

Inspiring Change



Thin Client Technology  
Server-based Computing  
Total Enterprise Solution

# Making the Switch from PCs to Thin Clients

*A realistic financial impact analysis of thin clients vs. PCs at a typical enterprise office location*

## Executive Summary

---

In an economy of tighter spending and cost cutting, enterprises are beginning to take note the thin client message: that enterprise-level businesses can significantly lower their computing costs by migrating to thin clients, which are more reliable and easier to manage than PCs. Companies can easily save 40% off the total computing costs in just two years by moving to thin clients.

Over the last few years, this message has become clearer and as a result, more and more enterprises are moving away from PCs and adopting a complete thin client computing solution. Shipments for enterprise thin client devices have increased annually by 28%, while PC shipments have begun to decline.<sup>i</sup>

This short financial illustration report will explain how thin clients can produce a significant cost saving by analysing competitive advantages thin clients hold over PCs, and how these advantages translate down to the bottom line. This will make it very clear why thin client computing is the smartest, most efficient and cost-effective solution to handle your enterprise's computing needs.

### A Typical Enterprise Organisation Illustration

	Direct Costs (per user)	Indirect Costs (per user)	Total Cost of Ownership (per user)	Total Cost of Ownership (2000 users)
2000 Desktops PCs	£1,491	£2,311	£3,802	£7,604,000
Thin Clients	£1,172	£1,217	£2,389	£4,778,000
2 year Savings	<b>£319</b>	<b>£1,094</b>	<b>£1,413</b>	<b>£2,826,000</b>

Table 1 - Total Cost of Ownership over two years (Source: Gartner Research)<sup>ii</sup>

## Reducing your desktop costs by at least 40% and see a positive return on investment in less than 6 months and save £2,826,000 in just two years!

### Direct Costs

Thin Clients could save you a minimum of £319 per user, or £638,000 in just two years. In the future, you can expect this savings to exponentially increase dramatically when outdated hardware is replaced with thin clients.

### Indirect Costs

After two years, the total indirect cost benefit per thin client is a minimum of £1094. This equates to savings of 90% per device when compared to PCs, and a savings of almost £2,188,000.

### Total Cost of Ownership (TCO)

The thin client solution would reduce the TCO by at least 38% and save the company over £2,826,000 in its first two years. The savings only increases as more PCs are replaced.

Total savings per desktop	→	<b>£1,413</b>
Total savings	→	£1413 x 2000 users = <b>£2,826,000</b> 38% Savings over PC based network

## The Benefits of Thin Clients Explained

---

### **Thin Clients: Defined**

An enterprise thin client is simply a network-based computing device without attached disk storage. Thin client devices can range from simple server and web-based computing terminals to advanced desktop alternatives capable of storing local applications and data.

Thin clients can present a user with the same look and feel of a traditional desktop and can run any software – Windows, Linux, Unix, Mainframe, Java, etc. – allowing for an easy fit into your IT solution.

A thin client device typically consists of a CPU and motherboard, memory, and non-volatile (flash) memory. Thin clients enjoy increased reliability over PCs because there are no moving parts such as fans or hard drives, which can fail over time.

### **Benefits of Thin Clients**

Strategic-thinking customers who have adopted a thin client solution are now reaping the benefits of thin client devices. Here are a few reasons why they made the switch to thin clients:

#### **Lower Initial Cost**

While there are exceptions at the extremely low end of PC offerings, the average enterprise PC complete with licensed software can cost nearly £650. A similarly equipped thin client costs just £229 per device, a minimum 65% savings in initial capital costs alone.

#### ***Simplified Installation***

Installing a new thin client device is simply plug-and-play – there are no software applications to install, no hardware configurations to make.

#### ***Improved security***

Thin clients are “locked down” so users cannot load foreign applications onto the devices – protecting your network from Internet viruses. Thin clients also eliminate the threat of stolen data at the desktop because nothing can be saved on the devices themselves – as all is stored on secure servers.

#### ***Increased Reliability***

No moving parts means thin client devices can last more than five times longer than a PC. A longer Mean Time Between Failure (MTBF) means money saved on hardware costs.

#### ***Improved User Flexibility***

Thin client computing allows you to access your data and applications anywhere, any time, from any device – over any network speed.

#### ***Reduced Management and Administrative Costs***

Because applications and data are installed and run from central servers, a single IT administrator can deploy new applications or updates for thousands of end users within minutes – all with just a few mouse clicks.

#### ***Lower Power Consumption***

Thin client devices require just 10% of the power needed to run PCs, saving your company an average £50 per device every year.

#### ***Smaller Footprint***

Their compact size and reduced form factor allows thin clients to be hidden under desktops or even mounted on walls and under desks.

#### *Lower Desktop Cost / Total Cost of Ownership*

Ease of installation, improved reliability, and reduced administration and support costs all factor into significant thin client savings – in the short and long term. The total cost of ownership savings will vary for each enterprise's unique IT demands, but switching to thin client devices can easily reduce your total cost of ownership by more than 40% in just two years.

#### **Key Direct Business Benefits**

- Reduce desktop costs
- Significantly reduce staffing costs
- Significant reduction in desktop maintenance costs
- Virtually remove the need for desktop upgrades
- Remove desktop application upgrades
- Remove viruses from the desktop
- Reduction of training expense
- Reduction in bandwidth costs
- Reduction or eliminate remote office servers by centralisation
- Significantly lower desktop asset purchasing cost
- Vastly reduced user downtime waiting for help desk response
- Less system downtime through better redundancy and disaster recovery capabilities

#### **Strategic Business Benefits**

- Application delivery on-demand
- Move desktop computing towards a utility model
- Applications available to all users anytime and anywhere
- Faster time to market
- Supports distributed business decision making
- Quick expansion through ease of deployment
- Enables corporate application standardisation
- Reduced risk of data loss (since the data and applications are centralised)
- Supports homogeneous clients (Windows, Linux/UNIX, Minis/Mainframes)
- Improves remote user support
- Helps prevent theft of intellectual property (i.e. data)
- Eliminates games and non-business time wasting activities

#### *Applications for Thin Clients*

While thin clients can offer significant savings, these devices aren't suitable for every application. Workers who use CAD tools, image editors, and software development programs that require significant local processing power will still require high-performance workstations to get their job done. Thin clients are not aimed at these users, but instead at the *approximately 80 percent of business workers whose computing needs can be fulfilled with thin client devices.*<sup>iii</sup>

Workers who primarily use computers for the Internet, word processing, data entry, e-mail, and industry-specific applications are ideal candidates for a migration to thin client desktops.

## Lowering The Total Cost of Ownership (TCO)

---

***“Thin-client deployment will offer substantial savings for enterprises ... with a quick return on investment.” – Peter Lowber, Gartner Research (Sept 28, 2001)***

Switching from PCs to thin clients will help your enterprise reduce costs across the board.

<b>Direct Costs</b>	<b>55-65%</b>
Capital - Hardware, Software	20-25%
Operations - Tech Support, planning, help desk	20-25%
Administration - IT training	10-15%
<b>Indirect Costs</b>	<b>35-45%</b>
End-User Operations - Training, Support, Data management, personal use	30-40%
Downtime - Planned, unplanned	5-10%

### Lowering your TCO with thin clients

#### Direct Costs

*Capital:* The devices last longer, saving you even more money down the road. In fact, the Mean Time Between Failure can be up to four times longer than that of PCs.

*Operations:* Tech support and help desk administration are simplified with easy-to-use management software. Software tools can allow administrators to “shadow” a user’s desktop remotely, or even take over the user’s mouse and keyboard functions to expedite the support process.

*Administration:* Administration is simplified so your enterprise will require fewer IT staff to perform the same number functions. This means lower training costs and fewer salaries to pay. For example, software updates can be automated and managed remotely for hundreds or even thousands of thin clients simultaneously. With a typical PC deployment, an upgrade of this magnitude would require manual and on-site support staff to manage all desktop devices.

#### Indirect Costs

*End-User Operations:* Thin clients can present the same graphical user interface (GUI) users are accustomed to with their desktop PCs. The beauty of thin clients is they are highly customisable, giving the end-user everything they need – nothing more. This reduces the need for formal and informal training. If anything, the user will feel more comfortable navigating through the GUI of a simplified thin client device.

*Downtime:* The inherent simplicity of thin client devices reduces the possibility of user errors or unsupported software-induced problems. Furthermore, thin client computing is more secure against virus attacks, resulting in significantly less end-user downtime, saving your enterprise millions of pounds year after year.

---

<sup>i</sup> Michael Sager, Joel N. Martin, Darian Bird “Australia Thin Client Forecast and Analysis, 2001-2006,” IDC Research, Mar 2003.

<sup>ii</sup> Peter Lowber, “Thin-Client vs. Fat-Client TCO,” Gartner Research, Sept. 28, 2001.

<sup>iii</sup> 80% of business workers can use thin clients