

## What is Citrix Presentation Server™?

Usually only one person at a time can log into and run software on a Microsoft Windows computer. This means each person needs a powerful PC with its own copy of Windows on it. This increases costs and support while reducing reliability. In the mid 90's, Citrix® developed a multi-user version of Windows that allows users to log in from remote clients. This means you only need one copy of Windows for each server and software only needs to be installed once too. Remote clients used a protocol called ICA to access the server.

Windows Server 2003 includes multi-user Windows technology called Terminal Services. Microsoft licensed the core of this from Citrix®; they did not write it themselves. Clearly, this means Citrix® have an unparalleled knowledge of the innards of Windows and extending and enhancing Terminal Services. This is highlighted by Microsoft declaring Citrix® their 2005 Global ISV Partner of the Year. Other bolt-on products cannot hope to achieve the same levels of integration and performance.



Terminal Services includes a protocol called RDP which clients can use to access remote desktops, but this is somewhat limited. By using their own ICA protocol, which is much more mature than Microsoft's RDP, Citrix® can deliver higher performance and a richer user experience. Client device access (local storage (e.g. USB pens), serial ports, printers, parallel ports, scanners, clipboard, sound output/input) is significantly better supported. Client software is available for a wider variety of platforms than RDP and offers tighter integration with the client operating system. For example, Citrix® applications can be seamlessly integrated with local applications. Local resources, such as media players, can be used to accelerate multimedia performance. ICA supports user-to-user shadowing, so you can do broadcasted demonstrations (all users view the screen of a demo user) or allow staff to view pupils.



Citrix Presentation Server™ also improves server farm management (in fact, with RDP there isn't really the concept of a server farm). Servers can be load-balanced using a variety of metrics such as CPU usage, network bandwidth, memory usage, etc. Clients connect to the farm as a whole rather than an individual server. With the Enterprise edition of Presentation Server™, the farm as a whole is continually monitored and performance is logged. Historical performance graphs can be plotted which is extremely useful when problem solving. You can also be emailed or SMS'd with performance reports. Enterprise edition also includes Installation Manager so that software packages can be installed across all servers at the click of a button. Using Citrix Presentation Server™, Enterprise edition, you can support up to 25% more clients per server due to CPU and virtual memory optimisation.

**CITRIX®** partner

Solution Advisor

Citrix Presentation Server™ offers secure 128-bit encrypted remote access, browser plug-ins for automatic installation and a web-interface to all published applications and resources. Version 4.0 and later also include Conferencing Manager (previously an extra chargeable component) which allows multiple users to collaborate in a single session. These users can be local or remote (perhaps even anonymous, e.g. at a school in a different country).

# Combined Approach

## Combine Fat-Client with Thin-Client for the best of both worlds

You can combine fat- and thin-clients on the same network with ease. Our clear, modular, well-designed network management structure allows simple central control of desktops, application access, menus, desktop security and printers on both fat- and thin-clients. Indeed, except for the size of the box and the persistent rumble of the fan, a user should not see a difference between using fat- and thin-clients in general use.



In general, the massive reduction in support costs and time combined with extremely high availability, control and reliability means that thin-clients are ideal. For hardware intensive tasks, it may be more appropriate to use fat-clients (e.g. firewire video capture, webcams, CAD/CAM). However, this does not mean that all the benefits of thin-client computing need be lost. You can run clients in a fat/thin-client approach in which certain applications are installed locally (e.g. video conferencing, audio/MIDI sequencing), but the majority are provided from central servers.

With a dedicated thin-client, you usually connect to a published desktop on your network. This means the whole desktop environment is provided by your application servers. However, Citrix Presentation Server also allows you to publish individual applications which can be automatically added to a fat-client Start Menu or Desktop. When these applications are run, they will be run seamlessly from the network, but the user will be unaware of this.

It is even possible to use client/server file redirection. This means that if you click on a Word file on a fat-client, it will be transparently passed to a copy of Word running on the application servers. The reverse is also true; if you click on a URL in a Word document running from an application server, it will be launched in a local web-browser running on the fat-client.

By using a combined fat/thin-client approach you gain many of the benefits of a thin-client network. However, there is still the underlying administration of the fat-clients to manage, so we recommend that you perhaps have a few fat/thin clients per room with all other workstations being dedicated thin-clients. This has the benefit of allowing you to purchase fat-clients tailored for a particular purpose (e.g. high capacity AV discs, copious RAM).



Precedence Technologies Ltd  
120 Cambridge Science Park  
Milton Road  
Cambridge  
CB4 0FZ

**Tel:** (0)8456 446 800

**Fax:** (0)8456 446 899

**Email:** [sales@precedence.co.uk](mailto:sales@precedence.co.uk)

**WWW:** [www.precedence.co.uk](http://www.precedence.co.uk)