Network Basics

**Network Definition**  
A network is a group of computers and devices connected together via a transmission medium, usually a wire. A network allows users to share resources—hardware, software programs or user-created files. Sharing of resources makes it possible to maximize the investment made in each resource.

**Local Area Network**  
Each LRSD site contains its own Local Area Network or LAN. In its simplest form, a LAN is a group of computers and peripheral devices (printers, copiers, scanners, etc.) connected together in a defined, limited geographical area (i.e.: a school).

All district LANs have a file server located at the site which provides and manages the network printers at that site. It also provides access to various applications which are local to that site.

**Wide Area Network**  
All LRSD LANs are connected together to form one large network, called a Wide Area Network, or WAN. The WAN will allow all users on the network to access information and applications district-wide as well as Internet and AS400 access and interdistrict communication via electronic mail, or E-mail.
Benefits of Using the LRSD Enterprise Network

There are many benefits to using a network instead of relying on stand-alone computers. Some of them include the following:

- The ability to log into the network to access files or E-mail from any networked computer in the District.
- Communication with all district users via electronic mail (E-mail) messages.
- Sharing of files through E-mail attachments or by creating special “shared” folders on the network. (See Sharing a Folder in the Tutorials and Guides section for instructions on how to do this.)
- Sharing resources such as printers and networked copiers.
- Accessing various applications via the network instead of installing the applications on every computer.

Network Security

School districts have sensitive information to protect just as businesses do. For this reason ensuring network security is essential. Each time a user logs onto the LRSD Enterprise network, security becomes that user’s responsibility. The following chart represents the greatest security threats to an organization.

![Pie chart showing sources of greatest security threats]

Source: Member survey
Total responses: 192
Acceptable Use Policies (AUP)

LRSD has adopted Acceptable Use Policies (AUP) that outline the parameters by which district technology resources (computers, telephones, networks, etc.) may be used. Their purpose is to ensure that the technology is used in a responsible, ethical and legal manner.

Each district user will be required to read and sign a copy of both the Telephone AUP and the Computer Network AUP. Disciplinary action will be taken for violation of the statutes laid out in the AUP’s.

(See Acceptable Use Policy – Network and Acceptable Use Policy – Telephone in the Tutorials and Guides section)

Password Security Suggestions

One of the tools used to safeguard network security is the use of a unique network id, or "Username“ and "Password“ for each user. Each time a user logs onto the network this Username and Password will need to be given in order to gain access.

The following are some guidelines for creating and using passwords:

- Passwords should be at least six characters in length.
- Passwords should use letters and numbers of varying case. Symbols may be used as well.
- Do not create a password that someone might guess such as:
  - Any part of user’s name
  - Exact birthday, anniversary, or other significant date
  - Name of user’s spouse, child, pet or significant other
  - Site name or school
  - Same character(s) repeated
- Do not share your password with anyone. To do so would constitute a breach of the AUP.
- Do not write your password where someone might find it.
- Do not walk away from your computer without either logging out of the network or locking your PC (See Locking Your PC in the Tutorials and Guides section).
**Drive and Directory Structure**

Each PC has various drives that are available for use. Drives A: through E: are referred to as physical drives because they represent the hardware part of the PC. Drives F: through Z: are referred to as logical drives and are reserved for use by the LRSD network.

Not every drive letter will be used. However, everyone has a C: drive, which is the hard drive that stores data and applications on the local PC, and everyone has a “home” directory or “H:” drive that stores data and applications on the LRSD network. The H: drive is your own personal space on the network to keep your data and no one else can access this space but you.

To see the drive configuration on your PC simply click on **Start** and open **My Computer**.
Basic File Management

Saving Files to the Network

Instead of saving files directly to the hard drive (C:) on your PC, you can now save files directly to the network in either your personal home directory (H:) or in a shared public directory. The process of saving is the same; only the drive letter changes.

A couple of advantages to saving to the network are as follows:

1. You can share data with others without having to use floppies, zip disks, CD’s or some other form of external media.
2. Your data is more secure because it is not present on your PC for unauthorized access. Instead, it is saved to the secure network and is backed up each night.

Retrieving/Copying/Moving Files to/from the Network

Just like saving and retrieving, copying and moving files from the network is done in much the same way as you have done on your PC. You may now retrieve, copy or move files from any one of the network drives as well as your PC’s C: or A: drives.

Sharing Files on the Network

Since users on a network are connected and share a central data location, files can be kept where access is available to multiple users or groups. This alleviates the necessity for “sneaker net” or having to save a file to a removable source and then physically transporting it to another individual (ie: floppy disks or CD’s) who then must download it. (See Sharing a Network Folder in the Tutorials and Guides section.)

Personal File Backup

As already discussed, one of the advantages of keeping data on the network is that the data is backed up on a regular basis protecting you from any loss. This would not be true, however, if you were to continue to keep data saved on your PC’s hard drive (C:). Should your PC’s hard drive fail you would lose any data stored there. Any data stored on your PC’s hard drive should be backed up regularly on either floppy, CD, Zip Disk, or some other external media.