



Aligning IT and Business Goals with Thin Client Systems

Introduction: Challenging Times for Business

The last two years brought severe economic strain to businesses of every size, and the recovery that analysts predicted for 2010 has been slow, at best. Hiring, for example, has remained relatively flat¹ since last year, and companies are still worried about the future.

A BDO Seidman report released in May listed competition, innovation/speed to market, economic conditions, and regulations as the top concerns among the vast majority—90 percent or more—of businesses surveyed.² These factors are top-of-mind among today's organizations, as they vie for market share and customers in an increasingly competitive and fast-paced global environment.

The fact is, strategic IT purchases can help a company address all of these challenges. Faster systems, more dynamic and flexible operations, tight security, and lower operating costs can all be delivered by an IT refresh. After all, if your existing equipment is four or even five years old, you're paying high electricity and IT management costs just to maintain systems that are slow and inefficient.

By contrast, new technology initiatives can and will contribute to these overarching business goals:

¹ "IT Staffing Cuts in 2010 Mirror 2009, Study Says," *eWEEK*, June 24, 2010

² "Tech Companies Are Full of Worry in 2010," *eWEEK*, June 30, 2010



- Lowering operating costs, so the company is better positioned to invest in innovation, not maintenance
- Simplifying IT management, which saves money and speeds operations
- Consolidating data center hardware and reducing power consumption
- Supporting remote workers and branch offices seamlessly
- Ensuring security and compliance in an increasingly hostile and regulated marketplace
- Supporting resilient and 'disaster-proof' operations, so systems remain up and running reliably
- Promoting agility and flexibility so companies can 'turn on a dime' and adapt to changing business conditions quickly.

It's clear that in order to spur business success, companies must invest strategically in their IT equipment. The goal—now more than ever—is to achieve fast return on investment (ROI) while increasing productivity, agility, compliance, and resilience.

HP Delivers Results with Thin Client Computing

One technology that can deliver on all these requirements is thin client computing. And when considering a thin client approach to enterprise computing, HP is the partner to choose. From desktop to data center, HP is the best-in-class provider of thin client hardware, software, and services.

In a thin client environment, workers do their computing on a 'virtual desktop' residing on a central server. Users access the environment through a thin client—a simple computing device that contains no hard drives or other moving parts, relying on the server for all computing resources.

Although they first appeared on the IT scene decades ago, thin client systems are gaining new popularity now, thanks to the rising adoption of virtualization. In the data center, companies are hosting numerous virtual servers on single hardware units and reaping benefits like reduced hardware costs, lower energy consumption, and increased versatility.

The same concept applies to end-user desktops as well. When each client system doesn't require its own hard drive or applications, companies reap similar benefits, and more. Over the past 12 to 18 months, a series of advancements in both server and client virtualization software technologies has converged to deliver powerful virtual desktop experiences that can rival those of traditional PCs in performance, yet far surpass PCs in terms of management ease, total cost of ownership, and flexible productivity.

Lower total cost of ownership: First and foremost, a thin client deployment eliminates end-user PCs. This step alone reduces the risk of hardware failures and software problems, as there are no hard drives or local storage of any kind. Hard drives are one of the PC components most prone to malfunction, and user-downloaded software—whether malicious or benign—can cause problems and

conflicts on the PC. By taking these out of the equation, operations become less expensive and more reliable.

In addition, a typical PC begins to show performance gaps around two years of use, and becomes a liability rather than an asset due to hardware failures and reduced productivity by the time it reaches four years old. HP thin client systems typically last five to seven years with little or no downtime, keeping users more productive for longer periods and helping to reduce total cost of technology ownership.

AT A GLANCE: SEVEN BENEFITS OF THIN CLIENT COMPUTING

1. Lower TCO
2. Simplified/consolidated management
3. Reduced power consumption
4. Flexible performance
5. Security/compliance
6. Resilience
7. Adaptability

Simplified/Consolidated IT management:

IT management is going to be a particularly daunting challenge for businesses in the coming months, as companies determine how to address the release of Microsoft Windows 7. Gartner says companies have to adopt the new OS soon in order to remain competitive. Windows 7 requires upgraded hardware and infrastructure in order for organizations to leverage its operational benefits, and Gartner's report urges that these changes be made by 2012 at the very latest. Working backward from that deadline, and assuming that most organizations need 12-18 months for planning, testing, and piloting an OS rollout, the time to decide on a plan of action is now.³

A thin computing environment can greatly reduce the hassle of the OS migration process, as IT administrators don't have to worry if users install or accept updates in order to maintain a fleet of individual PCs. OSes, applications, settings, and user permissions for the client endpoints—regardless of number or location—are all managed centrally.

Even simpler still, HP includes wizard-based setup and deployment tools that enable thin clients to be rolled out in minutes, with just a few mouse clicks. And as all future ongoing system maintenance can be run from a single console, this simplified deployment and management saves IT time and money. HP actually offers several best-in-class management tools, from HP Device Manager for full thin client environments to HP Client Automation for heterogeneous, desktop-to-data center IT hardware and software management.

Helpdesk calls and technician hours are also reduced dramatically with thin clients, as admins can make all necessary updates and troubleshoot applications remotely. This further cuts down on device replacement and administrative overhead.

Reduced power consumption: Eliminating hundreds or thousands of traditional PCs also helps reduce energy consumption

³ "Business Urged to Begin Testing of Windows 7, Eliminate XP by 2012," *Channel Insider*, June 2, 2010



and cooling costs. In fact, HP thin clients can reduce energy use by up to 90 percent over traditional desktop PCs, and they generate no heat—which means lower infrastructure cooling requirements. This energy efficiency delivers an overall boost to the bottom line and promotes ‘green’ operations.

But HP thin clients go beyond power efficiency and are designed from the ground up with the environment in mind. HP thin clients utilize fewer materials, less packaging, and weigh just a fraction of the weight of a PC, plus HP has removed all ozone-depleting substances from the packaging that is required for safe shipment. The lower weight and eco-friendly packaging reduce the overall environmental impact of product transport and delivery.

Because of these environmental features, HP thin clients meet the requirements of several voluntary governmental programs around the globe, such as RoHS, the US EPA’s ENERGY STAR® and SmartWay programs, EPEAT, and EUP Lot 12. HP also is the only thin client manufacturer to offer extensive global reuse and recycling programs in more than 170 countries around the globe for both HP and competitor products, to help ensure environmentally responsible technology transitions.

Flexible performance for maximum productivity:

Thin clients in virtual computing environments deliver increased productivity and flexibility for workers. Over the past year, a number of multimedia advancements were released from client virtualization software vendors VMware, Citrix, and Microsoft. These, combined with the performance and cost-per-seat improvements delivered by the new HP ProLiant G7 servers and the multimedia redirection and acceleration built into to every HP thin client at no additional charge, now affordably deliver the virtual desktop experience that users expect for maximum productivity.

With a desktop virtualization environment, employees are not tied to any particular desk or location. They can use HP thin clients in the office or on the road, move from one office location to another as needed, or log in from their home PC—and their native desktop environment travels with them. This is a strong value for highly mobile workforces or for multi-seat, “hot desk” environments that serve large pools of workers.

And in the rare event of a hardware failure on the desktop or in the data center, productivity disruptions are reduced to minutes instead of the hours or days common with traditional PCs. In the case of a

server failure, HP’s automatic rollover features simply move the user to the next available server. No data is lost (unlike a local hard drive failure), as all user data stays safe in centralized storage. After logging back in, the user is up and running.

For a failed thin client, a new unit can be replaced as easily as plugging in a telephone. This anytime-anywhere approach to computing paired with increased user uptime, can help improve worker productivity and collaboration, accelerating time to market on competitive projects.

**HP is the only thin client
provider that can deliver
a tested and proven
data center reference
architecture.**

Security/compliance: Thin clients are easier to manage from a security and compliance standpoint as well. When the end-user can’t download anything to a local drive, the corporate network is far better positioned to ward off threats. Any updates to the malware definitions or filters need be applied only to the central server, which simplifies security management. And when the end-user has no local storage, sensitive data is protected from intentional or inadvertent leakage.

HP now even offers smart card support for two layers of user authentication and has the only thin clients to include secure, hidden USB compartments—helping to ensure that only authorized users have access to your data. HP is also the only thin client vendor to include Symantec Endpoint Protection Agent, a licensed, enterprise-class firewall providing stateful packet inspection of inbound and outbound packets, to mitigate worm and Trojan attacks on every HP thin client. Government and industry regulations around data storage and protection are far easier to follow with a thin client deployment than with individual PCs at every worker’s desk.

Resilience: From an operational standpoint, thin clients eliminate the labor-intensive chores of backup and disaster recovery. The central server backup ensures that all desktop sessions and user data are protected. In case of a problem, the virtual environment can be replicated on another server with practically no downtime for end-users, as mentioned. Plus, with no moving parts or heat to cause failures, HP thin client devices are inherently more reliable and longer-lasting than traditional PCs. Thin client environments are thus highly available and accessible; business operations are as resilient as the data center infrastructure, with no delay introduced by endpoint PC hardware.

Adaptability: Thin client systems are also inherently more scalable than traditional environments. Adding capacity to the



central server boosts its ability to support additional clients or more complex applications, and rolling out new client systems is practically effortless. Once the thin client is 'plugged' into the virtual desktop environment, it's ready to go.

HP offers a broad portfolio of thin client products that can support a range of work styles, from the most basic application tasks to workstation-class power usage, delivering a user experience as versatile and responsive as the centralized resources they access. This allows a company to implement a thin client environment and carry out incremental upgrades on the server side without worrying about the clients themselves.

Conclusion: The HP Difference in Thin Client Computing

Companies today need IT solutions that will solve their primary business challenges: cost control, competition, operational efficiency, resilience, regulatory compliance, and agility. Any investment in IT equipment must help achieve these goals and alleviate these concerns. A computing system that delivers lower power consumption and management costs, tight security, and increased productivity is the right choice for enterprises, and thin client computing is that system.

HP is the world leader in thin client solutions, with half of the top 25 companies in the **Fortune 500** having purchased HP thin clients. In fact, in the last year, HP on average shipped one thin client every 35 seconds, shipped more Windows-based thin clients than the next five competitors combined, and more Linux-based thin clients than the next three competitors combined. With this vast expertise and experience in rolling out large-scale thin client deployments, HP's commitment to service and support ensures that your company reaps

the full benefits of thin client computing in the most cost-effective and operationally smooth fashion.

Whether you opt for a VMware, Citrix, Microsoft Remote Desktop Services (RDS), or even cloud-based approach to desktop virtualization, HP can replace your traditional PCs with secure, power-efficient, easy-to-manage thin clients that enable your company to reap all the benefits enumerated above.

When you partner with HP, its experts can provide a portfolio of services from assessment and planning to pilot programs. Once you decide on the infrastructure that's right for your business, HP is the only thin client provider that can deliver a tested and proven data center reference architecture designed to support the number of workers and the style of computing at your company. From that baseline, they customize the solution to meet your company's needs today and tomorrow.

During the deployment and integration phases, HP experts are at your side, ensuring that virtualized applications and desktops deliver the functionality workers need to perform their jobs optimally and that the system works smoothly. Should there be any need for technical support, HP provides a single point of contact to address all hardware and software issues around the globe.

It's clear that HP is the thin client expert, and the partner to choose for your company's successful migration to thin client computing.

Find out how your own organization can benefit from HP thin client solutions.

For more information, visit
www.hp.com/go/thincomputing

