

Is a Network in your future?

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You have some computers in your classroom or lab, but would like some way to share a printer. Or perhaps you are wondering how you can have Internet access on the two or three computers in your classroom without having to purchase multiple modems and Internet subscriptions. While computer labs at the larger schools often have a rather sophisticated network in place, the same functionality is now available for the smaller school as well, at an affordable price and with easy installation and use.

First of all, what is a network? A network (LAN or Local Area Network) is when you somehow enable a group of computers to communicate with each other, and therefore share resources (printers, scanners, modems, disk drives etc.) This can add convenience and productivity, but can also add complexity leading to frustrations when things don't work the way they should. However, I think that many would agree that the benefits do make networking a worthwhile choice.

The most popular network scenario is to place an Ethernet network card (which you can find these days at a very low cost) in each computer. The other component that you will need is a hub that each computer is connected to by a special network wire. If all your computers are in the same room, then wiring should not be too big a problem, but if they are spread throughout the school, laying the wiring can be a major cost. Once these components are in place, you have the option of installing some networking software (possibly requiring a dedicated machine), or using the built in networking features of Windows for Workgroups 3.11, Windows 95/98, or Windows NT. For most small networks, the built in networking capabilities will do the job quite adequately, and are much easier to manage; though not providing the level of security of other systems.

However, if the talk of hubs, servers & special wiring makes you hesitant, then there is still hope. A new breed of wireless systems, and those that use existing power or telephone wires can reduce the headaches of installing a LAN, without increasing the cost. Following is a quick look at some of these options and the features they offer

Anchor Chips EZ-Link Instant Network is a more traditional speedy, but inexpensive kit. It is ideal for single rooms, or as a means of tying you laptop to a couple desktop computers. While the kit doesn't include Internet-sharing software, it discusses and includes Web addresses on where to get shareware and information to do the job. Since the network connection is by USB only, machines would have to be rather late model to work with this kit. *(page no longer exists)*

The ActionTec Home Networking Kit uses existing phone lines to provide a connection between your computers. It features very easy installation, an exceptional Internet-sharing program, and diagnostic utilities that help you identify most problems. This system is expandable to include up to 25 systems.
<http://www.actiontec.com>

Diamond Multimedia offers several products that are well worth looking at. Their HomeFree Wireless product uses radio frequency to send its signals. The network cards are available in ISA (old) or PCI (new) or PC Card (laptop) formats, so it will work in a wide variety of machines. WinNAT router software is included for sharing an Internet connection. While the transfer rates of the wireless product

will not be as high as a wired product, it is very acceptable, and will not slow down a typical Internet link. Diamond also offers a similar kit using existing phone lines for the connection. <http://www.diamondmm.com>

The Intelogis PassPort Plug-In Network turns your AC power wiring into a network. If simplicity of installation is a priority, then this product would be worth a look. It is easy to install and set up, and since it connects to the parallel port, you don't even have to open up the computer. On the down side, the proxy server for internet sharing asks numerous questions about IP addressing and port numbers that would intimidate any networking novice. The layout of your existing wiring may affect the performance, and other appliance use can cause interference.

Proxim's Symphony wireless networking system is more costly than others mentioned here, but offers higher speed and solid reliability. Its 150 foot range makes it ideal for a multiple classroom or story layout. It is a wireless product that offers ISA and PC Card adapters as well as a cordless modem that also acts as a router connecting and disconnecting to the Internet as needed. Also available is a bridge that allows the wireless computers to become part of an existing wired network. <http://www.proxim.com>

Hopefully you can see that just because you may only have a few computers, or very limited budget, a Network with all its advantages is attainable. If you can't find these products locally available, they are available from on-line sources such as <http://www.microwarehouse.ca> or <http://www.compusa.com>.

If you have questions about anything in this article, or networking in general, please feel free to contact me at chill@cauc.ca.

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Note: CAT~net has requested that I be a regular contributor to this column for this year. If you have topics that you would like me to explore in this space, please let me know. What would be of interest and a help to you in the situations that you are facing? Please pass on your ideas to chill@cauc.ca Thanks.