UNIX and NT: Can they get along?

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Today's enterprises are challenged with giving up UNIX to adopt NT. The news is, you can have it all. As enterprises continue to mix and match servers and desktops, migrating from UNIX to NT and sometimes back again, the costs of maintaining the network as a whole and desktop increase. The NT server nudges aside the robust UNIX server introducing perhaps a less expensive hardware platform but often one inviting issues of scalability and more frequent maintenance. The mixed desktop environment now includes UNIX workstations, PCs and possibly set-top boxes or other thin display devices. New Linux applications may even be introduced into the mix. As if this diverse network did not constitute enough of a demand on IT managers, clients add to it demands for more telecommuting and remote access of the server.

Companies want more choices on their desktops, greater flexibility to telecommute or work from field offices. They also demand a greater choice of applications either on the server or on their PCs, requiring the blending of new operating systems with legacy systems. The solutions to these integration challenges can be served up in a variety of flavors.

All is well in the enterprise until someone needs increased power over more or different applications. In a world of dumb terminals attached to UNIX boxes typical of retail systems or government service such as the Department of Motor Vehicles, there is probably little reason to move away from dedicated UNIX systems. But when Windows is introduced into the workplace, there has to be a way for UNIX and Windows NT Terminal Server Edition or other versions of multi-user NT to work together.

This presentation will provide a look at some software solutions available to enterprises that want to introduce multi-user NT or change UNIX desktops to Windows, NT or introduce Java-capable devices or Network Computers (NCs). The goal: to lower network management costs and facilitate access of server-based applications throughout the enterprise without sacrifices and without loading up the desktop or changing the network topology. By using the solutions we discuss, IT and network managers will be able to remove many of the network boundaries they may currently experience and extend their enterprise allowing outside vendors to interact with their server-based applications, even if the vendors are not running the same operating system.

On the very simplest level, the UNIX server may be relegated to the role of literally just serving up files. If interoperability simply means having access to a database or to files on the server, both systems need to be on the same network for starters. You can allow the UNIX box to appear as a Windows computer with a program such as SMB (pronounced like the dance, "Samba"), letting the Windows client see UNIX as a Windows server. Similarly, a client software program called NSF lets a UNIX server see a Windows client as UNIX.

But if there is a true need for interoperability—that is for real time, interactive access of applications on one operating system by another operating system, then solutions may require custom development of applications that ride on top of a protocol such as IP to

allow exchange of information. One very common application is http, the Web application protocol that sits on top of the UNIX-based IP protocol.

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Despite the intermingling of hardware and mixed operating systems, companies are loathe to rewrite their vital UNIX applications and must figure out a way to make UNIX, NT and, now, Linux work together.

Several companies provide remote access solutions. One solution comes from GraphOn Corporation, developers of web-enabling software for UNIX, Linux and Windows applications. Bridges technology easily extends cross-platform access of critical applications to branch offices, remote users, and telecommuters — over any connection including Internet, phone, and wireless — with consistently high performance. With Bridges comes freedom in the choice of applications, operating systems and connectivity framework.

Server-based computing — where traditional desktop applications are centrally managed and supported on a server or host computer, and accessed by standard PCs or other desktop devices — is rapidly becoming recognized as the most reliable way to reduce the complexity and cost of enterprise computing while increasing efficiency. This new business environment presents a substantial challenge for IT teams and ISVs: addressing the user's need to have a single application accessed from anywhere, from almost any desktop operating system or device. The challenge is to extend existing desktop applications to the World Wide Web and other operating systems without potentially destabilizing their code base and investing hundreds of man-hours in a software rewrite.

Some argue NT runs on less expensive hardware and therefore lowers the total cost of ownership of the network. They are convinced of the need to integrate other applications on the users' desktop. Others argue for the stability of UNIX and benefits of greater scalability. Even in an enterprise where Windows PCs are nudging UNIX terminals off the desktop, there are other ways to introduce Linux or access UNIX rather than throwing the entire system out. While some IT managers simply feel that newer is better, opting for the latest operating system, they are facing a wealth of conversion and integration challenges that have spawned a whole industry of software solutions. The IT manager must choose between serving up thick porridge or fat free connectivity. The good news is that whatever the decision, by keeping the X Server on the UNIX host, IT managers don't

need to make sacrifices to get UNIX and NT to satisfy clients hunger for more and different computing choices.