
Microsoft Licenses

Microsoft Client Access Licenses (CALs)

Thin Clients require a terminal server with **Windows 2003** or **2008 Server** with **Terminal Services** enabled as an operating system.

Each of these operating systems requires a standard Microsoft Client Access License (CAL) for each connection to the server. These are based on concurrent use; a 5-pack would allow more than five users to access server resources, but only five users at a time.

Microsoft Terminal Server Licenses

Terminals, such as thin clients and fat clients, require a license to access terminal services in addition to the standard Microsoft Client Access License (CAL). This is called the **Microsoft Terminal Services Client Access License (TS CAL)** in Windows 2003 and is called the **Remote Desktop Services Client Access License (RDS CAL)** in Windows 2008.

Windows 2003 terminal servers require Windows 2003 TS CALs and Windows 2008 terminal servers require Windows 2008 RDS CALs.

Note: This document will refer to all terminal services CALs as a TS/RDS CALs.

. This licensing is **per seat**; ten terminals would require ten TS/RDS CALs, even if only two were connected at a time.

These can be installed as Per Device or Per User.

- The TS/RDS Device CAL licenses one device to connect to any Microsoft Terminal Servers as any user. This functions like the previous Windows 2000 TS CAL.
- The TS/RDS User CAL licenses one user for any device to connect to any Microsoft Terminal Servers.

All TS/RDS CALs are installed on a **Terminal Services Licensing Server**. This acts as a repository for all TS/RDS CALs. The terminal servers request TS/RDS CAL authentication from the Terminal Services Licensing Server as terminals attach to terminal servers.

Note: The Terminal Server Licensing Server does not need to be a separate computer. It is a program that can be installed on any existing server.

The Terminal Services Licensing server is activated through the Internet by connecting to the Microsoft Certificate Authority and License Clearinghouse.

Windows 2003 and 2008 Servers with Terminal Services enabled will issue 90-day or 120-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.

Windows Server is not normally sold with TS CALs. These need to be purchased separately and installed on the Terminal Services License server.

Microsoft Terminal Server Licensing Activation

In Windows 2003 and 2008, all the TS CALs are installed on a single Terminal Server Licensing Server. This allows a single site for management and authentication of terminal server connections. A server becomes a Terminal Server Licensing Server by selection of the option during the installation phase or by selecting