

Thin Client & Virtual Desktop White Paper

Overview

The Netpresenter client software (Desktop Player and Screensaver) is compatible with most thin client or virtual desktop based environments. In a traditional desktop deployment, the Netpresenter client is installed onto each end-user's computer. But it is also possible to deploy the Netpresenter software in a thin client or virtual desktop environment, using one of the compatible products that are listed below.

Compatible thin client products

The Netpresenter client software is compatible with the following thin client products:

Product	Notes
Windows Server 2003 Terminal Services & Windows Server 2003 R2 Terminal Services	All features are available.
Windows Server 2008 Terminal Services & Windows Server 2008 R2 Remote Desktop Services	Screensaver requires the Netpresenter GSS service. Some configuration is required.
Windows Server 2012 Remote Desktop Services & Windows Server 2012 R2 Remote Desktop Services	Screensaver requires the Netpresenter GSS service. Some configuration is required.
Citrix XenApp	See notes per OS.
Citrix XenDesktop	All features are available.
VMWare VDI	All features are available.

The Netpresenter software will be compatible with other products or product versions. Please contact Netpresenter support for an actual overview if your environment is not listed.

Thin Client Implementation Basics

Content Creation and Targeting

The creation and targeting of content within a thin client environment is not very different from standard workstation implementation. Channels are targeted to specific users, groups or OUs. A single installation of the Netpresenter client software is able to support all users on that server. Individual users receive only content intended for them, they all have their own cache. Our solution also supports roaming user profiles as well as machine based targeting. In some environments, even targeting on the IP of the physical client device is possible.

Content Display

The display of content delivered within a thin client or virtual desktop environment is no different from how content is displayed when the Netpresenter client is installed on a workstation. However, to optimize the Netpresenter applications' CPU and memory performance, and to limit the amount of screen changes, a number of guidelines are listed below.

Increase slide times

The default slide time for a presentation is 20 seconds. Since each slide change causes transmission of a new screen image to the client PC you may want to increase the slide time to for example 30 seconds.

Reduce number of templates

Thin client based solutions optimize the size of screen updates by only sending the difference between 2 subsequent screens. By reducing the number of used templates, the differences are kept to a minimum, thus allowing the server to optimize its network usage.

Optimize image sizes

Match the size of the template background images you use to the screen resolution of your thin clients. Background images that are larger needlessly decrease the server's performance.

Also consider reducing the size of used images in the Netpresenter Message Server (under 'Manage Sites').

Avoid CPU intensive effects

Effects (transitions), like any animation, consume precious bandwidth, and are thus best avoided in Terminal Server environments.

It is also possible to configure the Player to ignore effects (transitions) used in presentations. Add the decimal value 16 to the PlayOptions key in the [Player] section.

[Player]

PlayOptions = 16

Thin Client Implementation for specific Thin Client products

The following information is provided in regards to configuring the Netpresenter client for operation with specific thin client products:

Windows Terminal Services / Remote Desktop Services

The Netpresenter Player can be made accessible in Terminal Services / Remote Desktop Services environment by installing the client directly onto the server. Given that the user accesses the desktop of the server, the Netpresenter Player is available via the Netpresenter icon in the system tray within the Remote Desktop session. Netpresenter Player instances are launched automatically by the whenever a new remote user connects to the server.

Please note: On Windows Server 2003 (R2) Terminal Services, all functionality is available by default. Specific steps must be followed to force the Netpresenter screensaver to run within the Remote Desktop session. The default configuration of a Remote Desktop session is to ignore the per-user configured screensaver and to instead display a blank screen on the session when the screen saver timeout interval is reached. On Windows Server 2008 and Windows Server 2012 Remote Desktop Services, all functionality is available by default, except for screensavers. To enable the Netpresenter screensaver in Remote Desktop sessions on Windows Server 2008 and Windows Server 2012, an extra service needs to be installed: the Netpresenter GSS service.

Citrix XenApp

The Netpresenter client is compatible with Citrix XenApp. There are various different methods of publishing applications in XenApp, as follows:

Server Desktop

In this mode, the entire server desktop is published to the client. Given that the user accesses the desktop of the server, the Netpresenter client is available via the icon in the system tray within the

remote session. The Netpresenter client instances are launched automatically whenever a new remote user connects to the server.

To configure the client in this way, install the Player installation package on the server by executing the MSI file. After doing so, use the Citrix Delivery Services Console to publish a new application, and choose “server desktop” when prompted for the application type.

Screensavers are supported in this mode when running XenApp on Windows Server 2003 or Windows Server 2003 R2 by default. Screensavers require some extra configuration and the Netpresenter GSS service on Windows Server 2008 (R2) and Windows Server 2012 (R2) due to limitations within these operating systems.

[Application: Accessed from a Server](#)

In this mode, the Netpresenter client can be published directly to clients. It is made available within the system tray on the Windows client.

To configure the Netpresenter client in this way, use the Citrix Streaming Profiler to create an application profile of the Netpresenter client. During this process, the Citrix Streaming Profiler requests the program/command to run to install the Netpresenter client. At this point, reference the Netpresenter Player MSI file and continue with the Citrix Streaming Profiler process. Then use the Citrix Delivery Services Console to publish a new application, and choose “Application: Accessed from a server” when prompted for the application type.

Screensavers are not supported in this mode as Citrix XenApp only publishes the specific application windows created by the application. If the local client has a screensaver configured, that screensaver will display after the screensaver timeout. If you are running a version of Windows Embedded, you might consider running the screensaver on the client device.

[Application: Streamed to Client and Application: Streamed to Server](#)

In this mode, the Netpresenter client is virtualized from the underlying Windows operating system upon which it runs, meaning it does not have to be installed on the XenApp server itself. The runtime footprint of the Netpresenter client is captured by the Citrix Streaming Profiler and stored in an application profile on the XenApp AppHub. However to the end user, the visual display of the Netpresenter client is much the same as when published in the mode Application: Accessed from a server. The Netpresenter client is made available within the system tray on the Windows client.

To configure the Netpresenter client in this way, use the Citrix Streaming Profiler to create an application profile of the Netpresenter client. During this process, Citrix Streaming Profiler requests the program/command to run to install the Netpresenter client. At this point, reference the Netpresenter client MSI file and continue with the Citrix Streaming Profiler process. Then use the Citrix Delivery Services Console to publish a new application, and choose “Application: Streamed to server” or “Application: Streamed to client” when prompted for the application type.

Screensavers are not supported in this mode as the Citrix XenApp virtualization layer does not allow the Netpresenter Player application correspond with the local screensaver on the client. If you are running a version of Windows Embedded, you might consider running the screensaver on the client device.

[Additional points](#)

Additional points to note in regards to running the Netpresenter client on XenApp are as follows:

Installing the Netpresenter client on the thin client itself: In all modes listed above, it is also possible to install both the Netpresenter Player and Screensaver on the thin client itself, if it is a computer running a supported version of the Windows operating system. Installing the Netpresenter client on the thin client itself is a simple matter of executing the Netpresenter client installation MSI file. When the Netpresenter client is installed on the thin client, then the Netpresenter screensaver (if enabled) will display locally on the thin client. This is a possible workaround to situations whereby screensavers cannot be supported in published Application mode or when running XenApp on Windows Server 2008 (R2) and Windows Server 2012 (R2).

Citrix XenDesktop

The Netpresenter client is fully compatible with Citrix XenDesktop. There are three main options for installing the Netpresenter client in relation to Citrix XenDesktop:

Installation within the virtual desktop: provided that the virtual desktop has one of the supported versions of the Windows operating systems installed, simply install the Netpresenter client by executing the Netpresenter client installation MSI file within the virtual desktop master image. The operation of the Netpresenter client within the virtual desktop is much the same to installation on a physical machine. All features are available including screensavers, which will be launched within the virtual desktop.

Used in combination with Citrix XenApp: for launching the Netpresenter client from a XenApp server: implementation of the Netpresenter client in this environment is the same as implementing it in a plain XenApp environment, please refer to the information relating to XenApp above.

Installation on the thin client: if the thin client itself is a computer running a supported version of the Windows operating system then installing the Netpresenter client on the thin client itself is a simple matter of executing the Netpresenter client installation MSI file. When the Netpresenter client is installed on the thin client, then the screensaver (if enabled) will display locally on the thin client.