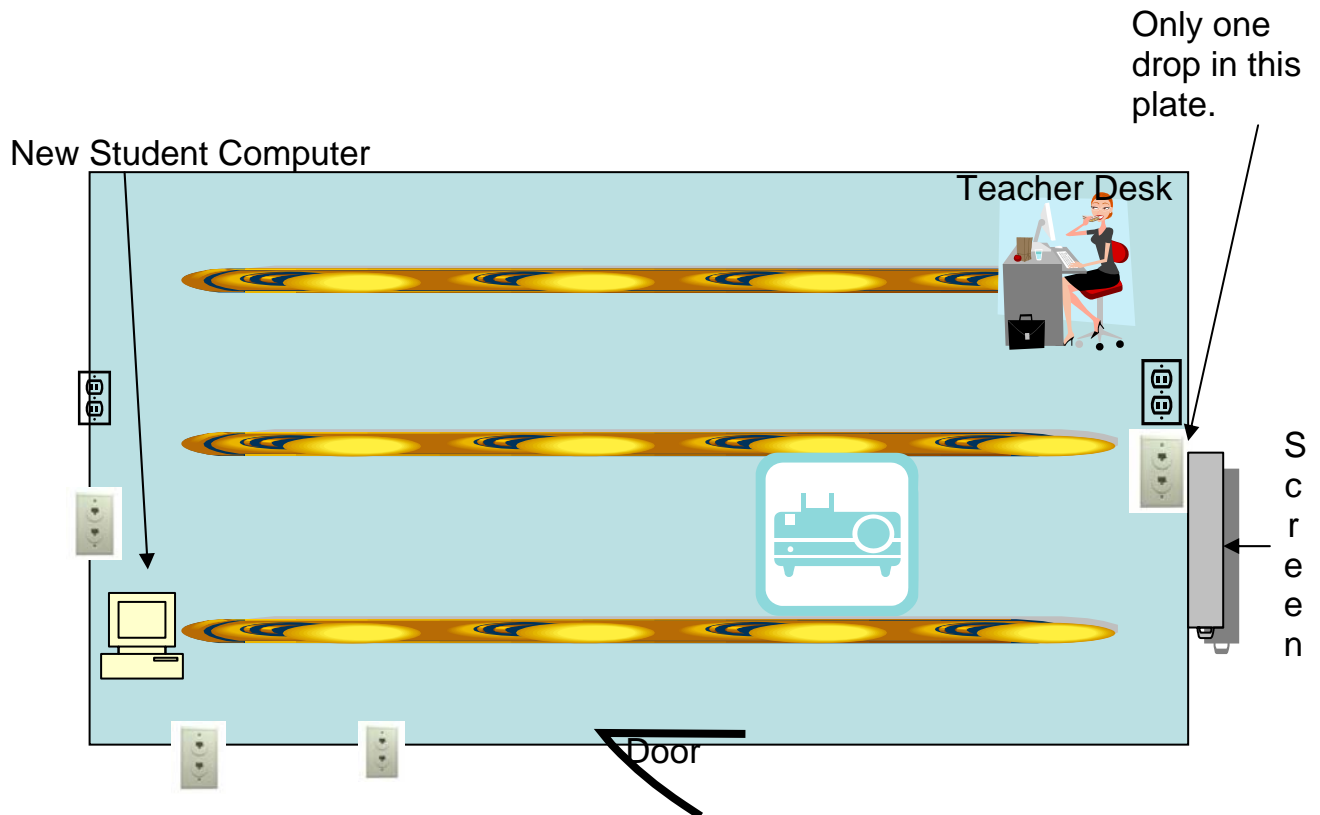
- Bonnie and Robyn need to meet with each teacher to review any needs in this area (to be determined).

Sample

HS - Nick Sikora - Room 122

Maintenance Help

Need: 1 Student machine, 1 desk, 1 projector, 1 Screen



Energy Savings

Flat Panel Monitors

Flat panel monitors save approximately \$30 per monitor compared to the energy and heat / cooling needs of a 17 inch CRT monitor.

Currently @42 percent of SASD monitors are flat panel energy efficient monitors.

From this years IT Plan, we will move to @80 percent of SASD monitors that will be flat panel and energy efficient for an annual cost savings of @\$7,200.00.

Recycling

Annual Recycling

Continue to recycle old equipment that is no longer utilized.

- Last year we recycled 1 years worth of computer equipment plus a large amount of equipment that was overlooked in the Snyder tractor storage room area and the High School Lab 237 closet.
- This year we will be recycling 1 year's worth of old technology.
- This will continue on an annual basis to keep the work manageable.

College Student / Internship Program

Purpose: The College Student / Internship Program provide the following for SASD:

1. Needed help to complete the work of the annual IT Plan at a very reasonable cost. These students have studied specific technologies that can be applied to the needs of the IT Plan (expertise at a reasonable cost).
2. Provides on the job experience for college students (ex. last year 4 college students completed the program – 2 are now working in IT, 1 is going to graduate school, and 1 is continuing his studies in Information Technology).

Work Projects

College students will work on the following IT Plan Items (please note that college students will work on any items from the SASD IT Plan that we need help on. For more information, please see the SASD IT Plan).

1. Clean each existing PC in the district.
2. For all new PC's – continue to document our inventory and implement our standard naming convention for each PC (including Labeling each PC appropriately).
3. Help setup new PC's (unbox, setup, and configure).
4. Ghosting / installation of software on PC's (with standard suite of SASD software).
5. Develop testing plans & test the PC's / Thin Clients.
6. Create and modify Technology Tips on common activities for staff and teachers.
7. Document each newly enabled network port utilizing the SASD Access database.
8. Recycle / properly dispose of old / broken technology equipment.
9. Research and troubleshoot problems.
10. Set up computer desks / work areas (including new classroom desks and new labs).
11. Test new email SPAM solution for SASD.
12. Provide help for the staff during the summer with the new technologies being rolled out.
13. Move various computer equipment including the re-allocation of desktop computers.
14. Test new lab room technology (ex. Latest AutoCAD and the latest Adobe Suite).
15. Upgrade and test Vision on all district PCs.
16. Security audit (conduct a security audit with various test student / staff / teacher accounts to ensure that the security is set up properly).
17. Update computer software inventory database.
18. Other duties as assigned (from the IT Plan).

Printers

Continue to review current printers within the district and proactively replace older units as needed.

- Need to review current printers within district (usage) and replace / reallocate those that have high duty / usage.
- Research 2 old HP 8500 / HP 8550 color laser printer for possible replacement due to high cost of consumables and printing costs.

Security

For fiscal year 2007-2008 2 security audits were completed by BLaST:

1. Internal
2. External

Many of the recommended security changes were implemented. Security is a journey that needs to always be looked at. Here is what we implemented for FY 2007-2008:

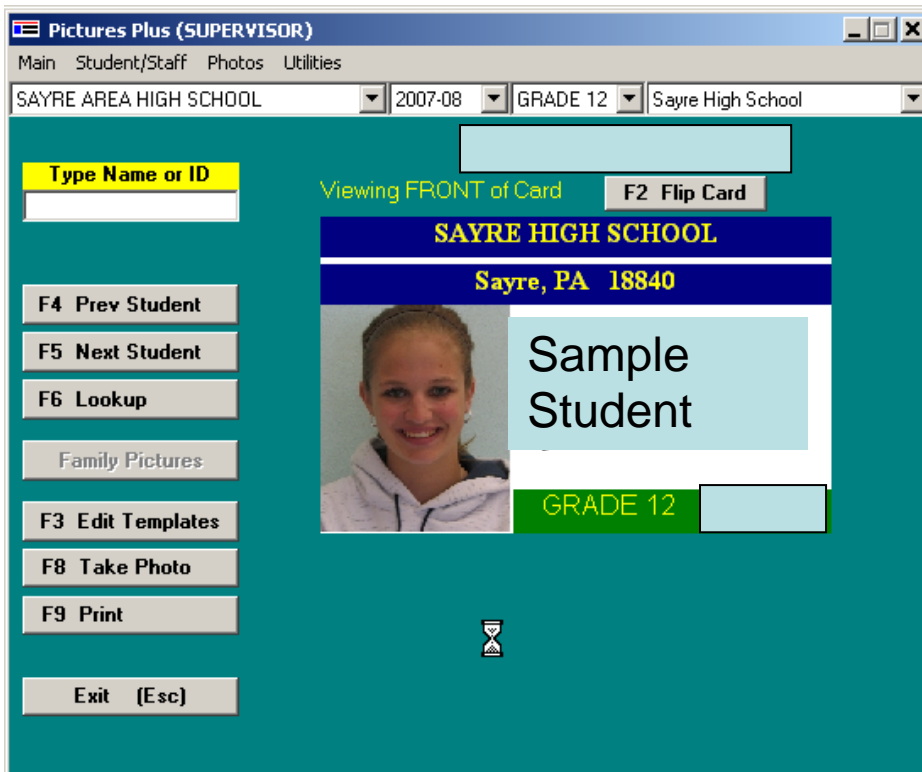
1. All new Admin security for IT (user and domain accounts)
2. Implemented Aristotle student monitoring system to keep track of all keyed student activity
3. Implemented new SPAM solution to keep malicious email threats outside of the district
4. Implemented Journaling on our MS Exchange server (keep track of all emails)
5. Upgraded our antivirus solution – more efficient, yet better protection
6. Implemented more SOPs and internal procedures to improve security.
7. Audited student data directories.
8. Restricted email group access (internal and external).

One of the recommended steps is to tighten our email security using a third party service.

Student Picture ID

Implemented in Fiscal Year 2007-2008 for all High School students. Continue to take student pictures and add them into the Student Information System (Rediker Admin Plus). This will allow verification of students with their pictures. Expand utilization (elementary) and research using Student Picture ID cards with the cafeteria system and the library system.

Overview



Other Initiatives – Time Permitting & *If Funding Exists

Additional CSIU APPS

ADDITIONAL CSIU APPS: The district is reviewing additional CSIU Applications needed to make our staff more efficient. This initiative will be funded through the district's business office.

Accelerated Reader Web

ACCELERATED READER WEB: This solution is an upgrade to the existing system and allows the product to be quickly updated and rolled out using web technology.

High School Auditorium

HIGH SCHOOL AUDITORIUM: Multimedia technology – digital camcorder and multimedia digital projection system (if funding exists). Pending – may be implemented this fiscal year.

Moodle – Online Courseware

MOODLE: Online Course Management system for teachers to post lessons and materials on the web – allows students to log in and submit assignment electronically (like BlackBoard).