License Overview

Use the **F1** button on any page of a ThinManager wizard to launch Help for that page.

Visit www.thinmanager.com/technotes/ to download the manual, manual chapters, or the ThinManual.

ThinManager Ready thin clients need three types of licenses to run. They are the Microsoft, the ACP ThinManager, and the application licenses.

Windows Licensing

All clients, thick or thin, common or ACP, require a **Microsoft's Windows 2000 Server, Windows 2003 Server,** or **Windows 2008 Server** with Terminal Services enabled to connect to and run a session on. Each of these operating systems requires a standard **Microsoft Client Access License (CAL)** for each connection to the server.

Clients require an additional **Microsoft Terminal Server / Remote Desktop Services Client Access License (TS/RDP CAL)** to connect to terminal servers. This is required regardless if you are using a fat client or a thin client, using RDP or ICA. This licensing is per seat; ten terminals would require ten TS CALs, even if only two were connected at a time.

Note: The TS CAL of Server 2000 and 2003 is called the RDS CAL (Remote Desktop Services CAL) on Windows 2008 Servers

All TS/RDS CALs are installed on a Terminal Services Licensing server. This is one machine on the network to act as a repository for all TS/RDS CALs. The Terminal Services Licensing server is activated through the Internet by connecting to the Microsoft Certificate Authority and License Clearinghouse.

The terminal servers request TS/RDS CAL authentication from the Terminal Services Licensing server as terminals attach to terminal servers.

Windows 2000 Server with Terminal Services enabled will issue 90-day temporary licenses while the Terminal Services Licensing server is being setup and activated. If this period has elapsed, the terminal will not connect to the terminal server and will display an "Error Number 50" message box. Server 2003 and 2008 will issue a 120-day temporary license.

Windows 2000/2003/2008 Servers are not normally sold with TS CALs. These need to be purchased separately from your Microsoft vendor and installed on the Terminal Services License server.

Application Licenses

Each application that a user is running will need the appropriate license from the vendor. If two instances of an application are running on a terminal, that terminal will probably need two licenses. Please see your application vendor's documentation for their license policy.

ThinManager Licensing

Product and Master Licenses

A **Master License** is created on the ThinManager License Activation site. It is an empty container for the Product Licenses that add functionality to the Master License. Each ThinManager Server or synchronized pair of ThinManager Servers use a single Master License to contain the product licenses.

Product Licenses are the paper licenses that are bought to provide specific functionality. They include:

- **Terminal Connection License** –This is the main product license that allows a terminal to receive its configuration. It is needed by every terminal. . It includes many functions like Failover, Instant Failover, MultiSession, AppLink, SmartSession, IP Camera support, and Terminal Shadowing.
- **MultiMonitor** –This product license, with a Terminal Connection License, allows a specialized thin client to use up to five monitors on a single thin client.
- **WinTMC** - This product license, with a Terminal Connection License, allows ThinManager to manage the RDP connection and terminal services experience of a PC.
- **TermSecure** –This product license enables additional security features for users. It can be used to grant them special access to hidden applications or allows access to a user's application from any terminal in the system. See TermSecure for details.
  XLi Licensing
- **XLi Licenses** are a bundle of the standard Terminal Connection Licenses plus the additional MultiMonitor, WinTMC, Term Secure, and PXE Boot functions.

This is a summary of the licensing steps. Details can be found in the Licensing section of our Tech Notes at http://www.thinmanager.com/technotes/index.php.

1. The Master License container is created on our web site, www.thinmanager.com.
2. The Product Licenses are added to the Master License on the web site.
3. The Master License is activated with the Installation ID from ThinManager. This is found on the Licensing window that is launched by selecting Install>Licenses from the menu bar of ThinManager.
4. The activated license is downloaded and applied through the Licensing window.

ThinManager License Types

ThinManager has two licensing modes, **Standard** and **Enterprise**.

Standard Licenses

Standard ThinManager licenses are sold per-connection and are available in 5, 10, and 25-user units. These licenses allow any 5, 10 or 25 ThinManager Ready thin clients to boot and connect to terminal servers and terminal server groups. The licenses are pooled and are released once the terminal is turned off.

Standard Licenses are available as 5, 10, and 25 packs. This includes Terminal Connection, WinTMC, TermSecure, and XLi product licenses.

MultiMonitor product licenses are available individually or in the 5, 10, 25 packs.

Enterprise Licenses

Enterprise Licenses provide unlimited connections and are available as **Server** or **Site** versions.

- **Enterprise Server** - This version provides a redundant license with unlimited connections that can be activated on a primary and a secondary ThinManager Server so that one will always be available for the ThinManager Ready thin clients.

Enterprise Server License

- **Enterprise Site** - This license allows unlimited installations of ThinManager Servers on any site, campus, or property. This is ideal when different departments control their own thin clients.

Enterprise Site License

Enterprise Site has a single license number that can be installed on an unlimited number of computers at a single company location to provide departmental control. It is a redundant license so that ThinManager servers can be pair to always keep one available.

ThinManager Servers using this license will display the licensed company's name and site in the title bar of ThinManager.

Redundant Licenses

ACP uses the term **Redundancy** to describe having two or more **ThinManager Servers** that the thin clients can connect and receive a configuration from.

ACP uses the term **Failover** to describe having two or more **terminal servers** that the thin clients can connect and run a session on, one they have booted from ThinManager.

ThinManager can be installed in three redundancy modes:

- **Full Redundancy**

- **Mirrored Redundancy**

- **Single ThinManager Server**

ThinManager is two components, the ThinServer service and the ThinManager graphic interface. The ThinServer is a database engine that maintains the configuration and licensing. The ThinManager interface allows you to see and manage the database information.

A redundant ThinManager system will have two synchronized ThinServers so that either one can provide configuration information to booting terminals. The loss of one is minimal.

Redundancy requires auto-synchronization for optimum effect.

Fully Redundant ThinManager System

Full Redundancy – Two ThinManager Servers: A fully redundant system has two licensed ThinManager Servers that are synchronized with the same configuration on each. The thin clients are configured to boot from either ThinManager Server to receive their configuration. If the primary ThinManager Server fails the terminals will continue to function as designed because they hold their configuration in memory. If the terminal reboots it will be unable to connect to the failed primary ThinManager Server but will switch and boot from the secondary ThinManager Server and will receive the configuration and connect to a terminal server.
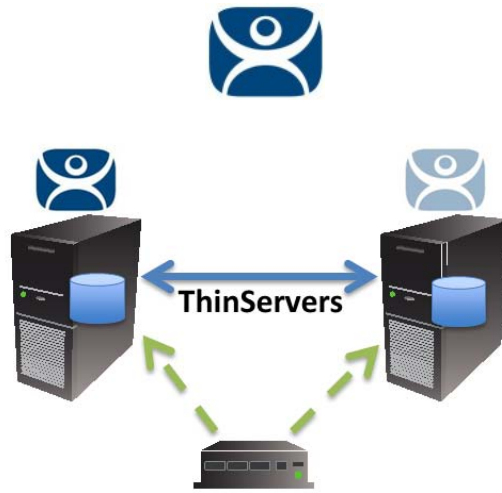
Mirrored ThinManager System

Mirrored Redundancy – Two ThinManager Servers: This is a form of redundancy that is controlled with a mirrored license. You use two synchronized ThinManager Servers that the terminals can boot from, as in a fully redundant system. The difference is that administrative functions like shadowing and configuration changes are limited to the primary ThinManager Server. The ThinManager interface is fully functional only on the primary ThinManager Server.

Mirrored redundancy is a means to provide a redundant ThinManager Server at a lower cost. It provides a backup ThinManager Server to keep production running until a replacement can be found for the primary ThinManager Server.

Single ThinManager System

Single ThinManager Server – No Redundancy: A system with a single ThinManager Server will have all the terminals boot from that computer, receive their configuration, and then connect to the assigned terminal servers. If the ThinManager Server fails the terminals will continue to function as designed because they hold their configuration in memory. If the terminal reboots it will be unable to connect to the failed ThinManager Server and will not receive their configuration or connect to a terminal server until the ThinManager Server comes back online.