

SmartSession

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

Visit <u>www.thinmanager.com/TechNotes4/01_Intro/Manuals.shtml</u> to download the manual, manual chapters, or the abridged ThinManual.

SmartSession provides load balancing between member terminal servers in a Terminal Services Display Client.

SmartSession uses CPU availability, memory, and the number of sessions on the member terminal servers to determine the load on the servers. ThinManager Ready thin clients connect to the terminal server in the Display Client with the most available resources



ThinManager polls the terminal servers for resource availability and assigns a ranking to pass to the terminals.

Terminals connect to the terminal server with the lowest ranking. Lower numbers mean a lighter load.

This example is ranked B-C-A-D.

SmartSession

SmartSession has settings that need configured in two places, the **Terminal Server Configuration Wizard** and the **Display Client Configuration Wizard**.

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Terminal Server Configuration Wizard

The Terminal Server List Wizard can be launched by:

- Right clicking on the Display Servers Terminal Servers branch and choosing the **Add Terminal Server** command to create a new Terminal Server Display Server.
- Double clicking on the icon of a Terminal Services Display Servers in the tree to launch the wizard for an existing Terminal Services Display Servers

😕 Terminal Server Wizard	×
Terminal Server Capabilities Select the capabilities of this Terminal Server.	\mathfrak{C}
Select the options for this Terminal Server	
Supported Connections Citrix ICA Citrix Device Services Microsoft Remote Desktop Protocol	
< <u>B</u> ack <u>N</u> ext > Finish Cancel	Help

Terminal Server Capabilities

Navigate to the Terminal Server Capabilities page and select the *Available for Smart Session Server* checkbox to make the terminal server available for Display Clients that use SmartSession to provide load balancing.

A terminal that is used as a SmartSession server will have a **SmartSession Configuration** page. Select the *Next* button to continue the configuration.



😕 Terminal Server Wizard			×
SmartSession Configuratior Enter the SmartSession limit	n s for this Termina	l Server.	$\mathfrak{>}$
CPU Utilization	Minimum	00 %	
	Maximum	100.0 %	
Memory Utilization			
	Minimum	0.0 %	
	Maximum	100.0 %	
Sessions			
	Minimum	0	
	Maximum	50	
< <u>B</u> ack <u>N</u> ext >	Finish	Cancel	Help

Terminal Server List Wizard - SmartSession Configuration

ThinManager uses the **CPU utilization**, **Memory utilization**, and **number of sessions** on the terminal server to define the SmartSession terminal server's available resources. ThinManager uses these resource values to rank the load of the SmartSession servers. ThinManager supplies this load data to the terminals to allow the terminals to connect to the terminal server with the lightest load and greatest available resources.

The **SmartSession Configuration** page allows the configuration of the three parameters that ThinManager uses to determine availability for SmartSession. ThinManager will scale the range between the Minimum field and Maximum field as 100%.

These values can be changed if you want to tweak your settings through trial and error. Normally the defaults are adequate.

Select *Finish* to save and close or *Cancel* to close without saving.



Display Client Configuration Wizard

Display Clients need configured to use SmartSession.

The Display Client List Wizard can be launched by either::

- Right clicking on the Display Client branch and choosing the *Add Display Client* command to create a new Display Client.
- Double clicking on the Display Client in the Display Client branch of the ThinManager tree to open an existing one.

Nisplay Client Wizard	×
Terminal Services Display Client Options Select the options for this display client	$temp{}$
Terminal Services Options	
SmartSession	
Application Link	
Enforce Primary	
Instant Failover	
Allow Auto-Login	
A Deale Marks District Connect	1 1

Terminal Services Display Client Wizard - Options

Select the SmartSession checkbox to enable the Display Client to use SmartSession.

It is typical to also have the Display Client use AppLink (*Application Link*) to launch a program instead of a desktop in the session.

Select *Next* to continue.



Display Client Wizard Display Client Members Select the Terminal Servers for	or this display client.	×
Available Terminal Servers	Selected Terminal Servers Black (192.168.1.39) Blue (192.168.1.36) Brown (192.168.1.37)	
Edit Server List		•
< <u>B</u> ack <u>N</u> ext >	Finish Cancel	Help

Terminal Services Display Client Wizard – Display Client Members

Add Terminal Servers to the Display Client by moving them from the *Available Terminal Server* list to the *Selected Terminal Server* list with the arrow buttons or by double clicking..

Only terminal servers that have been configured for SmartSession by checking the **Available for Smart Session Server** checkbox on the Terminal Server Capability page of the Terminal Server Configuration Wizard will appear in the **Available Terminal Server** list.

If you need to add servers or change their configuration select the *Edit Server List* button to launch the configuration wizard that allows that.

Select Next to continue.



Display Client Wizard				
SmartSession Settings Enter the SmartSession weights	for this disp	lay client		۶
Smart Session Weights			•	
CPU Utilization Weight		1.0	•	
Memory Utilization Weight		1.0	·	
Sessions Weight		1.0	H	
	,		—	
_ Queuing				
Queue Time Min	0 Sec	Мах	120	Sec
			, Infinite	
< Back Next>	Finish	c.	ancel	Help

Terminal Services Display Client Wizard – SmartSession Settings

The **SmartSession Settings Page** allows tweaking of SmartSession values by adjusting the weights of the SmartSession settings.

ThinManager multiplies the CPU utilization, Memory utilization, and number of sessions on the terminal server by the *Weight* shown to define the SmartSession terminal server's available resources. The higher the *Weight*, relative to the others, the greater the importance that parameter has in determining the load for SmartSession.

Tweaking these settings allow you to adjust the load distribution in SmartSession although the defaults are commonly used.

Queuing

Queuing controls the rate that terminals connect to the terminal servers in the Display Client to allow processor intensive applications to load one at a time instead of many sessions forming at once, bringing the server to a halt. As terminals that use SmartSession Queuing boot, they request their terminal server from ThinManager. ThinManager will send the first terminal to the terminal server with the lightest load and will put the other terminals in a queue for the interval defined in the *Min_Sec* field. This allows the terminal server load to stabilize and allows ThinManager to re-sample the loads and send the terminal to the terminal server with the lowest current load.

The *Min* _ *Sec* field is the amount of seconds that a terminal will wait in the queue before being sent to a terminal server that has another terminal connecting. The terminal may wait longer than this value to connect



if the CPU of the terminal server exceeds the *Maximum CPU Utilization* defined on the SmartSession Configuration page of the Terminal Server Configuration wizard.

The *Max* _ *Sec* field is the maximum amount of seconds that a terminal will wait in the queue before being sent to the terminal server to login, regardless of the load.

If the *Infinite* checkbox is selected, ThinManager will wait until the CPU utilization of the terminal server has regained an acceptable range before sending other terminals to it to login.



SmartSession Graph

ThinManager Interface – Server Rank Tab

The Server Rankings of the terminal servers are displayed on the Server Rank tab when a Terminal Services Display Client is highlighted in the ThinManager tree. In the example above a ThinManager Ready thin client would connect to Silver because it has the lowest load.