

# VMware Horizon Client for Windows User Guide

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# VMware Horizon Client for Windows User Guide



This document, *VMware Horizon Client for Windows User Guide*, explains how to use VMware Horizon<sup>®</sup> Client<sup>™</sup> for Windows to connect to and use remote desktops and published applications.

For information about the software installed on your remote desktops, contact your system administrator.

This document assumes that Horizon Client for Windows is already installed and configured on your client system. For information about installing and configuring Horizon Client for Windows, see the *VMware Horizon Client for Windows Installation and Setup Guide* document.

## How Do I Log In?

Before you can log in and connect to a remote desktop or published application, a system administrator at your company must set up your user account. If your system administrator has not set up your user account, you cannot use Horizon Client or HTML Access.

If Horizon Client prompts you for a server name and domain name, your system administrator must tell you the server name to type and the domain to select. At some companies, Horizon Client automatically connects to the correct server and selects the correct domain for you.

If you do not know your user name or password or how to reset your password, contact the system administrator at your company.

When you are ready to log in and get started, see [Chapter 3 Connecting to Remote Desktops and Published Applications](#).

# Connecting to Remote Desktops and Published Applications

# 3

Horizon Client makes it easy to work on remote desktops and published applications from your local client device, giving you on-the-go access from any location.

This chapter includes the following topics:

- [Set the Certificate Checking Mode](#)
- [Connect to a Remote Desktop or Published Application](#)
- [Use Unauthenticated Access to Connect to Published Applications](#)
- [Log Off or Disconnect](#)
- [Disconnecting from a Server](#)
- [Reconnecting to a Remote Desktop or Published Application](#)
- [Hide the VMware Horizon Client Window](#)
- [Create a Shortcut on the Windows Client Desktop or in the Start Menu](#)
- [Using Shortcuts Created by the Server](#)

## Set the Certificate Checking Mode

Your system administrator might ask you to set the certificate checking mode in Horizon Client to make sure that you can successfully connect to a server. At some companies, an administrator might set the certificate checking mode and prevent you from changing it in Horizon Client.

Server certificate checking occurs for connections between Horizon Client and a server. A certificate is a digital form of identification, similar to a passport or a driver's license.

### Procedure

- 1 Start Horizon Client.
- 2 Click the **Options** menu on the Horizon Client menu bar and select **Configure SSL**.

### 3 Select the certificate checking mode.

Option	Description
<b>Never connect to untrusted servers</b>	This setting means that you cannot connect to the server if any of the certificate checks fail. An error message lists the checks that failed.
<b>Warn before connecting to untrusted servers</b>	This setting means that you can click <b>Continue</b> to ignore the warning if a certificate check fails because the server uses a self-signed certificate. For self-signed certificates, the certificate name is not required to match the server name that you entered in Horizon Client.  You can also receive a warning if the certificate has expired.
<b>Do not verify server identity certificates</b>	This setting means that no certificate checking occurs.

### 4 To save your changes, click **OK**.

#### What to do next

If you receive a certificate error after setting the certificate checking mode, contact your system administrator.

## Connect to a Remote Desktop or Published Application

To connect to a remote desktop or published application, you must provide the name of a server and supply credentials for your user account.

#### Prerequisites

Obtain the following information from your system administrator:

- Instructions about whether to turn on a VPN (virtual private network) connection.
- Server name to use for connecting to the server.
- If the port is not 443, the port number to use for connecting to the server.
- Credentials for logging in, such as an Active Directory user name and password, RSA SecurID user name and passcode, RADIUS authentication user name and passcode, or smart card personal identification number (PIN).
- Domain name for logging in.

If your system administrator instructs you to configure the certificate checking mode, see [Set the Certificate Checking Mode](#).

#### Procedure

- 1 If a VPN connection is required, turn on the VPN.
- 2 Start Horizon Client.
- 3 (Optional) To log in as the currently logged-in Windows domain user, click the **Options** button on the menu bar and select **Log in as current user**.

This setting is available only if the **Log in as current user** feature is installed on the client system.

#### 4 Connect to a server.

Option	Action
Connect to a new server	Double-click the <b>+ Add Server</b> button, or click the <b>+ New Server</b> button in the menu bar, enter the name of a server as instructed by your system administrator, and click <b>Connect</b> .
Connect to an existing server	Double-click the server icon, or right-click the server icon and select <b>Connect</b> .

Connections between Horizon Client and the server always use TLS. The default port for TLS connections is 443. If the server is not configured to use the default port, use the format shown in this example: **view.company.com:1443**.

You might see a message that you must confirm before the login dialog box appears.

- 5 If you are prompted for RSA SecurID credentials or RADIUS authentication credentials, enter the user name and passcode and click **Continue**.
- 6 In the login dialog box, enter your user name and password and select a domain, as instructed by your system administrator, and click **Login**.

If you selected **Log in as current user** in the **Options** menu, and you are authorized to log in to the server, you are not prompted to enter a user name and password.

If you enter the user name as *username@domain*, Horizon Client treats it as a user principal name (UPN) and the **Domain** drop-down menu is disabled.

If the **Domain** drop-down menu is hidden, you must enter the user name as *username@domain* or *domain\username*.

- 7 If Horizon Client prompts you to install published applications or remote desktops to the Windows **Start** menu, click **Yes** or **No**.

This prompt can appear the first time you connect to a server on which shortcuts have been configured for published applications or remote desktops. If you click **Yes**, **Start** menu shortcuts are installed on the client system for those published applications or remote desktops, if you are entitled to use them. If you click **No**, **Start** menu shortcuts are not installed. In some companies, shortcuts are installed automatically and you are not prompted.

- 8 (Optional) To configure display settings for a remote desktop, right-click the remote desktop icon and select **Settings**.

Option	Action
Select a display protocol	If a Horizon administrator has allowed it, use the <b>Connect Via</b> drop-down menu to select the display protocol.
Select a display layout	Use the <b>Display</b> drop-down menu to select a window size or to use multiple monitors.

- 9 To connect to a remote desktop or published application, double-click the remote desktop or published application icon.

If you are connecting to a published desktop, and if the published desktop is already set to use a different display protocol, you cannot connect immediately. Horizon Client prompts you to use the set protocol or to log off so that Horizon Client can connect with a different display protocol.

After you are connected, the remote desktop or published application opens.

If you are entitled to more than one remote desktop or published application on the server, the desktop and application selector window remains open so that you can connect to multiple remote desktops and published applications.

If the client drive redirection feature is enabled, the Sharing dialog box appears and you can allow or deny access to files on the local file system. For more information, see [Share Access to Local Folders and Drives with Client Drive Redirection](#).

The first time you connect to a server, Horizon Client saves a shortcut to the server on the Horizon Client home window. You can double-click this server shortcut the next time you need to connect to the server.

#### What to do next

(Optional) To connect to the same remote desktop each time you log in, select **Autoconnect to This Desktop** from the **Options** menu on the menu bar in the remote desktop window.

## Use Unauthenticated Access to Connect to Published Applications

A Horizon administrator can create Unauthenticated Access users and entitle those users to published applications on a particular server. Unauthenticated Access users can log in to a server anonymously to connect to their published applications.

#### Prerequisites

Obtain the following information from your system administrator:

- Instructions about whether to turn on a VPN (virtual private network) connection.
- Name of the server on which you have unauthenticated access to published applications.
- If the port is not 443, the port number to use for connecting to the server.
- An Unauthenticated Access user account to use for logging in anonymously, if necessary.
- Instructions about whether to select **Log in anonymously using Unauthenticated Access** in Horizon Client. A Horizon administrator might preselect this setting and log you in with a specific Unauthenticated Access user account.

If your system administrator instructs you to configure the certificate checking mode, see [Set the Certificate Checking Mode](#).

## Procedure

- 1 If a VPN connection is required, turn on the VPN.
- 2 Start Horizon Client.
- 3 If instructed to do so by your system administrator, click the **Options** button in the menu bar and select **Log in anonymously using Unauthenticated Access**.

Depending on how the client system is configured, this setting might be preselected.

- 4 Connect to the server on which you have unauthenticated access to published applications.

Option	Action
Connect to a new server	Double-click the <b>+ Add Server</b> button or click the <b>+ New Server</b> button in the menu bar, enter the name of the server as instructed by your system administrator, and click <b>Connect</b> .
Connect to an existing server	Double-click the server icon on the Horizon Client home window.

Connections between Horizon Client and the server always use TLS. The default port for TLS connections is 443. If the server is not configured to use the default port, use the format shown in this example: **view.company.com:1443**.

You might see a message that you must confirm before the Login dialog box appears.

- 5 When the Login dialog box appears, select a user account from the **User account** drop-down menu, if necessary.  
  
If only one user account is available, the drop-down menu is disabled and the user account is preselected.
- 6 (Optional) If the **Always use this account** check box is available, select it to bypass the Login dialog box the next time you connect to the server.

To deselect this setting before you connect to the server the next time, right-click the server icon on the Horizon Client home window and select **Forget the saved Unauthenticated Access account**.

- 7 Click **Login** to log in to the server.  
  
The application selector window appears.
- 8 To start a published application, double-click the published application icon.

## Log Off or Disconnect

If you disconnect from a remote desktop without logging off, applications in the remote desktop might remain open. You can also disconnect from a server and leave published applications running.

You can log off from a remote desktop even if you do not have the remote desktop open. This feature has the same result as sending Ctrl+Alt+Del to the remote desktop and then clicking **Log Off**.

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**Note** The Windows key combination Ctrl+Alt+Del is not supported in remote desktops. Instead, click the **Send Ctrl+Alt+Delete** button in the menu bar. Alternatively, you can press Ctrl+Alt+Insert.

---

**Procedure**

- Disconnect from a remote desktop without logging off.

Option	Action
<b>From the remote desktop window</b>	Perform one of the following actions: <ul style="list-style-type: none"> <li>■ Click the <b>Close</b> button in the corner of the remote desktop window.</li> <li>■ Select <b>Options &gt; Disconnect</b> from the menu bar in the remote desktop window.</li> </ul>
<b>From the desktop and application selector window</b>	In the upper-left corner of the desktop and application selector window, click the <b>Disconnect from this server</b> icon and click <b>OK</b> in the warning dialog box.  If you are entitled to multiple remote desktops or published applications on the server, the desktop and application selector window is open.

**Note** A Horizon administrator can configure remote desktops to log off when they are disconnected. In that case, any open applications in the remote desktop are closed.

- Log off and disconnect from a remote desktop.

Option	Action
<b>From within the remote desktop</b>	Use the Windows <b>Start</b> menu to log off.
<b>From the menu bar</b>	Select <b>Options &gt; Disconnect and Log Off</b> .  If you use this procedure, files that are open on the remote desktop are closed without being saved first.

- Disconnect from a published application.

Option	Action
<b>Disconnect from the published application but not the server</b>	Quit the published application in the usual manner, for example, click the <b>Close</b> button in the corner of the application window.
<b>Disconnect from the published application and the server</b>	In the upper-left corner of the application selector window, click the <b>Disconnect from this server</b> icon and click <b>OK</b> in the warning dialog box.
<b>Close the application selector window, but leave the published application running</b>	Click the <b>Close</b> button. The application selector window closes.

- Log off when you do not have a remote desktop open.

If you use this procedure, files that are open on the remote desktop are closed without being saved first.

- a Start Horizon Client, connect to the server that provides access to the remote desktop, and supply authentication credentials.
- b Right-click the remote desktop icon and select **Logoff**.

## Disconnecting from a Server

After you have finished using a remote desktop or published application, you can disconnect from the server.

To disconnect from a server, click the **Disconnect from this server** icon in the upper-left corner of the Horizon Client window, or press Alt+D.

## Reconnecting to a Remote Desktop or Published Application

For security purposes, a Horizon administrator can set timeouts that log you off a server and lock a published application after some period of inactivity.

By default, you must log in again if you have Horizon Client open and are connected to a particular server for more than 10 hours. This timeout applies to both remote desktop and published application connections.

You receive a warning prompt 30 seconds before a published application is locked automatically. If you do not respond, the published application is locked. By default, the timeout occurs after 15 minutes of inactivity, but a Horizon administrator can change the timeout period.

For example, if you have one or more published applications open and you walk away from your computer, the published application windows might no longer be open when you return an hour later. Instead, you might see a dialog box that prompts you to click **OK** so that the published application windows appear again.

## Hide the VMware Horizon Client Window

You can hide the VMware Horizon Client window after you open a remote desktop or published application.

An administrator can configure whether the window is always hidden after a remote desktop or published application opens.

### Procedure

- To hide the VMware Horizon Client window after you open a remote desktop or published application, click the **Close** button in the corner of the VMware Horizon Client window.
- To configure a setting that always hides the VMware Horizon Client window after a remote desktop or published application opens, before you connect to a server, click the **Options** button in the menu bar and select **Hide the selector after launching an item**.
- To show the VMware Horizon Client window after it has been hidden, right-click the VMware Horizon Client icon in the system tray and select **VMware Horizon Client**, or, if you are logged in to a remote desktop, click the **Options** button in the menu bar and select **Switch to Other Desktop**.

## Create a Shortcut on the Windows Client Desktop or in the Start Menu

You can create a shortcut for a remote desktop or published application. The shortcut appears on the client system's desktop, just like shortcuts for locally installed applications. You can also create a Windows Start menu shortcut.

### Procedure

- 1 Start Horizon Client and log in to the server.
- 2 In the desktop and application selector window, right-click a remote desktop or published application and select **Create Shortcut to Desktop** or **Add to Start Menu** from the context menu.

Depending on the command that you selected, Horizon Client creates a shortcut on the desktop or in the Windows Start menu on the client system.

### What to do next

You can rename, delete, or perform any action on a shortcut that you can perform on shortcuts for locally installed applications. If you are not already logged in to the server when you use the shortcut, Horizon Client prompts you to log in before the remote desktop or published application opens.

## Using Shortcuts Created by the Server

A Horizon administrator might configure Start menu or desktop shortcuts for certain remote desktops and published applications.

If you are entitled to a remote desktop or published application that has shortcuts, Horizon Client places the shortcuts in the Start menu, on the desktop, or both, on the client system when you connect to the server.

For Start menu shortcuts, on Windows 7 systems, Horizon Client places shortcuts in the VMware Applications folder in the Start menu. On Windows 8 and Windows 10 systems, Horizon Client places shortcuts in the Apps list. If a Horizon administrator creates a category folder for a shortcut, the category folder appears under the VMware Applications folder or as a category in the Apps list.

The first time you connect to the server, Horizon Client might prompt you to install the shortcuts, or the shortcuts might be installed automatically, depending on how the Horizon administrator has configured this feature.

If you are not already logged in to the server when you click a server-created shortcut, Horizon Client prompts you to log in before the remote desktop or published application opens.

If a Horizon administrator modifies remote desktop and published application shortcuts on the server, by default the shortcuts are updated on the client system the next time you connect to that server. You can change the default shortcut update behavior in Horizon Client. For more information, see [Configure the Shortcut Update Behavior](#).

To remove server-created shortcuts from the client system, you can delete the server from the Horizon Client server selection window or uninstall Horizon Client.

## Configure the Shortcut Update Behavior

You can configure whether changes made to remote desktop and published application shortcuts on the server are applied to the client system when you connect to the server.

### Prerequisites

You cannot change the shortcut update setting unless you have previously installed a shortcut from a server.

### Procedure

- 1 Open the Settings dialog box in Horizon Client and select **Shortcuts**.
  - Click the **Settings** (gear) icon in the upper right corner of the desktop and application selector window.
  - Right-click a remote desktop or published application icon and select **Settings**.
- 2 Select or deselect the **Automatically update list of application and desktop shortcuts** check box.
- 3 To save your changes, click **OK**.

# Using Remote Desktops and Published Applications

# 4

Horizon Client includes additional features to help you use remote desktops and published applications on your local client device.

This chapter includes the following topics:

- [Keyboard Shortcuts](#)
- [Copying and Pasting](#)
- [Share Access to Local Folders and Drives with Client Drive Redirection](#)
- [Switch Remote Desktops or Published Applications](#)
- [Printing from a Remote Desktop or Published Application](#)
- [Using Published Applications](#)
- [Clicking URL Links That Open Outside of Horizon Client](#)
- [Tips for Using the Desktop and Application Selector](#)
- [Control Adobe Flash Display](#)
- [Resizing the Remote Desktop Window](#)
- [Use Display Scaling](#)
- [Using DPI Synchronization](#)
- [Using the Session Collaboration Feature](#)

## Keyboard Shortcuts

You can use keyboard shortcuts for menu commands and common actions.

## Common Keyboard Shortcuts

These keyboard shortcuts work the same way in Horizon Client as they do in all applications.

**Table 4-1. Common Keyboard Shortcuts**

Action	Key or Key Combination
Click the highlighted button in a dialog box	Press Enter.
Open the context menu	Press Shift+F10.
Click the <b>Cancel</b> button in a dialog box	Press ESC.
Navigate between items in the server selection window or the desktop and application selector window	Use an arrow key to move in the direction of the arrow. To move to the right, press Tab. To move to the left, press Shift+Tab.
Delete an item from the server selection window or the desktop and application selector window	Press Delete.
In Windows 8.x, navigate between the <b>Start</b> window and the remote desktop window	Press the Windows key.

## Server Selection Window Key Combinations

You can use these key combinations in the server selection window in Horizon Client.

**Table 4-2. Server Selection Key Combinations**

Menu Command or Action	Key Combination
Open the online help in a browser window	Alt+O+H, Ctrl+H
<b>New Server</b> command	Alt+N
Open the <b>Support Information</b> window	Alt+O+S
Open the <b>About Horizon Client</b> window	Alt+O+V
<b>Configure SSL</b> command	Alt+O+O
<b>Hide selector after launching an item</b> command	Alt+O+I

## Desktop and Application Selector Keyboard Shortcuts

You can use these keyboard shortcuts when you select remote desktops and published applications in Horizon Client.

**Table 4-3. Desktop and Application Selector Keyboard Shortcuts**

Menu Command or Action	Key Combination
Open the online help in a browser window	Alt+O+H, Ctrl+H
Open the <b>Options</b> menu	Alt+O
Open the <b>Support Information</b> window	Alt+O+S
Open the <b>About Horizon Client</b> window	Alt+O+V
Log off from the remote desktop	Shift+F10+O
Disconnect and log off from the server	Alt+D
Toggle between <b>Show Favorites</b> and <b>Show All</b>	Alt+F

**Table 4-3. Desktop and Application Selector Keyboard Shortcuts (Continued)**

Menu Command or Action	Key Combination
While showing favorites, after typing the first few characters of the published application or remote desktop name, go to the next item that matches the search	F4
While showing favorites, go to the previous item that matches the search	Shift+F4
Mark as a favorite or remove a favorite designation	Shift+F10+F
Open the <b>Settings</b> menu	Alt+S, or Shift+F10+S
Start the selected item	Enter, or Shift+F10+L
Pin a shortcut for the remote desktop or published application to the Start menu (for Windows 7 and earlier) or the Start window (for Windows 8.x and later) on the client system	Shift+F10+A
Open the <b>Display Settings</b> context menu for the selected remote desktop	Shift+F10+D
Use the PCoIP display protocol to connect to the selected remote desktop	Shift+F10+P
Use the RDP display protocol to connect to the selected remote desktop	Shift+F10+M
Create a remote desktop shortcut for the selected item	Shift+F10+C
Add the selected item to the Start menu or Start window	Shift+F10+A
Reset the selected remote desktop (if your administrator allows you to reset)	Shift+F10+R
Refresh the remote desktop and published application list	F5

## Desktop Window Shortcuts

To use these shortcuts, you must press Ctrl+Alt or click the Horizon Client menu bar, rather than click inside the remote desktop, before you press the keys. These shortcuts work only when you use the VMware Blast display protocol or the PCoIP display protocol.

**Table 4-4. Remote Desktop Window Shortcuts**

Menu Command or Action	Key Combination
Release the mouse pointer so that it is no longer inside the remote desktop	Ctrl+Alt
Open <b>Options</b> menu	Alt+O
Open the <b>Support Information</b> window	Alt+O+M
Open the <b>About Horizon Client</b> window	Alt+O+V
Open the Share Folders Settings dialog box	Alt+O+F
Toggle <b>Enable display scaling</b>	Alt+O+N
<b>Switch to Other Desktop</b> command	Alt+O+S

**Table 4-4. Remote Desktop Window Shortcuts (Continued)**

Menu Command or Action	Key Combination
<b>Autoconnect to This Desktop</b> command	Alt+O+A
<b>Enable Relative Mouse</b> command	Alt+O+E
<b>Send Ctrl+Alt+Del</b> command	Alt+O+C
<b>Disconnect</b> command	Alt+O+D
<b>Disconnect and Log Off</b> command	Alt+O+L
<b>Connect USB Device</b> command	Alt+U

## Copying and Pasting

By default, you can copy and paste from the local client system to a remote desktop or published application. You can also copy and paste from a remote desktop or published application to the client system, or between two remote desktops or published applications, if a Horizon administrator enables these features.

Supported file formats include text, images, and RTF (Rich Text Format).

For example, to copy text on the client system, select the text and press Ctrl+C. To paste the text into a remote desktop, press Ctrl+V in the remote desktop.

If you use the VMware Blast display protocol or the PCoIP display protocol, a Horizon administrator can configure this feature so that copy and paste operations are allowed only from the client system to a remote desktop or published application, or only from a remote desktop or published application to the client system, or both, or neither.

The copy and paste feature has the following limitations.

- You cannot copy and paste files between a remote desktop and the file system on the local client computer.
- If you are copying formatted text, some of the data is text and some of the data is formatting information. If you copy a large amount of formatted text or text and an image, when you attempt to paste the text and image, you might see some or all the plain text but no formatting or image. The reason is that the three types of data is sometimes stored separately. For example, depending on the type of document you are copying from, images might be stored as images or as RTF data.
- If the text and RTF data together use less than maximum clipboard size, the formatted text is pasted. Often the RTF data cannot be truncated, so that if the text and formatting use more than the maximum clipboard size amount, the RTF data is discarded, and plain text is pasted.
- If you are unable to paste all the formatted text and images you selected in one operation, you might need to copy and paste smaller amounts in each operation.

## Share Access to Local Folders and Drives with Client Drive Redirection

With the client drive redirection feature, you can share folders and drives on the local client system with remote desktops and published applications.

Shared drives can include mapped drives and USB storage devices. Mapped drives can have UNC (Universal Naming Convention) paths.

In a Windows remote desktop, shared folders and drives appear in the **This PC** folder or in the **Computer** folder, depending on the Windows operating system version. In a published application, such as Notepad, you can browse to and open a file in a shared folder or drive.

You can also turn on the ability to open local files in published applications directly from the local file system. With this feature, the **Open with** menu on the client system lists the available published applications when you right-click a local file.

You can also set files to be opened automatically in published applications when you double-click the file. With this feature, all files on your local file system that have certain file extensions are registered with the server that you are logged in to. For example, if Microsoft Word is a published application on the server, you can right-click a .docx file on your local file system and open the file with the Microsoft Word published application.

The client drive redirection settings apply to all remote desktops and published applications.

### Prerequisites

To share folders and drives with a remote desktop or published application, a Horizon administrator must enable the client drive redirection feature.

A Horizon administrator can hide the client drive redirection feature in Horizon Client.

### Procedure

- 1 Open the Settings dialog box and display the Sharing panel.

Option	Description
From the desktop and application selector window	Right-click a remote desktop or published application icon, select <b>Settings</b> , and select <b>Sharing</b> in the left panel of the window that appears.
From the Sharing dialog box that appears when you connect to a remote desktop or published application	Click the <b>Settings &gt; Sharing</b> link in the dialog box.
From within a remote desktop	Select <b>Options &gt; Share Folders</b> from the menu bar.

## 2 Configure the client drive redirection settings.

Option	Action
<b>Share a specific folder or drive with remote desktops and published applications</b>	<p>Click the <b>Add</b> button, browse to and select the folder or drive to share, and click <b>OK</b>.</p> <p><b>Note</b> If a USB device is already connected to a remote desktop or published application with the USB redirection feature, you cannot share a folder on the USB device.</p> <p>Also, do not turn on the USB redirection feature that connects USB devices automatically at startup or when the device is inserted. If you do so, the next time you start Horizon Client or plug in the USB device, the device connects with the USB redirection feature instead of with the client drive redirection feature.</p>
<b>Stop sharing a specific folder or drive</b>	Select the folder or drive in the Folder list and click the <b>Remove</b> button.
<b>Give remote desktops and published applications access to files in your local user directory</b>	Select the <b>Share your local files <i>user-name</i></b> check box.
<b>Share USB storage devices with remote desktops and published applications</b>	<p>Select the <b>Allow access to removable storage</b> check box. The client drive redirection feature shares all USB storage devices inserted in your client system and all FireWire and Thunderbolt-connected external drives automatically. Selecting a specific device to share is not necessary.</p> <p><b>Note</b> USB storage devices already connected to a remote desktop or published application with the USB redirection feature are not shared.</p>
<b>Turn on the ability to open a local file with a published application from the local file system</b>	<p>If this check box is deselected, you can use the USB redirection feature to connect USB storage devices to remote desktops and published applications.</p> <p>Select the <b>Open local files in hosted applications</b> check box. With this option, you can right-click a file in your local file system and select to open the file in a published application.</p> <p>You can also change the properties of the file so that all files with that file extension are opened with the published application by default, such as when you double-click the file. For example, you can right-click a file, select <b>Properties</b>, and click <b>Change</b> to select the published application to open files of that type.</p> <p>A Horizon administrator can disable this feature.</p>
<b>Do not show the Sharing dialog box when you connect to a remote desktop or published application</b>	<p>Select the <b>Do not show dialog when connecting to a desktop or application</b> check box.</p> <p>If this check box is deselected, the Sharing dialog box appears the first time you connect to a remote desktop or published application. For example, if you log in to a server and connect to a remote desktop, you see the Sharing dialog box. If you then connect to another remote desktop or published application, you do not see the dialog box. To see the dialog box again, you must disconnect from the server and log in again.</p>

### What to do next

Verify that you can see the shared folders from within the remote desktop or published application.

- In a Windows remote desktop, open File Explorer and look in the **This PC** folder, or open Windows Explorer and look in the **Computer** folder, depending on the Windows operating system version.
- In a published application, select **File > Open** or **File > Save As** and navigate to the folder or drive.

The folders and drives that you selected for sharing might use one or more of the following naming conventions:

- **name on MACHINE-NAME.** For example, **jsmith on JSMITH-W03.**
- **N on MACHINE-NAME.** For example, **Z on JSMITH-W03.**
- **name (N:).** For example, **jsmith (Z:).**

A redirected folder can have two entrances, such as **Z on JSMITH-W03** and **jsmith (Z:)**, and both entrances can appear at the same time. If all the volume labels (from A: through Z:) are already in use, the redirected folder has only one entrance, such as **Z on JSMITH-W03.**

## Switch Remote Desktops or Published Applications

If you are connected to a remote desktop, you can switch to another remote desktop. You can also connect to a published application while you are connected to a remote desktop.

### Procedure

- ◆ Select a remote desktop or published application from the same server or from a different server.

Option	Action
Choose a different remote desktop or published application on the same server	Perform one of the following actions: <ul style="list-style-type: none"> <li>▪ If you are logged in to a remote desktop select <b>Options &gt; Switch to Other Desktop</b> from the Horizon Client menu bar, and select another remote desktop or a published application.</li> <li>▪ If you are logged in to a published application, right-click the <b>VMware Horizon Client</b> icon in the system tray, select <b>VMware Horizon Client</b> to display the desktop and application selector window, and double-click the icon for the other remote desktop or published application.</li> <li>▪ From the desktop and application selector window, double-click the icon for the other remote desktop or published application. That remote desktop or published application opens in a new window. You now have multiple windows open, and you can switch between them.</li> </ul>
Choose a different remote desktop or published application on a different server	Perform one of the following actions: <ul style="list-style-type: none"> <li>▪ To keep the current remote desktop or published application open and also connect to a remote desktop or published application on another server, start a new instance of Horizon Client and connect to the other remote desktop or published application.</li> <li>▪ To close the current remote desktop and connect to a remote desktop on another server, go to the desktop and application selector window, click the <b>Disconnect</b> icon in the upper-left corner of the window, and log off of the server. You are disconnected from the current server and any open remote desktop sessions, and you can now connect to a different server.</li> </ul>

## Printing from a Remote Desktop or Published Application

You can print to a virtual printer or a USB printer that is attached to the local client computer from a remote desktop or published application. Virtual printing and USB printing work together without conflict.

## Set Printing Preferences for a Virtual Printer Feature on a Remote Desktop

With the virtual printing feature, you can use local or network printers from a remote desktop without having to install additional printer drivers in the remote desktop. For each printer available through this feature, you can set preferences for data compression, print quality, double-sided printing, color, and other settings.

After a printer is added on the local client computer, Horizon Client adds that printer to the list of available printers in the remote desktop. No further configuration is required. If you have administrator privileges, you can install printer drivers on the remote desktop without creating a conflict with the virtual printer component.

---

**Important** This feature is not available for the following types of printers.

- USB printers that use the USB redirection feature to connect to a virtual USB port in the remote desktop.  
You must disconnect the USB printer from the remote desktop to use the virtual printing feature with it.
  - The Windows feature for printing to a file.  
Selecting the **Print to file** check box in a Print dialog box does not work. Using a printer driver that creates a file does work. For example, you can use a PDF writer to print to a PDF file.
- 

This procedure applies to Windows 7 or Windows 8.x remote desktops. The procedure is similar, but not exactly the same, for other types of Windows remote desktops.

### Procedure

- 1 In the Windows 7 or Windows 8.x remote desktop, click **Start > Devices and Printers**.
- 2 In the Devices and Printers window, right-click the default printer, select **Printer Properties** from the context menu, and select the printer.

Virtual printers might appear as *<printer\_name>*, *<printer\_name>(s<session\_ID>)*, or *<printer\_name>#:<number>* in the remote desktop.

- 3 In the Printer Properties window, click the **Device Setup** tab and specify which settings to use.
- 4 On the **General** tab, click **Preferences** and specify which settings to use.
- 5 In the Printing Preferences dialog box, select the different tabs and specify which settings to use.

For the **Page Adjustment** advanced setting, VMware recommends that you retain the default settings.

- 6 Click **OK**.

- 7 To use custom paper forms, define the forms on the client system.
  - a Go to **Control Panel > Hardware and Sound > Devices and Printers**.
  - b Select the printer and click **Print Server Properties** at the top of the screen.
  - c On the **Forms** tab, specify the settings and click **Save Form**.

This form is now available in the remote desktop.

## Using USB Printers

A USB printer is a printer that is attached to a USB port on the local client system. To send print jobs to a USB printer, you can use the USB redirection feature or the virtual printing feature. Depending on network conditions, USB printing can sometimes be faster than virtual printing.

Virtual printers and redirected USB printers can work together without conflict.

- You can use the USB redirection feature to attach a USB printer to a virtual USB port in the remote desktop, but only if the required drivers are also installed on the remote desktop.

If you use the USB redirection feature, the printer is no longer logically attached to the physical USB port on the client, and it does not appear in the list of local printers on the local client machine. You can print to the USB printer from the remote desktop, but you cannot print to the USB printer from the local client machine. In the remote desktop, redirected USB printers appear as *<printer\_name>*.

For information about how to connect a USB printer, see [Use USB Redirection to Connect USB Devices](#).

- On some client systems, you can alternatively use the virtual printing feature to send print jobs to a USB printer. If you use the virtual printing feature, you can print to the USB printer from both the remote desktop and the local client system, and you do not need to install printer drivers in the remote desktop.

## Using Published Applications

Published applications look and feel like applications that are installed on the local client system.

When using published applications, follow these tips.

- You can minimize and maximize a published application through the published application. When a published application is minimized, it appears in the taskbar of the client system. You can also minimize and maximize the published application by clicking its icon in the taskbar.
- You can quit a published application through the published application or by right-clicking its icon in the taskbar.
- You can press Alt+Tab to switch between open published applications.

- If a published application creates a Windows System Tray item, that item also appears in the system tray on the client system. By default, the system tray icons appear only to show notifications. You can customize this behavior in the same way that you customize natively installed applications.

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**Note** If you open the Control Panel to customize the notification area icons, the names of the icons for published applications are listed as VMware Horizon Client - *application name*.

---

## Saving Documents in a Published Application

With certain published applications, such as Microsoft Word or WordPad, you can create and save documents. Where these documents are saved depends on your company's network environment. For example, your documents might be saved to a home share mounted on your local computer.

Contact your system administrator to find out where documents created in published applications are saved in your environment.

## Configure Published Application Reconnection Behavior

Running published applications can remain open after you disconnect for a server in Horizon Client. You can configure how running published applications behave when you reconnect to the server in Horizon Client.

An administrator can disable the published application reconnection behavior settings in Horizon Client.

### Procedure

- 1 In the Horizon Client desktop and application selector window, right-click a published application and select **Settings**.
- 2 In the Remote Applications pane, select an application reconnection behavior setting.

Option	Description
<b>Ask to reconnect to open published applications</b>	Horizon Client notifies you that you have one or more published applications running when you reconnect to the server. You can click <b>Reconnect to applications</b> to reopen the published application windows, or <b>Not Now</b> not to reopen the published application windows.
<b>Reconnect automatically to open published applications</b>	Windows for running published applications reopen when you reconnect to the server.
<b>Do not ask to reconnect and do not automatically reconnect</b>	Horizon Client does not prompt you to reopen running published applications, and running published application windows do not reopen when you reconnect to the server.

- 3 To save your changes, click **OK**.

The setting takes effect the next time Horizon Client connects to the server.

## Use a Local IME with Published Applications

If you use non-English keyboards and locales, you can use an IME (input method editor) that is installed in the local client system to send non-English characters to a published application.

You can use hot keys and icons in the notification area (system tray) of the local client system to switch to a different IME. You do not need to install an IME on the server that hosts the published application.

When this feature is enabled, the local IME is used. If an IME is installed and configured on the server that hosts the published application, that remote IME is ignored.

This feature is disabled by default. When you enable or disable this feature, you must disconnect from the server and log in again before the change takes effect.

### Prerequisites

- Verify that one or more IMEs are installed in the client system.
- Verify that the input language on the local client system matches the language used in the IME.

### Procedure

- 1 In the Horizon Client desktop and application selector window, right-click a published application and select **Settings**.
- 2 In the Remote Applications pane, select the **Extend the local IME to hosted applications** check box and click **OK**.
- 3 Restart the session.

Option	Action
<b>Log off of the server</b>	Disconnect from the server, log in again, and reconnect to the published application. You can resume the published applications, which were disconnected but not closed, and any remote desktops.
<b>Reset the applications</b>	Right-click a published application icon, select <b>Settings</b> , and click <b>Reset</b> . When you use this option, any open remote desktops are not disconnected, but all published applications are closed and must be restarted.

The setting takes effect only after you restart the session. The setting applies to all published applications on the server.

- 4 Use the local IME as you might use it with locally installed applications.

The language designation and an icon for the IME appear in the notification area (system tray) of the local client system. You can use hot keys to switch to a different language or IME. Key combinations that perform certain actions, such as CTRL+X for cutting text and Alt+Right Arrow for moving to a different tab, work correctly.

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**Note** On Windows 7 and 8.x systems, you can specify hot keys for IMEs by using the **Text Services and Input Languages** dialog box, which is available at **Control Panel > Region and Language > Keyboards and Languages tab > Change Keyboards button > Text Services and Input Languages > Advanced Key Settings tab**).

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## Clicking URL Links That Open Outside of Horizon Client

A Horizon administrator can configure URL links that you click inside a remote desktop or published application to open in the default browser on the local client system. The URL link might be to a Web page, a phone number, an email address, or another type of link. This feature is called URL Content Redirection.

A Horizon administrator can also configure URL links that you click inside a browser or application on the local client system to open in a remote desktop or published application. If Horizon Client is not already open you click the URL link, it starts and prompts you to log in.

A Horizon administrator might set up the URL Content Redirection feature for security purposes. For example, if you are at work and click a link that points to a URL outside your company network, the link might be more safely opened in a published application. An administrator can configure which published application opens the link.

Each company configures its own URL Content Redirection policies. If you have questions about how the URL Content Redirection feature behaves at your company, contact your system administrator.

## Using URL Content Redirection with Chrome

The first time a URL is redirected from the Chrome browser on the client, you are prompted to open the URL in Horizon Client. If you select the **Remember my choice for URL:VMware Hori...lient Protocol links** check box (recommended) and then click **Open URL:VMware Hori...lient Protocol**, this prompt does not appear again.

## Tips for Using the Desktop and Application Selector

You can reorganize or reduce the number of icons on the Horizon Client desktop and application selector window.

After you connect to a particular server, a window appears that includes icons for all the remote desktops and published applications that you are entitled to use. Try the following suggestions to open your most frequently used remote desktops and published applications.

- Type the first few letters of the name. For example, if you have icons for Paint, PowerPoint, and Publisher, you can type **pa** to select the Paint published application.  
  
If more than one item matches the letters that you type, you can press F4 to go to the next matching item. When you get to the last item, you can press F4 to go back to the first matching item.
- To mark an icon as a favorite, right-click the icon and select **Mark as Favorite** from the context menu. After you select favorites, click the **Show Favorites View** button (star icon) to remove all the icons that are not favorites.
- To change the order of icons while in the Favorites view, select an icon and drag it to a new location. When you are not in the Favorites view, remote desktop icons are listed first, followed by published application icons, and the icons are in alphabetical order. To reposition the icons, drag them to new locations.

Horizon Client saves the new icon order on the server when you disconnect from the server and when you open a published application or remote desktop. If you do not manually disconnect from the server or open a published application or remote desktop, your changes are not saved.

- To open the remote desktop or published application from the client system and avoid the selector window, create a shortcut by right-clicking the icon and selecting **Create Shortcut** from the context menu.
- To open the remote desktop or published application from your own local Start menu and avoid the selector window, right-click the remote desktop or published application icon and select **Add to Start Menu** from the context menu.

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**Note** If you are using a Windows 7 or later client system, you can open Horizon Client and right-click the Horizon Client icon in the Windows taskbar to select recently used servers, remote desktops, and published applications. Up to 10 items appear in the list. To remove an item, right-click it and select **Remove from this list**.

If you right-click the Horizon Client icon in the taskbar and do not see a jump list, right-click the taskbar, select **Properties**, and click the **Start Menu** tab. In the Privacy section, select the **Store and display recently opened items in the Start menu and the taskbar** check box, and click **OK**.

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## Control Adobe Flash Display

A Horizon administrator can set Adobe Flash content to display in a remote desktop at a level designed to conserve computing resources. Sometimes these settings can result in low playback quality. By moving the mouse pointer into the Adobe Flash content, you can override the Adobe Flash settings that the Horizon administrator specifies.

Adobe Flash display control is available for Internet Explorer sessions only on Windows, and only for Adobe Flash versions 9 and 10. To control Adobe Flash display quality, Adobe Flash must not be running in full screen mode.

### Procedure

- 1 From Internet Explorer in the remote desktop, browse to the relevant Adobe Flash content and start it if necessary.

Depending on how the Horizon administrator configured Adobe Flash settings, you might notice dropped frames or low playback quality.

- 2 Move the mouse pointer into the Adobe Flash content while it is playing.  
If the pointer remains in the Adobe Flash content, display quality is improved.
- 3 To retain the improvement in quality, double-click inside the Adobe Flash content.

## Resizing the Remote Desktop Window

If you drag a corner of the remote desktop window to resize it, a tooltip shows the screen resolution in the lower-right corner of the window.

If you are using the VMware Blast display protocol or the PCoIP display protocol, the tooltip changes to show different screen resolutions when you change the size of the remote desktop window. This information is useful if you must resize the remote desktop window to a specific resolution.

If a Horizon administrator has locked the guest size, or if you are using the RDP display protocol, you cannot change the resolution of the remote desktop window. In these cases, the resolution tooltip shows the initial resolution.

If you have multiple monitors, you can select the monitors on which to display a remote desktop window. For more information, see [Select Specific Monitors in a Multiple-Monitor Setup](#). You can also configure the remote desktop window to open on a single monitor. For more information, see [Use One Monitor in a Multiple-Monitor Setup](#).

## Use Display Scaling

Users that have poor eyesight or high-resolution screens, such as 4K monitors, generally have scaling enabled by setting the DPI (Dots Per Inch) on the client system to greater than 100 percent. With the Display Scaling feature, remote desktops and published applications support the client machine's scaling setting and appear normal-sized rather than very small.

Horizon Client saves the display scaling setting for each remote desktop separately. For published applications, the display scaling setting applies to all published applications that are available to the currently logged-in user. The display scaling setting appears, even if the DPI setting is 100 percent on the client system.

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**Note** An administrator can hide the display scaling setting.

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In a multiple-monitor setup, using display scaling does not affect the number of monitors and the maximum resolutions that Horizon Client supports. When display scaling is allowed and is in effect, scaling is based on the DPI setting of the primary monitor.

This procedure describes how to enable the Display Scaling feature before you connect to a remote desktop or application. You can enable the Display Scaling feature after you connect to a remote desktop by selecting **Options > Allow Display Scaling** from the Horizon Client menu bar.

### Procedure

- 1 Start Horizon Client and connect to a server.
- 2 In the desktop and application selector window, right-click the remote desktop or published application and select **Settings**.
- 3 Select the **Allow display scaling** check box.
- 4 To save your changes, click **Apply**.
- 5 To close the dialog box, click **OK**.

## Using DPI Synchronization

The DPI Synchronization feature ensures that the DPI setting in a remote desktop or published application matches the client system's DPI setting. When you start a new remote session, Horizon Agent sets the DPI value in the remote session to match the DPI value of the client system.

The DPI Synchronization feature cannot change the DPI setting for active remote sessions. If you reconnect to an existing remote session, the Display Scaling feature scales the remote desktop or published application appropriately.

The DPI Synchronization feature is enabled by default. A Horizon administrator can disable the DPI synchronization feature. End users cannot enable or disable the feature from Horizon Client.

Not all remote desktops support the DPI Synchronization feature. For more information, see the *VMware Horizon Client for Windows Installation and Setup Guide*.

When the DPI Synchronization feature and the Display Scaling feature are both enabled, only one feature takes effect at any given time. Display scaling occurs only when DPI synchronization has not yet taken effect (that is, before the DPI setting on the remote desktop matches the DPI setting on the client system), and display scaling stops working after the DPI settings match.

Following are tips for using the DPI Synchronization feature.

- If you change the DPI setting on the client system, you must log out and log in again to make Horizon Client aware of the new DPI setting on the client system. This requirement applies even if the client system is running Windows 10.
- If you start a remote session on a client system that has a DPI setting of more than 100 percent, and then use the same session on another client system that has a different DPI setting of more than 100 percent, you must log out and log back in to the remote session on the second client system to make DPI synchronization work on the second client system.
- Although Windows 10 and Windows 8.x systems support different DPI settings on different monitors, the DPI Synchronization feature uses only the DPI value that is set on the client system's primary monitor. All monitors in the remote desktop also use the same DPI setting as the client system's primary monitor. Horizon Client does not support different DPI settings in different monitors.
- When you connect a laptop that supports different DPI settings on different monitors to an external monitor, and you set the external monitor to be the primary monitor, Windows changes the primary monitor and primary monitor DPI setting every time you detach or reattach the external monitor. In this situation, you must log out and log back in to the client system to make Horizon Client aware of the primary monitor change, and you must log out and log back in to the remote desktop or published application to make the DPI settings match between the client system and remote desktop or published application.
- For Windows 10 client systems, right-click on the desktop, select **Display Settings > Advanced display settings > Advanced sizing of text and other items**, click the **set a custom scaling level** link, and then log out and log in again to make the new DPI setting take effect.

## Using the Session Collaboration Feature

You can use the Session Collaboration feature to invite other users to join an existing remote desktop session.

### Invite a User to Join a Remote Desktop Session

When the Session Collaboration feature is enabled for a remote desktop, you can invite other users to join an existing remote desktop session.

By default, you can send Session Collaboration invitations by email, in an instant message (IM), or by copying a link to the clipboard and forwarding the link to users. To use the email invitation method, an email application must be installed. To use the IM invitation method, Skype for Business must be installed and configured. You can invite only users that belong to a domain that the server allows for authentication. You can invite up to five users by default.

A Horizon administrator can disable the email and IM invitation methods, change the maximum number of collaborators, and disable the Session Collaboration feature. For information about how the Session Collaboration feature behaves at your company, contact your system administrator.

The Session Collaboration feature has the following limitations.

- If you have multiple monitors, only the primary monitor is shown to session collaborators.
- You must select the VMware Blast display protocol when you create a remote desktop session. The Session Collaboration feature does not support PCoIP or RDP sessions.
- Anonymous collaboration is not supported. Session collaborators must be identifiable through Horizon-supported authentication mechanisms.
- Session collaborators must have Horizon Client 4.7 or later for Windows, Mac, or Linux installed, or they must use HTML Access 4.7 or later. If a session collaborator has an unsupported version of Horizon Client, an error message appears when the user clicks a collaboration link.
- You cannot use the Session Collaboration feature to share Linux remote desktop sessions or published application sessions.

#### Prerequisites

To invite users to join a remote desktop session, a Horizon administrator must enable the Session Collaboration feature.

#### Procedure

- 1 Connect to a remote desktop for which the session collaboration feature is enabled.  
You must use the VMware Blast display protocol.
- 2 In the system tray in the remote desktop, click the VMware Horizon Collaboration icon, for example,



The collaboration icon looks different depending on the Windows operating system version.

- 3 When the VMware Horizon Collaboration dialog box opens, enter the user name (for example, **testuser** or **domain\testuser**) or the email address of the user that you want to join the remote desktop session.

The first time you enter the user name or email address of a particular user, you must click **Look up "user"**, enter a comma (,), or press the **Enter** key to validate the user. The session collaboration feature remembers the user the next time you enter the user's user name or email address.

You can invite up to five users by default. A Horizon administrator can change the maximum number of users that you can invite.

- 4 Select an invitation method.

The following invitation methods are available by default. A Horizon administrator can disable the email and IM invitation methods.

Option	Action
Email	Copies the collaboration invitation to the clipboard and opens a new email message in the default email application. An email application must be installed to use this invitation method.
IM	Copies the collaboration invitation to the clipboard and opens a new window in Skype for Business. Press Ctrl+V to paste the link into the Skype for Business window. Skype for Business must be installed and configured to use this invitation method.
Copy Link	Copies the collaboration invitation to the clipboard. You must manually open another application, such as Notepad, and press Ctrl+V to paste the invitation.

After you send an invitation, the VMware Horizon Collaboration icon also appears on the desktop and the session collaboration user interface turns into a dashboard that shows the current state of the collaboration session and enables you to take certain actions.

When a session collaborator accepts your invitation and joins the session, the session collaboration feature notifies you and a red dot appears on the VMware Horizon Collaboration icon in the system tray.

#### What to do next

Manage the collaborative session in the VMware Horizon Collaboration dialog box. See [Manage a Collaborative Session](#).

## Manage a Collaborative Session

After you send a session collaboration invitation, the Session Collaboration user interface turns into a dashboard that shows the current state of the collaborative session and enables you to take certain actions.

#### Prerequisites

Start a collaborative session. See [Invite a User to Join a Remote Desktop Session](#).

## Procedure

- 1 In the remote desktop, click the VMware Horizon Collaboration icon in the system tray, or double-click the VMware Horizon Collaboration icon on the desktop.

The names of all session collaborators appear in the Name column and their status appears in the Status column.

- 2 Use the VMware Horizon Session Collaboration dashboard to manage the collaboration session.

Option	Action
<b>Revoke an invitation or remove a collaborator</b>	Click <b>Remove</b> in the Status column.
<b>Hand off control to a session collaborator</b>	<p>After the session collaborator joins the session, toggle the switch in the Control column to <b>On</b>.</p> <p>To resume control of the session, double-click or press any key. The session collaborator can also give back control by toggling the switch in the Control column to <b>Off</b>, or by clicking the <b>Give Back Control</b> button.</p>
<b>Add a collaborator</b>	Click <b>Add Collaborators</b> .
<b>End the collaborative session</b>	<p>Click <b>End Collaboration</b>. All active collaborators are disconnected.</p> <p>You can also end the collaborative session by clicking the VMware Horizon Session Collaboration icon on the desktop and clicking the <b>Stop</b> button.</p>

## Join a Collaborative Session

To join a collaborative session, you can click the link in a collaboration invitation. The link might be in an email or instant message, or in a document that the session owner forwards to you. Alternatively, you can log in to the server and double-click the icon for the collaborative session in the remote desktop and application selector window.

This procedure describes how to join a collaborative session from a collaboration invitation.

You cannot use the following remote desktop features in a collaborative session.

- USB redirection
- Real-Time Audio-Video (RTAV)
- Multimedia redirection
- Client drive redirection
- Smart card redirection
- Virtual printing
- Microsoft Lync redirection
- File redirection and Keep in Dock functionality
- Clipboard redirection

You cannot change the remote desktop resolution in a collaborative session.

## Prerequisites

To join a collaborative session, you must have Horizon Client 4.7 for Windows, Mac, or Linux installed on the client system, or you must use HTML Access 4.7 or later.

## Procedure

- 1 Click the link in the collaboration invitation.

Horizon Client opens on the client system.

- 2 Enter your credentials to log in to Horizon Client.

After you are successfully authenticated, the collaborative session begins and you can see the session owner's remote desktop. If the session owner transfers mouse and keyboard control to you, you can use the remote desktop.

- 3 To return mouse and keyboard control to the session owner, click the VMware Horizon Session Collaboration icon in the system tray and toggle the switch in the Control column to **Off**, or click the **Give Back Control** button.

- 4 To leave the collaborative session, click **Options > Disconnect**.

# Using External Devices

You can use keyboards, displays, microphones, and other external devices with remote desktops and published applications.

This chapter includes the following topics:

- [Monitors and Screen Resolution](#)
- [Use USB Redirection to Connect USB Devices](#)
- [Using Scanners](#)
- [Using the Real-Time Audio-Video Feature for Webcams and Microphones](#)
- [Using Serial Port Redirection](#)
- [Enable the Relative Mouse Feature for a Remote Desktop](#)

## Monitors and Screen Resolution

You can extend a remote desktop to multiple monitors. If you have a high-resolution monitor, you can see the remote desktop or published application in full resolution.

## Change the Display Mode for a Remote Desktop

You can change the display mode, such as from **All Monitors** mode to **Fullscreen** mode, before or after you connect to a remote desktop. This feature is not supported for published applications.

### Procedure

- 1 Start Horizon Client and log in to a server.
- 2 Connect to the remote desktop, or right-click the remote desktop in the desktop and application selector window and select **Settings**.
- 3 From the **Display** drop-down menu, select the display mode.

Option	Description
<b>All Monitors</b>	Displays the remote desktop window on multiple monitors. The remote desktop window appears on all monitors by default.
<b>Fullscreen</b>	Makes the remote desktop window fill the screen.
<b>Window - Large</b>	Sets the remote desktop window size to 1904 x 978 pixels.

Option	Description
Window - Small	Sets the remote desktop window size to 640 x 480 pixels.
Custom	Displays a slider that you can use to configure a custom remote desktop window size.

- 4 To save your changes, click **Apply**.
- 5 To close the dialog box, click **OK**.

If you are connected to the remote desktop, your changes are applied immediately. If you are not connected to the remote desktop, your changes are applied when you connect to it. Horizon Client saves display settings in a preferences file for the remote desktop after you exit from Horizon Client.

If you use **All Monitors** mode and you click the **Minimize** button, if you then maximize the window, the window goes back to **All Monitors** mode. Similarly, if you use **Fullscreen** mode and minimize the window, if you then maximize the window, the window goes back to **Fullscreen** mode on one monitor.

**Note** If Horizon Client uses all monitors, and you maximize a published application window, the window expands to the full screen of only the monitor that contains it.

## Select Specific Monitors in a Multiple-Monitor Setup

With the selective multiple-monitor feature, you can select the monitors on which to display a remote desktop window. For example, if you have three monitors, you can specify that the remote desktop window appears on only two of those monitors. This feature is not supported for published applications.

You can select up to four adjacent monitors. The monitors can be side by side, stacked two by two, or stacked vertically. A maximum of two monitors can be stacked vertically.

### Procedure

- 1 Start Horizon Client and log in to a server.
- 2 In the desktop and application selector window, right-click the remote desktop and select **Settings**.
- 3 From the **Connect Via** drop-down menu, select **PCoIP** or **VMware Blast**.  
The **Connect Via** drop-down menu appears only if a Horizon administrator has enabled it.
- 4 From the **Display** drop-down menu, select **All Monitors**.  
Thumbnails of the monitors that are currently connected to the client system appear under Display settings. The display topology matches the display settings on the client system.
- 5 To select or deselect a monitor on which to display the remote desktop window, click a thumbnail.  
When you select a monitor, its thumbnail changes color. If you violate a display selection rule, a warning message appears.
- 6 To save your changes, click **Apply**.
- 7 To close the dialog box, click **OK**.

## 8 Connect to the remote desktop.

Your changes are applied immediately when you connect to the remote desktop. Horizon Client saves display settings in a preferences file for the remote desktop after you exit from Horizon Client.

## Use One Monitor in a Multiple-Monitor Setup

If you have multiple monitors but want a remote desktop window to appear on only one monitor, you can configure the remote desktop window to open on a single monitor. This feature is not supported for published applications.

### Procedure

- 1 Start Horizon Client and log in to a server.
- 2 In the desktop and application selector window, right-click the remote desktop and select **Settings**.
- 3 From the **Connect Via** drop-down menu, select **PCoIP** or **VMware Blast**.

The **Connect Via** drop-down menu appears only if a Horizon administrator has enabled it.

- 4 From the **Display** drop-down menu, select **Window - Large**, **Window - Small**, or **Custom**.

**Window - Large** sets the window size to 1904 x 978 pixels. **Window - Small** sets the window size to 640 x 480 pixels. If you select **Custom**, you can select a specific window size.

- 5 To save your changes, click **Apply**.
- 6 To close the dialog box, click **OK**.

By default, the remote desktop window opens on the primary monitor. You can drag the remote desktop window to a non-primary monitor, and the next time you open the remote desktop, the remote desktop window appears on that same monitor. The window opens, is centered in the monitor, and uses the window size that you selected for the display mode, not a size that you might have created by dragging the window to resize it.

## Supported Multiple Monitor Configurations

Horizon Client supports the following multiple monitor configurations.

- If you use two monitors, the monitors are not required to be in the same mode. For example, if you are using a laptop connected to an external monitor, the external monitor can be in portrait mode or landscape mode.
- Monitors can be placed side by side, stacked two by two, or vertically stacked only if you are using two monitors and the total height is less than 4096 pixels.
- To use the selective multiple-monitor feature, you must use the VMware Blast display protocol or the PCoIP display protocol. For more information, see [Select Specific Monitors in a Multiple-Monitor Setup](#).
- To use the vSGA 3D rendering feature, you must use the VMware Blast display protocol or the PCoIP display protocol. You can use up to two monitors, with a resolution of up to 1920 X 1200. For a resolution of 4K (3840 X 2160), only one monitor is supported.

- For vGPU or other GPU passthrough modes, the vendor hardware and drivers determine the number of monitors and maximum resolution. For more information, see the *NVIDIA GRID Virtual GPU User Guide*, or go to the vendor website.
- If you use instant clone desktop pools in Horizon 7 version 7.1 or earlier, the maximum number of monitors that you can use to display a remote desktop is two, with a resolution of up to 2560 X 1600.
- With the VMware Blast display protocol or the PCoIP display protocol, a remote desktop screen resolution of 4K (3840 x 2160) is supported. The number of 4K displays that are supported depends on the hardware version of the desktop virtual machine and the Windows version.

Hardware Version	Windows Version	Number of 4K Displays Supported
10 (ESXi 5.5.x compatible)	7, 8, 8.x, 10	1
11 (ESXi 6.0 compatible)	7 (3D rendering feature disabled and Windows Aero disabled)	3
11	7 (3D rendering feature enabled)	1
11	8, 8.x, 10	1
13	8, 8.x, 10	4

**Note** When the remote desktop screen resolution is set to 3840 x 2160 (4K), items on the screen might appear smaller, and you might not be able to use the Screen Resolution dialog box in the remote desktop to make text and other items larger. In this scenario, you can set the client machine's DPI to the proper setting and enable the DPI Synchronization feature to redirect the client machine's DPI setting to the remote desktop.

- If you use Microsoft RDP 7, the maximum number of monitors that you can use to display a remote desktop is 16.
- If you use Microsoft RDP display protocol, you must have Microsoft Remote Desktop Connection (RDC) 6.0 or later installed in the remote desktop.

## Use USB Redirection to Connect USB Devices

With the USB redirection feature, you can use locally attached USB devices, such as thumb flash drives, in a remote desktop or published application.

When you use the USB redirection feature, most USB devices that are attached to the local client system become available from menus in Horizon Client. You use these menus to connect and disconnect the devices.

The types of USB devices that you can redirect depend on how a Horizon administrator has configured the remote desktop or published application.

You can connect USB devices to a remote desktop or published application either manually or automatically.

## Prerequisites

- To use USB devices with a remote desktop or published application, a Horizon administrator must enable the USB redirection feature.
- The USB Redirection component must be installed in Horizon Client. If you did not include this component in the installation, uninstall Horizon Client and run the installer again to include the USB Redirection component.
- Become familiar with [USB Redirection Limitations](#).

## Procedure

- Manually connect the USB device to a remote desktop.
  - a Connect the USB device to the local client system.
  - b From the VMware Horizon Client menu bar in the remote desktop, click **Connect USB Device**.
  - c Select the USB device.

The device is manually redirected from the local system to the remote desktop.

- Connect the USB device to a published application.
  - a Connect the USB device to the local client system.
  - b Start Horizon Client and connect to the published application.
  - c Click the **Settings** (gear) icon in the upper-right corner of the desktop and application selector window and click **USB Devices**.
  - d In the right pane, select the USB device, click **Connect**, select the published application, and click **OK**.

Horizon Client connects the USB device to the published application that you selected. The USB device is also available to other applications in the same farm as the application that you selected.

- e (Optional) To configure Horizon Client to connect the USB device automatically to the published application when the application is started, select the **Auto-connect at startup** check box.
- f (Optional) To configure Horizon Client to connect the USB device automatically to the published application when you plug the device into the local system, select the **Auto-connect when inserted** check box.

The published application must be activated and in the foreground for this behavior to take effect.

- g To close the Settings dialog box, click **OK**.
- h When you are finished using the published application, open the Settings dialog box again, select **USB Devices**, and select **Disconnect**.

You must release the USB device so that you can access it from your local system.

- Configure Horizon Client to connect USB devices automatically to a remote desktop when you plug them in to the local system.

Use the autoconnect feature if you plan to connect devices that use MTP drivers, such as Android-based Samsung smart phones and tablets.

- Before you plug in the USB device, start Horizon Client and connect to the remote desktop.
- From the VMware Horizon Client menu bar in the remote desktop, select **Connect USB Device > Automatically Connect when Inserted**.
- Plug in the USB device.

USB devices that you connect to your local system after you start Horizon Client are redirected to the remote desktop.

- Configure Horizon Client to connect USB devices automatically to a remote desktop when Horizon Client starts.
  - From the VMware Horizon Client menu bar in the remote desktop, select **Connect USB Device > Automatically Connect at Startup**.
  - Plug in the USB device and restart Horizon Client.

USB devices that are connected to the local client system when you start Horizon Client are redirected to the remote desktop.

The USB device appears in the remote desktop or published application. A USB device might take up to 20 seconds to appear in the remote desktop or published application. The first time you connect the device to a remote desktop you might be prompted to install drivers.

If the USB device does not appear in the remote desktop or published application after several minutes, disconnect and reconnect the device to the client computer.

## USB Redirection Limitations

The USB redirection feature has certain limitations.

- When you access a USB device from a menu in Horizon Client and use the device in a remote desktop, you cannot access the device on the local computer.
- USB devices that do not appear in the menu, but are available in a remote desktop, include human interface devices such as keyboards and pointing devices. The remote desktop and the local computer use these devices at the same time. Interaction with these devices can sometimes be slow because of network latency.
- Large USB disk drives can take several minutes to appear in the remote desktop.
- Some USB devices require specific drivers. If a required driver is not already installed on a remote desktop, you might be prompted to install it when you connect the USB device to the remote desktop.

- If you plan to attach USB devices that use MTP drivers, such as Android-based Samsung smart phones and tablets, configure Horizon Client so that it automatically connects USB devices to the remote desktop. Otherwise, if you try to manually redirect the USB device by using a menu item, the device is not redirected unless you unplug the device and then plug it in again.
- Do not connect to scanners by using the **Connect USB Device** menu. To use a scanner device, use the scanner redirection feature, if available. See [Using Scanners](#).
- The redirection of USB audio devices depends on the state of the network and is not reliable. Some devices require a high data throughput even when they are idle. Audio input and output devices work well with the Real-Time Audio-Video feature. You do not need to use USB redirection for those devices.
- You cannot format a redirected USB drive in a published desktop unless you connect as an administrator user.
- The published application auto-connects at startup and auto-connects when inserted features do not work with global application entitlements.

---

**Note** Do not redirect USB devices such as USB Ethernet devices and touch screen devices to a remote desktop or published application. If you redirect a USB Ethernet device, your client system loses network connectivity. If you redirect a touch screen device, the remote desktop or published application receives touch input but not keyboard input. If you have set the remote desktop or published application to autoconnect USB devices, you can configure a policy to exclude specific devices.

---

## Using Scanners

With the scanner redirection feature, you can scan information into remote desktops and published applications with scanners that are connected to the local client system. This feature redirects scanning data with a significantly lower bandwidth than can be achieved by using USB redirection.

Scanner redirection supports standard scanning devices that are compatible with the TWAIN and WIA (Windows Image Acquisition) formats. Although you must have the scanner device drivers installed on the local client system, you do not need to install the scanner device drivers on the remote desktop operating system where the agent is installed.

If a Horizon administrator has configured the scanner redirection feature, and if you use the VMware Blast display protocol or the PCoIP display protocol, a scanner connected to your local system can be used in a remote desktop or published application.

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**Important** Do not connect a scanner from the **Connect USB Device** menu in Horizon Client. The performance will be unusable.

---

When scanning data is redirected to a remote desktop or published application, you cannot access the scanner on the local computer. Conversely, when a scanner is in use on the local computer, you cannot access it on the remote desktop or published application.

## Tips for Using the Scanner Redirection Feature

- Click the scanner icon (  ) in the system tray, or notification area, of the remote desktop to select a non-default scanner or to change configuration settings. On published applications, the system tray icon is redirected to the local client computer.

You do not have to use the menu that appears when you click this icon. Scanner redirection works without any further configuration. The icon menu allows you to configure options such as changing which device to use if more than one device is connected to the local client computer.

---

**Note** If the menu that appears does not list any scanners it means that an incompatible scanner is connected to the client computer. If the scanner icon is not present, it means that the scanner redirection feature is disabled or not installed on the remote desktop. The scanner icon also does not appear on client systems that do not support this feature.

---

- Click the **Preferences** option in the menu to select options to control image compression, hide webcams from the scanner redirection menu, and determine how to select the default scanner.

You can select the option to hide webcams if you plan to use the Real-Time Audio-Video feature to redirect webcams, which is what VMware recommends. Use scanner redirection with webcams to take a photograph of yourself and scan it.

---

**Note** If a Horizon administrator has configured scanner redirection to use a specific scanner and that scanner is not available, scanner redirection will not work.

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- Although most TWAIN scanners display the a scanner settings dialog box by default, some do not. For those that do not display settings options, you can use the **Preferences** option in the scanner icon menu, and select **Always show Scanner Settings dialog** option.
- Scanning too large an image or scanning at too high a resolution might not work. In this case, you might see the scanning progress indicator freeze, or the scanner application might exit unexpectedly. If you minimize the remote desktop, an error message might appear on the local client system, notifying you that the resolution is set too high. To resolve this issue, reduce the resolution or crop the image to a smaller size and scan again.

## Using the Real-Time Audio-Video Feature for Webcams and Microphones

With the Real-Time Audio-Video feature, you can use the local client system's webcam or microphone in a remote desktop or published application. Real-Time Audio-Video is compatible with standard conferencing applications and browser-based video applications. It supports standard webcams, audio USB devices, and analog audio input.

## When You Can Use a Webcam

If a Horizon administrator has configured the Real-Time Audio-Video feature, and if you use the VMware Blast display protocol or the PCoIP display protocol, you can use a webcam that is built in or connected to the local client computer in a remote desktop or published application. You can use the webcam in conferencing applications such as Skype, Webex, or Google Hangouts.

During the setup of an application such as Skype, Webex, or Google Hangouts on a remote desktop, you can select input and output devices from menus in the application. For virtual desktops, you can select VMware Virtual Microphone and VMware Virtual Webcam. For published desktops and applications, you can select Remote Audio Device and VMware Virtual Webcam.

For many applications, you do not need to select an input device.

When the local client computer uses the webcam, the remote session cannot use it at the same time. Also, when the remote session uses the webcam, the local client computer cannot use it at the same time.

---

**Important** If you use a USB webcam, do not connect it from the **Connect USB Device** menu in Horizon Client. Doing so routes the device through USB redirection and the performance is not usable for video chat.

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If more than one webcam is connected to the local client computer, you can configure a preferred webcam to use in remote sessions.

## Select a Preferred Webcam or Microphone on a Windows Client System

With the Real-Time Audio-Video feature, if multiple webcams or microphones are connected to the local client system, only one of the devices is used in the remote desktop or published application. To specify which webcam or microphone is preferred, you can configure Real-Time Audio-Video settings in Horizon Client.

If it is available, the preferred webcam or microphone is used in the remote desktop or published application. If the preferred webcam or microphone is not available, another webcam or microphone is used.

With the Real-Time Audio-Video feature, video devices, audio input devices, and audio output devices work without requiring the use of USB redirection, and the amount of network bandwidth required is greatly reduced. Analog audio input devices are also supported.

---

**Note** If you are using a USB webcam or microphone, do not connect it from the **Connect USB Device** menu in Horizon Client. Doing so routes the device through USB redirection and the device cannot use the Real-Time Audio-Video feature.

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### Prerequisites

- Verify that a USB webcam or USB microphone, or other type of microphone, is installed and operational on the local client system.
- Verify that you are using the VMware Blast display protocol or the PCoIP display protocol for the remote desktop or published application.
- Connect to a server.

### Procedure

- 1 Open the **Settings** dialog box and select **Real-Time Audio-Video** in the left pane.
  - Click the **Settings** (gear) icon in the upper right corner of the desktop and application selector window.
  - Right-click a remote desktop or published application shortcut and selecting **Settings**.
- 2 To select a preferred webcam, select a webcam from the **Preferred webcam** drop-down menu. The menu shows the available webcams on the client system.
- 3 To select a preferred microphone, select a microphone from the **Preferred microphone** drop-down menu. The menu shows the available microphones on the client system.
- 4 To save you changes, click **OK** or **Apply**.

The next time you start a remote desktop or published application, the preferred webcam or microphone that you selected is redirected to the remote session.

## Using Serial Port Redirection

With serial port redirection, you can redirect locally connected serial (COM) ports, such as built-in RS232 ports and USB-to-serial adapters. Devices such as printers, bar code readers, and other serial devices can be connected to these ports and used in remote desktops.

If a Horizon administrator has configured the serial port redirection feature, and if you use the VMware Blast display protocol or the PCoIP display protocol, serial port redirection works in the remote desktop without further configuration. For example, COM1 on the local client system is redirected as COM1 on the remote desktop. COM2 is redirected as COM2. If the COM port is already in use, it is mapped to avoid conflicts. For example, if COM1 and COM2 exist on the remote desktop, COM1 on the client system is mapped to COM3 by default.

You must have any required device drivers installed on the local client system, but you do not need to install the device drivers on the remote desktop. For example, if you use a USB-to-serial adapter that requires specific device drivers to work on your local client system, you must install those drivers, but only on the client system.

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**Important** If you are using a device that plugs in to a USB-to-serial adapter, do not connect the device from the **Connect USB Device** menu in Horizon Client. Doing so routes the device through USB redirection and bypasses the serial port redirection feature.

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## Tips for Using the Serial Port Redirection Feature

- Click the serial port icon (  ) in the system tray or notification area of the remote desktop to connect, disconnect, or customize the mapped COM ports.

When you click the serial port icon, the **Serial COM Redirection for VMware Horizon** context menu appears. If an administrator has locked the configuration, the items in the context menu are dimmed.

- In the context menu, the port items are listed as **port mapped to port**, for example, **COM1 mapped to COM3**. The first port, which is COM1 in this example, is the physical port or the USB-to-serial adapter on the local client system. The second port, which is COM3 in this example, is the port used in the remote desktop.
- To select the **Port Properties** command, right-click a COM port.

In the COM Properties dialog box, you can configure a port to connect automatically when a remote desktop session is started, or you can ignore DSR (data-set-ready signal), which is required for some modems and other devices.

You can also change the port number that the remote desktop uses. For example, if the COM1 port on the client system is mapped to COM3 in the remote desktop, but the application you are using requires COM1, you can change the port number to COM1. If COM1 exists in the remote desktop, you might see **COM1 (Overlapped)**. You can still use this overlapped port. The remote desktop can receive serial data through the port from the server and also from the client system.

- Connect to a mapped COM port before you attempt to start an application that requires access to the port. For example, right-click a COM port and select **Connect** to use the port in the remote desktop. When you start the application, the application opens the serial port.

When a redirected COM port is opened and in use on a remote desktop, you cannot access the port on the local computer. Conversely, when a COM port is in use on the local computer, you cannot access the port on the remote desktop.

- In the remote desktop, you can use the Windows Device Manager **Port Settings** tab to set the default Baud rate for a particular COM port. Use the same settings in the Windows Device Manager on the client system. The settings from this tab are used only if the application does not specify the port settings.
- Before you can disconnect the COM port, you must close the port in the application or close the application. You can then select the **Disconnect** command to disconnect and make the physical COM port available for use on the client computer.

- If you configure a serial port to connect automatically, start an application that opens the serial port, and then disconnect and reconnect the remote desktop session, the auto-connect feature does not work. You also cannot connect by using the serial port's system tray icon's menu option. In most cases, the application can no longer use the serial port. You must stop the application, disconnect the remote desktop session, and reconnect again to resolve the problem.

## Enable the Relative Mouse Feature for a Remote Desktop

If you use the VMware Blast display protocol or the PCoIP display protocol when using CAD or 3D applications in a remote desktop, mouse performance improves when you enable the relative mouse feature.

In most circumstances, if you are using applications that do not require 3D rendering, Horizon Client transmits information about mouse pointer movements by using absolute coordinates. Using absolute coordinates, the client renders the mouse movements locally, which improves performance, especially if you are outside the corporate network.

For work that requires using graphics-intensive applications, such as AutoCAD, or for playing 3D video games, you can improve mouse performance by enabling the relative mouse feature, which uses relative, rather than absolute, coordinates.

When the relative mouse feature is enabled, performance might be slow if you are outside the corporate network, on a WAN.

### Prerequisites

A Horizon administrator must turn on 3D rendering for the remote desktop.

### Procedure

- 1 Start Horizon Client and log in to the server.
- 2 Right-click the remote desktop and select **VMware Blast** or **PCoIP**.
- 3 Connect to the remote desktop.
- 4 Select **Options > Enable Relative Mouse** from the Horizon Client menu bar.

The option is a toggle. To disable the relative mouse feature, select **Options > Enable Relative Mouse** again.

---

**Note** If you use Horizon Client in windowed mode rather than full-screen mode and the relative mouse feature is enabled, you might not be able to move the mouse pointer to the Horizon Client menu options or move the pointer outside of the Horizon Client window. To resolve this situation, press Ctrl+Alt.

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# Update Horizon Client Online

You can update Horizon Client online.

## Prerequisites

- Save your work before you update Horizon Client. The update might initiate a system reboot.
- Verify that you can log in as an administrator on the client system.
- Verify that the online update feature is enabled.

## Procedure

- 1 Log in to the client system as an administrator.
- 2 Start Horizon Client and click **Software Updates**.

Option	Action
Before you connect to a server	Click <b>Options &gt; Software Updates</b> .
After you connect to a server	Click <b>Help &gt; Software Updates</b> .

- 3 To check for available updates, click **Check for Updates**.

Horizon Client indicates whether an update is available.

If the **Enable update notifications** check box is selected (the default), Horizon Client detects available updates. To indicate that a new Horizon Client version is available, a red dot appears on the **Options** menu (before you connect to a server) or on the **Help** button (after you connect to a server). You can disable automatic update detection by deselecting this check box.

- 4 To begin the update process if an update is available, click **Download and Install**.
- 5 To install the update after Horizon Client downloads the update, click **OK**.

The Horizon Client interactive installation wizard opens.

# Troubleshooting Horizon Client

You can solve most problems with Horizon Client by restarting or resetting remote desktops or published applications, or by reinstalling Horizon Client.

This chapter includes the following topics:

- [Restart a Remote Desktop](#)
- [Reset a Remote Desktop or Published Applications](#)
- [Repair Horizon Client for Windows](#)
- [Uninstall Horizon Client for Windows](#)
- [Problems with Keyboard Input](#)
- [What to Do If Horizon Client Quits Unexpectedly](#)
- [Connecting to a Server in Workspace ONE Mode](#)

## Restart a Remote Desktop

If the remote desktop operating system stops responding, you might need to restart a remote desktop. Restarting a remote desktop is similar to using the Windows operating system restart command. The remote desktop operating system usually prompts you to save any unsaved data before it restarts.

You can restart a remote desktop only if a Horizon administrator has enabled the restart feature for the remote desktop.

### Prerequisites

Obtain login credentials, such as a user name and password, RSA SecurID user name and password, RADIUS authentication user name and password, or smart card personal identification number (PIN).

### Procedure

- ◆ Use the **Restart Desktop** command.

Option	Action
From within the remote desktop	Select <b>Options &gt; Restart Desktop</b> from the menu bar.
From the desktop selector window	Right-click the remote desktop icon and select <b>Restart Desktop</b> .

Horizon Client prompts you to confirm the restart action.

The operating system in the remote desktop restarts and Horizon Client disconnects and logs off from the remote desktop.

### What to do next

Wait an appropriate amount of time for the system to restart before you attempt to reconnect to the remote desktop.

If restarting the remote desktop does not solve the problem, you might need to reset the remote desktop. See [Reset a Remote Desktop or Published Applications](#).

## Reset a Remote Desktop or Published Applications

You might need to reset a remote desktop if the desktop operating system stops responding and restarting the remote desktop does not solve the problem. Resetting published applications quits all open applications.

Resetting a remote desktop is the same as pressing the Reset button on a physical PC to force the PC to restart. Any files that are open on the remote desktop are closed and are not saved.

Resetting published applications quits the applications without saving any unsaved data. All open published applications are closed.

You can reset a remote desktop only if a Horizon administrator has enabled the reset feature for the remote desktop.

### Procedure

- 1 To reset a remote desktop, use the **Reset Desktop** command.

Option	Action
From within the remote desktop	Select <b>Options</b> > <b>Reset Desktop</b> from the menu bar.
From the desktop and application selector window	Right-click the remote desktop icon and select <b>Reset Desktop</b> .

- 2 To reset published applications, use the **Reset** button in the desktop and application selector window.
  - a Click the **Settings** button (gear icon) in the menu bar.
  - b Select **Applications** in the left pane, click the **Reset** button in the right pane, and click **OK**.

When you reset a remote desktop, the operating system in the remote desktop restarts and Horizon Client disconnects and logs off from the remote desktop. When you reset published applications, the published applications quit.

### What to do next

Wait an appropriate amount of time for system to restart before attempting to reconnect to the remote desktop or published application.

## Repair Horizon Client for Windows

Sometimes you can resolve problems with Horizon Client by repairing Horizon Client.

### Prerequisites

Verify that you can log in as an administrator on the client system.

### Procedure

- To repair Horizon Client interactively, double-click the Horizon Client installer and click **Repair**, or run the Horizon Client installer with the `/repair` installation command from the command line.

For example: `VMware-Horizon-Client-y.y.y-xxxxxx.exe /repair`

- To repair Horizon Client silently, run the Horizon Client installer from the command line with the `/silent` and `/repair` installation commands.

For example: `VMware-Horizon-Client-y.y.y-xxxxxx.exe /silent /repair`

## Uninstall Horizon Client for Windows

If repairing Horizon Client does not solve the problem, you might need to uninstall and reinstall Horizon Client.

This procedure shows you how to uninstall Horizon Client when you have the Horizon Client installer. If you do not have the Horizon Client installer, you can uninstall Horizon Client in the same way that you uninstall other applications on your Windows system. For example, you can use the Windows operating system Add or Remove Programs feature to uninstall Horizon Client.

### Prerequisites

Verify that you can log in as an administrator on the client system.

### Procedure

- To uninstall Horizon Client interactively, double-click the Horizon Client installer and click **Remove**, or run the Horizon Client installer from the command line with the `/uninstall` installation command.

For example: `VMware-Horizon-Client-y.y.y-xxxxxx.exe /uninstall`

- To uninstall Horizon Client silently, run the Horizon Client installer from the command line with the `/silent` and `/uninstall` installation commands.

For example: `VMware-Horizon-Client-y.y.y-xxxxxx.exe /silent /uninstall`

### What to do next

Reinstall Horizon Client. For installation instructions, see the *VMware Horizon Client for Windows Installation and Setup Guide* document.

## Problems with Keyboard Input

When you type in a remote desktop or published application, none of the keystrokes seem to work.

### Problem

When you are connected to a remote desktop or published application, no characters appear when you type. Another symptom might be that a single key keeps repeating itself.

### Cause

Some security software, such as Norton 360 Total Security, includes a feature that detects keystroke logging software and blocks keystroke logging. This security feature is meant to protect the system against spyware that steals passwords and credit card numbers. This security software might block Horizon Client from sending keystrokes to the remote desktop or published application.

### Solution

- ◆ On the client system, turn off the keystroke logging detection feature of your antivirus or security software.

## What to Do If Horizon Client Quits Unexpectedly

Horizon Client quits even if you do not close it.

### Problem

Horizon Client quits unexpectedly. Depending on the server configuration, you might see a message such as *There is no secure connection to the View Connection Server*. Sometimes a message does not appear.

### Cause

This problem occurs when the connection to the server is lost.

### Solution

- ◆ Restart Horizon Client. You can connect successfully when the server is running again. If you continue to have connection problems, contact your system administrator.

## Connecting to a Server in Workspace ONE Mode

You cannot connect to a server directly through Horizon Client, or your remote desktop and published application entitlements are not visible in Horizon Client.

### Problem

- When you try to connect to the server directly through Horizon Client, Horizon Client redirects you to the Workspace ONE portal.

- When you open a remote desktop or published application through a URI or shortcut, or when you open a local file through file association, the request redirects you to the Workspace ONE portal for authentication.
- After you open a remote desktop or published application through Workspace ONE and Horizon Client starts, you cannot see or open other entitled remote desktops or published applications in Horizon Client.

**Cause**

Beginning with Horizon 7 version 7.2, a Horizon administrator can enable Workspace ONE mode on a Connection Server instance. This behavior is normal when Workspace ONE mode is enabled on a Connection Server instance.

**Solution**

Use Workspace ONE to connect to a Workspace ONE enabled server and access your remote desktops and published applications.