IS THERE A CHEAPER COMPUTER IN YOUR FUTURE?

Ellen Freedman, CLM
© 2005 Freedman Consulting, Inc.

Law firms rely on computers and the applications that run on them to produce documents, correspondence, communicate with clients, perform research, and facilitate and improve staff productivity. But many firms find it increasingly difficult to manage and maintain a computer network. Capital budgets are continuously strained by the alarming speed at which the latest technology becomes obsolete. And while growing in capabilities and sophistication, today's software applications and windows operating systems have become increasingly complex. The combination of shorter lifecycles and skyrocketing support costs has escalated technology–related expenditures to the third largest annual expense for many law firms, and may soon challenge rent for the number two position.

In the "old days" of the NBI and Wang-type dedicated word processing systems, staff members worked off of "dumb" terminals. All of the processing power resided in the file server. It was relatively inexpensive to add additional terminals. And the systems were relatively inexpensive to maintain, requiring little or no in-house technical talent. The downside was that if the server was down for any reason, no one could produce any work product on their workstation.

In the current paradigm, a typical set-up includes powerful workstations connected to a file server. Most of the processing takes place on the workstation. The file server acts as a storage cabinet for documents, a security sentry, a traffic cop — directing users to resources like printers and modems — and an automated back-up device. The good news is that under this scenario, if the server goes down, individual workstations can still operate, and document production can and does continue. The bad news is that these networks are immeasurably more complex. That is because *any* variation in the hardware or software, minute differences such as a corrupt file, an incorrect setting or missing driver, creates a unique operating environment at the workstation. This uniqueness can cause applications to behave differently from one PC to the next. The technical qualifications needed to expertly diagnose and remedy application issues are nearly the same regardless of the size of the network. Therefore, all too often a firm finds itself needing and competing for technical resources with much larger firms and corporations.

Technology has come full circle with the introduction of the Thin Client / Server Computing (Thin Client) model.   This paradigm is built upon today's intranet and web-based development initiatives.   This model was Pioneered by Citrix® and embraced by Microsoft®.   Applications in a Thin Client environment execute completely on centralized, redundant, highly fault-tolerant servers. The PC becomes only a simple display device.   In fact, a PC is not even needed —an inexpensive terminal will do.

Since all processing is centralized, the cost of administering and managing individual desktops is greatly reduced and the need to retain a large MIS staff is eliminated. Because the desktop only acts as a simple display and keyboard device, any old existing PC can be reused in the system. This allows an old 486 DOS machine the ability to run all the latest windows applications with as much speed as a Pentium III. Also, because the servers are designed with maximum fault tolerance, system uptimes can far exceed those realized in a traditional network. The target of many providers entering the Thin Client market is "Five Nines" or 99.999% uptime, which equates to less than 5 minutes of downtime per year.

Advances in broad bandwidth communications such as high speed Digital Subscriber Lines (DSL), Frame Relay, and similar long distance connections, allow the servers running the applications to be located remotely from the Thin Client user (e.g. the law firm workstations). This approach spares business the pain and expense of developing, providing space for, and operating their own network fileserver. Instead, users can access applications running on servers which have already been set up at a secure data center which is operated and maintained by a team of skilled, experienced specialists. Companies specializing in these outsourced software and data center solutions have come to be known as Application Service Providers or ASP's.

By partnering with an ASP, a firm avoids having to maintain, administer, purchase, and upgrade their own applications and the servers needed to run them. The ASP assumes responsibility for those functions by remotely hosting today's most popular windows-based Word Processing, Spreadsheet and Financial Software as well as Presentation Graphics, Database and E-mail systems.

ASP's generally sell their services via long-term service level agreements with their customers. Network Alternatives®, Inc. of Langhorne, PA is one such Application Service Provider. Their revenues are generated from monthly subscription fees paid for its systems and services, providing customers a known, on-going expense. Network Alternatives also provides its customers a full range of on-going support services designed to maximize productivity including strategic consulting, development, application training, and help desk support.

Freedman Consulting, Inc.
(215) 628-9422

Thin Client / Server Computing, Application Service Providers, and software rentals are exciting trends which show extraordinary promise to allow law firms to get control of their technology budgets while staying current on the latest windows applications. By halting the PC replacement cycle, outsourcing the need for an in-house technology staff, and improving system reliability, these technologies may represent what some call the beginning of the Post PC Era – a time that allows firms to refocus on the practice of law, and regain control of their technology spending.

A version of this article originally appeared in the February 7, 2000 issue of the <u>*Pennsylvania Bar News*</u>