

## Computer Facilities Survey

The following information was gathered from the 2006 Sullivan School District Technology Plan, the 2006 Sullivan Middle School eMINTS Grant Proposal, the 2004 Missouri School District Computing Census, and the Sullivan District Technology Coordinator, Sharon Sumner.

### Description of the School to Include

Number of students: 2094

Number of faculty and staff: 183

Number/name of buildings (include grade levels housed in building): High School (9-12), Middle (6-8), Elementary (2-5), Primary (PreK-1), and District Administration

Number of LANs: 5 (one for each building dedicated server)

Number of WANs/MANs: 1 district wide

**Network Requirements/Services** Provide details on how the following network services are used.

File sharing (the ability for more than one person to look at or modify a file): Novell Network shared folders and Novell Map Network Drive

Applications sharing (programs stored on one computer and used by many people): Novell Network shared folders and Novell Map Network Drive (access rights managed through Novell Administrator)

Print sharing (sharing a printer or printers among many users): Printers networked using Windows Standard TCP/IP Ports on the workstation side, with each printer attached to a print server.

E-mail: Provided through Novell GroupWise 7.0 with client and web access

Library system (complete library management or catalog system): Follett OPAC and Follett Web Access

Information services/database sharing: School Information Systems, Inc. Software Suite (SIS)

Internet access (include information on whether service is dedicated or dial-up, speed of connection, name of ISP and what services they provide): Two Dedicated T1 lines and a Cisco 1601 Router provide Internet connectivity through MORENet

Remote access (access to the network from the outside, i.e., home): The District Technology Coordinators use [www.gotomypc.com](http://www.gotomypc.com) to remote in from home. They can work on files on computers at school, print to networked computers, access the servers and even reboot them

Network security: Sonic Firewall and Sophos Antivirus

Remote management (manage the network from outside the school system): Also managed through [www.gotomypc.com](http://www.gotomypc.com)

Wide area networking method and speed (used to connect all schools within your district): Fiber connects the district campuses throughout the city. Netgear and 3Com switches supply the connections into the buildings.

Filtering software installed: SonicWALL Filter (part of the Sonic Firewall which sits at the root of the network)

Other issues you've discovered: Remote access through [www.gotomypc.com](http://www.gotomypc.com) is only available to the Technology leaders, not teachers.

## **Network Protocols**

List each protocol and its use: TCP/IP

Other issues you've discovered: This question was hard to answer for our Technology Coordinators. The class Discussion Board helped clarify what was require.

## **File and Information Servers**

Number, type (Windows NT-based, Apple-based, etc.), location, and use of each server:

- Five Novell 6.0 servers (one for each campus building, and one for GroupWise Mail)
- One Novell Netware 5.1 server (administration building)
- Two Windows 2003 servers (web server, Follet Web Access, Credit Recovery software, and Anti-Virus Central Administration)
- One Windows 2000 server (accounting program)
- All of the district's servers are located in the Administration Building

Added CD-ROM towers (may be attached to main file server or dedicated CD-ROM server): None in our district

Other issues you've discovered: All district servers are in the process of being relocated from the Administration Building to the new technology department being built at the High School. They will probably be moved sometime in August.

## Client Computer Technology

What type(s) of computers do you currently have and what types do you envision? The vast majority are Windows based desktop PCs with Windows XP or Windows 98. LCD monitors are being phased in as CRT monitors die. A few teachers have Notebook/Tablet PCs, but student computers are mostly desktops. I envision that we will continue to move toward LCD monitors, though I believe most student computers will remain desktop based. I also believe that more and more teachers will be moving from desktops to Notebooks/Tablet PCs over the next several years.

### Computer type and quantities:

Existing = over 700 Windows based PCs

Planned = No additional computers are budgeted at this time, however, with the new classrooms being planned we will be adding to this figure possibly this coming year.

### Printer type and quantities:

Existing = We do not have a count of smaller DeskJet type printers, but have approximately 40 networked laser printers and printer/copiers.

Planned = We are in the process of phasing out most of our laser printers. To reduce printing costs, we are moving to a networked printer/copier combination.

Computer placement: What are the philosophies concerning whether to put computers in classrooms and/or labs? How do your personal philosophies compare? The district still believes there is justification for both. The main reason for this is funding. Although they are trying to equip classrooms with several computers each, it is not feasible to have computers for every student or even every two students in a classroom setting along with desks, too. Ideally, all classrooms, grades 4-12 would be equipped as eMINTS classrooms. Therefore, labs still play an important role, either as classrooms for teaching computer skills or as writing labs for teachers to use on a sign-up basis. Personally, I share the district's philosophy. While it would be nice to have notebook computers for every student, we are still many years from that being financially feasible. Therefore, labs are the best way to give students access to computers as soon as possible.

How are hardware specifications determined before requesting equipment bids? The district has specifications on file that they require when requesting bids. These specs change as technology changes. New software might require more powerful hardware so this has to be kept in mind when purchasing new equipment. New technologies are also kept in mind when upgrading specs.

Other issues you've discovered: Personally, I feel that the plan to phase out the district's laser printers is foolish. Those 40 printers represent a huge amount of money, and in my experience, laser printers produce better quality results and are more reliable than copiers. This is also a potential nightmare logistically. Is each computer lab going to have a copier? Probably not. So therefore students will have to walk down the hall to the Teacher's lounge each time they print something. The potential for problems is huge. I

can appreciate the district's desire to reduce cost, but being a modern school costs money. I'm sure we could save millions of dollars if we went back to chalk and slate boards for all of our students. I feel this is a step in the wrong direction.

### **Network Wiring**

\*Note: The information provided by the Technology Coordinator in this section was not very specific. I used it to the best of my ability to make educated estimates based on the best data available.

What type(s) of wiring (or wireless) connectivity is used for each LAN (fiber, coax, etc.): Ethernet cable is used for each LAN while fiber is used for the WAN. A very few classrooms have wireless access, mostly for teacher Notebooks or Tablet PCs.

Number of classrooms: 163

Number of networked computers in classrooms: approximately 150

Number of printers (networked and non-networked) in classrooms: Unknown (district does not track ink jet printers. Most networked lasers are in shared locations)

Number of offices: approximately 15

Number of computers in offices: approximately 150

Number of computer labs: 15

Number of networked computers per lab: between 24-30

Number of printers (networked and non-networked) per lab: 1

Number of networked computers in "other" locations: None

Number of networked printers in "other" locations: 25

Number of non-networked computers: None

Average number of data jacks per classroom: 1, but hubs are used in many cases to connect additional computers

Average number of data jacks per computer lab: Approximately 24-30

Number of wiring closets and type of equipment contained in each (you should actually visit these closets for a real "eye opener"): Approximately 7 or 8.....most contain managed switches (and LOTS of wires)

Other issues you've discovered: None

## User Information

For one of the servers you've listed, how many users typically "log on" to it at one time? Is there a maximum number of connections? According to the Technology Coordinator, there is no data available for how many users typically log on at one time, but it is possible for all computers to be connected as there is no maximum.

At what times are users allowed to use network (only during school days or weekends, too)? At what times can they plan on help of support staff? Students are only allowed to access the school network from school during school hours or with teacher supervision. Teachers can access the network anytime, but only from school. Support staff is only available during regular hours on school days.

Other issues you've discovered: None

## Training

In what areas is training provided (i.e., data security, file management, network basics, word processing, special software, etc.)? Training focuses on web page design and multimedia tools. Special software users (i.e. secretaries, Spec. Ed. Staff, etc.) receive training on an "as needed" basis. Very little or no training has been provided for data security, file management, or network basics, at least for the faculty at large.

Other issues you've discovered: None

## Support

How is onsite support of the network (LANs and WAN) and network equipment provided? Support is requested through Novell's online work order system. Computer administrators can also remotely controlled computers from their own workstations.

Other issues you've discovered: None.

## Emergency Planning

Data storage backup systems: Adaptec data storage backup system

UPS (uninterrupted power supply) system: All servers are plugged in to a UPS system

Human resources available: Technology coordinator (can be reached at home during off hours for server emergencies), technician

Outside resources available: MOREnet is a valuable resource. The district has a subscription to their services.

Service contract(s): We contract services on an hourly basis with a Novell certified engineer when needed. We also contract services as needed with a local computer business, Net Engineers.

Other issues you've discovered: None

### **Physical Locations**

What physical accommodations (electrical needs, air conditioning, etc.) had to be made before (or after) the network wiring and computer hardware was installed? Most network wiring was added during building remodels. Both the High School and Middle School were completely remodeled within the past 6 years and the Primary School was newly constructed 6 years ago. In areas that were not remodeled, network wiring was placed above the ceiling with drops down into the rooms. A few older classrooms which were converted into labs needed electrical overhauls to handle the additional load.

Other issues you've discovered: None