

VMware Horizon HTML Access User Guide

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VMware Horizon HTML Access 4.7



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Contents

- 1 VMware Horizon HTML Access User Guide 4**
- 2 How Do I Log In? 5**
- 3 Connecting to Remote Desktops and Applications 6**
 - Connect to a Remote Desktop or Application 6
 - Trust a Self-Signed Root Certificate 7
 - Use Unauthenticated Access to Connect to Remote Applications 8
 - Log Off or Disconnect 9
- 4 Using Remote Desktops and Applications 11**
 - Shortcut Key Combinations 11
 - H.264 Decoding 15
 - Setting the Time Zone 15
 - Using the Sidebar 15
 - Copying and Pasting Text 19
 - Use the Copy and Paste Feature 20
 - Transferring Files Between the Client and a Remote Desktop 21
 - Download Files from a Desktop to the Client 22
 - Upload Files from the Client to a Desktop 22
 - Using DPI Synchronization 22
 - Using the Session Collaboration Feature 23
 - Invite a User to Join a Remote Desktop Session 23
 - Manage a Collaborative Session 25
 - Join a Collaborative Session 26
- 5 Using External Devices 28**
 - International Keyboards 28
 - Screen Resolution 29
 - Use Multiple Monitors 29
 - Sound 30
 - Using the Real-Time Audio-Video Feature for Webcams and Microphones 30
- 6 Troubleshooting Horizon Client 32**
 - Restart a Remote Desktop 32
 - Reset a Remote Desktop or Published Applications 33
 - Connect to a Server in Workspace ONE Mode 33

VMware Horizon HTML Access User Guide



This document, *VMware Horizon HTML Access User Guide*, explains how to use VMware Horizon[®] HTML Access[™] to connect to and use remote desktops and applications without having to install any software on your client system.

Use HTML Access to access your remote desktops or applications when you are using a client device that does not or cannot have Horizon Client software installed on its operating system. The Horizon Client software offers more features and better performance.

The following Web browsers are supported for HTML Access 4.7:

- Chrome 62 and 63
- Chrome 59 or later for Android device
- Internet Explorer 11
- Safari 11
- Safari on mobile device iOS 9 and iOS 10
- Firefox 56 and 57
- Microsoft Edge 40 and 41

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

How Do I Log In?

Before you can log in and connect to a remote desktop or 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 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 [Connect to a Remote Desktop or Application](#).

Connecting to Remote Desktops and Applications

3

You can use Horizon Client to connect to remote desktops and applications.

This chapter includes the following topics:

- [Connect to a Remote Desktop or Application](#)
- [Trust a Self-Signed Root Certificate](#)
- [Use Unauthenticated Access to Connect to Remote Applications](#)
- [Log Off or Disconnect](#)

Connect to a Remote Desktop or Application

Use your Active Directory credentials to connect to the remote desktops and applications that you are authorized to use.

Prerequisites

- Obtain login credentials, such as an Active Directory user name and password, RSA SecurID user name and passcode, or RADIUS authentication user name and passcode.
- Obtain the NETBIOS domain name for logging in. For example, you might use `mycompany` rather than `mycompany.com`.

Procedure

- 1 In the Login dialog box, if you are prompted for RSA SecurID credentials or RADIUS authentication credentials, enter the user name and passcode, and click **Login**.

The passcode might include both a PIN and the generated number on the token.

- 2 If you are prompted a second time for RSA SecurID credentials or RADIUS authentication credentials, enter the next generated number on the token.

Do not enter your PIN and do not enter the same generated number entered previously. If necessary, wait until a new number is generated.

If this step is required, it is required only when you mistype the first passcode or when configuration settings in the RSA server change.

- 3 In the Login dialog box, enter your login credentials.
 - a In the Username text box, enter your valid Active Directory user name in either *username*, *domain\username*, or *username@domain* format.

If the Domain text box is disabled, you must use either the *domain\username* or *username@domain* format.
 - b Enter your password.
 - c (Optional) If the Domain text box is enabled, select a domain name, if it is not already correctly populated.

Note To cancel the login process, click **Cancel** before the login process finishes.

- 4 (Optional) On the desktop and application selection screen, before you select the item you want to access, to mark a remote desktop or application as a favorite, click the gray star inside the icon for the desktop or application.

The star icon turns from gray to yellow. The next time you log in, you can click the star icon in the upper-right part of the browser window to display only favorites.

- 5 Click the icon for the remote desktop or application that you want to access.

The remote desktop or application is displayed in your browser. A navigation sidebar is also available. You can click the tab at the left side of the browser window to display the sidebar. You can use the sidebar to access other remote desktops or applications, display the Settings window, copy and paste text, and more.

What to do next

If, soon after connecting to a desktop or application, you get disconnected and see a prompt asking you to click a link to accept the security certificate, you can select whether to trust the certificate. See [Trust a Self-Signed Root Certificate](#).

Trust a Self-Signed Root Certificate

In some cases, when connecting to a remote desktop or application for the first time, you might be prompted by the browser to accept the self-signed certificate used by the remote machine. You must trust the certificate before the connection can be made to the remote desktop or application.

Most browsers will give you the option to permanently trust the self-signed certificate. If you do not choose to permanently trust the certificate, you must verify the certificate every time you restart your browser. If you are using a Safari browser, you must permanently trust the security certificate in order to establish the connection.

Procedure

- 1 If your browser presents an untrusted certificate warning or a warning that your connection is not private, examine the certificate to verify that it matches the certificate that is used by your company.

You might need to contact your Horizon administrator for assistance. For example, in a Chrome browser, you might use the following procedure.

- a Click the lock icon in the address bar.
- b Click the **Certificate information** link.
- c Verify that the certificate matches the certificate that is used by your company.

You might need to contact your Horizon administrator for assistance.

- 2 Accept the security certificate.

Each browser has its own browser-specific prompts for accepting or always trusting a certificate. For example, in a Chrome browser, you can click the **Advanced** link on the browser page, and click **Proceed to server-name (unsafe)**.

In a Safari browser, use the following procedure to permanently trust the certificate.

- a Click the **Show Certificate** button when the untrusted certificate dialog box appears.
- b Select the **Always Trust** check box and click **Continue**.
- c When prompted, provide your password and click **Update Settings**.

The remote desktop or application is launched.

Use Unauthenticated Access to Connect to Remote Applications

A Horizon administrator can use the Unauthenticated Access feature to create Unauthenticated Access users and entitle those users to remote applications on a Connection Server instance. Unauthenticated Access users can log in to the server anonymously to connect to their remote applications.

Prerequisites

Obtain the following information from your Horizon administrator:

- Server name to use for connecting to the server.
- An Unauthenticated Access user account to use for logging in anonymously.

Procedure

- 1 Open a browser. Use one of the following URI syntaxes to connect to the Connection Server instance on which you have unauthenticated access to remote applications.
 - `https://authority-part?unauthenticatedAccessEnabled=true`

- `https://authority-part?unauthenticatedAccessEnabled=true&unauthenticatedAccessAccount=anonymous_account`

In the above URI syntaxes, the *authority-part* specifies the server address and, optionally, a non-default port number. Server names must conform to a DNS syntax. To specify a port number, use the following syntax: *server-address:port-number*. The *anonymous_account* is the Unauthenticated Access user account created for logging in anonymously.

Connections to Connection Server always use SSL. The default port for SSL connections is 443. If Connection Server is not configured to use the default port, use the format shown in this example: **horizon.company.com:1443**.

- 2 (Optional) If you did not specify the `unauthenticatedAccessAccount` query, select an Unauthenticated Access user account from the **User account** drop-down menu, if necessary, and click **Submit**.

If only one Unauthenticated Access user account is available, the user account is selected by default.

The application selection window appears.

- 3 Click the icon for the remote application that you want to access.

The remote application is displayed in your browser. A navigation sidebar is also available. You can click the tab at the left side of the browser to display the sidebar. You can use the sidebar to access other remote applications, display the Settings window, copy and paste text, and more.

Note You cannot reconnect to unauthenticated application sessions. When you disconnect from the client, the RDS host logs off the local user session automatically.

Log Off or Disconnect

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

Procedure

- Log out of the server and disconnect from (but do not log out from) the desktop or quit the hosted application.

Option	Action
From the desktop and application selector screen, before connecting to a remote desktop or application	Click the Log Out toolbar button in the upper-right corner of the screen.
From the sidebar when connected to a remote desktop or application	Click the Log out toolbar button at the top of the sidebar.

- Close a published application.

Option	Action
From within the application	Quit the application in the usual manner, for example, click the X (Close) button in the corner of the application window.
From the sidebar	Click the X next to the application file name in the Running list in the sidebar.

- Log off or disconnect from a remote desktop.

Option	Action
From within the desktop OS	To log off, use the Windows Start menu to log off.
From the sidebar	<p>To log off and disconnect, click the Open Menu toolbar button next to the desktop name in the Running list in the sidebar and select Log Off. Files that are open on the remote desktop will be closed without being saved first.</p> <p>To disconnect without logging off, click the Open Menu toolbar button next to the desktop name in the Running list and select Close.</p> <p>Note A Horizon administrator can configure the remote desktop to automatically log off when disconnected. In that case, any open applications in the desktop are closed.</p>
Using an URI	To log off, use the URI <code>https://ConnectionServerFQDN?desktopId=desktop_name&action=logoff</code> .

Using Remote Desktops and Applications

4

You can use Horizon Client to connect to remote desktops and applications. Horizon Client includes additional features to aid navigation.

This chapter includes the following topics:

- [Shortcut Key Combinations](#)
- [H.264 Decoding](#)
- [Setting the Time Zone](#)
- [Using the Sidebar](#)
- [Copying and Pasting Text](#)
- [Transferring Files Between the Client and a Remote Desktop](#)
- [Using DPI Synchronization](#)
- [Using the Session Collaboration Feature](#)

Shortcut Key Combinations

Regardless of the language used, some key combinations cannot be sent to the to a remote desktop or application.

Web browsers allow some key presses and key combinations to be sent to both the client and the destination system. For other keys and key combinations, the input is processed only locally and is not sent to the destination system. The key combinations that work on your system depend on the browser software, the client operating system, and the language settings.

Note If you are using a Mac, you can map the Command key to the Windows Ctrl key when using the key combinations to select, copy, and paste text. To enable this feature, you can click the **Open Settings Window** toolbar button in the sidebar and turn on **Enable Command-A, Command-C, Command-V, and Command-X**. (This option appears in the Settings window only if you are using a Mac.)

The following keys and keyboard combinations often do not work in remote desktops:

- Ctrl+T
- Ctrl+W

- Ctrl+N
- Command key
- Alt+Enter
- Ctrl+Alt+*any_key*

Important To input Ctrl+Alt+Del, use the **Send Ctrl+Alt+Delete** toolbar button located at the top of the sidebar.

- Caps Lock+*modifier_key* (such as Alt or Shift)
- Function keys, if you are using a Chromebook
- Windows key combinations

The following Windows key combinations do work in remote desktops if you enable the Windows key for desktops. To enable this key, you can click the **Open Settings Window** toolbar button in the sidebar and turn on **Enable Windows Key for Desktops**.

Important After you turn on **Enable Windows Key for Desktops**, you must press Ctrl+Win (on Windows systems), Ctrl+Command (on Macs), or Ctrl+Search (on Chromebooks) to simulate pressing the Windows key.

These key combinations do not work for remote applications provided by RDS hosts. They do work as listed for Windows Server 2008 R2, Windows Server 2012 R2, and Windows Server 2016 single-user desktops and session-based desktops provided by an RDS host.

Some key combinations that work in remote desktops with a Windows 8.x or Windows Server 2012 R2 operating system do not work in remote desktops with a Windows 7, Windows Server 2008 R2, or Windows 10 operating system.

Table 4-1. Windows Key Shortcuts for Windows 10 Remote Desktops and Windows Server 2016 Remote Desktops

Keys	Action	Limitations
Win	Open or close Start.	
Win+A	Open Action center.	
Win+E	Open File Explorer.	
Win+G	Open game bar when a game is open.	
Win+H	Open the Share charm.	
Win+I	Open the Settings charm.	
Win+K	Open the Connection quick action.	
Win+M	Minimize all windows.	
Win+R	Open the Run dialog box.	
Win+S	Open Search.	
Win+X	Open the Quick Link menu.	

Table 4-1. Windows Key Shortcuts for Windows 10 Remote Desktops and Windows Server 2016 Remote Desktops (Continued)

Keys	Action	Limitations
Win+, (comma)	Temporarily peek at the desktop.	
Win+Pause	Display the System Properties dialog box.	There is no Pause key on Chromebooks or Macs.
Win+Shift+M	Restore minimized windows on the desktop.	Does not work in Safari browsers.
Win+Alt+Num	Open the desktop and open the jump list for the app pinned to the taskbar in the position indicated by the number.	Does not work on a Chromebook.
Win+Enter	Open Narrator.	

Table 4-2. Windows Key Shortcuts for Windows 8.x and Windows Server 2012 R2 Remote Desktops

Keys	Action	Limitations
Win+F1	Open Windows Help and Support.	Does not work in Safari browsers.
Win	Show or hide the Start screen.	
Win+B	Set focus on the notification area.	
Win+C	Open the Charms panel.	
Win+D	Display and hide the desktop.	Does not work in Safari browsers. Workaround: Press Command-D on Macs.
Win+E	Open File Explorer.	
Win+H	Open the Share charm.	
Win+I	Open the Settings charm.	
Win+K	Open the Devices charm.	
Win+M	Minimize all windows.	
Win+Q	Open the Search charm to search everywhere or within the open app, if the app supports app search.	
Win+R	Open the Run dialog box.	
Win+S	Open the Search charm to search Windows and the Web.	
Win+X	Open the Quick Link menu.	
Win+Z	Show the commands available in the app.	
Win+, (comma)	Temporarily display the desktop, as long as you continue pressing the keys.	Note Does not work on Windows 2012 R2 operating systems.
Win+Pause	Display the System Properties dialog box.	There is no Pause key on Chromebooks or Macs.
Win+Shift+M	Restore minimized windows on the desktop.	Does not work in Safari browsers. Workaround: Press Command-D on Macs.

Table 4-2. Windows Key Shortcuts for Windows 8.x and Windows Server 2012 R2 Remote Desktops (Continued)

Keys	Action	Limitations
Win+Alt+Num	Open the desktop and open the jump list for the app pinned to the taskbar in the position indicated by the number.	Does not work on a Chromebook.
Win+Up Arrow	Maximize the window.	Does not work on a Chromebook.
Win+Down Arrow	Remove current app from the screen or minimize the desktop window.	Does not work on a Chromebook.
Win+Left Arrow	Maximize the app or desktop window to the left side of the screen.	Does not work on a Chromebook.
Win+Right Arrow	Maximize the app or desktop window to the right side of the screen.	Does not work on a Chromebook.
Win+Home	Minimize all but the active desktop window (restores all windows when you press Win+Home a second time).	Does not work in Safari browsers.
Win+Shift+Up Arrow	Stretch the desktop window to the top and bottom of the screen.	Does not work on a Chromebook.
Win+Shift+Down Arrow	Restore the desktop window vertically, while maintaining width, after pressing Win+Shift+Up to stretch the window, or minimize active desktop window.	Does not work on a Chromebook.
Win+Enter	Open Narrator.	

Table 4-3. Windows Key Shortcuts for Windows 7 and Windows Server 2008 R2 Remote Desktops

Keys	Action	Limitations
Win	Open or close the Start menu.	
Win+Pause	Display the System Properties dialog box.	There is no Pause key on Chromebooks or Macs.
Win+D	Display and hide the desktop.	Does not work in Safari browsers. Workaround: Press Command-D on Macs.
Win+M	Minimize all windows.	
Win+E	Open the Computer folder.	
Win+R	Open the Run dialog box.	
Win+Up Arrow	Maximize the window.	Does not work on a Chromebook.
Win+Down Arrow	Minimize the window.	Does not work on a Chromebook.
Win+Left Arrow	Maximize the app or desktop window to the left side of the screen.	Does not work on a Chromebook.
Win+Right Arrow	Maximize the app or desktop window to the right side of the screen.	Does not work on a Chromebook.
Win+Home	Minimize all but the active desktop window.	Does not work in Safari browsers.
Win+Shift+Up Arrow	Stretch the desktop window to the top and bottom of the screen.	Does not work on a Chromebook.
Win+G	Cycle through running desktop gadgets.	
Win+U	Open the Ease of Access Center.	

H.264 Decoding

If you use a Chrome browser, you can allow H.264 decoding in the HTML Access client for remote desktop and application sessions.

When you allow H.264 decoding, the HTML Access client uses H.264 decoding if the agent supports H.264 encoding. If the agent does not support H.264 encoding, the HTML Access client uses JPEG/PNG decoding.

If you are connected to a remote desktop or application, you can allow H.264 decoding by turning on the **Allow H.264 decoding** option in the Settings window, which is available from the sidebar. You must disconnect and reconnect to the remote desktop or application for the new setting to take effect.

If you are not connected to a remote desktop or application, you can click the **Settings** toolbar button in the upper-right corner of the desktop and application selector screen and turn on the **Allow H.264 decoding** option in the Settings window. The new setting takes effect for any sessions that are connected after you change the setting.

Setting the Time Zone

The time zone used in a remote desktop or application is automatically set to the time zone in your local system. However, when using the HTML Access client, if the time zone cannot be correctly determined due to certain daylight saving policies, you might need to set the time zone manually.

To manually set the correct time zone information to use before you connect to a remote desktop or application, click the **Settings** toolbar button in the upper-right corner of the desktop and application selector screen. Turn off the **Set Time Zone Automatically** option in the Settings window and select one of the time zones from the drop-down menu.

The value you selected is saved as your preferred time zone to use when connecting to a remote desktop or application.

If you are already connected to a remote desktop or application, return to the desktop and application selector screen to change the current time zone setting.

The **Set Time Zone Automatically** option is not available from the Settings window that is accessible from the sidebar.

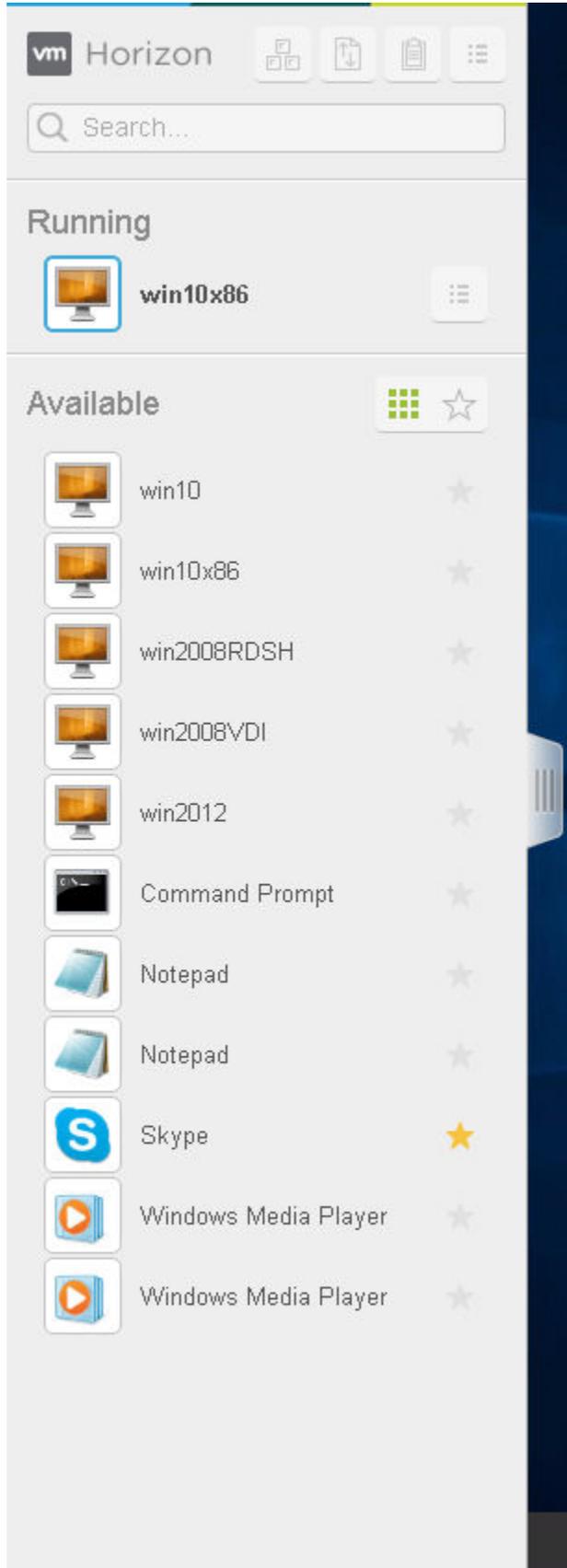
Note When using the Chrome browser on an Android system, if the **Set Time Zone Automatically** option is set to `true` and you change the Android system's time zone, the new time zone is not automatically synchronized with the remote desktop. This is a Chrome limitation on the Android system. You must restart the Android and the Chrome browser to synchronize the selected time zone.

Using the Sidebar

After you connect to a remote desktop or hosted application, you can use the sidebar to launch other applications and desktops, switch between running desktops and applications, and perform other actions.

When you access a remote application or desktop, the sidebar appears on the left side of the screen. Click the sidebar tab to display or hide the sidebar. You can also slide the tab up and down.

Figure 4-1. Sidebar That Appears When You Launch a Remote Desktop or Application



Click the expander arrow next to a running application to see the list of documents opened from that application. Note, however, that if you have, for example, two Excel documents open from separate Excel programs hosted on two different servers, the Excel application will be listed twice in **Running** list in the sidebar.

From the sidebar, you can perform several actions.

Table 4-4. Sidebar Actions

Action	Procedure
Show the sidebar	When you have a remote application or desktop open, click the sidebar tab. When the sidebar is open, you can still perform actions in the application or desktop window.
Hide the sidebar	Click the sidebar tab.
Launch a remote application or desktop	Click the name of an application or desktop under Available in the sidebar. The desktops are listed first.
Search for a remote application or desktop	<ul style="list-style-type: none"> ■ Click in the Search box and begin typing the name of the application or desktop. ■ To launch an application or desktop, click the name of the application or desktop in the search results. ■ To return to the home view of the sidebar, tap the X in the search box.
Create a list of favorite applications and desktops	Click the gray star next to the name of the desktop or application in the Available list in the sidebar. You can then click the Show Favorites toolbar button (star icon) next to Available to display a list of only favorites.
Switch between applications or desktops	Click the application file name or desktop name in the Running list in the sidebar.
Open the Copy & Paste panel	Click the Copy & Paste button at the top of the sidebar. Use this button for copying text to and from applications on your local client system. For more information, see Copying and Pasting Text . On iOS Safari, this button is not available because the copy and paste feature is not supported.
Open the File Transfer window	Click the File Transfer button at the top of the sidebar to download files from, or upload files to, the remote desktop. For more information, see Download Files from a Desktop to the Client and Upload Files from the Client to a Desktop .
Enable Command-A, Command-C, Command-V, and Command-X	This option appears in the Settings window only if you are using a Mac. Click the Open Menu toolbar button at the top of the sidebar and then click Settings . When this feature is enabled, The Command key on the Mac is mapped to the Ctrl key on the remote Windows desktop or application. For example, pressing Command-A on a Mac keyboard will have the effect of pressing Ctrl+A on the remote Windows desktop or application.
Close a running desktop	<p>Click the Open Menu button next to the desktop name in the Running list in the sidebar and select the action you want:</p> <ul style="list-style-type: none"> ■ Select Close to disconnect from the desktop without logging off from its operating system. Note, however, that your View administrator can configure your desktop to automatically log off when disconnected. In that case, unsaved changes in open applications will be lost. ■ Select Log off to log off from the operating system and disconnect from the desktop. Any unsaved changes in open applications will be lost.
Close a running application	<p>Click the X next to the file name under the application name in the Running list in the sidebar. Click the X next to the application name to quit the application and close all open files for that application.</p> <p>You are prompted to save changes made to the files.</p>

Table 4-4. Sidebar Actions (Continued)

Action	Procedure
Reset a desktop	Click the Open Menu button next to the desktop name in the Running list in the sidebar and select Reset . Any files that are open on the remote desktop will be closed without being saved first. You can reset a desktop only if your administrator has enabled this feature.
Restart a desktop	Click the Open Menu button next to the desktop name in the Running list in the sidebar and select Restart . The desktop operating system usually prompts you to save any unsaved data before it restarts. You can restart a desktop only if your administrator has enabled this feature.
Reset all running applications	Click the Open Menu toolbar button at the top of the sidebar, click Settings , and click Reset all your running applications . All unsaved changes are lost.
Use key combinations that include the Windows key	Click the Open Menu toolbar button at the top of the sidebar, click Settings , and turn on Enable Windows Key for Desktops . For more information, see Shortcut Key Combinations .
Send Ctrl+Alt+Del to current work area	Click the Send Ctrl+Alt+Del toolbar button at the top of the sidebar.
Disconnect from the server	Click the Open Menu toolbar button at the top of the sidebar, or else click the Horizon logo at the top of the sidebar, and click Log off .
Use high-resolution mode on machines with a high-resolution display (such as Retina Macbook Pro)	Click the Open Menu toolbar button at the top of the sidebar, click Settings , and turn on High Resolution Mode .
Allow H.264 decoding	(Chrome only) Click the Open Menu toolbar button at the top of the sidebar, click Settings , and turn on Allow H.264 decoding . For more information, see H.264 Decoding .
Use multiple monitors	(Chrome version 55 or later only) Click the Open Menu toolbar button at the top of the sidebar and select Display Settings . For more information, see Use Multiple Monitors
Call out or dismiss the soft keyboard	(iOS Safari only) Click the keyboard icon at the top of the sidebar. You can also call out or dismiss the soft keyboard by tapping the screen with three fingers.
Display help topics	Click the Open Menu toolbar button at the top of the sidebar, or else click the Horizon logo at the top of the sidebar, and click Help .
Display the About VMware Horizon box	Click the Open Menu toolbar button at the top of the sidebar, or else click the Horizon logo at the top of the sidebar, and click About .

Copying and Pasting Text

It is possible to copy text to and from remote desktops and applications. Your View administrator can set this feature so that copy and paste operations are allowed only from your client system to a remote desktop or application, or only from a remote desktop or application to your client system, or both, or neither.

You can copy up to 1 MB of text, including any Unicode non-ASCII characters. You can copy text from your client system to a remote desktop or application, or the reverse, but the pasted text is plain text.

You cannot copy and paste graphics. You also cannot copy and paste files between a remote desktop and the file system on your client computer.

Note The copy and paste feature is not supported on iOS Safari and Android device.

Use the Copy and Paste Feature

To copy and paste text, you must use the **Copy & Paste** button located at the top of the sidebar.

This procedure describes how to use the Copy & Paste window to copy text from your local client system to a remote application or how to copy text from a remote application to your local client system. If, however, you are copying and pasting text between remote applications and desktops, you can simply copy and paste as you normally would, and there is no need to use the Copy & Paste window.

The Copy & Paste window, which you can open from the button at the top of the HTML Access sidebar, is required only for synchronizing the Clipboard on your local system with the Clipboard in the remote machine.

The text in the Copy & Paste window displays one of the following messages to indicate in which direction the user can copy and paste content.

- Use this panel to copy & paste content between your local client and remote desktop/application.
- Use the panel to copy & paste content from your local client to remote desktop/application.
- Use the panel to copy & paste content from your remote desktop/application to local client.

Prerequisites

If you are using a Mac, verify that you have enabled the setting for mapping the Command key to the Windows Ctrl key when using the key combinations to select, copy, and paste text. Click the **Open Settings Window** toolbar button in the sidebar and turn on **Enable Command-A, Command-C, Command-V, and Command-X**. (This option appears in the Settings window only if you are using a Mac.)

Procedure

- To copy text from your client system to the remote desktop or application:
 - a Copy the text in local client application.
 - b In your browser, click the HTML Access sidebar tab to open the sidebar, and click **Copy & Paste** at the top of the sidebar.

The Copy & Paste window appears. If previously copied text already appears in the window, that text will be replaced when you paste in the newly copied text.

- c Press Ctrl+V (or Command-V on Macs) to paste the text into the Copy & Paste window.

The following message appears briefly: "Remote Clipboard Synced."

- d Click in the remote application where you want to paste the text and press Ctrl+V.

The text is pasted into the remote application.

- To copy text from your remote desktop or application to your client system:

- a Copy the text in your remote application.

- b In your browser, click the HTML Access sidebar tab to open the sidebar, and click **Copy & Paste** at the top of the sidebar.

The Copy & Paste window appears with the text already pasted in it. The following message appears briefly: "Remote Clipboard Synced."

- c Click in the Copy & Paste window and press Ctrl+C (or Command-C on Macs) to copy again.

The text will not be selected when you do this action, and you cannot select the text. The following message appears briefly: "Copied from Clipboard Panel."

- d On your client system, click where you want to paste the text and press Ctrl+V.

The text is pasted into the application on your client system.

Transferring Files Between the Client and a Remote Desktop

With the file transfer feature, you can transfer (upload and download) files between the client and a remote desktop. File transfer to or from applications is not supported.

Note This feature is not available for use with remote Linux desktops or Android devices.

The Horizon administrator can configure the ability to allow, disallow, or allow in one direction only, the transfer of files. The default is upload only.

You can download a file up to 500 MB in size, and upload a file up to 2 GB in size. For 32-bit Internet Explorer 11, downloading a file larger than 300 MB might not work. To resolve the issue, run Internet Explorer 11 in 64-bit mode.

You cannot download or upload folders, or files that have a size of zero.

Safari on iOS and Safari 8 do not support upload or download. Safari 9 or later do not support download.

If file transfer is in progress in a desktop session and the user opens a connection to a second desktop, and if a security warning is displayed (this can happen if no valid certificate was installed, for example), ignoring the warning and continuing to connect to the second desktop will cause the file transfer in the first desktop session to abort. This is expected behavior.

Note The ability to download is affected by the group policy setting for clipboard redirection. If clipboard redirection is disabled from the server to the client, then file download is also disabled.

Download Files from a Desktop to the Client

With Horizon Client you can download files from a remote desktop to the client machine.

Procedure

- 1 Click the file transfer icon at the top of the sidebar.
The **Transfer Files** window opens.
- 2 Click **Download**.
- 3 Select one or more files on the remote desktop.
- 4 Press Ctrl+c to start the download.
- 5 After the download is complete, click the download icon to save the files on the client machine.

Upload Files from the Client to a Desktop

With Horizon Client you can upload files from the client machine to a remote desktop.

Procedure

- 1 Click the file transfer icon at the top of the sidebar.
The **Transfer Files** window opens.
- 2 Click **Upload**.
- 3 Drag and drop files into the **Transfer Files** window or click **Choose Files** to select files.

The selected files are uploaded to the My Documents folder.

With Internet Explorer 11 and Chrome on ChromeBook, if you drag and drop folders, files of zero size, or files larger than 2 GB, you get an error message as expected. After you dismiss the error message, you can no longer drag and drop files that can be transferred.

Using DPI Synchronization

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

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 application appropriately.

The DPI Synchronization feature is enabled when the High Resolution Mode setting is disabled in the Settings window. Beginning with HTML Access version 4.5, if an administrator disables the Horizon Agent **DPI Synchronization** group policy setting, the DPI Synchronization feature can be disabled, but the Display Scaling feature cannot be disabled. You must log out and log in again to make any configuration changes take effect. For more information, see the *Configuring Remote Desktop Features in Horizon 7* document.

The DPI Synchronization feature requires Windows 7 or later for single-session desktops, Windows Server 2008 R2 or later for published desktops and applications on RDS hosts, Horizon Agent 7.0.2 or later, and HTML Access version 4.4 or later.

Following are tips for using the DPI Synchronization feature:

- If you change the DPI setting on the client machine, you must log out and log in again to make Horizon Client aware of the new DPI setting on the client machine. This requirement applies even if the client machine is running Windows 10.
- If you start a remote session on a client machine that has a DPI setting of more than 100 percent, and then use the same session on another client machine that has a different DPI setting of more than 100 percent, you must log out and log back in to the session on the second client machine to make DPI synchronization work on the second client machine.
- Although Windows 10 and Windows 8.x machines support different DPI settings on different monitors, the DPI Synchronization feature uses the DPI value that is set on the client machine's monitor in which the Web browser used for launching the HTML Access client session is located. HTML Access does not support different DPI settings in different monitors.
- If you want to sync up with another monitor with a different DPI setting, you must log out of the remote desktop or application, drag the Web browser used for launching the HTML Access client session to the other monitor, and log back in to the remote desktop or application to make the DPI settings match between the client system and remote desktop or application.

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.
- The Session Collaboration feature does not support PCoIP or RDP sessions. You must select the VMware Blast display protocol when you create a remote desktop session.
- H.264 hardware encoding is not supported. If the session owner is using hardware encoding and a collaborator joins the session, both fall back to software encoding.
- Anonymous collaboration is not supported. Session collaborators must be identifiable through Horizon-supported authentication mechanisms.
- Session collaborators must have Horizon Client 4.7 for Windows, Mac, or Linux installed, or they must use HTML Access 4.7. 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
Revoke an invitation or remove a collaborator	Click Remove in the Status column.
Hand off control to a session collaborator	<p>After the session collaborator joins the session, toggle the switch in the Control column to On.</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 Off, or by clicking the Give Back Control button.</p>
Add a collaborator	Click Add Collaborators .
End the collaborative session	<p>Click End Collaboration. 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 Stop 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.

- Real-Time Audio-Video (RTAV)
- Location-based printing
- 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 **Close** from the sidebar.

Using External Devices

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

This chapter includes the following topics:

- [International Keyboards](#)
- [Screen Resolution](#)
- [Use Multiple Monitors](#)
- [Sound](#)
- [Using the Real-Time Audio-Video Feature for Webcams and Microphones](#)

International Keyboards

When using non-English keyboards and locales, you must use certain settings in your client system, browser, and remote desktop. Some languages require you to use an IME (input method editor) on the remote desktop.

With the correct local settings and input methods installed, you can input characters for the following languages: English, Japanese, French, German, simplified Chinese, traditional Chinese, Korean, and Spanish.

Table 5-1. Required Input Language Settings

Language	Input Language on the Local Client System	IME Required on the Local Client System?	Browser and Input Language on the Remote Desktop	IME Required on the Remote Desktop?
English	English	No	English	No
French	French	No	French	No
German	German	No	German	No
Chinese (Simplified)	Chinese (Simplified)	English Input Mode	Chinese (Simplified)	Yes
Chinese (Traditional)	Chinese (Traditional)	English Input Mode	Chinese (Traditional)	Yes
Japanese	Japanese	English Input Mode	Japanese	Yes
Korean	Korean	English Input Mode	Korean	Yes
Spanish	Spanish	No	Spanish	No

Screen Resolution

If the Horizon Administrator configures a remote desktop with the correct amount of video RAM, the Web client can resize a remote desktop to match the size of the browser window. The default configuration is 36MB of video RAM, which is comfortably more than minimum requirement of 16MB if you are not using 3D applications.

If you use a browser or Chrome device that has a high pixel density resolution, such as a Macbook with Retina Display or a Google Chromebook Pixel, you can set the remote desktop or application to use that resolution. Turn on the **High Resolution Mode** option in the Settings window, which is available from the sidebar. (This option only appears in the Settings window if you are using a high-resolution display or a normal display that uses a scale that is greater than 100 percent.)

Use Multiple Monitors

By using a Chrome browser (version 55 or later), you can use multiple monitors in HTML Access Web client to display a remote desktop window.

You can add up to one additional monitor to your primary monitor to display the current remote desktop window to which you are connected. For example, if you have three monitors, you can specify that the remote desktop window appears on only two of those monitors. Adjacent monitors must be selected for the multiple-monitor setup. The monitors can be positioned side by side or stacked vertically.

Beginning with HTML Access Web client 4. 5, the per device DPI synchronization is applied when the multiple-monitor feature is enabled. If you are using two monitors that have different DPI settings, the DPI settings on the HTML Access agent are set to the same DPI setting value used by the monitor of the client machine that was used to start the HTML Access Web client session.

Procedure

- 1 Start Horizon Client and log in to a server.
- 2 In the desktop and application selection window, click the icon for the remote desktop that you want to access.
- 3 To display the sidebar, click the sidebar tab.
- 4 Click the **Open Menu** toolbar button at the top of the sidebar, select **Display Settings**.
- 5 In the Display Settings dialog box, click **Add Display**.

Note If the Display Selector browser window does not appear, add your Horizon server's FQDN address into the Pop-up exceptions section of your browser's **Content settings** window.

- 6 Drag the Display Selector window so that it appears in the other monitor display that you want to use. The message in the Display Selector browser window changes and a gray rectangular icon is added.

- 7 In the Display Selector browser window, click the **+** monitor icon to confirm that you want to use the current monitor display.

The `Waiting for other displays` message appears on the current monitor display and the gray monitor icon in the Display settings window in your primary display changes to a green color.

- 8 Click **OK** in the Display Settings window when you are done adding the monitor displays that you want to use for the session.

The Display Settings window is dismissed, the `Waiting for other displays` message is cleared in the non-primary monitor display and displays the remote desktop window.

- 9 To exit the multiple displays mode, press Esc and click **Yes** in the **Exit the multiple displays mode** dialog box to confirm.

Note Each time you have to use the Esc key in the remote desktop, open the sidebar tab, click the **Open Menu** toolbar button at the top of the sidebar, and select **Send ESC**.

Sound

You can play sound in your remote desktops and applications, but some limitations apply.

By default, sound playback is enabled for remote desktops and applications, although your View administrator can set a policy to disable sound playback.

Take into account the following guidelines:

- To turn up the volume, use the sound control on your client system, not the sound control in the remote desktop or application.
- Occasionally, the sound might go out of sync with the video.
- In conditions of heavy network traffic, or if the browser is performing a lot of tasks (I/O), sound quality might be reduced. Some browsers work better than others in this regard.

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

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

Real-Time Audio-Video is supported only in Chrome, Microsoft Edge, and Firefox. The default video resolution is 320 x 240. The default Real-Time Audio-Video settings work well with most webcam and audio applications. For information about changing the Real-Time Audio-Video settings, see "Configuring Real-Time Audio-Video Group Policy Settings" in the *Configuring Remote Desktop Features in Horizon 7* document.

When a remote desktop or application is connected to the client machine's webcam or microphone, before the remote desktop or application can use the webcam or microphone, the browser might ask for permission. Different browsers behave differently.

- Microsoft Edge asks for permission every time. You cannot change this behavior. For more information, see <https://blogs.windows.com/msedgedev/2015/05/13/announcing-media-capture-functionality-in-microsoft-edge>.
- Firefox asks for permission every time. You can change this behavior. For more information, see <https://support.mozilla.org/en-US/kb/permissions-manager-give-ability-store-passwords-set-cookies-more?redirectlocale=en-US&redirectslug=how-do-i-manage-website-permissions>.
- Chrome asks for permission the first time. If you allow the device to be used, Chrome does not ask for permission again.

When a remote desktop is connected to the client machine's webcam or microphone, an icon for each device appears at the top of the sidebar. A red question mark appears over the device icon in the sidebar to indicate the permission request. If you allow a device to be used, the red question mark disappears. If you reject a permission request, the device icon disappears.

If Real-Time Audio-Video is being used in a remote desktop or application session and you open a connection to a second desktop or application, and if a security warning appears (for example, if a valid certificate was not installed), ignoring the warning and continuing to connect to the second desktop or application causes Real-Time Audio-Video to stop working in the first session.

Troubleshooting Horizon Client

You can solve most Horizon Client problems by resetting the desktop or reinstalling the app.

This chapter includes the following topics:

- [Restart a Remote Desktop](#)
- [Reset a Remote Desktop or Published Applications](#)
- [Connect to a Server in Workspace ONE Mode](#)

Restart a Remote Desktop

You might need to restart a remote desktop if the desktop operating system stops responding. Restarting a remote desktop is the equivalent of the Windows operating system restart command. The 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 desktop restart feature for the desktop.

Procedure

- ◆ Use the **Restart** command.

Option	Action
From the sidebar	When connected to a remote desktop, click the Open Menu toolbar button next to the desktop name in the Running list in the sidebar and select Restart .
Using a URI	To restart a desktop, use the URI <code>https://ConnectionServerFQDN?desktopId=desktop_name&action=restart</code> .

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

What to do next

Wait an appropriate amount of time for system startup 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 equivalent of 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 is the equivalent of quitting the applications without saving any unsaved data. All open published applications are closed, even applications that come from different RDS server farms.

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

Procedure

- ◆ Use the **Reset** command.

Option	Action
Reset published applications from the application selector screen	From the desktop and application selector screen, before connecting to a remote desktop or published application, to reset all running published applications, click the Settings toolbar button in the upper-right corner of the screen, and click Reset .
Reset a remote desktop from the sidebar	When connected to a remote desktop, click the Open Menu toolbar button next to the desktop name in the Running list in the sidebar and select Reset .
Reset published applications from the sidebar	To reset all running applications, click the Open Settings Window toolbar button at the top of the sidebar, and click Reset .
Reset a remote desktop using an URI	To reset a remote desktop, use the URI <code>https://ConnectionServerFQDN?desktopId=desktop_name&action=reset</code> .

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

What to do next

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

Connect to a Server in Workspace ONE Mode

Beginning with Horizon 7 version 7.2, an administrator can enable Workspace ONE mode on a Connection Server instance.

When Workspace ONE mode is enabled, you can connect to the server only through Workspace ONE Web Portal. You will be redirected to the Workspace ONE Web Portal when you try to connect to the server through HTML Access. After you connect to the server through Workspace ONE Web Portal, you can start remote desktops and applications only through Workspace ONE Web Portal.

You might encounter the following problems when Workspace ONE mode is enabled.

- You cannot connect to the server through HTML Access. You might not be able to reach the server, or you might see a message stating that the server expects to receive your login credentials from another application or server.
- After you start a desktop or application through Workspace ONE Web Portal, you cannot see or start your remote desktops or applications in HTML Access.