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## Every Network Needs a Print Server!

One of the major reasons to implement a home network is to share not only Internet access but other resources such as hard drives/storage and printers. One of the simplest ways to share these resources is to attach a printer to one system (using a parallel or USB port) and then allow other systems to utilize the printer through Windows XP's print sharing functionality. However, the simplicity of this solution has significant drawbacks:

- The system to which the printer is attached must process and queue every print request from other systems. This can result in significant CPU and memory drains - especially if the system is in use by its "owner" or main user - and poor performance for everyone - main user and folks attempting to print.
- Remote printing capabilities are very limited. To use the printer via the Internet (when you're on the road) requires special "remote control" software like that from Symantec (PC Anywhere) or Laplink. This software can be bandwidth intensive, and, if you're using a dial connection to access your home system - VERY slow.
- Access to the printer is dependent upon the system to which the printer is attached being available and working all of the time. Should the system prove unstable or unreliable, other users will be unable to print - period.

That's where print servers come in. Print servers manage printers (one to hundreds in corporate environments) and print queues without the aid of a user system. In home networks, print servers most often are installed inside printers with Ethernet connectivity or are available as external devices that connect to printers using Parallel or USB connections and to the network using Ethernet or wireless LAN 802.11a/b/g connections.

Print servers solve all of the problems that a Windows alone solution entail. They:

- Free systems from processing print jobs and queues.
- In most cases can provide remote printing capabilities via the Internet (check your print server to make sure it has this functionality - IPP or Internet Printing Protocol support), without any specialized software on your remote system(s).
- It makes the printer available regardless of the status of other computing systems on the network.

If you're planning your home network, expanding it or adding a new color laser jet to it that you want to share, make sure that you include a print server in your network purchases. It will save you time, money, frustration and expand and extend the ways you can utilize your printing investments.

We've included a diagram (thanks to D-Link) below that illustrates how a print server is implemented in a wireless home network.

