

# Upgrading your network

Consider these tips for a successful project. **By Gary Grabowski**

**F**or years, organizations have used local-area networks (LANs) to conduct file sharing and e-mail communications. In the process, they have seen tremendous gains in productivity and profitability. Today, however, the network infrastructure is undergoing a major change and raising new challenges.

For example, businesses increasingly implement highly sophisticated software, including enterprise resource planning, customer relationship management and payroll automation applications. As a result, the demand placed on the LAN has skyrocketed, compromising network availability, performance, bandwidth and security. The emergence of the Internet as a vital business tool has led to increased congestion as most traffic heads for destinations outside the LAN, and widespread use of intranets and extranets has only added to the problem.

Deploying a network upgrade requires substantial planning. But to start, you must understand the existing environment. Then, you need to determine which new features to incorporate and how to use them to increase productivity and reduce total cost of ownership in your organization.

## Documenting the network

Start by documenting your existing network. Document the physical and logical topology, and determine a complete and accurate inventory of the products and systems your organization uses.

- Hardware and software
- Network infrastructure
- File, print and Web servers
- Line-of-business applications
- Directory services architecture
- Security

While documenting your current network environment, take special note of areas where you currently experience



problems. If you stabilize your network before implementing an upgrade, deployment and troubleshooting will be easier and you will have increased confidence in the improved network.

When documenting your network infrastructure, be sure to obtain both hardware data to document your infrastructure's physical structure and software data to document the existence and configuration of the protocols in use on your network. You also need to document the logical organization of your network, name and address resolution methods, and the existence and configuration of services used.

Documenting the location of your network sites and the available bandwidth among them will assist you in deciding whether to perform push or on-demand installations as part of your upgrade.

## Security

A review of your organization's security standards and their implementation is useful even if you aren't moving to a new operating system, but it becomes particularly important when you are. Review security standards and procedures for mobile and desktop users, internal and external networks, and dial-up and remote access accounts.

## Project plan

Used effectively, a project plan can clear-

ly identify specific phases of your deployment process and provide a clear and functional roadmap. While it is not necessary to follow your deployment process in a prescriptive manner — as you would an installation procedure — an infrastructure deployment process provides a conceptual framework for your upgrade project and makes it easier for your deployment teams to assess progress.

Many organizations already have project management methods and structures in place. To maximize the success of your deployment, follow a project management structure that is appropriate for your organization.

Even though your current systems may seem to get the job done, your company may suffer because your core systems can no longer provide what your key business requires. A well-planned and strategically executed infrastructure upgrade can save your company time and money, give you a competitive advantage and ultimately allow you to provide better value to your customer through improved processes.

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