A New Curve in the Thin Client Experience

Today's workplace and enterprise environments are ideal for thin client computers. Fast, pervasive networking connections are commonplace, organizations are moving workloads to the cloud, software as a service (SaaS) and platform as a service (PaaS) models are standard, and many business solutions are now delivered remotely.

Thin client CPUs are perfect for environments where systems are virtualized, data is stored remotely, and processes are handled in the cloud. And by shifting to a thin client architecture, modern management and security scenarios become easier to implement and maintain.

As modern business best practices evolve, systems management is being simplified, enterprise mobility streamlined, and organizations can leverage technology in new ways to improve efficiency, security, and the bottom line.

The Virtual Desktop Architecture

A virtual desktop infrastructure, or VDI, refers to an architecture in which virtual systems are hosted in a data center. Full systems consisting of the desktop operating system, business applications, storage, and user-specific settings are hosted as virtual machines, or VMs, on a server. When a user runs an application or performs a task, this application or task is not running on the local computer. Instead, the person is accessing their virtual desktop remotely, using a PC, thin client, or mobile device.

VDI boasts many benefits for IT departments that need to provision and manage large numbers of systems across different locations. Virtual environments can be configured to a strict standard, providing all the necessary applications and security settings. These baseline environments, which remain in the data center, are quickly provisioned to users as needed.

Thin Clients: The Key to VDI

Offices are shrinking, cubicle walls are coming down, and employees are spending more time working from home. And at the same time, businesses are looking for opportunities to make more efficient use of space. Thin clients enable more flexibility when planning a modern work environment.

Thin clients are much smaller than a standard desktop—some, in fact, are just a monitor, keyboard, and mouse. Less desk space is required, which is helpful in an open office layout where workers are sharing tables and desks.

Going a step further, thin clients are ideal for shared workspaces. Since a user's profile and virtual desktop is stored in the cloud, organizations can have an environment where employees easily and securely share computers and workspace. This is also exceptionally efficient in a company where there are employees who frequently work from home or travel often.

Additionally, the latest thin client technology clients typically feature lower-powered processors and run fewer background processes, therefore consuming a fraction of the power used by their bulkier standard PC counterparts. The savings on a single system might seem slim, but when multiplied across thousands of systems running 40 or more hours a week, the electricity savings can be significant.

Sector-Ready Solutions

Healthcare systems, colleges and universities, financial institutions, retail and service providers — they all have complex, specialized needs. These large organizations with numerous users and workstations are often spread across many buildings, facilities and locations, and typically have a proprietary line of business applications. In many cases, the systems are shared by a large number of ever-changing users, and these institutions must adhere to regulatory guidelines that require the highest level of data protection.

With VDI systems, IT departments gain complete insight into user activity. Individual transactions can be monitored, and IT can track what data is accessed by which users. Full data protection is maintained with data remaining in the data center on secure, encrypted drives. There is no risk of a rogue user copying data to a USB drive or sensitive data being exposed on a lost or stolen device. This strict control of data also helps avoid any breaches or data violations, which can be expensive in terms of money and reputation.

The Elegant Thin Client Solution

Once an organization has embraced thin clients and virtual machines, new task-specific devices can be deployed to replace costly solutions. For example, thin client monitors with built-in cameras offer a good, low-profile video conferencing solution for meeting rooms. They are easy to install and manage, and provide a simple user experience.

LG, for example, offers an all-in-one, 38-inch, curved, ultra-wide thin client monitor explicitly designed for a thin client environment, with built-in camera, wireless, and Bluetooth connectivity. The large, curved screen boosts productivity by displaying a large amount of information at the same time, eliminating the hassle of window management that comes with a small monitor or multiple monitors.

The LG thin monitor runs Windows IoT Enterprise as an OS, is fast, has a ton of memory, is powered by the latest in graphics technology, and can handle demanding applications and workloads with ease—all while providing the inherent security and streamlined manageability users expect.

And to support these thin client computer advances, there are a number of vendors today offering robust VDI solutions for hosting virtual desktop environments, including VMware, Microsoft, and Citrix. They provide a broad range of tools for creating and updating virtual desktop images, securing end-points with threat protection, managing storage and cloud resources, monitoring user activity, and more.

When VDI is combined with a thin client solution, institutions enjoy the highest level of security, flexibility, and cost efficiency, while at the same time offering employees a clean, clutter-free, productivity-boosting workspace. With these advantages, it's no wonder that today's powerful new thin client displays and VDI capabilities are throwing a new curve to the traditional enterprise network experience.