

Thin Clients: Helping Corporations Do More with Less

Despite positive economic indicators and rising information technology budgets, “doing more with less” has become a permanent way of doing business. The go-go spending of the 1990s is definitely behind us and most CIOs and other executives remain highly cost conscious.

Research firm International Data Corp., for instance, expects worldwide IT spending to increase 5 percent in 2004, bolstered by an improving economy and the need to refresh under-funded infrastructure. Still, IDC reports that caution remains the order of the day. In a separate study of enterprise technology trends in U.S. and Canadian companies, cost control and cost containment top the list of IT challenges: seven in 10 IT and business executives rate this as an extremely or very significant concern.¹



¹“1Q04 IT Decision Monitor: Vertical Markets’ Outlook on the Economy and Their Business Prospects Shaping IT Solution Investments,” International Data Corp., April 2004

Similarly, Forrester Research expects U.S. IT spending to rise 5 percent in 2004, a cautious optimism confirmed by its CIO Confidence Poll. Overall, surveyed CIOs were upbeat about the prospects of their industries and their companies. But more than half expect IT spending to remain at the budgeted rate for the rest of the year, indicating that “the trend of ‘doing more with less’ is now a permanent part of the CIO’s role.”²

This is confirmed by a global survey of senior business executives conducted by GartnerG2 and Forbes.com to discover the most important business issues for 2004. Though top-line growth is the top priority, the second- and third-rated issues are improving productivity and cutting costs, reflecting that “businesses remain under immediate pressure to improve the bottom line.” The most important IT-related issues are achieving business value from IT and tightening security and privacy safeguards.³

To achieve long-term business goals of cost containment and operating efficiency—doing more with less—CIOs must ensure that they are getting the most value for their budget dollars. This starts with “rightsizing,” or making sure that technology tools chosen for deployment can do the job for which they were purchased without placing undue burdens on IT staff or users.

Thin client computing meets these criteria. By lowering ownership costs, simplifying support, improving manageability and boosting user and IT productivity, thin client computing can play a significant role in corporate rightsizing—meeting business goals while doing more with less.

RIGHTSIZING WITH THIN CLIENT COMPUTING

Thin client, or server-based, computing is defined as an

ARE THIN CLIENTS RIGHT FOR YOUR ORGANIZATION?

DO YOU HAVE:

1. Critical or sensitive data that cannot leave the company
2. Desktops that are shared among employees
3. Desktops that are accessed by non-employees (i.e., kiosks)
4. Complex and diverse desktop environment that needs simplifying or tighter management
5. Complex software license management
6. Regulatory compliance needs for data security
7. Areas with a high cost associated with desktop downtime (i.e., point-of-purchase)
8. Multiple branch offices
9. Multiple mergers and acquisitions that require integration of different IT environments
10. Desktops with frequent application changes and updates

THIN CLIENT CASE STUDY:

GOLD'S GYM

The business: The largest gym franchise chain in the world, Gold's Gym operates in over 30 countries in North America and Europe.

The problem: Rapid growth mandated a highly scalable, distributed IT infrastructure that would be easy to support and attractive to franchises.

Thin client solution: Franchises accessed hosted ASP applications using thin clients, while the head office adopted a mix of thin clients, PCs and notebooks.

IT benefits: Greater business focus, rather than fire fighting; improved support; rapid and easy deployments.

Business benefits: Lower costs; highly scalable business model; better customer service; improved security and management.

Research opinion: “If Gold's Gym had continued with its existing PC-based systems, total IT costs would have been at least four times higher. Customer service and growth would have also been negatively affected.”

Source: Bloor Research, 2003

environment where applications and data are centralized in data centers and accessed via thin clients, diskless desktop devices connected to the network. Using affordable, standards-based servers and access software such as Microsoft Terminal Services, Citrix MetaFrame or a Web browser, thin clients can greatly reduce IT costs compared with PC-based computing, while simultaneously improving business operations.⁴

Not surprisingly, server-based computing is among the fastest-growing sectors of IT today. As IDC notes, “IT professionals are beginning to understand and appreciate the security, centralized control/management, and return on investment of thin client environments.”⁵

Traditionally, thin clients have been used in task-oriented applications such as call centers. But they are now being used as direct PC replacements for almost all desktop applications. Thin clients are also moving outside the typical industries where they have been used, such as transportation, retail, education and healthcare. These industries were characterized by many small, remote locations that were difficult to support with PCs. New sectors such as government, manufacturing and financial services are adopting thin clients strongly for general desktop use.

A key driver is the need to do more with less. On the cost-reduction side of the equation, thin clients can stretch the IT budget, saving money in hardware acquisition, life-cycle management, user support and software maintenance. Consultancy Bloor Research estimates that IT budgets can be reduced by 20 to 30 percent in a typical thin client implementation.

² “CIO Confidence Poll: Q1 2004,” Forrester Research, March 2004. ³ GartnerG2 and Forbes.com, January 2004. ⁴ “Thin Client Benefits in Practice,” Bloor Research, September 2003. ⁵ “The Rise of Thin Machines: Worldwide Enterprise Thin Client Forecast and Analysis, 2002-2007,” International Data Corp., September 2003.

Centralized management and reduced complexity can improve software administration, information security and business continuity, while boosting the productivity of IT staff. Compared with PC-based environments, thin client computing has enabled fewer IT support staff to operate higher numbers of desktops. IT staff reductions of 50 percent are typical, says Bloor Research, rising as high as 75 percent in some deployments. With support tasks simplified, staff are free to focus on strategic business issues, rather than putting out fires.

Such advantages resonate across the entire organization. Integration of new businesses, for instance, is easier with centralized applications and data. Thin client computing makes IT a modular, scalable utility, increasing the flexibility of the business to respond with speed and agility to market threats and opportunities.

MANY WAYS TO SAVE

Thin clients and server-based computing architectures enable corporations to save time and resources, lower costs, and increase productivity to boot. We'll examine these benefits, and others, below.

Cost-Effective Web-Based Computing

Thin clients support a growing trend at a much lower cost than traditional PCs: Increasing use of Web-based applications and Web services that require only a browser and Internet connection.

The popularity of the Web browser as an application interface is reflected in thin clients. Modern thin clients now come with full Internet Explorer or Netscape browsers, and can have plug-ins and Java Virtual Machines as well. This makes them highly effective devices for the growing number of browser-based applications, including e-mail, CRM, ERP, collaboration tools, sales force automation, training and more. Many of these are furnished by application service providers (ASPs), who deliver hosted software as a service across the Internet.

In addition, thin client computing readily supports adoption of Web services-type applications. Web services refer to a standardized way of integrating Web-based applications using open standards over an IP backbone without changing the underlying code. It is easier to integrate thin clients than

PCs into these Web-centric environments, since thin clients don't actually run any software (it all resides on the server). So updates and maintenance are centralized functions that can be carried out by a single administrator, yet may cover hundreds or thousands of users.

Users benefit in ease of use and productivity gains from the location flexibility and any-time, anywhere access afforded by Web-based, thin client computing. Indeed, thin clients are inherently suited for flexible, mobile access to Web applications because their server centricity mirrors the operation of Web applications.

Though far less expensive than notebook computers, thin clients offer significant benefits in mobility. Workers moving around a campus, factory location or hospital, for instance, can access their applications from any connected thin client. New wireless clients extend mobility even further. And because of the bandwidth efficiency of thin client computing, users can access data and applications from any location with a secure connection to the Internet, such as a branch or home office.

Lower Total Cost of Ownership

Because thin clients lack onboard memory and storage and are less complex than PCs, acquisition costs are lower. But this represents only a fraction of the savings possible. Thin clients can reduce ownership costs throughout the traditional computer life cycle.

Easier deployment. With thin clients, installing a new desktop can be as easy as opening the box, taking out the device and plugging it into the wall. Attach-and-go capabilities allow auto-configuration options such as setting up the keyboard language, screen resolution, terminal connections, installation of drivers, and installation of local applications from the central server. Thus:

- Desktops do not have to be staged or set up before being shipped to their ultimate destination.
- Expensive technicians don't have to be sent to install a new desktop.
- Desktop hot-spares can be kept locally or shipped rapidly to users in the event of failure.

THIN CLIENT CASE STUDY:

SERNAM

The business: A division of the SNCF French national railway with 10,000 employees and 108 locations, Sernam specializes in small package delivery.

The problem: Complex mix of servers and PCs was performing poorly, leading to a need to modernize the infrastructure for better availability and lower costs.

Thin client solution: Consolidate data centers, standardize software and migrate nearly all PCs over time to thin clients.

IT benefits: Ease of application management; better support and customer service; greater flexibility to respond to business needs.

Business benefits: Reduced costs by one million Euros annually; better business flexibility; improved customer service.

Research opinion: "The process of consolidation coupled with the deployment of thin clients has delivered significant cost savings to the company, while providing the business with new capabilities to operate efficiently."

Source: Bloor Research, 2003

- Terminals can be automatically entered into their correct logical groups, making identification and subsequent management easier.

Simpler support. Once desktops are installed, they can be supported and managed 100-percent remotely, greatly lessening desk-side visits by IT staff. Remote management includes mixed environments with difficult scenarios such as devices behind firewalls, dial-up users, wireless users with intermittent connections, users on limited-bandwidth subnets, security-critical environments, and environments that use the Internet as part or all of their backbone.

- Because they have few moving parts, thin clients are highly reliable, greatly lessening “break-fix” scenarios.
- Thin client operation is far less prone to error than the typical PC environment—no “blue screen of death” or odd messages for users to decipher. Therefore, they require less training and client-side software support.

Centralized administration. Since applications and data reside in one location—the data center—IT asset management is far less complicated. Software administration is also greatly simplified, and overall, the number of IT support staff needed can be reduced.

- Software updates and patches are distributed centrally—as easy as entering one CD into a drive on the server and upgrading thousands of users in minutes.
- No need to purchase and manage remote-installation packages to deploy software updates and patches to client machines.
- TCO is further reduced by optimized software licenses—“concurrent users” are far easier to track in server-based computing infrastructures. This also contributes to higher utilization of hardware assets.

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More Robust Security

The benefits of centralization extend to security administration. Information systems are increasingly at risk from viruses, worms, Trojan horses and other malware, with devastating financial consequences. In early 2004, the MyDoom blended threat alone caused economic damage estimated at \$38.5 billion worldwide.⁶ Thin client computing makes it far easier to secure information assets and recover from disasters.

- With diskless thin clients, only the data center, not every individual PC, needs to be secured. The results are tighter security and less downtime.

■ Users are more productive because they are freed from updating virus definitions and otherwise managing complicated operating software.

■ Centralized systems help organizations recover more quickly from natural disasters and viral attacks.

■ During disasters that prevent employees from getting to work, server-based computing lets them access data and applications from home.

CONCLUSION

CIOs realize that the need to do more with less has become a fact of life. Their jobs depend on facilitating initiatives that will boost the performance and reduce the expenses of the company. That means choosing proven technology

solutions that meet business needs while delivering fast return on investment.

Thin client computing is such a solution. Its centralized control and a simplified user experience backed by the power and economies of server-based computing support the way businesses are evolving to work today. As we have seen, thin client computing can deliver substantial financial and management benefits in a variety of scenarios. Every CIO should evaluate its potential to help their organizations do more with less.

THIN CLIENT CASE STUDY:

RECHENZENTRUM DER FINANZVERWALTUNG NRW

The business: The finance administration of NRW supports the German Treasury Ministry with IT services for tax offices, including tax calculations, compensation, reimbursements and mailings.

The problem: Text-based terminals needed to be refreshed, which led to a pilot project to test the viability of thin clients for over 20,000 PC and terminal users.

Thin client solution: The pilot proved that thin clients were viable for nearly all tax workers. More than 14,000 thin clients were deployed, with PCs remaining in use only until they die.

IT benefits: Easy migration of legacy applications; better software management; improved support and customer service.

Business benefits: IT costs cut in half; better security and data protection; higher employee productivity.

Research opinion: “The Rechenzentrum der Finanzverwaltung NRW has succeeded in extending the range of services it can provide to its huge user base, while at the same time reducing its cost of ownership and raising service levels.”

Source: Bloor Research, 2003

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