

Installing, Configuring, and Maintaining Microsoft Windows Terminal Servers

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[Knowledge Based Systems](#)

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What is Terminal Services?

- Remote logon to Windows 2000/XP environment.
- Per user sessions. Does not take over console.
(Not like X11 and not like VNC)
- Encrypted, secure connections.
- File / clipboard / printer / audio redirection.
- Application or Administration modes.

- Client support from [MS](#) for [Mac OS](#) and [Windows](#).
- Client support for UNIX from the [community](#).

Why run Terminal Services?

- Applications that won't run elsewhere.
(GradeBook, MS Office, Internet Explorer)
- Dialup / low bandwidth users.
- Alternative to VPN for on-campus resources / file transfers.
- Sessions stay "up" on disconnect.
- Remote access to specific applications.

Remote administration mode

- Windows 2000 will prompt when installing Terminal Services.
- In Windows 2003, just check the Remote Desktop tab in System Properties.
- Allows only two simultaneous remote connections.

Application Mode

- Windows 2000 will prompt on install.
- Windows 2003 requires installing from the Control Panel Add/Remove applications tab.
- Allows full multi-user access.

Application Install Mode

- It is recommended to only install applications when in “Application Install Mode.”
- Places installed files in correct “Windows” directory.
- Use: `change user /install`
- Use: `change user /execute`

Installing Software

- Create a local administrator account.
- I use the “install” account.
- DO NOT use the built-in guest or Administrator accounts.
- Make sure you are in Application install mode.
- Install software as you would normally.
- Certain applications require additional setup.

Installing Software (cont.)

- Recommended software:
<http://www.acm.uiuc.edu/wiki/space/Windows+2003+Build>
- use the subst command or other means to create a standard location for user files. (I use W:\.)
- Change paths from “Documents and Settings” to W:\ in registry and INI files.

Installing Software (cont.)

- Copy the user profile on top of the “Default User” profile.
- You might have to reboot first to unload the user’s registry hive from memory.
- Any new users that logon will inherit the “Default User” profile.

Installing Multiple Servers

- Just install each one individually.
- Clone one machine to many using [sysprep](#) and Ghost or ImageCast.
- Terminal Servers clone just like normal workstations (with a few exceptions.)

- OR -

Security

- Standard Windows 2000 / 2003 security checks / procedures.
- Use Group Policies for an easy way to secure multiple machines.
- “[loopback processing](#)” may be needed in the UIUC domain for user policies.

Licensing

- Licenses for all connections are needed.
- The Campus Active Directory team does not (to my knowledge) run a license server.
- The license server service (minimal CPU, disk, memory overhead) will need to run on at least one (two recommended) machine.
- Individual applications may require per user licenses.

Backup

- Windows 2003 supports Volume Shadow Copy for backup; files that are in use can be backed up.
- Windows 2000 will not backup files that are in use (with built-in software).
- [CITES TSM](#)

When something goes wrong...

- Logon as an admin, if possible, and fix.
- [Emergency Management Services](#)
- Contact a fellow Windows guru.
- Restore from backup.
(you do have backups, right?)

Wrap-up and Questions

- Slides available online at:
<https://netfiles.uiuc.edu/cclausen/www/TS/>
- Questions?