

# Using VMware View Client for Android

July 2011  
View Client

This document supports the version of each product listed and supports all subsequent versions until the document is replaced by a new edition. To check for more recent editions of this document, see <http://www.vmware.com/support/pubs>.

EN-000667-00

**vmware**<sup>®</sup>

You can find the most up-to-date technical documentation on the VMware Web site at:

<http://www.vmware.com/support/>

The VMware Web site also provides the latest product updates.

If you have comments about this documentation, submit your feedback to:

[docfeedback@vmware.com](mailto:docfeedback@vmware.com)

Copyright © 2011 VMware, Inc. All rights reserved. This product is protected by U.S. and international copyright and intellectual property laws. VMware products are covered by one or more patents listed at <http://www.vmware.com/go/patents>.

VMware is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

**VMware, Inc.**  
3401 Hillview Ave.  
Palo Alto, CA 94304  
[www.vmware.com](http://www.vmware.com)

# Contents

Using VMware View Client for Android	5
Setup and Installation	5
System Requirements	5
Preparing View Connection Server for View Client on Tablets	6
Supported View Desktop Operating Systems	6
Install or Upgrade View Client for Android	6
Managing Server Connections and Desktops	7
Log In to a View Desktop for the First Time	7
Manage the Saved List of Servers	8
Log Off from a Desktop	9
Roll Back a Desktop	9
Remove a Shortcut from Recent Desktops	10
Using a Microsoft Windows Desktop on a Tablet	10
Feature Support Matrix	10
External Keyboards and Input Devices	11
Gestures and Navigation Aids	11
Settings for Multitasking	13
Screen Resolution for Using Projectors	13
Internationalization	14
Troubleshooting View Client	14
Uninstall the VMware View App	14
Reset a Desktop	15
Problem with Tunnel Connection When Using a Proxy	15
Index	17

Tech Preview

# Using VMware View Client for Android

---

This guide, *Using VMware View Client for Android*, provides information about installing and using VMware View™ software on an Android tablet to connect to a View desktop in the datacenter.

The information in this document includes system requirements and instructions for installing View Client for Android. This document also provides tips for improving the user experience of navigating and using Windows desktop elements on an Android tablet.

This information is intended for administrators who need to set up a VMware View deployment that includes Android client devices. The information is written for experienced system administrators who are familiar with virtual machine technology and datacenter operations.

## Setup and Installation

Setting up a View deployment for Android clients involves using certain View Connection Server configuration settings, meeting the system requirements for View servers and tablet clients, and installing the VMware View app from the Android Market.

## System Requirements

You can install View Client for Android on several kinds of tablets.

The Android tablet on which you install View Client, and the peripherals it uses, must meet certain system requirements.

<b>Android tablet model</b>	All major models of tablet that support Android 3 and later, including the Motorola Xoom, Samsung Galaxy Tab 10.1, Acer Iconia Tab, and LG G Slate.
<b>Operating systems</b>	Android 3 (Honeycomb) and later. On Cisco Cius tablets, Android 2.2 is supported.
<b>External keyboards</b>	(Optional) Bluetooth and docked keyboard devices. For information about the devices that your specific tablet supports, see the documentation from the tablet manufacturer.
<b>View Connection Server and View Agent</b>	4.6 and later
<b>Display protocol for VMware View</b>	PCoIP

## Preparing View Connection Server for View Client on Tablets

Administrators must perform specific tasks to enable tablet users to connect to View desktops.

Before end users can connect to View Connection Server or a security server and access a View desktop, you must configure certain pool settings and security settings:

- If you are using a security server, as VMware recommends, verify that you are using View Connection Server 4.6 and View Security Server 4.6 or later. See the *VMware View 4.6 Installation* documentation.
- If you plan to use a secure tunnel connection for tablet client devices and if the secure tunnel connection is configured with a DNS host name for View Connection Server or a security server, verify that the tablet can resolve this DNS name.

To enable or disable the secure tunnel, in View Administrator, go to the Edit View Connection Server Settings dialog box and use the check box called **Use secure tunnel connection to desktop**.

- Verify that a virtual desktop pool has been created and that the user account you plan to use is entitled to access this View desktop. See the topics about creating desktop pools in the *VMware View Administration* documentation.
- Verify that the desktop pool is set to use the PCoIP display protocol. See the *VMware View Administration* documentation.

## Supported View Desktop Operating Systems

Administrators create virtual machines with one of these guest operating systems and install View Agent in the guest operating system. End users can log in to these virtual machines from a client device.

**Table 1.** Supported Operating Systems for View Agent on Tablet Clients and Mac Clients

Guest Operating System	Version	Edition	Service Pack
Windows 7	64-bit and 32-bit	Enterprise and Professional	None and SP1
Windows XP	32-bit	Professional	SP3

**IMPORTANT** If you use Windows 7 in a virtual machine, the host must be ESX/ESXi 4.0 Update 2 or later, ESX/ESXi 4.1 Update 1 or later, or ESXi 5.0 or later.

## Install or Upgrade View Client for Android

View Client for Android is an Android application, and you install it just as you do other Android applications.

### Prerequisites

- If you have not already set up the tablet, do so. See the manufacturer's user's guide for your tablet.
- Tablets from different manufacturers use different methods for installing Android apps. Familiarize yourself with your tablet's procedure for installing apps. See the manufacturer's user's guide for your tablet. Depending on the tablet, you might need to perform the following tasks before you can install an app:
  - Install a particular driver.
  - Install a file browser.

## Procedure

- 1 Download the VMware View app from the Android Market.  
For some tablets, you download the file to the tablet. For others, you download the file to a PC or a USB device.
- 2 If necessary, copy the app (.apk file) to your tablet.
- 3 Install the app according to your tablet's customary procedure for installing apps.  
For example, on some tablets, you must tap the file to install it.
- 4 To determine that installation succeeded, verify that the **VMware View** application icon appears on one of the desktops of your Home screen.

## Managing Server Connections and Desktops

Use View Client to connect to View Connection Server or a security server, edit the list of servers you connect to, and log in to or off of a View desktop. For troubleshooting purposes, you can also reset a View desktop assigned to you and roll back a desktop you checked out.

Depending on how the administrator configures policies for View desktops, end users might be able to perform many operations on their desktops.

- [Log In to a View Desktop for the First Time](#) on page 7  
To log in from View Client on a tablet, you must specify a URL for View Connection Server and supply credentials for your user account.
- [Manage the Saved List of Servers](#) on page 8  
When you connect to a View Connection Server instance, the server description or IP address is saved to a list on your View Client Home page. You can easily remove servers from the list or change the description.
- [Log Off from a Desktop](#) on page 9  
If you are not connected to a View desktop and you want to log off without having to log in first, you can.
- [Roll Back a Desktop](#) on page 9  
Rolling back discards changes made to a virtual desktop that you checked out for use in local mode on a Windows PC or laptop.
- [Remove a Shortcut from Recent Desktops](#) on page 10  
After you log in to a View desktop, a shortcut for the recently used desktop is saved to the View Client home page. Use the context menu to remove a shortcut.

## Log In to a View Desktop for the First Time

To log in from View Client on a tablet, you must specify a URL for View Connection Server and supply credentials for your user account.

### Prerequisites

- Perform the administrative tasks described in [“Preparing View Connection Server for View Client on Tablets,”](#) on page 6.

- If you are outside the corporate network and are not using a security server to access the virtual desktop, verify that your tablet is set up to use a VPN connection and turn that connection on.

---

**IMPORTANT** VMware recommends using a security server rather than a VPN.

---

If your company has an internal wireless network that your tablet can use, you do not need to set up a VMware View security server or VPN connection.

- Verify that you have the fully qualified domain name (FQDN) or IP address of the server that provides access to the virtual desktop.
- If you plan to use embedded RSA SecurID software, verify that you have the correct CT-KIP URL and activation code. See [GUID-EA48E119-BB56-4F0F-A3EB-023CF85ECCBB#GUID-EA48E119-BB56-4F0F-A3EB-023CF85ECCBB](#).

### Procedure

- 1 Tap the **VMware View** application icon on the Home screen.
- 2 Tap the **Add View Connection Server** button, enter the name or IP address of View Connection Server or a security server, and tap **Connect**.

The default port for SSL connections is 443. The default port for non-SSL connections is 80. If View Connection Server is not configured to use the default port, enter the name or IP address of the server followed by **:port**.

- 3 If you are prompted a second time for RSA SecurID 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.

- 4 When prompted for user name and password, enter the Active Directory credentials of a user who is entitled to use at least one desktop pool, select a domain, and tap **Done**.
- 5 In the list of View desktops that appears, tap a desktop to connect to it.

After you log in to a desktop for the first time, a View desktop icon is saved to the View Client home screen. The next time you want to connect to the View desktop, you can tap the icon instead of entering the server's host name or IP address.

## Manage the Saved List of Servers

When you connect to a View Connection Server instance, the server description or IP address is saved to a list on your View Client Home page. You can easily remove servers from the list or change the description.

In View Client, whenever you enter a server name or IP address and tap **Connect**, the name or address is saved to a list. Even if you mistype the name or enter the wrong address, this information is saved. You can, however, easily delete or change the name or description by editing the list. If you do not enter a description, the server name or IP address becomes the default description.

### Procedure

- 1 On View Client Home screen, tap the plus (+) icon on the left side of the screen.
- 2 In the dialog box that appears, tap and hold a server name until a context menu appears.
- 3 Use the menu to delete or change the server name or description.



## Log Off from a Desktop

If you are not connected to a View desktop and you want to log off without having to log in first, you can.

If you are currently connected to and logged in to a View desktop, use the Windows **Start** menu to log off. After Windows logs you off, the desktop is disconnected and View Client closes.

If you disconnect from a View desktop without logging off, applications remain open on the View desktop.

### Prerequisites

- If files are open in the desktop, save and close them.
- This procedure assumes that you have logged in to the View desktop at least once from the tablet.

If you have not logged in at least once, familiarize yourself with the procedure [“Log In to a View Desktop for the First Time,”](#) on page 7.

### Procedure

- 1 On the View Client home page, in the Recent Desktops area, tap and hold the View desktop icon for the recently used desktop.
- 2 Select **Log Off** from the context menu.

## Roll Back a Desktop

Rolling back discards changes made to a virtual desktop that you checked out for use in local mode on a Windows PC or laptop.

You can roll back a View desktop only if your View administrator has enabled this feature and only if you checked out the desktop.



**CAUTION** If changes were made to the local mode desktop and those changes were not replicated back to the View server before rolling back, the changes are lost.

### Prerequisites

- Back up the desktop to the server to preserve data or files. You can use View Administrator to replicate data to the server, or, if the policy is set to allow it, you can use View Client with Local Mode on the Windows client where the desktop is currently checked out.
- This procedure assumes that you have logged in to the View desktop at least once from the tablet.

If you have not logged in at least once, familiarize yourself with the procedure [“Log In to a View Desktop for the First Time,”](#) on page 7.

### Procedure

- 1 On the View Client home page, in the Recent Desktops area, tap and hold the View desktop icon for the recently used desktop.
- 2 Select **Roll Back** from the context menu.

After the View desktop is rolled back, you can log in to it from the tablet.

## Remove a Shortcut from Recent Desktops

After you log in to a View desktop, a shortcut for the recently used desktop is saved to the View Client home page. Use the context menu to remove a shortcut.

### Procedure

- 1 On the View Client home page, in the **Recent Desktops** area, tap and hold the shortcut for the View desktop.
- 2 Select **Remove Shortcut** from the context menu.

## Using a Microsoft Windows Desktop on a Tablet

View Client on a tablet supports some of the features included in View Client for Windows. Some features have been added to aid in navigation specifically on a tablet.

- [Feature Support Matrix](#) on page 10  
View Client for Android supports a subset of the features available on other clients, such as the View Client for Windows desktops and laptops.
- [External Keyboards and Input Devices](#) on page 11  
View Client for Android supports Bluetooth and docked keyboard devices.
- [Gestures and Navigation Aids](#) on page 11  
VMware has created user interaction aids to help you navigate conventional Windows user interface elements on a tablet.
- [Settings for Multitasking](#) on page 13  
You can configure how long View Client runs in the background.
- [Screen Resolution for Using Projectors](#) on page 13  
When you connect the tablet to an external display or projector, View Client supports certain maximum display resolutions.
- [Internationalization](#) on page 14  
The user interface for View Client for Android is available only in English. You can input characters for the following languages: English, Japanese, French, German, and Simplified Chinese.

## Feature Support Matrix

View Client for Android supports a subset of the features available on other clients, such as the View Client for Windows desktops and laptops.

**Table 2.** Features Supported on Windows Desktops for Android View Clients

Feature	Windows 7 View Desktop	Windows XP View Desktop
RSA SecurID	Yes	Yes
Single sign-on	Yes	Yes
RDP display protocol		
PCoIP display protocol	Yes	Yes
USB access		
Wyse MMR		
Virtual printing		
Smart cards		

**Table 2.** Features Supported on Windows Desktops for Android View Clients (Continued)

Feature	Windows 7 View Desktop	Windows XP View Desktop
Multiple monitors		
Local mode		

For descriptions of these features and their limitations, see the *View Architecture Planning* document.

## External Keyboards and Input Devices

View Client for Android supports Bluetooth and docked keyboard devices.

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

For Cisco Cius tablets, you can use a USB keyboard and a USB mouse.

External keyboards are sometimes automatically detected by View Client. For some external keyboards, you must either tap the tablet screen with three fingers at the same time or you must tap the **Keyboard** button on the View Client toolbar.

After the external keyboard is detected, you might not be able to use the View Client toolbar or three-finger tap to display the onscreen keyboard. You might first need to deactivate the external keyboard by pressing its Eject key.

### Known limitation

Several keys on external keyboards do not work with a View desktop: Function keys, Ctrl, Alt, Command, and arrow keys.

Workaround: Use the onscreen Ctrl and function keys. To tap a combination of these keys, such as Ctrl+Alt+Delete, first tap the onscreen Ctrl key. After it turns blue, tap the onscreen Alt key. After it also turns blue, press the Delete key.

### International keyboards

With the correct input methods installed, you can input characters for the following languages: English, Japanese, French, German, and Simplified Chinese.

## Gestures and Navigation Aids

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

### View Client toolbar

This toolbar has buttons you can tap to display the onscreen keyboard, the virtual touchpad, configuration options, and a virtual keypad for arrow keys and Page Up and Page Down keys.

To display the toolbar on an Android table, tap the grid icon in the status bar at the bottom of the screen.

### Onscreen keyboard

The onscreen keyboard in a View desktop has more keys than the standard tablet onscreen keyboard. For example, Control keys and function keys are available. To display the onscreen keyboard:

- On the **View Client** toolbar, tap the **Keyboard** button.
- Tap the tablet screen with three fingers at the same time.

Even if you use an external keyboard, a one-row onscreen keyboard still appears and contains function keys, and the Ctrl, Alt, Win, and arrow keys. The Ctrl, Alt, Command, arrow keys, and function keys on external keyboards do not work with View desktops.

### **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, if you type a character and 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.

Also use this feature for entering Korean characters or characters from other languages that require multi-stage IME support.

### **Navigation keys**

Tap the **Ctrl/Page** icon on the View Client toolbar or onscreen keyboard to display the navigation keys. These keys let you page up and down and contain 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.

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+Del, first tap the onscreen Ctrl key. After it turns blue, tap the onscreen Alt key. After it also turns blue, tap the Del key.

### **Onscreen touchpad**

The virtual touchpad resembles a touchpad on a laptop computer.

- You can use the onscreen touchpad for single-clicking and double-clicking.
- The touchpad also contains left-click and right-click buttons.
- Moving your finger around the touchpad creates a mouse pointer that moves around the View desktop.
- You can tap with two fingers and then drag to scroll vertically.

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

To adjust how quickly the pointer moves when you use the touchpad, use the View Client toolbar to display the Options dialog box, and drag the slider in the **Touchpad Sensitivity** option.

### **Clicking**

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

### **Right-clicking**

A couple of options are available for right-clicking.

- Use the View Client toolbar to display the touchpad and use the touchpad's right-click button.
- Tap with two fingers at nearly the same time. The right-click occurs where the first finger tapped.

**Scrolling and scrollbars**

Several options are available for vertical scrolling.

- On the tablet screen, tap with two fingers and then drag to scroll. The text under your fingers moves in the same direction as your fingers.
- Use the View Client toolbar 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 tablet applications, pinch your fingers together or apart to zoom.

**Window resizing**

Using the virtual touchpad, press 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 tablet, you can play audio in a View desktop.

**Settings for Multitasking**

You can configure how long View Client runs in the background.

In a WiFi network, by default View Client runs in the background indefinitely. In a 3G network, by default, to avoid unnecessary expense, the connection to the desktop is dropped immediately when you switch to a different app.

You can, however, configure whether View Client runs in the background indefinitely. In the View Client toolbar, tap **Options** and tap to select or deselect **Disconnect when switching apps**.

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

You can copy and paste plain text between a tablet application and a View desktop or between two View desktops. Formatting information is not copied.

- Text that you copy to your tablet's Clipboard is automatically copied to your View desktop's Clipboard when you log in to the View desktop.
- If you are logged in to a View desktop, text that you copy to the View desktop's Clipboard is copied to your tablet's Clipboard when you press the Home button or switch to the background.

**Screen Resolution for Using Projectors**

When you connect the tablet to an external display or projector, View Client supports certain maximum display resolutions.

- On Android 3 tablets, the supported maximum resolution is 1280 x 800 pixels.
- On Android 2.2 Cisco Cius tablets, the supported maximum resolution is 1024 x 600 pixels. Changing the screen resolution is not supported for View Client on Cisco Cius tablets.

## Internationalization

The user interface for View Client for Android is available only in English. You can input characters for the following languages: English, Japanese, French, German, and Simplified Chinese.

## Troubleshooting View Client

You can solve most problems with View Client by resetting the desktop or by reinstalling the VMware View app.

### Problem

The VMware View application does not work or repeatedly exits unexpectedly or the View desktop freezes.

### Cause

Assuming that VMware View servers are configured properly and that firewalls surrounding them have the correct ports open, other issues usually relate to the VMware View application on the tablet or to the guest operating system on the View desktop.

### Solution

- If the operating system in the View desktop freezes, use View Client on the tablet to reset the desktop. This option is available only if your administrator has enabled this feature.
- Uninstall and reinstall the VMware View application on the tablet.
- If resetting the View desktop and reinstalling the VMware View app do not help, you can reset the Android tablet, as described in the user guide for your Android tablet.
- If you get 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 operating system inside the View desktop, see [“Reset a Desktop,”](#) on page 15.

## Uninstall the VMware View App

Sometimes if you are having problems with View Client you can resolve the issue by uninstalling and reinstalling the VMware View app.

You uninstall View Client just as you would any Android app.

### Procedure

- 1 On your tablet, go to **Apps** and browse to the **VMware View** app.
- 2 Tap and hold the **VMware View** icon until the **Uninstall** icon appears in the upper-right corner of your tablet.
- 3 Drag the **VMware View** icon to the **Uninstall** trash can icon.

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

### What to do next

Reinstall View Client.

See [“Install or Upgrade View Client for Android,”](#) on page 6.

## Reset a Desktop

Resetting shuts down and restarts the desktop. Unsaved data is lost.

Resetting a View desktop is the equivalent of pressing the Reset button on a physical PC to force the PC to restart.

You can reset the desktop only if your View administrator has enabled this feature.

### Prerequisites

- If files are open in the desktop, save and close them.
- This procedure assumes that you have logged in to the View desktop at least once from the tablet.

If you have not logged in at least once, familiarize yourself with the procedure [“Log In to a View Desktop for the First Time,”](#) on page 7.

### Procedure

- 1 On the View Client home page, in the Recent Desktops area, tap and hold the View desktop icon for the recently used desktop.
- 2 Select **Reset** from the context menu.

## Problem with Tunnel Connection When Using a Proxy

Sometimes if you attempt to connect to View Connection Server using a proxy while on the LAN, an error occurs.

### Problem

If the View environment is set up to use a secure tunnel connection from the View desktop to View Connection Server and if the tablet is configured to use an HTTP proxy, you might not be able to connect.

### Cause

Unlike Windows Internet Explorer, the tablet 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 View Connection Server using an internal address, you might see the error message `Could not establish tunnel connection`.

### Solution

- ◆ Remove the proxy settings so that the tablet no longer uses a proxy.

Tech Preview



# Index

## A

- Android, installing View Client on **5**
- Android Market **5, 6**
- Android Marketplace **14**
- Android View Client, uninstalling **14**

## B

- background multitasking **13**

## D

- desktop
  - log off from **9**
  - reset **15**
  - roll back **9**
- disconnect **9**
- display requirements, iPad **13**

## F

- feature support matrix **10**

## H

- hardware requirements, Android tablets **5**

## I

- input devices for the Android **11**

## K

- keyboard
  - navigation keys **11**
  - onscreen **11**
- keyboard support **11**
- keys, navigation **11**

## L

- log off **9**
- logging in
  - to a desktop **7**
  - to a server **7**

## M

- multitasking **13**

## N

- navigation keys **11**

## O

- operating systems, supported on View Agent **6**
- options, configuration **11**

## P

- prerequisites for using tablets as client devices **6**
- proxy connections **15**

## R

- Recent Desktops shortcuts **10**
- reset a desktop **15**
- resizing windows **11**
- resolution, screen **13**
- roll back desktop **9**
- running in the background **13**

## S

- screen resolution **13**
- scrolling **11**
- security servers, PCoIP connections to **7**
- server connections **7, 8**
- shortcut, Recent Desktops **10**
- system requirements, for Android tablets **5**

## T

- tablet gestures **11**
- toolbar, View Client **11**
- touchpad, virtual **11**
- troubleshooting, connection problems **15**
- tunnel connection problems **15**

## V

- View Agent, installation requirements **6**
- View Client
  - log in from a tablet **7**
  - setup for Android tablets **5**
  - system requirements for Android tablets **5**
  - troubleshooting on an iPad **14**
- View Client for Android
  - installing **6**
  - uninstalling **14**
- View Client for tablets, logging in **6**
- View desktop **10**

Tech Preview