



# Working smarter, not harder, using *Terminal Services*

## ***Cost effective remote access to your network***

You have made plans to be home by five, so you'll be there when the kids get home after soccer training. It's 3pm now and the last two meetings with clients have taken an hour longer than you allowed, and you still have a couple of hour's preparation before tomorrow morning's partner review.

### **What do you do?**

- A. ***Call the other half*** and explain that you're going to be arriving home a few hours later than planned;
- B. ***Leave on time***, and start (real) early tomorrow morning when most of the population is still sensibly asleep;
- C. ***Neither of the above***, but instead, leave on time, and finish the work off at home later tonight after the kids have gone to bed.

## **What is Terminal Services?**

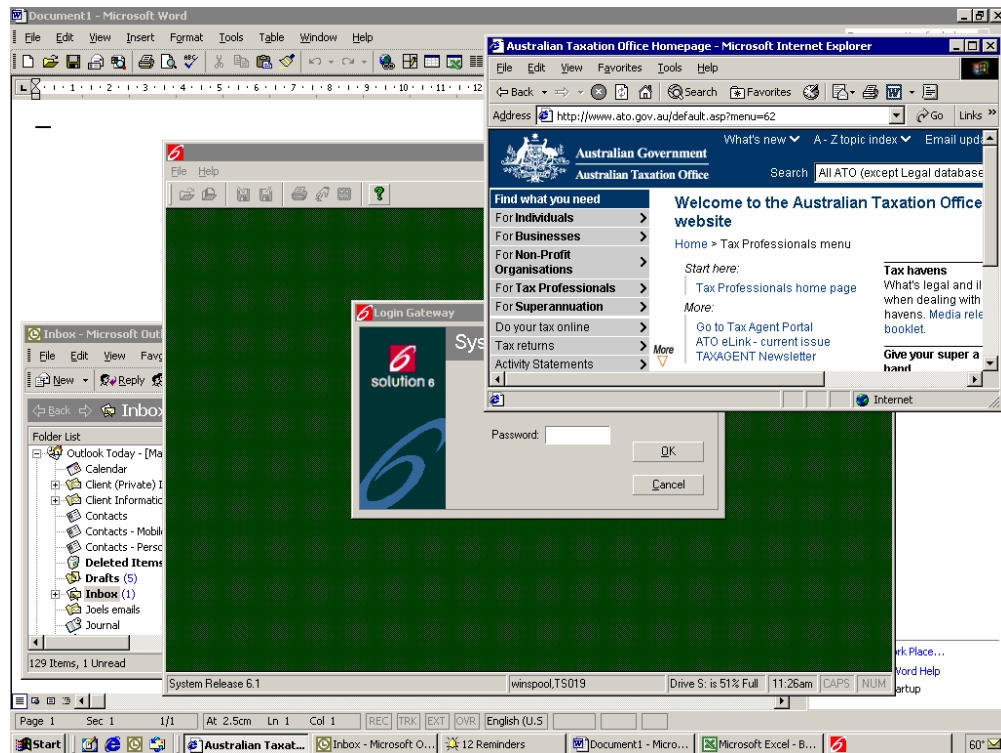
Terminal Services is an affordable Windows technology that is being implemented by an increasing number of accounting firms because they can see the benefits of being able to access the office network from their home or other location that has a phone line.

### **Benefits of implementing Terminal Services include:**

- Completion of work to schedule, being able to work on documents and print them when at home or travelling.
- More control over personal time, so important "office" tasks can be done there while other work can be completed when away from the office.

A Terminal Services desktop looks exactly the same as your standard Windows desktop. The appearance of the Terminal Services desktop can be customised during the implementation process to suit individual requirements.

The sample screenshot below shows a user accessing various applications through their Terminal Services connection.



## Key features of Terminal Services.

Some of the most popular features of Terminal Services are:

- Use office-based applications (e.g. Solution 6, Advance, Outlook, Excel etc.) while you're out of the office.
- Have access to all of your network drives.
- Ability to print documents to office printer's or to a local printer at the remote location.

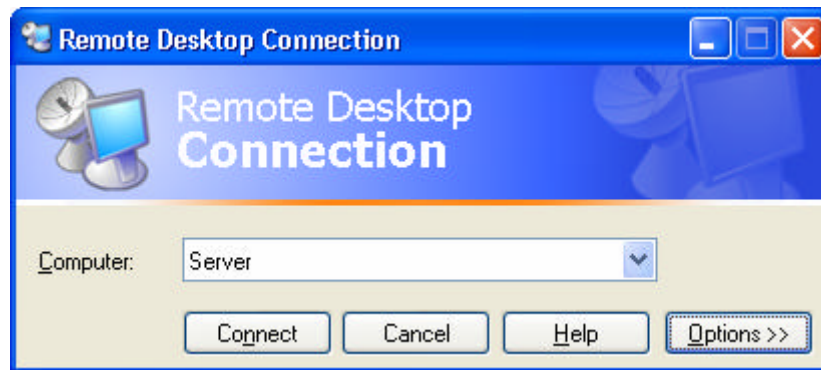
Terminal Services works acceptably well over a standard dial-up connection (33.6k). This means it is a viable option for staff that need to connect into the office on an ad-hoc basis (e.g. from a client's premises). However Terminal Services really excels over broadband connection (ADSL or cable) and provides "in the office" performance no matter where you are (i.e. you can't tell that you're not in the office).

From a user perspective, once the user has logged onto the server, Terminal Services works in exactly the same way as "standard" windows. Therefore users don't have to be "IT gurus" to take advantage of Terminal Services, they just login and then access their applications as they would in the office.

Because the Terminal Services interface is one that Windows users are accustomed to, no formal user training is normally required. Typically there will be a 5 minute run through of the login / logoff process and then users will be ready to get to work.

**Shown below-**

The Terminal Services Client, used by the user to logon.



Once the login details are configured, click on the Connect button and you logon to the office server. It really is that easy to use!

## How is this performance achieved?

Briefly, with Terminal Services running on a Windows 2000-based server, all client application execution, data processing, and data storage occur on the server. Only the Application interface and user desktops are transmitted over the network and displayed via the Terminal Services Client.

Similarly, print streams, keyboard input, and mouse clicks are also transmitted over the network between the server and the Terminal Services Client. This means that network traffic is kept to a minimum.

Each user logs on and sees only their individual session, which is managed transparently by the server operating system and is independent of any other client session.

In short, Terminal Services allows PCs to operate in a server-based computing environment, where the "work" is performed by the server, and only the interface is managed by the client.



## For the technically minded.

Terminal Services consists of two components:

1. **A Server component**, which as the name implies resides on the server and is responsible for managing each user session and hosting the communication with each of the (remote) clients.
2. **The Terminal Services Client** (also referred to as the Remote Desktop Connection), which is a small application that is installed on each "client" PC and allows the PC to logon and communicate with the server. The installation of the client component is straightforward, and can be performed by the user in cases where the remote PC is located off-site (e.g. desktop PC located at home). In fact the Terminal Services Client is built-in to Windows XP, so no client installation is required in this instance.

### Security

Security requirements are addressed by encrypting the network traffic between the server and the client PC. Terminal Services has a built-in encryption feature that encrypts data transmitted between the Windows 2000 Server and Terminal Services Clients at three different levels (low, medium, or high), depending on security needs.

The default encryption level is medium, which provides bi-directional encryption between the server and the client using RSA Security's RC4 encryption algorithm, using a 56-bit key. Terminal Services also supports 128-bit bi-directional encryption, which is available if you install the Windows 2000 High Encryption Pack.

### Implementation

As a guide, a Terminal Services implementation where users have access to Microsoft Office applications (e.g. Outlook, Excel, Word) will typically take 1 day to configure (this would include the set-up of 5 users.) Allow ½ - 1 hour per additional user.

Some applications (e.g. accounting packages) are more involved than Office to configure in a Terminal Services environment, however once your requirements are understood we can provide a fixed-price quotation before commencing.



---

---

---

---

---

---

---

---

---

---

Zero Effort Networking (ZEN) is experienced in accurately identifying computer network problems and acting swiftly to fix them. Since 1996 we have helped clients implement stable, reliable computer networks that take the worry out of network management. For further information you are welcome to contact us.

Zero Effort Networking Pty Ltd  
ABN: 38 082 434 446  
Telephone: 02 9676 3541  
Facsimile: 02 8569 2012  
Email: [info@zeroeffortnetworking.com.au](mailto:info@zeroeffortnetworking.com.au)  
Web: [www.zeroeffortnetworking.com.au](http://www.zeroeffortnetworking.com.au)  
Office: Suite 15, 18 Third Avenue, Blacktown NSW 2148

No part of this publication may be reproduced without written permission of the authors. Copying and distribution by any means is strictly forbidden. Additional copies may be obtained for free by contacting Zero Effort Networking.