

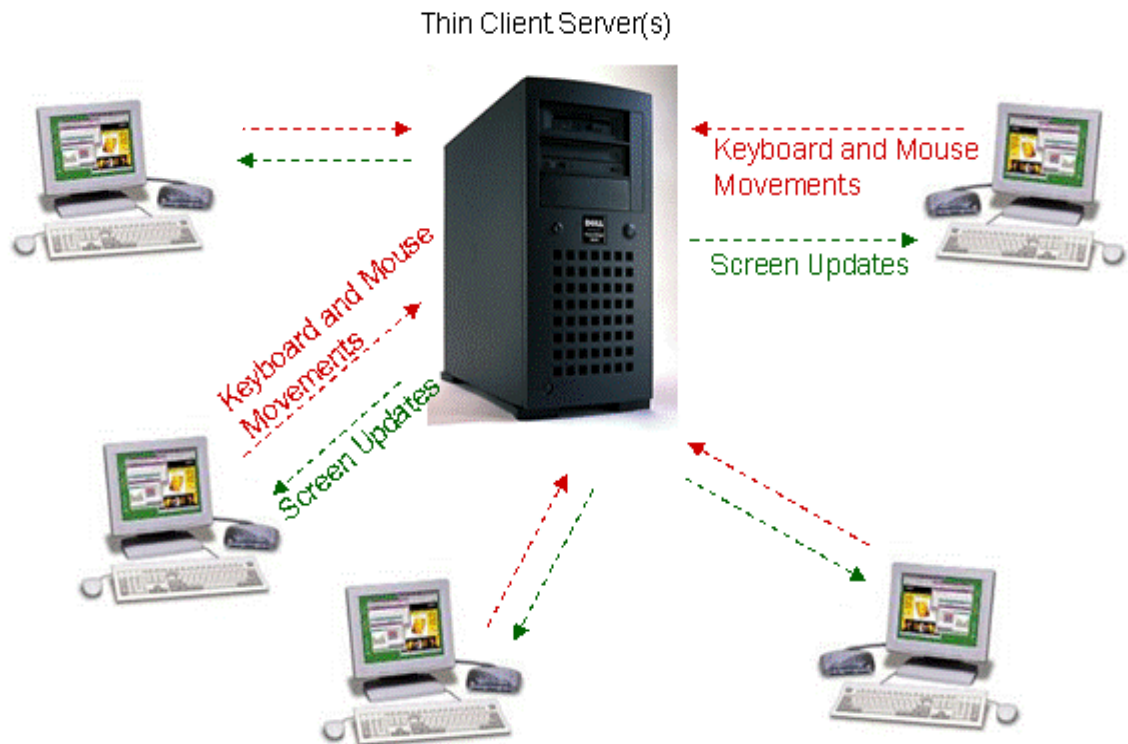
THIN CLIENT SYSTEM OVERVIEW

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What is Thin Client?

Thin client is a small, silent, no moving parts device, which simply communicates with a central server. It has no hard drive, minimum processing power and a very small amount of RAM. Every time a key on the keyboard is pressed or the mouse is moved, the thin client terminal sends this to the central server which processes the key or mouse movement and returns an updated image to the terminal's screen. All of the applications are stored and run on the server itself, so the thin client terminals never need upgrading and therefore have a very long life span – typically 5 to 10 years.




Isn't this very slow?

No, a standard desktop PC spends the vast majority of its time doing nothing. When a user is using Excel or similar, most of the time the processor (CPU) is idle. Thin client uses this concept to share out the CPU of a central machine between many users – typically 25 to 100 users per server depending on what the users are doing. Well configured thin client systems run faster than standard desktop PCs because they have multiple processors, generally 4GB of RAM and very fast RAID or disk units.

Sounds expensive!

No. The thin client terminals are very low power devices, they have no expensive hard drive, minimum amounts of RAM and very low powered CPUs. They are less expensive than a standard PC, consume considerably less power – and therefore produce much less heat, take no desk space (they can be mounted on the back of the monitor) and last longer. They also never need to be upgraded as they are only an interface between the user and the server.



I have some old PCs – can I reuse these?

Yes, one of the major benefits of a thin client system is that it can take advantage of old PCs and turn them into terminals rather than land fill. Anything above a standard Pentium PC can be used in this way.

Are there any other benefits or savings?

Yes, because all of the applications are centralised on the server, all upgrades and updates are made once to the central server. This results in considerably less management time in rolling out application updates, anti virus updates and new applications. Typically a thin client system, with many hundreds of clients, can be managed by a single administrator freeing up other IT staff to do more productive tasks.

Does this enable me to work from home?

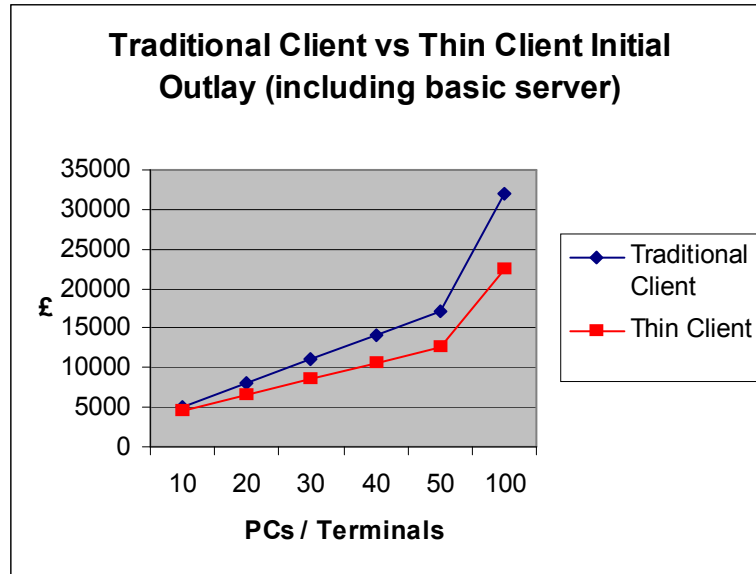
Yes, thin client technology allows you to remotely attach to exactly the same 'desktop', applications, email etc that you would from the office. It looks exactly the same and gives you exactly the same functionality. You can even print to the printer in your home if required. This is all accomplished over a secure Internet or dial up connection.

Sounds too good to be true – what is the catch?

Thin client can be used for everything including browsing the web, writing letters in Word, creating spreadsheets in Excel, using Access databases and running PowerPoint presentations. As thin client terminals are dependent on the CPU of the central server, they are not suitable for running 'processor intensive' programs like Computer Aided Design (CAD) or very highly graphical applications. With these sorts of applications the solution is to use a mixture of the two technologies. It is much easier to manage 300 thin client terminals and 30 CAD workstations than 330 standard PCs. Businesses, schools, colleges and almost every industry can benefit from thin client technology.

What about the costs?

It doesn't matter if you are putting in a new batch of machines or replacing old ones, thin client technology should give you significant savings. The chart below shows the effective cost of adding between 10 and 100 new PCs and terminals to a network including a basic server. The chart assumes a cost of £300 per PC and £200 per thin client terminal. The thin client terminals are a fixed cost; the PC cost will vary depending on their specification – a basic PC cost is used for illustration of the *minimum* cost savings.



Number of clients	10	20	30	40	50	100
Traditional Client	£5,000	£8,000	£11,000	£14,000	£17,000	£32,000
Thin Client	£4,500	£6,500	£8,500	£10,500	£12,500	£22,500

No ongoing management costs are taken into consideration with either of the solutions but these are significantly lower with a thin client system!

Everything is centralised with the thin client system, i.e. upgrades and applications are installed on the central server once and automatically each thin client terminal gets a copy. Hence the day to day management costs of the thin client system are considerably lower.

Another major benefit of a thin client system is that you can use more than one central server to increase the server availability and share the workload across a 'farm' of servers. With two thin client servers if one were to fail the users are able to continue their work on the remaining server. There is no limit to the number of thin client servers that you can link into a 'farm' together.

Over time the cost savings increase further: the terminals themselves have a useful life span of 2 to 3 times that of a standard desktop PC and therefore need to be replaced much less frequently.

Where can I get further information and a demonstration on my premises?

To make your business a more productive – and profitable – enterprise please contact Oakford Technology Ltd - +44 (0) 1249 658666