

# Adapt or Die. It's All About the Network

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**T**he Millennials are our next generation workforce, born between 1980 and 2000. Unlike the Gen-Xers and the Boomers, they are already connected all over the world by cell phone, text messaging, PDA, email, instant messaging, and the Internet. They won't just ask for the tools they are accustomed to, they will demand them. Organizations need to start thinking about how they will evolve, adapt, and introduce these new applications into the workplace.

IT managers are being asked to design both wired and wireless networks to support rapidly evolving application requirements. The end goal is a better, faster, more reliable infrastructure. Unfortunately, new hardware and higher bandwidth are only two of the ingredients required to accomplish this daunting task. Networks designed to simply handle basic file transfer, email, and web browsing cannot efficiently support new applications such as VoIP, video, unified communications, instant messaging, and presence technology. Adding any of these applications to an unintelligent network can result in major performance issues with mission-critical business applications. Your network must be prepared to be handle all of the above.

## The Network

Start with the basics. The performance of your network will determine the quality of the applications it supports. Perform a network assessment. Understand exactly what your limitations are. This investment will also play an integral part when building a network blueprint for the future. Many organizations perform a follow-up assessment once their new network is in production. It allows you to verify that your design expectations were met, and that your QoS,

bandwidth sizing, acceleration, and such are working as designed.

As you reengineer your network, assume that all of these advanced technologies or applications will someday be running on it. It's much easier and less expensive to include capabilities like QoS and data classification/ prioritization in your architecture as you plan, design, configure, and implement your new network. It's difficult (and expensive) to go back later and reconfigure a production environment.

An intelligent network can differentiate time-sensitive data such as IP voice and video from opportunistic data such as email and web surfing. A QoS-enabled network ensures control, reliability, and efficiency; it accomplishes this by means of classification, marking, and prioritization of all network data. When designing your infrastructure, all of your network hardware should support QoS.

Once your new network is in production, it is recommended that you budget for an annual network assessment. Remember, the shape of your network changes every time you add a new router, location, or application.

Network Security. In the old-fashioned thinking, organizations would "dig a trench" and hide their network from the outside world. However, a properly-designed network should be not only secure, but also a technology enabler. Whether you are considering VoIP, unified communications, instant messaging, presence, or collaboration tools, there are security solutions out there that will protect you.

Application Acceleration. Application acceleration technology can drastically improve application performance over the WAN while keeping bandwidth requirements in check. Latency plays a major role with regard to application performance issues over the WAN. Simply adding more bandwidth may not solve the performance problem.

### Blending

A few years ago cell phone manufacturers started adding “text messaging” and calendar functionality to their devices. At the same time, PDA manufacturers were adding voice technology to their devices. Nowadays, when you walk into a wireless store, it’s hard to tell if it’s a cell phone with PDA capabilities or vice versa. Wouldn’t it make sense to be able to have the same blending concept in the enterprise?

### Presence

Most of us already use simple presence technology in the form of an IM buddy list. We can login and instantly see who’s “available.” Imagine a single dashboard with your IM, VoIP, video, email, and unified communication; presence gives us the ability to drag and drop co-workers’ names or icons onto a screen for a virtual meeting and instantly enable audio, video and collaboration.

### Managing it all

Management Tools. There are several network management tools available today. Most tools are able to monitor and manage in a heterogeneous computing environment, meaning that the management solution operates utilizing standard interfaces with the ability to customize for certain environments.

When considering a Network management solution, be sure you select a tool that can handle the size of your environment. You should also review the product to ensure open architecture, fault

management capabilities, notification capabilities. Consider, also, a tool that offers comprehensive, continuous visibility and automatic, custom behavior analysis.

Policy/Compliance. It’s a good idea to ask the network management vendors if they can support your compliance requirements. You may want to incorporate policies such as SLA, escalation, and other requirements into the Network management system.

In order to stay competitive, organizations need to start preparing to be part of the massively connected world. As technology continues to evolve, you can be confident that the impact will be highly disruptive. It will pay to be prepared.

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