VMware Horizon Client for Android User Guide

VMware Horizon Client for Android 2203

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VMware Horizon Client for Android User Guide

1

This guide explains how to use VMware Horizon® Client™ for Android to connect to and use remote desktops and published applications.

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

How Do I Log In?

2

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 Horizon Client prompts you for a server name and domain, your system administrator must tell you the server name to type and the domain to select.

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

<div align="right">3</div>

Horizon Client communicates with a server, which acts as a broker between the client device and remote desktops and published applications. You enter credentials into Horizon Client, the server authenticates your credentials, and then the server finds the remote desktops and published applications that you are entitled to use.

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

- Switch Remote Desktops or Published Applications

- Reconnecting to a Remote Desktop or Published Application

- Disconnecting From a Remote Desktop or Published Application

- Log Off From a Remote Desktop

- Disconnecting From a Server

Set the Certificate Checking Mode

As a user, you can change how Horizon Client handles certificate checking. A certificate is a digital form of identification, similar to a passport or a driver's license. Server certificate checking occurs for connections between Horizon Client and a server. If you are unable to change modes, check with the administrator who may have disabled this feature for Horizon Client.

Procedure

1 Open the **Horizon** app.

2 Tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window, tap **Security options**, and tap **Security mode**.

3   Select the certificate checking mode.

Option	Description
Never connect to untrusted servers	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.
Warn before connecting to untrusted servers	This setting means that you can click **Continue** 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.
Do not verify server identity certificates	This setting means that no certificate checking occurs.

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 credentials, or smart card personal identification number (PIN).

- Domain name for logging in.

- Instructions about whether you can use fingerprint authentication.

If your system administrator sent you an email that contains a URL to use for setting up an RSA SecurID software token on your client device, open that email and verify that you also have the activation code or that the activation code appears at the end of the URL

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   Open the **Horizon** app.

3   Connect to a server.

> **Note**   At some companies, a Horizon administrator might configure Horizon Client to connect to a server automatically.

Option	Action
Connect to a new server	Enter the name of a server as instructed by your system administrator, enter a description (optional), and tap **Connect**. If a server has already been added, tap the plus sign (**+**) icon in the upper-right corner of the window instead.
Connect to an existing server	Tap the server shortcut on the **Servers** tab.

Connections between Horizon Client and servers 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 *servername:port*, for example, `view.company.com:1443`.

4   If a smart card is required or optional, select the smart card certificate to use and enter your PIN.

If the smart card has only one certificate, that certificate is already selected. If there are many certificates, you can scroll through the certificates.

5   If you are prompted for RSA SecurID credentials or RADIUS authentication credentials, type your credentials, or, if you plan to use an embedded RSA SecurID token, install an embedded token.

Option	Action
Use an existing token	If you use a hardware authentication token or software authentication token on a smart phone, enter your user name and passcode. The passcode might include both a PIN and the generated number on the token.
Install a software token	a Tap **External Token**. b In the Install Software Token dialog box, paste the CT-KIP URL or CTFString URL that your system administrator sent to you in email. If the URL contains an activation code, you do not need to enter a value in the **Password or Activation Code** text box.

6   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 that you entered before. If necessary, wait until a new number is generated.

7   If you are prompted for a user name and password, supply your Active Directory credentials.

a   Type the user name and password as instructed by your system administrator.

b   Select a domain as instructed by your system administrator.

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

c   (Optional) If the **Enable Fingerprint** check box is available, select it to use fingerprint authentication.

The **Enable Fingerprint** check box is available only if biometric authentication is enabled on the server and you have not previously authenticated with fingerprint authentication.

d   (Optional) Select the **Save Password** check box if your system administrator has enabled this feature and if the server certificate can be fully verified.

If you are saving a password for the first time, you are prompted to activate the device administrator, which is required to save a password on client devices.

e   Tap **Login**.

If fingerprint authentication is enabled and you are logging in for the first time, your Active Directory credentials are stored securely in the client device's database for future use.

8   If you are prompted for fingerprint authentication, place your finger on the fingerprint sensor.

If you do not want to use fingerprint authentication, tap **Cancel**. You can connect to the server again and tap **Use password** to enter a user name and password.

9   (Optional) To select the display protocol to use, tap the **Switch Protocol** icon in the upper-right corner of the desktop and application selector window.

VMware Blast provides better battery life and is the best protocol for high-end 3D and mobile device users.

10   Tap a remote desktop or published application to connect to it.

If you are connecting to a published desktop, and if the desktop is already set to use the Microsoft RDP display protocol, you cannot connect immediately. You are prompted to have the system log you off the remote operating system so that a connection can be made with the PCoIP display protocol or the VMware Blast display protocol.

Results

If you are using Horizon Client on a Chromebook, or on an Android device in DeX desktop mode, the remote desktop or published application starts in a new window instead of in the original window. The desktop and application selector window remains open so that you can connect to multiple remote desktops and published applications. If you open a new published application, Horizon Client opens all previous published application sessions. You can have a maximum of four remote sessions open at the same time.

After you connect to a remote desktop or published application for the first time, Horizon Client saves a shortcut for the remote desktop or published application on the **Recent** tab. The next time you connect to the remote desktop or published application, you can tap the shortcut instead of tapping the server shortcut.

If you receive a certificate error when you try to connect to a remote desktop or published application, see Set the Certificate Checking Mode.

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 the server anonymously to connect to their published applications.

Prerequisites

Obtain the following information from your system administrator:

- Instructions for whether to turn on a VPN (virtual private network) connection.

- Server name to use for connecting to the server.

- Port number to use for connecting to the server if the port is not 443.

- An Unauthenticated Access user account to use for logging in anonymously.

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 Open the **Horizon** app.

3 Tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window, tap **Unauthenticated access**, and tap to toggle the **Unauthenticated access** option to on.

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

Option	Description
Connect to a new server	Enter the name of a server as instructed by your system administrator, enter a description (optional), and tap **Connect**. If a server has already been added, tap the plus sign (+) icon in the upper-right corner of the window instead.
Connect to an existing server	Tap the server shortcut on the **Servers** tab.

Connections between Horizon Client and servers 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`.

5 When the login window appears, select a user account from the **User account** drop-down menu, if required.

If only one user account is available, that account is automatically selected.

6   (Optional) Select **Always use this account** to bypass the login window the next time you connect to the server.

To deselect this setting before you connect to the server the next time, touch and hold the server shortcut until the context menu appears, tap **Edit**, tap **Forget the saved Unauthenticated Access account (***name***)**, and tap **Done**.

7   Tap **Login** to log in to the server.

The application selection window appears.

8   Tap a published application icon to start the published application.

Results

After you connect to a published application for the first time, Horizon Client saves a shortcut for the published application on the **Recent** tab. The next time you connect to the published application, you can tap the shortcut instead of tapping the server icon.

Switch Remote Desktops or Published Applications

If you use a Chromebook device, or an Android device in DeX desktop mode, you can have multiple remote desktops and published applications open at the same time, and you can switch between them.

Procedure

◆   To select a different remote desktop or published application on the same server, tap the new remote desktop or published application shortcut in the desktop and application selector window.

The remote desktop or published application opens in a new window. You now have multiple windows open and you can switch between them.

> **Note**   The new published application might open in the same window, or in a different window, as the previous published application.

◆   To select a different remote desktop or published application on a different server, tap the **Disconnect** icon in the upper-right corner of the desktop and application selector window and tap **Log Out** to disconnect from the server.

You can now connect to a different server and open a new remote desktop or published application.

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** to re-authenticate to the server so that the published applications windows appear again.

On a Chromebook or an Android device in DeX desktop mode, if you navigate to the desktop and application selector window and one or more published application sessions are disconnected, Horizon Client prompts you to reconnect to the sessions. You can click **Reconnect to applications** to open the published application sessions, or click **Not now** to close the message. You can also select a check box not to show the message again.

Disconnecting From a Remote Desktop or Published Application

When you are logged in to a remote desktop, you can disconnect without logging off so that applications remain open in the remote desktop. You can also disconnect from a published application so that the published application remains open.

To disconnect from a remote desktop or published application that is in full-screen mode, tap the Horizon Client Tools radial menu icon and tap the **Disconnect** icon. The Horizon Client Tools radial menu icon appears at the right edge of the window when you are connected to a remote desktop or published application. For more information, see Using the Horizon Client Tools on a Mobile Device.

If you are not using full-screen mode, tap **Disconnect** in the menu in the upper-right corner of the Horizon Client toolbar.

On a thin client, disconnect by clicking the **Disconnect** icon in the Unity Touch sidebar or in a pop-up menu, depending on your thin client model. For more information, see Using Horizon Client on a Thin Client.

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

Log Off From a Remote Desktop

You can log off from a remote desktop, even if the remote desktop is not open in Horizon Client. If the remote desktop is open in Horizon Client, you can use the Windows **Start** menu to log off.

Prerequisites

Obtain credentials for logging in, such as an Active Directory user name and password, RSA SecurID user name and passcode, or RADIUS authentication user name and passcode.

Procedure

1   On the **Servers** tab, tap the server shortcut.

2   If prompted, supply an RSA user name and passcode, an Active Directory user name and password, or both.

3   Touch and hold the remote desktop shortcut until the context menu appears.

    You can perform this step from either the **All** or **Favorites** tab.

4   Tap **Log Off** in the context menu.

Results

The remote desktop is disconnected after you are logged off. Any unsaved files that are open on the remote desktop are closed during the log out operation.

What to do next

Disconnect from the server. See Disconnecting From a Server.

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, tap the Back button. Alternatively, tap the **Log Out** icon in the upper-right corner of the desktop and application selector window and tap **Log Out**.

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:

- Using the Unity Touch Sidebar with a Remote Desktop
- Using the Unity Touch Sidebar with a Published Application
- Using the Horizon Client Tools on a Mobile Device
- Gestures
- Using Native Operating System Gestures with Touch Redirection
- Using DPI Synchronization
- Copying and Pasting Text and Images
- Dragging Text and Image Files
- Saving Documents in a Published Application
- Use Multiple Sessions of a Published Application From Different Client Devices
- Share Access to Local Storage with Client Drive Redirection
- Multitasking
- Configure Horizon Client in Thin Client Mode
- Using Horizon Client on a Thin Client
- Using Android 7.0 Nougat Multi-Window Modes with Horizon Client

Using the Unity Touch Sidebar with a Remote Desktop

You can quickly navigate to an application or file in a remote desktop from the Unity Touch sidebar. From this sidebar, you can open files and applications, switch between running applications, and minimize, maximize, restore, or close windows and applications in a remote desktop.

The Unity Touch feature is available only if a Horizon administrator has enabled it. A Horizon administrator might have also created a default **Favorite Applications** list. You see this list only the first time you log in to the remote desktop. You can create your own list after you log in.

If the Unity Touch feature is enabled, the sidebar appears on the left side of the window when you first connect to a remote desktop.

If the Unity Touch sidebar is closed, a tab appears on the left side of the window. You can swipe this tab to the right to open the sidebar. You can also slide the tab up or down.

From the Unity Touch sidebar, you can perform many actions in a remote desktop.

Table 4-1. Unity Touch Sidebar Actions for a Remote Desktop

Action	Procedure
Show or hide the onscreen keyboard	(Thin client only) Select the **Keyboard** icon.
Change the Horizon Client settings	(Thin client only) Select the **Settings** icon.
Disconnect from the remote desktop	(Thin client only) Select the **Disconnect** icon.
Show the sidebar	Swipe the tab to the right. When the sidebar is open, you cannot perform actions on the remote desktop window or the Horizon Client Tools radial menu.
Hide the sidebar	Swipe the tab to the left to close the sidebar. When the sidebar is open, you cannot perform actions on the remote desktop window or the Horizon Client Tools radial menu.
Navigate to an application	Tap **All Programs** and navigate to the application just as you would from the Windows Start menu.
Navigate to a file	Tap **My Files** to access the `User` folder, and navigate to the file. **My Files** includes folders such as `My Pictures`, `My Documents`, and `Downloads`. **My Files** includes the folders in the user profile (`%USERPROFILE%` directory). If you relocate the `system` folder in the `%USERPROFILE%` directory, the **My Files** menu can also display content from the relocated folder, whether it is a local relocated folder or a network share folder.
Search for an application or file	■ Tap in the **Search** box and type the name of the application or file. ■ To use voice dictation, tap the microphone on the keyboard. ■ To launch an application or file, tap the name of the application or file in the search results. ■ To return to the home view of the sidebar, tap the **X** to close the **Search** box.
Open an application or file	Tap the name of the file or application in the sidebar. The application starts and the sidebar closes.
Switch between running applications or open windows	Tap the application name under **Running Applications**. If more than one file is open for one application, tap the chevron (>) next to the application to expand the list.
Minimize a running application or window	Touch and hold the application name under **Running Applications** until the context menu appears. Tap **Minimize**.
Maximize a running application or window	Touch and hold the application name under **Running Applications** until the context menu appears. Tap **Maximize**.

Table 4-1. Unity Touch Sidebar Actions for a Remote Desktop (continued)

Action	Procedure
Close a running application or window	Touch and hold the application name under **Running Applications** until the context menu appears. Tap **Close**.
Restore a running application or window to its previous size and position	Touch and hold the application name under **Running Applications** until the context menu appears. Tap **Restore**.
Create a list of favorite applications or files	1 Search for the application or file, or tap **Manage** under the **Favorite Applications** or **Favorite Documents** list. If the **Manage** bar is not visible, tap the chevron (>) next to **Favorite Applications** or **Favorite Files**. 2 Tap the check box next to the names of your favorites in the search results or in the list of available applications or files. The favorite that you add last appears at the top of your favorites list. Your favorites are remembered across all of your mobile devices so that, for example, you have the same list whether using your smart phone or your tablet.
Remove an application or file from the favorites list	1 Search for the application or file, or tap **Manage** under the **Favorite Applications** or **Favorite Dcuments** list. If the **Manage** bar is not visible, tap the chevron (>) next to **Favorite Applications** or **Favorite Documents**. 2 Tap to remove the check mark next to the name of the application or file in the favorites list.
Reorder an application or file in the favorites list	1 Tap **Manage** under the **Favorite Applications** or **Favorite Documents** list. If the **Manage** bar is not visible, tap the chevron (>) next to **Favorite Applications** or **Favorite Documents**. 2 In the favorites list, touch and hold the handle on the left side of the application or file name and drag the favorite up or down the list.

Using the Unity Touch Sidebar with a Published Application

You can quickly navigate to a published application from the Unity Touch sidebar. From this sidebar, you can start published applications, switch between running published applications, and minimize, maximize, restore, or close published applications. You can also switch to a remote desktop.

The Unity Touch feature is available only if a Horizon administrator has enabled it.

If the Unity Touch feature is enabled, the Unity Touch sidebar appears on the left side of the window when you first connect to a published application. If the Unity Touch sidebar is closed, a tab appears on the left side of the window. You can swipe this tab to the right to reopen the sidebar. You can also slide the tab up or down.

From the Unity Touch sidebar, you can perform many actions on a published application.

Table 4-2. Unity Touch Sidebar Actions for a Published Application

Action	Procedure
Show or hide the onscreen keyboard	(Thin client only) Select the **Keyboard** icon.
Modify Horizon Client settings	(Thin client only) Select the **Settings** icon.
Disconnect from the published application	(Thin client only) Select the **Disconnect** icon.
Show the sidebar	Swipe the tab to the right to open the sidebar. When the sidebar is open, you cannot perform actions on the published application window.
Hide the sidebar	Swipe the tab to the left to close the sidebar. When the sidebar is open, you cannot perform actions on the published application window.
Switch between running published applications	Tap the application under **Current Connection**. **Note** To avoid losing data, save your data before switching from a published application that is in multi-session mode.
Open a published application	Tap the name of the published application under **Applications** in the sidebar. The published application starts and the sidebar closes.
Close a running published application	1 Touch and hold the published application name under **Current Connection** until the context menu appears. 2 Tap **Close**.
Minimize a running published application	1 Touch and hold the published application name under **Current Connection** until the context menu appears. 2 Tap **Minimize**.
Maximize a running published application	1 Touch and hold the published application name under **Current Connection** until the context menu appears. 2 Tap **Maximize**.
Restore a running published application	1 Touch and hold the published application name under **Current Connection** until the context menu appears. 2 Tap **Restore**.
Switch to a remote desktop	Tap the remote desktop name under **Desktops**.

Using the Horizon Client Tools on a Mobile Device

On a mobile device, the Horizon Client Tools include buttons for displaying the onscreen keyboard, virtual touchpad, configuration settings, and a virtual keypad for arrow keys and function keys.

When you use a remote desktop or published application in full-screen mode, the Horizon Client Tools radial menu icon appears at the right edge of the window. You can drag the radial menu icon to relocate it. Tap to expand the radial menu and display icons for each tool, which you can tap to select. Tap outside the tool icons to collapse the icons back into the radial menu icon.

If the remote desktop or published application is not in full-screen mode, a toolbar appears on the right side of the menu bar at the top of the window. You can tap the **Full Screen** icon on the toolbar to enter full-screen mode. When you are in full-screen mode, you can tap a similar icon in the radial menu to exit full-screen mode.

The radial menu includes several tools.

Table 4-3. Radial Menu Icons

Icon	Description
	Horizon Client Tools radial menu
	Disconnect
	Onscreen keyboard (toggles to show or hide)
	Settings
	Navigation keys
	Virtual touchpad
	Gesture help
	Exit full-screen mode

Onscreen Keyboard

The onscreen keyboard has more keys than the standard onscreen keyboard, for example, Control keys and function keys are available. To display the onscreen keyboard, tap the screen with three fingers at the same time or tap the **Keyboard** icon.

If you are using a remote desktop or published application in full-screen mode, tap **Keyboard** icon in the Horizon Client Tools radial menu. If you are not using full-screen mode, tap the **Keyboard** icon on the Horizon Client toolbar.

You can also use the feature that displays the onscreen keyboard whenever you tap a text field, such as in a note or new contact. If you then tap in an area that is not a text field, the keyboard is dismissed.

To turn this feature on or off, use the **Keyboard popup** and **Keyboard dismiss** options. To display these options when you are using a remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon, tap the gear icon, and tap **Keyboard**. If you are not using full-screen mode, tap **Settings** in the menu in the upper-right corner of the Horizon Client toolbar. If you are not connected to a remote desktop or published application, tap the **Settings** (gear) icon in the upper-right corner of the desktop and application selector window.

Note On Kindle Fire tablets, tapping with three fingers does not display the onscreen keyboard. You can instead tap the **Keyboard** icon on the Horizon Client toolbar to display the onscreen keyboard.

Even if you use an external keyboard, a one-row onscreen keyboard might still appear, which contains function keys, and the Ctrl, Alt, Win, and arrow keys. Some external keyboards do not have all these keys.

Sending a String of Characters

From the onscreen keyboard, tap the pen icon on the left side of the Ctrl key to display the local input buffer. Text that you type into this text box is not sent to an application until you tap **Send.** For example, if you open an application such as Notepad and tap the pen icon, the text that you type does not appear in the Notepad application until you tap **Send.**

Use this feature if you have a poor network connection. That is, use this feature if, when you type a character, the character does not immediately appear in the application. With this feature, you can quickly type up to 1,000 characters and then either tap **Send** or tap **Return** to have all 1,000 characters appear at once in the application.

Navigation Keys

Tap the **Ctrl/Page** icon in the Horizon Client Tools or onscreen keyboard to display the navigation keys. These keys include Page Up, Page Down, arrow keys, function keys, and other keys that you often use in Windows environments, such as Alt, Del, Shift, Ctrl, Win, and Esc. You can press and hold arrow keys for continuous key strokes. For a picture of the Ctrl/Page icon, see the table at the beginning of this topic.

Use the Shift key on this keypad when you need to use key combinations that include the Shift key, such as Ctrl+Shift. To tap a combination of these keys, such as Ctrl+Alt+Shift, first tap the onscreen Ctrl key. After the Ctrl key turns blue, tap the onscreen Alt key. After the Alt key turns blue, tap the onscreen Shift key. A single onscreen key is provided for the key combination Ctrl+Alt+Del.

Onscreen Touchpad and Full-Screen Touchpad

The virtual touchpad can be either regular-size, to resemble a touchpad on a laptop computer, or full screen, so that the entire device screen is a touchpad.

By default, when you tap the touchpad icon, you can touch anywhere on the screen to move the mouse pointer. The screen becomes a full-screen touchpad.

- Moving your finger around the touchpad creates a mouse pointer that moves around the remote desktop or published application.

- You can use the regular-size and full-screen virtual touchpad for single-clicking and double-clicking.

- The regular touchpad also contains left-click and right-click buttons.

- You can tap with two fingers and then drag to scroll vertically.

You can drag the regular-size virtual touchpad to the side of the device so that you can use your thumb to operate the touchpad while you are holding the device.

You can make the virtual touchpad resemble the touchpad on a laptop, including right-click and left-click buttons, by setting the **Full screen touchpad** setting to off. If you are using the remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon, tap the gear icon, tap **Touch**, and deselect the **Full screen touchpad** setting.

To adjust how quickly the pointer moves when you use the touchpad, adjust the **Touchpad sensitivity** option. If you are using the remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon, tap the gear icon, tap **Touch**, tap **Touchpad sensitivity**, and drag the slider.

If you are not using full-screen mode, **Settings** is in the menu in the upper-right corner of the Horizon Client toolbar. If you are not connected to a remote desktop or published application, tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window.

Gestures

VMware has created user interaction aids to help you navigate conventional Windows user interface elements on a non-Windows device.

Clicking

As in other applications, you tap to click a user interface element.

Right-Clicking

The following options are available for right-clicking:

- Use the Horizon Client Tools to display the regular virtual touchpad and use the touchpad's right-click button.

- On a touch screen, tap with two fingers at nearly the same time. The right-click occurs where the first finger tapped.

- On some devices, you can use an external mouse, such as a USB or Bluetooth mouse, to right-click.

Scrolling and Scrollbars

The following options are available for vertical scrolling.

- On a touch screen, tap with one or two fingers and then drag to scroll. The text under your fingers moves in the same direction as your fingers.

  Important Scrolling with one finger does not work if you have zoomed in, or when the onscreen keyboard is displayed, or when you are using the full-screen touchpad.

- Use the Horizon Client Tools to display the touchpad, tap the touchpad with two fingers, and then drag to scroll.

- Use the onscreen touchpad to move the mouse pointer and click scroll bars.

Zooming In and Out

As in other applications, pinch your fingers together or apart to zoom on a touch screen.

Window Resizing

If you use the full-screen touchpad to resize a window, touch and hold one finger at the corner or side of the window and drag to resize.

If you use the regular-size virtual touchpad, touch and hold the left-click button while dragging the corner or side of a window.

Sound, Music, and Video

If sound is turned on for your device, you can play audio in a remote desktop.

Using a Thin Client

How you interact with Windows user interface elements when Horizon Client is installed on a thin client depends on the thin client model and the external input device you are using with the thin client. For more information, see Using Horizon Client on a Thin Client.

Using Native Operating System Gestures with Touch Redirection

With the touch redirection feature, you can use native operating system gestures from a touch-based mobile device in a remote desktop or published application. For example, you can touch, hold, and release an item on a Windows 8.1 remote desktop to display the item's context menu.

When touch redirection is enabled, Horizon Client local gestures, such as double-click and pinch, no longer work. You must drag the Unity Touch tab button to display the Unity Touch sidebar.

Touch redirection is enabled by default when you connect to most remote desktops.

To disable touch redirection, open **Settings**, tap **Touch**, and toggle the **Windows native touch gestures** setting to off. If you are connected to a remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon and tap the gear icon. If you are not using full-screen mode, tap **Settings** in the menu in the upper-right corner of the Horizon Client toolbar. If you are not connected to a remote desktop or published application, tap the gear icon in the upper right corner of the Horizon Client window.

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.

A Horizon administrator can disable the DPI synchronization feature.

Like the Display Scaling feature, the DPI Synchronization feature can improve the readability of text and icons on high-DPI displays. Unlike the Display Scaling feature, which increases the size of fonts and images and can make them blurry, the DPI Synchronization feature increases the size of fonts and images, keeping them sharp. For this reason, the DPI Synchronization feature is generally preferred for an optimal user experience.

If DPI synchronization is disabled, display scaling is used. The Display Scaling feature scales the remote desktop or published application appropriately.

Copying and Pasting Text and Images

By default, you can copy and paste plain text and HTML-format rich text from the client device to a remote desktop or published application.

You can also copy and paste plain text and HTML-format rich text from a remote desktop or published application to the client device, or between remote sessions, if a Horizon administrator enables these features. For example, you can copy and paste an image from one remote desktop to another remote desktop.

A Horizon administrator can configure the copy and paste feature so that copy and paste operations are allowed only from the client device to a remote desktop or published application, or only from a remote desktop or published application to the client device, or both, or neither.

When you copy and paste images and rich text, the following restrictions apply.

- You cannot copy and paste images from a remote desktop or published application to the client device.

- If the clipboard source is a Google app, such as Google Docs, you can copy and paste images only when the client device can access the Google website.

- If you copy an image and rich text (or plain text) together from the client device, and the destination is an application that supports only rich text, such as WordPad, the image is discarded and only the text is copied and pasted. To copy and paste an image, you must select only the image. If the destination application supports HTML/XML-format rich text, such as Microsoft Word, this restriction does not apply.

The clipboard can accommodate a maximum of 1 MB of data for all types of copy and paste operations. If the plain text and rich text data together use less than maximum clipboard size, the formatted text is pasted. Often the rich text cannot be truncated, so that if the text and formatting use more than the maximum clipboard size amount, the rich text is discarded, and plain text is pasted. If you are unable to paste all the formatted text you selected in one operation, you might need to copy and paste smaller amounts in each operation.

When copying images between different remote sessions, the maximum clipboard size is 1 MB.

Dragging Text and Image Files

You can drag a text or image file from local storage on the client device to a published application or open application in a remote desktop and drop the file's content into the application. To use this feature, you must have an Android 7.0 or later device, or a Chromebook that is running Chrome OS M63 or later.

For example, if you are using an Android phone, you can select **Settings > Storage > Explore** or open the MyFiles app, select a folder, and drag a text file to the WordPad application in a remote desktop. If you are using a Chromebook device, you can drag files from the `Downloads` folder or from a USB device attached to the Chromebook device.

This feature has the following limitations.

- You can drag a maximum of 1 MB of data.

- You cannot drag Rich Text Format (RTF) text.

- If you select multiple files, only the content of the first file is dropped into the application.

- You cannot drag text files and image files from a remote desktop or published application to the client device.

A Horizon administrator can disable this feature.

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.

Use Multiple Sessions of a Published Application From Different Client Devices

When multi-session mode is enabled for a published application, you can use multiple sessions of the same published application when you log on to the server from different client devices.

For example, if you open a published application in multi-session mode on client A, and then open the same published application on client B, the published application remains open on client A and a new session of the published application opens on client B. By comparison, when multi-session mode is disabled (single-session mode), the published application session on client A disconnects and reconnects on client B.

The multi-session mode feature has the following limitations.

- Multi-session mode does not work for applications that do not support multiple instances, such as Skype for Business.

- If the application session is disconnected while you are using a published application in multi-session mode, you are logged off automatically and any unsaved data is lost.

Prerequisites

A Horizon administrator must enable multi-session mode for the published application. You cannot enable or change the multi-session mode for a published application unless a Horizon administrator allows it.

Procedure

1 Connect to a server.

2 Tap the application icon in the upper-right corner of the Horizon Client toolbar and tap **Multi-Launch**.

    If the application icon does not appear on the toolbar, tap the three vertical dots. If no published applications are available to use in multi-session mode, the **Multi-Launch** setting does not appear.

3 Tap the published applications that you want to use in multi-session mode and tap **OK**.

    If a Horizon administrator has enforced multi-session mode for a published application, you cannot change this setting.

Share Access to Local Storage with Client Drive Redirection

You can configure Horizon Client to share local storage with a remote desktop or published application. This feature is called client drive redirection.

In a Windows remote desktop or published application, local storage appears in the **Devices and drives** section in the **This PC** folder, or in the **Other** section in the **Computer** folder. The folders and storage devices that you select for sharing use the naming format *name* **on HorizonClient**.

Prerequisites

▪ Verify that a Horizon administrator has enabled the client drive redirection feature. You cannot share local storage with a remote desktop or published application if the client drive redirection feature is not enabled.

▪ Connect to the remote desktop or published application with which you want to share local storage. If you have not logged in at least once, become familiar with the procedure Connect to a Remote Desktop or Published Application .

Procedure

1 Open **Settings** and tap **Local storage redirection**.

  ▪ If you are connected to the remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon and tap the gear icon.

  ▪ If you are not using full-screen mode, tap **Settings** in the menu in the upper-right corner of the Horizon Client toolbar.

2 Tap **Local Storage Redirection** and configure the local storage redirection options.

Option	Action
Share all removable storage devices automatically	Select **Enable auto direct for mounted storage**. All removable storage devices mounted to your device are shared with the remote desktop or published application automatically. This option is selected by default.
Do not share all removable storage devices automatically	Deselect **Enable auto direct for mounted storage**. The next time you connect to the remote desktop or published application, removable storage devices mounted to your device are not shared with the remote desktop or published application automatically.
	Note Deselecting **Enable auto direct for mounted storage** does not stop sharing a removable storage device that is already shared with the remote desktop or published application.
Share a specific folder or removable storage device	Select the name of the local folder or removable storage device in the list. The device becomes available in the remote desktop or published application.
	When you connect a removable storage device, its name appears in the list. When you disconnect a removable storage device, its name is removed from the list.
Stop sharing a specific folder or removable storage device	Deselect the name of the local folder or removable storage device in the list. The device is no longer available in the remote desktop or published application.

3 Tap **OK** to save your settings.

What to do next

Verify your changes in the remote desktop or published application.

- In a Windows remote desktop, open the **This PC** folder and look in the **Devices and drives** section, or open the **Computer** folder and look in the **Other** section. If you shared a folder or storage device, you should see the folder or device. Shared folders and storage devices use the naming format *name* **on HorizonClient**.

- In a published application, select **File > Open** or **File > Save As**, if applicable. If you shared a folder or storage device, you should be able to navigate to the folder or device. Shared folders and storage devices use the naming format *name* **on HorizonClient**.

Multitasking

You can switch between Horizon Client and other apps without losing a remote desktop or published application connection.

In a WiFi network, by default Horizon Client runs in the background indefinitely. In a 3G network, Horizon Client suspends data transmission when you switch to another app. Data transmission resumes when you switch back to Horizon Client.

The Horizon Client icon appears in the status bar when the app is running in the background and there is a connection to a remote desktop or published application. To switch back to Horizon Client, tap the icon in the status bar.

Configure Horizon Client in Thin Client Mode

You can configure Horizon Client to work on a thin client.

Prerequisites

Install Horizon Client on the thin client. For thin client requirements, see the *VMware Horizon Client for Android Installation and Setup Guide* document.

Procedure

1   Start Horizon Client on the thin client.

2   Tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window.

3   Tap **Thin Client mode** and enable **Thin Client mode**.

What to do next

See Using Horizon Client on a Thin Client.

Using Horizon Client on a Thin Client

Some features are different or unavailable when you use Horizon Client in thin client mode.

- The Horizon Client window resolution is set to **Auto-fit** by default. The auto-fit resolution is the same as the thin client's HDMI output. For example, if the thin client supports HDMI 4K output, the auto-fit resolution is 4K. If the thin client supports HDMI 1080p output, the auto-fit resolution is 1920x1080. You can downscale the resolution by modifying the Horizon Client **Resolution** setting.

- The Horizon Client **Presentation Mode** and **Stay Awake** display settings are not available.

- You cannot modify the Horizon Client **Keyboard** settings.

- The Horizon Client Tools radial menu is not available in remote desktops and published applications.

- In general, the gestures you use in Horizon Client depend on the thin client model and the type of external input device that you use with the thin client. For example, you might have a keyboard, mouse, remote control, or game controller. See the documentation for the external input device for more information.

- The Unity Touch sidebar contains **Keyboard**, **Settings**, and **Disconnect** icons. For more information, see Using the Unity Touch Sidebar with a Remote Desktop and Using the Unity Touch Sidebar with a Published Application.

- The Unity Touch sidebar is supported on Remix Mini and NVIDIA SHIELD Android TV devices. The Unity Touch sidebar is not supported on Amazon Fire TV.

- If you are connected to a remote desktop or published application from an Amazon Fire TV device, you must use a pop-up menu to display Horizon Client Settings and to disconnect from the remote desktop or published application. On a remote control or external keyboard, press the **Menu** button to display the pop-up menu.

Using Android 7.0 Nougat Multi-Window Modes with Horizon Client

Android 7.0 Nougat allows several apps to share the screen at the same time. You can use split-screen mode with Horizon Client on an Android 7.0 Nougat device. Horizon Client does not support picture-in-picture mode.

With split-screen mode, you can run Horizon Client and another app side by side, or one above the other. A dividing line separates the two apps, and you can make one app larger and the other app smaller.

Using Shortcuts

5

You can create and use shortcuts for servers, remote desktops, and published applications in Horizon Client. You can also select favorite remote desktops and published applications.

This chapter includes the following topics:

- Manage Server Shortcuts
- Manage Remote Desktop and Published Application Shortcuts
- Add a Shortcut to the Android Home Screen or Chrome App Launcher
- Select a Favorite Remote Desktop or Published Application
- Configure the Horizon Client Default View

Manage Server Shortcuts

After you connect to a server, Horizon Client creates a server shortcut. You can edit and remove server shortcuts.

Horizon Client saves the server name or IP address in a shortcut, even if you mistype the server name or type the wrong IP address. You can delete or change this information by editing the server name or IP address. If you do not type a server description, the server name or IP address becomes the server description.

Server shortcuts can appear on multiple pages and you can swipe across pages to see more shortcuts. Horizon Client creates pages, as needed, to accommodate all your server shortcuts.

Procedure

1   On the **Servers** tab, touch and hold the server shortcut until the context menu appears.

2   Use the context menu to delete or modify the server shortcut.

     You can edit the server name, server description, and user name. You can also remove a credential that was saved for fingerprint authentication by tapping **Remove Credential**.

Manage Remote Desktop and Published Application Shortcuts

After you connect to a remote desktop or published application, Horizon Client saves a shortcut for the item. You can rearrange and remove these shortcuts.

If you have many remote desktop and published application shortcuts, the shortcuts might appear on multiple pages. You can swipe across the pages to see more shortcuts. Horizon Client creates pages, as needed, to accommodate all your shortcuts.

Procedure

◆ To remove a remote desktop or published application shortcut from the **Recent** tab, perform these steps.

a   Touch and hold the shortcut until **Remove Shortcut** appears at the bottom of the window.

b   Drag the shortcut to **Remove Shortcut**.

◆ To move a remote desktop or published application shortcut, touch and hold the shortcut and drag it to the new location.

You cannot drag a shortcut to another page unless that page exists.

Add a Shortcut to the Android Home Screen or Chrome App Launcher

When Horizon Client is installed on an Android device, you can add a shortcut for a remote desktop or published application to the Android home screen and then tap the shortcut to open the remote desktop or published application. When Horizon Client is installed on a Chromebook device, Horizon Client adds the remote desktop or published application shortcut to the Chrome App Launcher.

On Android 5, 6, and 7 devices, Horizon Client adds the remote desktop or published application shortcut to the Android home screen.

On Android 8 devices, remote desktop and published application shortcuts appear as entries above the **Horizon** app icon when you touch and hold the app icon. You can drag an entry from the app icon to the Android home screen to create a shortcut directly on the Android home screen.

This feature is not available on Amazon devices, on Android devices that Workspace ONE UEM manages, or when you use the Unauthenticated Access feature to connect to the server anonymously.

Procedure

1   You can add a remote desktop or published application shortcut before or after you connect to a server.

    If you are not connected to a server, you must have connected to the remote desktop or published application at least once from the device so that a shortcut for the remote desktop or published application appears on the **Recent** tab.

Option	Action
You are not connected to a server	On the **Recent** tab, touch and hold the shortcut until **Add To Home** appears at the bottom of the window and then drag the shortcut to **Add To Home**.
You are connected to a server	On the **All** or **Favorites** tab, touch and hold the remote desktop or published application shortcut until the context menu appears and tap **Add To Home**.

2   Type a name for the shortcut and tap **OK**.

    If the name is longer than 12 characters, the extra characters do not appear in the shortcut.

3   In the Add to Home screen dialog box, tap **Add automatically**, or touch and hold the shortcut to place it manually.

Select a Favorite Remote Desktop or Published Application

You can select favorite remote desktops and published applications. Shortcuts for favorite items are identified by a star and appear on the **Favorites** tab. Favorite items are saved after you log off from the server.

Prerequisites

Obtain the credentials for connecting to the server, such as a user name and password or RSA SecurID and passcode.

Procedure

1   On the **Servers** tab, tap the server shortcut to connect to the server.

2   If prompted, supply your RSA user name and passcode, your Active Directory user name and password, or both.

3   To select or deselect a favorite remote desktop or published application, perform these steps.

Option	Action
Select a favorite	Touch and hold the remote desktop or published application shortcut until the context menu appears and tap **Mark as Favorite**. A star appears in the upper-right corner of the shortcut and the shortcut appears on the **Favorites** tab.
Deselect a favorite	On the **All** or **Favorites** tab, touch and hold the remote desktop or published application shortcut until the context menu appears and tap **Unmark Favorite**. A star no longer appears in the upper-right corner of the shortcut and the shortcut disappears from the **Favorites** tab.

4   (Optional) To see only favorite remote desktops or published applications, tap the **Favorites** tab.

You can tap the **All** tab to display all the available remote desktops and published applications.

Configure the Horizon Client Default View

You can configure whether recently used remote desktops and published applications shortcuts, or server shortcuts, appear when you start Horizon Client.

Procedure

1   Open **Settings** and tap **Display**.

- ■   If you are connected to a remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon and tap the gear icon to access **Settings**.

- ■   If you are not using full-screen mode, tap **Settings** in the menu in the upper right corner of the Horizon Client toolbar.

- ■   If you are not connected to a server, tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window.

2   Tap **Default launch view**.

3   To select the default view, tap an option.

Option	Description
Recent	The **Recent** tab appears when you start Horizon Client. The Recent tab contains shortcuts to recently used remote desktops and published applications. This is the default setting.
Servers	The **Servers** tab appears when you start Horizon Client. The Servers tab contains shortcuts to the servers that you added to Horizon Client.

Results

The default view that you selected takes effect immediately.

Using External Devices 6

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

This chapter includes the following topics:

- Input Devices, Keyboards, and Keyboard Settings
- Screen Resolutions and Using External Displays
- Using Horizon Client with Samsung DeX
- Using the Real-Time Audio-Video Feature
- Enable the DeX Mode Auto Launch Feature
- Enable Flex Mode for Samsung Fold Phones
- Use USB Devices in a Remote Desktop or Published Application
- Printing From a Remote Desktop or Published Application

Input Devices, Keyboards, and Keyboard Settings

You can use Bluetooth and docked keyboard devices and keyboards with remote desktops and published applications. You can also set preferences for settings, such as auto-capitalization and text correction.

Using External Keyboards and Input Devices

For information about the devices that a specific tablet supports, see the documentation from the tablet manufacturer.

For some external keyboards, Horizon Client detects the keyboard automatically. For other external keyboards, you must either tap the tablet screen with three fingers at the same time, or tap the **Keyboard** icon, to detect the keyboard. If you are using a remote desktop or published application in full-screen mode, the **Keyboard** icon is in the Horizon Client Tools radial menu. If you are not using full-screen mode, the **Keyboard** icon is on the Horizon Client toolbar.

Note On Kindle Fire tablets, tapping with three fingers does not display the onscreen keyboard. You can instead use the **Keyboard** icon to show the onscreen keyboard.

After Horizon Client detects the external keyboard, you might not be able to use the Horizon Client Tools or three-finger tap to show the onscreen keyboard. You might first need to deactivate the external keyboard by pressing its **Eject** key.

Using International Onscreen Keyboards

With the correct input methods installed, you can input characters for English-United States, Japanese, French, German, Simplified Chinese, Traditional Chinese, Korean, and Spanish.

To select a language for the keyboard or voice, tap the Keyboard Settings key on the onscreen keyboard. The Keyboard Settings key is the left-most key on the bottom row of the onscreen keyboard. After you finish selecting settings, tap the **Back** button to close the dialog box.

Using a Stylus

For all Android devices that support a stylus, you can use a stylus in remote desktops and published applications. For example, you can use a stylus in remote desktops and published applications on a Samsung Galaxy S4. For full functionality, use the VMware Blast display protocol when you connect to the remote desktop or published application. If you use the PCoIP display protocol, the stylus behaves the same way as finger touch.

Screen Resolutions and Using External Displays

You can use Horizon Client with external displays and you can change screen resolutions.

When you connect a client device to an external display or projector, Horizon Client supports certain maximum display resolutions. You can change the screen resolution that the client device uses to allow scrolling a larger screen resolution.

Enlarging the Screen Resolution for a Remote Desktop

By default, the display resolution is set so that the entire remote desktop fits inside the client device, and the remote desktop icons and task bar icons are a certain size. If you use a larger resolution, the remote desktop still fits inside the client device, but the remote desktop and taskbar icons become smaller.

You can pinch your fingers apart to zoom in and make the remote desktop larger than the device screen. You can then tap and drag to access the edges of the remote desktop.

Changing the Display Resolution Setting

You can use the **Resolution** setting to set the display resolution to a larger value. If you are using a remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon, tap the gear icon, tap **Display**, and tap **Resolution**. If you are not using full-screen mode, tap **Settings** in the menu in the upper-right corner of the Horizon Client toolbar. If you are not connected to a remote desktop or published application, tap the **Settings** (gear) icon in the upper-right corner of the desktop and application selector window.

Using High Quality Mode

You can use the High Quality Mode feature to obtain the best display quality in remote desktops and published applications.

To enable High Quality Mode, before you connect to a server, tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window, tap **Display**, and then tap **High Quality Mode**. You cannot enable the **High Quality Mode** setting after you connect to a remote desktop or published application.

The High Quality Mode feature has the following requirements and limitations.

- You cannot use the High Quality Mode feature for existing sessions. You must log out and log in to a new session for the feature to take effect.

- If the client device has less than an extra-high density (xhdpi) screen, the **High Quality Mode** setting is not available.

- The remote desktop or application must support the High Quality Mode feature.

High Quality Mode is disabled by default.

Using External Displays

You can use the **External display options** setting to configure settings for external displays, such as projectors and attached monitors. When you click **Enable display options** and select **Enable External display**, you can use the following settings.

Option	Description
Presentation mode	When you enable this setting, a keyboard and expanded onscreen touchpad appear on the device when you display a remote desktop on an external display. The expanded touchpad and keyboard appear when you plug the device into the external display. The device detects the maximum resolution provided by the external display.
	You can use a physical mouse on the external display.
Multi-Monitor mode	When you enable this setting, Horizon Client extends a secondary desktop on an external display. The Unity Touch sidebar is supported only on the client's internal monitor. You cannot change the orientation and full-screen mode. You can interact with remote desktops and published applications on the external display with the onscreen touchpad and full-screen touchpad.
	You can use a physical mouse on the external display.
External Mirror mode	When you enable this setting, a remote desktop appears on an external display based on the external display's resolution. The device shows a mirror of the external display with the same aspect ratio.
	You cannot change the orientation and full-screen mode on the external display, but you can change the orientation on the device display.
	If you use touch, a pen, or a mouse on the device screen, the input is mapped to the external display.
	The menu, Unity Touch sidebar, and keyboard bar of Horizon Client appear only on the device screen.

You can select **Keep screen on when external display is connected** to keep the display from turning off after a period of inactivity.

You can drag the **Zoom** slider to set the resolution for an external display.

If you are connected to a remote desktop or published application, pressing the **Back** button deselects the **Enable External display** option. When the **Enable External display** option is deselected, all the external display settings are disabled.

To configure external display settings if you are using a remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon, tap the gear icon, tap **Display**, and then tap **External Display Options**. If you are not using full-screen mode, tap **Settings** in the menu in the upper-right corner of the Horizon Client toolbar. If you are not connected to a server, tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window.

Do not use an external mouse, such as a Bluetooth mouse, when you use the **Presentation Mode** setting. Instead, use the large onscreen touchpad on the client device.

Using Multi-Monitor Mode on a Chromebook

To enter multi-monitor mode when Horizon Client for Android is installed on a Chromebook, maximize the remote session window. After you maximize a remote desktop window on the Chromebook display, it appears on the external display, or displays, automatically. After you maximize a published application window, you can drag it to an external display. To quit multi-monitor mode, restore the remote session window from the maximized state.

The multi-monitor mode feature has the following requirements and limitations.

- Chrome OS M64 or later is required.

- Two external displays are supported.

- The display topology in the remote session is similar to, but might not be exactly the same as, the display topology that is configured on the Chromebook device.

- Unified desktop mode must not be enabled on the Chromebook device.

Changing the Display Zoom Level on a Chromebook Device

When Horizon Client for Android is installed on a Chromebook device and seamless window mode is enabled, you can change the display zoom level for published applications.

To change the display zoom level for published applications, tap the **Settings** (gear) icon in the upper-right corner of the desktop and application selector window and tap **Remote Applications**. In the Remote Applications dialog box, you can set the device display zoom level to 100, 110, 125, 150, 175, or 200 percent. You can set the external display zoom level to 100, 150, 200, 250, or 300 percent. The default display zoom level is 100 percent for both the device display and the external display.

This feature has the following requirements and limitations:

- Chrome OS M64 or later is required.

- You can change the display zoom level for only one external display.

- Seamless window mode must be enabled. For more information, see the *VMware Horizon Client for Android Installation and Setup Guide* document.

You can also enable or disable local storage redirection for published applications from the Remote Applications dialog box. This feature is enabled by default. For more information about this feature, see Share Access to Local Storage with Client Drive Redirection.

Using Horizon Client with Samsung DeX

If the Android device supports Samsung DeX, you can use Horizon Client in DeX desktop mode.

When the device is in DeX desktop mode, Horizon Client treats the device as a thin client and **Thin Client mode** is enabled. For more information, see Using Horizon Client on a Thin Client.

The following features are supported when you use Horizon Client in Horizon DeX desktop mode.

- You can configure Horizon Client to start automatically when you switch to DeX desktop mode. See Enable the DeX Mode Auto Launch Feature.

- Remote desktop and published application sessions continue to run after you enter or exit DeX desktop mode.

- If Horizon Client is maximized, remote desktops enter full-screen mode after you switch to DeX desktop mode.

- To switch the language input method in a remote desktop, you can use the language switch key on a Samsung physical keyboard.

- You can connect to multiple remote desktops and published applications at the same time. Smart card authentication is not supported for multiple sessions.

Using the Real-Time Audio-Video Feature

With the Real-Time Audio-Video feature, you can use the client device's built-in cameras and microphones in a remote desktop or published application. Real-Time Audio-Video is compatible with standard conferencing applications such as Skype, WebEx, and Google Hangouts.

Real-Time Audio-Video is enabled by default when you install Horizon Client on the client device.

When you install Horizon Client on an Android 6 or later device, Horizon Client prompts you for permission to access the camera and microphone. You must grant permission for the camera and microphone to work with the remote desktop or published application. You can enable or disable access to the camera or microphone in the Android Settings app. For Android devices earlier than Android 6, permission to the camera and microphone is opened by default.

When the camera is being used by another app, the remote desktop or published application cannot use the camera simultaneously. Also, when the remote desktop or published application is using the camera, the client device cannot use the camera at the same time.

If the client device has both a front and a back camera, you can select which camera to use in the remote desktop or published application. If you are using full-screen mode, tap the Horizon Client Tools radial menu icon, tap the gear icon, tap **Camera**, tap **Select a camera**, and tap the camera to use. If you are not using full-screen mode, tap **Settings** in the upper-right corner of the Horizon Client toolbar. The **Camera** setting is available only when the camera is started.

Enable the DeX Mode Auto Launch Feature

You can configure Horizon Client to start automatically when you switch the Android device to DeX desktop mode. The DeX mode auto launch feature is disabled by default.

Prerequisites

- Verify that the Android device supports Samsung DeX.

- Verify that a system administrator has not configured a default server for Horizon Client. When a default server is configured, Horizon Client automatically connects to that server.

Procedure

1 Before you log in to a server, tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window.

2 Tap **Display**, tap **Dex Mode Auto Launch**, and tap to toggle the **Dex Mode Auto Launch** option to on.

Results

If you added a remote desktop or published application shortcut to the Android home screen, Horizon Client connects to the most recent shortcut after Horizon Client starts. For information about adding shortcuts to the Android home screen, see Add a Shortcut to the Android Home Screen or Chrome App Launcher.

Enable Flex Mode for Samsung Fold Phones

You can configure Horizon Client to enable Flex mode for full-size Samsung Fold phones when in table top (horizontal) mode. The Flex mode feature is enabled by default.

Procedure

1 Before you log in to a server, tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window.

2 Tap **Flex Mode**, and tap to toggle the **Flex Mode** option to on or off.

Results

When enabled and the phone is in table top mode, the keyboard displays automatically in the bottom screen and the application displays in the top screen.

Use USB Devices in a Remote Desktop or Published Application

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 client device become available from a menu in Horizon Client. You use this menu to connect and disconnect the USB devices.

You can also automatically connect all USB devices to the remote desktop or publication application at startup using the **Automatically Connect at Startup** option.

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

Prerequisites

- To redirect USB devices to a remote desktop or published application, a Horizon administrator must enable the USB redirection feature.

- Become familiar with USB Redirection Limitations.

Procedure

1   Connect to the server.

2   Tap the **Switch Protocol** icon in the upper-right corner of the desktop and application selector window and tap **VMware Blast**.

    You must use the VMware Blast protocol to use the USB redirection feature.

3   Connect to the remote desktop or published application.

4   Open **Settings** and tap **USB redirection**.

    - If you are connected to the remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon and tap the gear icon.

    - If you are not using full-screen mode, tap **Settings** in the menu in the upper-right corner of the Horizon Client toolbar.

5   Select one of these options for USB redirection.

Option	Description
USB redirection	Redirects the USB device to remote desktop or published application.
	If selected, the available USB devices appear in the USB redirection list. If no USB devices are available, `No suitable devices available` appears.
	a Select the check box next to the USB device that you want to redirect to the remote desktop or published application.
	b A system dialog prompts you to give Horizon Client access to the USB device.
	c Click OK.
	You can give Horizon Client access to the USB device by default by selecting the **Use by default for this USB device** check box. The permission to access the device remains valid only until the device is disconnected.
Automatically Connect at Startup	Automatically connects all USB devices to the remote desktop or published application at startup. All remote sessions will share this setting if turned on.
	a Turn the toggle On.
	This setting is saved on the Android device after exiting the Horizon Android client and is valid at restart.
	Note Mass storage devices are not automatically connected at startup if **Local storage redirection/Enable auto redirect for mounted storages** is checked.

Results

The redirected USB device appears in the remote desktop or published application. A USB device might take up to 20 seconds to appear in a remote desktop or published application.

What to do next

To disconnect a USB device from the remote desktop or published application, repeat the steps in this procedure but deselect the check box for the USB device in the USB redirection list.

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 or published application, you cannot access the USB device on the local device.

- USB devices that do not appear in the menu, but are available in a remote desktop or published application, include human interface devices such as keyboards and pointing devices. The remote desktop or published application, and the local device, use these devices at the same time. Interaction with these USB devices can sometimes be slow because of network latency.

- Large USB disk drives can take several minutes to appear in the remote desktop or published application.

- Some USB devices require specific drivers. If a required driver is not already installed, you might be prompted to install it when you connect the USB device to the remote desktop or published application.

- 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.

- Auto-connection of USB devices to remote desktops and published applications is not fully supported. **Automatically Connect at Startup** is supported, **Automatically Connect when Inserted** is not supported.

- On a Chromebook, USB redirection for published applications is not supported.

Printing From a Remote Desktop or Published Application

With the VMware Integrated Printing feature, you can print to a network printer or a locally attached printer from a remote desktop or published application.

To use this feature, an administrator must enable the VMware Integrated Printing feature for the remote desktop or published application.

Printing from a remote desktop or published application is a two-step procedure. For example, first you select **File > Print** in a Windows application, select the virtual printer that belongs to the mobile device, and tap **Print**. Next, the device's print dialog box appears. From the device's print dialog box, you click **Print** again. You can optionally select local print options, such as number of copies, paper size, and so on.

Troubleshooting

7

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

You can also enable log collection and send log files to VMware for troubleshooting.

This chapter includes the following topics:

- Restart a Remote Desktop

- Reset a Remote Desktop or Published Applications

- Uninstall Horizon Client

- Collecting and Sending Logging Information to VMware

- Report Horizon Client Crash Data to VMware

- Horizon Client Stops Responding or the Remote Desktop Freezes

- Problem Establishing a Connection When Using a Proxy

- 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 and the remote desktop is powered on. You can restart only one remote desktop at a time.

Procedure

1   On the **Servers** tab, tap the server shortcut to connect to the server.

2   If prompted, supply your RSA user name and passcode, your Active Directory user name and password, or both.

3 Touch and hold the remote desktop shortcut until the context menu appears.

You can perform this step from either the **All** or **Favorites** tab.

4 Tap **Restart** in the context menu.

Results

The operating system in the remote desktop restarts and the 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 published applications.

Resetting a remote desktop is similar to 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.

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

1 On the **Servers** tab, tap the server shortcut to connect to the server.

2 If prompted, supply your RSA user name and passcode, your Active Directory user name and password, or both.

3 Touch and hold the remote desktop or published application shortcut until the context menu appears.

You can perform this step from either the **All** or **Favorites** tab.

4 Tap **Reset** in the context menu.

Results

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

Uninstall Horizon Client

You can sometimes resolve problems with Horizon Client by uninstalling and reinstalling Horizon Client app. You uninstall Horizon Client just as you would any Android app.

Procedure

1   On the client device, go to the **Horizon** app.

2   Touch and hold the app icon until the **Uninstall** (trash can) icon appears on the client device.

3   Drag the app to the **Uninstall** (trash can) icon.

Alternatively, you can go to **Apps > Settings** and select **Applications > Manage Applications** to uninstall Horizon Client.

What to do next

Reinstall Horizon Client.

See the *VMware Horizon Client for Android Installation and Setup Guide* document.

Collecting and Sending Logging Information to VMware

You can configure Horizon Client to collect log information and send log files to VMware for troubleshooting.

If Horizon Client quits unexpectedly, it immediately prompts you to send log files to VMware. If log collection is enabled, the crash log file contains detailed debug information. If log collection is disabled, only certain exception information is included in the crash log file.

Horizon Client generates the following log files and keeps the last five files of each log file type.

- `Horizon_View_Client_logs_timestamp.txt`

- `libcdk_timestamp.txt`

- `pcoip_client_timestamp.txt`

If you send log files to VMware, Horizon Client uses the available email client on the client device to create a message. If the email client can send multiple attachments, Horizon Client attaches the last five files of each log file type to the message. If the email client cannot send multiple attachments, Horizon Client compresses the last five files of each log file type and attaches a ZIP file to the message. The ZIP file name contains a time stamp, for example, `Horizon_View_Client_logs` *`timestamp`*`.zip`.

You can also manually retrieve and send log files at any time.

Enable Horizon Client Log Collection

When you enable log collection, Horizon Client creates log files that contain information that can help VMware troubleshoot problems with Horizon Client.

Because log collection affects the performance of Horizon Client, enable log collection only if you are experiencing a problem.

Prerequisites

Verify that an email client is available on the device. Horizon Client requires an email client to send log files.

Procedure

1 Open **Settings** and tap **Log collection**.

   ■ If you are connected to a remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon and tap the gear icon.

   ■ If you are not using full-screen mode, tap **Settings** in the menu in the upper-right corner of the Horizon Client toolbar.

   ■ If you are not connected to a remote desktop or published application, tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window.

2 Tap to toggle the **Enable log** option to on and tap **OK** to confirm your choice.

Results

After log collection is enabled, Horizon Client generates a log file it quits unexpectedly or when it is exited and restarted.

Manually Retrieve and Send Horizon Client Log Files

When Horizon Client log collection is enabled on the client device, you can manually retrieve and send log files at any time.

This procedure explains how retrieve and send log files through Horizon Client. You can also retrieve log files by using tools that can access app storage space. Horizon Client saves log files in the `Android/data/com.vmware.view.client.android/files` directory.

Prerequisites

- Verify that an email client is available on the client device. Horizon Client requires an email client to send log files.

- Enable Horizon Client log collection. See Enable Horizon Client Log Collection.

Procedure

1 Open **Settings** and tap **Log collection**.

- If you are connected to a remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon and tap the gear icon.

- If you are not using full-screen mode, tap **Settings** in the menu in the upper right corner of the Horizon Client toolbar.

- If you are not connected to a remote desktop or published application, tap the gear icon in the upper right corner of the Horizon Client window.

2 Tap **Send the log**.

Horizon Client uses the email client on the client device to create a message. The body of the message contains information about the client device. If the email client can send multiple attachments, Horizon Client attaches the last five log files of each type to the message. If the email client cannot send multiple attachments, Horizon Client compresses the last five log files of each type and attaches a ZIP file to the message.

Disable Horizon Client Log Collection

Because log collection affects the performance of Horizon Client, disable log collection if you are not troubleshooting a problem.

Procedure

1 Open **Settings** and tap **Log collection**.

- If you are connected to a remote desktop or published application in full-screen mode, tap the Horizon Client Tools radial menu icon and tap the gear icon.

- If you are not using full-screen mode, tap **Settings** in the menu in the upper-right corner of the Horizon Client toolbar.

- If you are not connected to a server, tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window.

2 Tap to toggle the **Enable log** option to off.

Report Horizon Client Crash Data to VMware

You can configure Horizon Client to report crash data to VMware.

Procedure

1 Tap the **Settings** (gear) icon in the upper-right corner of the Horizon Client window.

2 Tap **Crash Reporting**.

3 Tap to toggle the **Crash Reporting** option to on or off.

   The setting is enabled by default.

Results

If Horizon Client stops responding, a crash log file is uploaded to the server the next time Horizon Client starts.

Horizon Client Stops Responding or the Remote Desktop Freezes

Horizon Client stops responding or a remote desktop freezes.

Problem

Horizon Client does not work or repeatedly exits unexpectedly, or the remote desktop freezes.

Cause

If the server is configured properly and the correct firewall ports are open, the cause of the problem usually relates to Horizon Client on the device or to the remote desktop operating system.

Solution

◆ If the remote desktop operating system freezes, use Horizon Client on the client device to reset the desktop.

   This option is available only if a Horizon administrator has enabled the desktop reset feature.

◆ Uninstall and reinstall the Horizon Client app on the client device.

◆ If resetting the remote desktop and reinstalling Horizon Client do not help, you can reset the client device, as described in the user guide for the client device.

◆ If you receive a connection error when you attempt to connect to the server, you might need to change your proxy settings.

What to do next

If the problem is with the remote desktop operating system, see Reset a Remote Desktop or Published Applications.

Problem Establishing a Connection When Using a Proxy

When you attempt to connect to a server by using a proxy while on the LAN, an error sometimes occurs.

Problem

If your Horizon environment is set up to use a secure connection from a remote desktop to a server, and if the client device is configured to use an HTTP proxy, you might not connect.

Cause

Unlike Windows Internet Explorer, the client device does not have an Internet option to bypass the proxy for local addresses. When an HTTP proxy is used for browsing external addresses, and you try to connect to a server by using an internal address, you might see the error message `Could not establish connection`.

Solution

◆ Remove the proxy settings so that the client device no longer uses a proxy.

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

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.