
Amazon WorkSpaces

User Guide

Version 1.0



Amazon WorkSpaces: User Guide

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Getting Started with Your WorkSpace

After your administrator creates your WorkSpace, you'll receive an invitation email. Complete the following tasks to get started with your WorkSpace.

Tasks

- [Complete Your User Profile \(p. 1\)](#)
- [Choose a Client \(p. 2\)](#)
- [Verify Networking Requirements \(p. 2\)](#)
- [\(Optional\) Synchronize to WorkDocs \(p. 2\)](#)

Complete Your User Profile

After your administrator creates your WorkSpace, you must complete your user profile within seven days; otherwise, your invitation expires. If your invitation expires, ask your administrator for another invitation.

To complete your user profile

1. Open the link in the invitation email.
2. Type your password. Passwords are case-sensitive and must be between 8 and 64 characters in length, inclusive. Passwords must contain at least one character from three of the following categories:
 - Lowercase characters (a-z)
 - Uppercase characters (A-Z)
 - Numbers (0-9)
 - Non-alphanumeric characters (~!@#\$%^&* _-+= `| \(){}[]:;'"<> ,.?!/)
3. Choose **Update User**

Note that you can change your password later on from within your WorkSpace. Press Ctrl+Alt+Del, choose **Change a password**, and follow the directions.

Choose a Client

You can connect to your WorkSpace using the client application for a supported device or a web browser. To run the Amazon WorkSpaces client application, you must have a PC, Mac, iPad, Kindle, Android tablet, or Chromebook. To run Amazon WorkSpaces Web Access, you must have a PC or Mac running a Chrome or Firefox web browser.

For information about connecting to your WorkSpace, see the following client documentation.

- [Android Client Application \(p. 3\)](#)
- [Chromebook Client Application \(p. 8\)](#)
- [iPad Client Application \(p. 10\)](#)
- [OS X Client Application \(p. 16\)](#)
- [PCoIP Zero Client \(p. 19\)](#)
- [Web Access \(p. 20\)](#)
- [Windows Client Application \(p. 21\)](#)

Verify Networking Requirements

To ensure a good experience with your WorkSpace, verify that your client device meets the networking requirements.

To verify networking requirements

1. Open your Amazon WorkSpaces client. If this is the first time you have opened the client, you are prompted to type the registration code that you received in the invitation email.
2. Choose **Network** in the lower right corner of the client application. The client application tests the network connection, ports, and round trip time and reports the results of these tests.
3. Choose **Dismiss** to return to the sign in page.

(Optional) Synchronize to WorkDocs

Amazon WorkDocs provides a synchronization client application that you can install to continuously, automatically, and securely back up documents from your WorkSpaces to Amazon WorkDocs. For more information, see [Amazon WorkDocs Sync Client](#) in the *Amazon WorkDocs Administration Guide*.

Amazon WorkSpaces Clients

You can connect to your WorkSpace using the client application for a supported device or a web browser.

Most keyboards and pointing devices are supported by the Amazon WorkSpaces client applications. This includes many different types of USB and Bluetooth input devices. If you encounter an issue with a particular device, report the problem at <https://console.aws.amazon.com/support/home#/>. Other locally attached peripherals, such as storage devices, are not supported.

Clients

- [Android Client Application \(p. 3\)](#)
- [Chromebook Client Application \(p. 8\)](#)
- [iPad Client Application \(p. 10\)](#)
- [OS X Client Application \(p. 16\)](#)
- [PCoIP Zero Client \(p. 19\)](#)
- [Web Access \(p. 20\)](#)
- [Windows Client Application \(p. 21\)](#)

Amazon WorkSpaces Android Client Application

The following information will help you get started with the Amazon WorkSpaces Android client application.

Contents

- [Requirements \(p. 4\)](#)
- [Setup and Installation \(p. 4\)](#)
- [Connecting to Your WorkSpace \(p. 4\)](#)
- [Gestures \(p. 4\)](#)
- [Radial Menu \(p. 5\)](#)
- [Keyboard \(p. 7\)](#)
- [Mouse Modes \(p. 7\)](#)
- [Disconnect \(p. 8\)](#)
- [Release Notes \(p. 8\)](#)

Requirements

The Amazon WorkSpaces Android client application requires the following:

- Amazon Kindle Fire tablets released after 2012 with Fire OS 4.0 and later
- Samsung or Nexus tablets with Android OS 4.2 and later. The client application works on most tablets with Android version 4.2 or later, but some devices might not be compatible. If you have problems with a device, you can report the problem on the [Amazon WorkSpaces forum](#).

Setup and Installation

To download and install the client application, complete the following procedure.

To download and install the client application

1. On your tablet, open <http://clients.amazonworkspaces.com/> and choose the link for your tablet.
2. Download and install the application.
3. Verify that the Amazon WorkSpaces client application icon appears on one of the tablet desktops.

Connecting to Your Workspace

To connect to your Workspace, complete the following procedure.

To connect to your Workspace

1. On your tablet, open the Amazon WorkSpaces client application.
2. The first time that you run the client application, you are prompted for your registration code, which is contained in your welcome email. The Amazon WorkSpaces client application uses the registration code and username to identify which Workspace to connect to. When you launch the client application later, the same registration code is used. You can enter a different registration code by launching the client application and tapping **Enter new registration code** on the login screen.
3. Enter your username and password and tap **Sign In**. If your Amazon WorkSpaces administrator has enabled multi-factor authentication for your organization's WorkSpaces, you are prompted for a passcode to complete your login. Your Amazon WorkSpaces administrator will provide more information about how to obtain your passcode.
4. If your Amazon WorkSpaces administrator has not disabled the "Remember Me" feature, you are prompted to save your credentials securely so that you can connect to your Workspace easily in the future. Your credentials will be securely cached up to the maximum lifetime of your Kerberos ticket.

After the client application connects to your Workspace, your Workspace desktop is displayed.

(Optional) If your Workspace uses an AD Connector directory, you can update the maximum lifetime of the Kerberos ticket by following the steps in [Configuring Kerberos Policies](#) in the Microsoft TechNet Library. If you need to disable the "Remember Me" feature, search for help in the [Amazon WorkSpaces forum](#).

Gestures

The following are the gestures that are supported for the Amazon WorkSpaces Android client application.

Single tap

Equivalent to a single click in Windows.

Double tap

Equivalent to a double click in Windows.

Two finger single tap

Equivalent to a right-click in Windows.

Two finger double tap

Toggles the on-screen keyboard display.

Swipe from left

Displays the radial menu. For more information, see [Radial Menu \(p. 5\)](#)

Two finger scroll

Scrolls vertically.

Two finger pinch

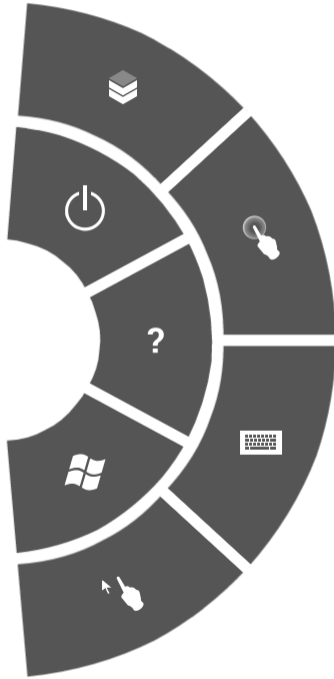
Zooms display in or out.

Two finger pan

Pans the desktop when zoomed in.

Radial Menu

The radial menu is displayed by swiping from the left side of the screen.



The radial menu provides quick access to the following features:



Connection Status

Displays the connection status.



Disconnect

Allows you to disconnect the client application without logging off.



Direct Mouse Mode

Sets the input to direct mouse mode. For more information, see [Mouse Modes \(p. 7\)](#).



Help

Displays the command and gesture tutorial.



Keyboard

Toggles the display of the on-screen keyboard.



Windows Start Menu

Displays the Windows Start Menu.



Offset Mouse Mode

Sets the input to offset mouse mode. For more information, see [Mouse Modes \(p. 7\)](#).

Keyboard

To toggle the display of the on-screen keyboard, double-tap with two fingers anywhere on the screen. Special key combinations are displayed in the top row of the keyboard.

Mouse Modes

The mouse mode is set using the [radial menu \(p. 5\)](#).

Direct Mode

In direct mouse mode, the mouse cursor is placed wherever you tap your finger. In this mode, a single tap is equivalent to a left mouse button click and a two finger single tap is equivalent to a right mouse button click.

Offset Mode

In offset mouse mode, the mouse cursor tracks the movement of your finger on the screen. In this mode, simulate a left mouse button click by tapping the left mouse button icon.



Simulate a right mouse button click by tapping the right mouse button icon.



Disconnect

To disconnect the Android client, display the radial menu, tap the disconnect icon, and tap **Disconnect**. You can also log off the WorkSpace, which disconnects the client.

Release Notes

The following table describes the changes to each release of the Android client application.

Release	Changes
2.2.0	<ul style="list-style-type: none"> Added support for the German language Improved the Japanese UI Improved stability
2.1.0	<ul style="list-style-type: none"> Added support for new WorkSpace states STOPPING and STOPPED Added support for audio in, enabling you to make calls or attend web conferences Fixed minor bugs and improved stability
2.0.0	<ul style="list-style-type: none"> Added support to save registration codes, enabling you to switch WorkSpaces without re-entering the registration codes Improved usability and stability
1.0.15	<ul style="list-style-type: none"> Added advanced connection health checks, enabling you to troubleshoot connection issues Improved stability
1.0.11	<ul style="list-style-type: none"> Improved the UI and login experience Added support to choose screen resolution Added support to choose scrolling direction
1.0.10	<ul style="list-style-type: none"> Improved the login experience Added timezone synchronization between the local device and the WorkSpace
1.0.9	Improved the login experience
1.0	Initial release

Amazon WorkSpaces Chromebook Client Application

The following information will help you get started with the Amazon WorkSpaces Chromebook client application.

Contents

- [Requirements \(p. 9\)](#)
- [Setup and Installation \(p. 9\)](#)

- [Connecting to Your Workspace \(p. 9\)](#)
- [Gestures \(p. 10\)](#)
- [Release Notes \(p. 10\)](#)

Requirements

The Amazon WorkSpaces Chromebook client application requires a Chromebook with Chrome OS version 45 or later.

The client application works on most Chromebooks with version 45 or later, but some devices might not be compatible. If you have problems with a device, you can report the problem on the [Amazon WorkSpaces forum](#).

To check the version of Chrome OS, click the status area, where your account picture appears. Click **Settings, About Chrome OS**.

Setup and Installation

To download and install the client application, complete the following procedure.

To download and install the client application

1. On your Chromebook, open <http://clients.amazonworkspaces.com/> and choose the link for your Chromebook.
2. Download and install the application.
3. Verify that the Amazon WorkSpaces client application icon appears in your Chromebook search.

Connecting to Your Workspace

To connect to your Workspace, complete the following procedure.

To connect to your Workspace

1. On your Chromebook, open the Amazon WorkSpaces client application.
2. The first time that you run the client application, you are prompted for your registration code, which is contained in your welcome email. The Amazon WorkSpaces client application uses the registration code and user name to identify which Workspace to connect to. When you launch the client application later, the same registration code is used. You can enter a different registration code by launching the client application and choosing **Enter new registration code** on the login screen.
3. Type your user name and password and choose **Sign In**. If your Amazon WorkSpaces administrator has enabled multi-factor authentication for your organization's WorkSpaces, you are prompted for a passcode to complete your login. Your Amazon WorkSpaces administrator will provide more information about how to obtain your passcode.
4. If your Amazon WorkSpaces administrator has not disabled the "Remember Me" feature, you are prompted to save your credentials securely so that you can connect to your Workspace easily in the future. Your credentials are securely cached while the application is running.

After the client application connects to your Workspace, your Workspace desktop is displayed.

(Optional) If your Workspace uses an AD Connector directory, you can update the maximum lifetime of the Kerberos ticket by following the steps in [Configuring Kerberos Policies](#) in the Microsoft

TechNet Library. If you need to disable the "Remember Me" feature, search for help in the [Amazon WorkSpaces forum](#).

Gestures

The following are the gestures that are supported for the Amazon WorkSpaces Chromebook client application.

Single tap

Equivalent to a single click in Windows.

Double tap

Equivalent to a double click in Windows.

Two finger single tap

Equivalent to a right-click in Windows.

Two finger scroll

Scrolls vertically.

Release Notes

The following table describes the changes to each release of the Chromebook client application.

Release	Changes
2.2.1	<ul style="list-style-type: none">• Added support for the German language• Improved the Japanese UI• Improved stability
2.1.3	<ul style="list-style-type: none">• Added support for new Workspace states STOPPING and STOPPED• Added support for audio in, enabling you to make calls or attend web conferences• Fixed minor bugs and improved stability
2.0.0	<ul style="list-style-type: none">• Added support to save registration codes, enabling you to switch WorkSpaces without re-entering the registration codes• Improved usability and stability
1.0	Initial release

Amazon WorkSpaces iPad Client Application

The following information will help you get started with the Amazon WorkSpaces iPad client application.

Contents

- [Requirements \(p. 11\)](#)
- [Setup and Installation \(p. 11\)](#)
- [Connecting to Your WorkSpace \(p. 11\)](#)
- [Gestures \(p. 12\)](#)
- [Radial Menu \(p. 12\)](#)
- [Keyboard \(p. 14\)](#)
- [Mouse Modes \(p. 14\)](#)
- [Disconnect \(p. 15\)](#)
- [Release Notes \(p. 15\)](#)

Requirements

The Amazon WorkSpaces iPad client application requires the following:

- iPad 2 or later with iOS 7.0 or later
- iPad Retina with iOS 7.0 and later
- iPad Mini with iOS 7.0 and later
- iPad Pro with iOS 9.0 and later

Setup and Installation

To download and install the client application, complete the following procedure.

To download and install the client application

1. On your iPad, search the App Store for the Amazon WorkSpaces client application.
2. Download and install the application.
3. Verify that the Amazon WorkSpaces client application icon appears on one of the iPad desktops.

Connecting to Your WorkSpace

To connect to your WorkSpace, complete the following procedure.

To connect to your WorkSpace

1. On your iPad, open the Amazon WorkSpaces client application.
2. The first time that you run the client application, you are prompted for your registration code, which is contained in your welcome email. The Amazon WorkSpaces client application uses the registration code and username to identify which WorkSpace to connect to. When you launch the client application later, the same registration code is used. You can enter a different registration code by launching the client application and choosing **Enter new registration code** on the login screen.
3. Enter your username and password and choose **Sign In**. If your Amazon WorkSpaces administrator has enabled multi-factor authentication for your organization's WorkSpaces, you are prompted for a passcode to complete your login. Your Amazon WorkSpaces administrator will provide more information about how to obtain your passcode.

4. If your Amazon WorkSpaces administrator has not disabled the "Remember Me" feature, you are prompted to save your credentials securely so that you can connect to your WorkSpace easily in the future. Your credentials will be securely cached up to the maximum lifetime of your Kerberos ticket.

After the client application connects to your WorkSpace, your WorkSpace desktop is displayed.

(Optional) If your WorkSpace uses an AD Connector directory, you can update the maximum lifetime of the Kerberos ticket by following the steps in [Configuring Kerberos Policies](#) in the Microsoft TechNet Library. If you need to disable the "Remember Me" feature, search for help in the [Amazon WorkSpaces forum](#).

Gestures

The following are the gestures that are supported for the Amazon WorkSpaces iPad client application.

Single tap

Equivalent to a single click in Windows.

Double tap

Equivalent to a double click in Windows.

Two finger single tap

Equivalent to a right-click in Windows.

Two finger double tap

Toggles the on-screen keyboard display.

Swipe from left

Displays the radial menu. For more information, see [Radial Menu \(p. 12\)](#)

Two finger scroll

Scrolls vertically.

Two finger pinch

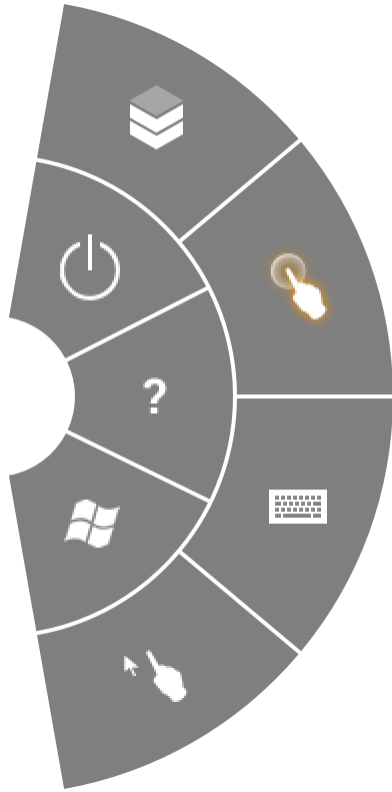
Zooms display in or out.

Two finger pan

Pans the desktop when zoomed in.

Radial Menu

The radial menu is displayed by swiping from the left side of the screen.



The radial menu provides quick access to the following features:



Connection Status

Displays the connection status.



Disconnect

Allows you to disconnect the client application without logging off.



Direct Mouse Mode

Sets the input to direct mouse mode. For more information, see [Mouse Modes \(p. 14\)](#).



Help

Displays the command and gesture tutorial.



Keyboard

Toggles the display of the on-screen keyboard.



Windows Start Menu

Displays the Windows Start Menu.



Offset Mouse Mode

Sets the input to offset mouse mode. For more information, see [Mouse Modes \(p. 14\)](#).

Keyboard

To toggle the display of the on-screen keyboard, double-tap with two fingers anywhere on the screen. Special key combinations are displayed in the top row of the keyboard.

Mouse Modes

The mouse mode is set using the [radial menu \(p. 12\)](#).

Direct Mode

In direct mouse mode, the mouse cursor is placed wherever you tap your finger. In this mode, a single tap is equivalent to a left mouse button click and a two finger single tap is equivalent to a right mouse button click.

Offset Mode

In offset mouse mode, the mouse cursor tracks the movement of your finger on the screen. In this mode, simulate a left mouse button click by tapping the left mouse button icon.



Simulate a right mouse button click by tapping the right mouse button icon.



Disconnect

To disconnect the iPad client, display the radial menu, tap the disconnect icon, and tap **Disconnect**. You can also log off the WorkSpace, which disconnects the client.

Release Notes

The following table describes the changes to each release of the iPad client application.

Release	Changes
2.2.0	<ul style="list-style-type: none">• Added support for audio session management, enabling you to play music in the background while using WorkSpaces• Added support for the German language• Added support for local IPv6 networking
2.1.0	<ul style="list-style-type: none">• Added support for new WorkSpace states STOPPING and STOPPED• Fixed minor bugs and improved stability
2.0.0	<ul style="list-style-type: none">• Added support to save registration codes, enabling you to switch WorkSpaces without re-entering the registration codes• Fixed an issue with arrow key support on Bluetooth keywords• Fixed an issue with Bluetooth keyboards inadvertently activating the on-screen shortcut bar• Improved usability and stability
1.1	<ul style="list-style-type: none">• Added advanced connection health checks, enabling you to troubleshoot connection issues• Improved stability
1.0.11	Improved stability on iOS 8
1.0.10	Improved stability
1.0.9	<ul style="list-style-type: none">• Improved the UI and login experience• Added support to choose screen resolution• Added support to choose scrolling direction
1.0.8	<ul style="list-style-type: none">• Improved error messages• Improved the Bluetooth keyboard experience

Release	Changes
	<ul style="list-style-type: none">Improved scrolling experience
1.0.7	Improved the login experience
1.0.6	Improved the login experience
1.0.5	<ul style="list-style-type: none">Improved the login experienceImproved network connectivity
1.0.4	Improved the login experience
1.0.3	Improved the login experience
1.0.2	<ul style="list-style-type: none">Added connection health checksFix for iPad Air and iPad mini
1.01	Improved radial functionality
1.0	Initial release

Amazon WorkSpaces OS X Client Application

The following information will help you get started with the Amazon WorkSpaces OS X client application.

Contents

- [Requirements \(p. 16\)](#)
- [Setup and Installation \(p. 16\)](#)
- [Connecting to Your Workspace \(p. 16\)](#)
- [Client Views \(p. 17\)](#)
- [Client Language \(p. 17\)](#)
- [Proxy Server \(p. 17\)](#)
- [Command Shortcuts \(p. 18\)](#)
- [Release Notes \(p. 18\)](#)

Requirements

The Amazon WorkSpaces OS X client application requires Mac OS X 10.8.1 or later.

Setup and Installation

Download and install the Amazon WorkSpaces OS X client from [Amazon WorkSpaces Client Downloads](#).

Connecting to Your Workspace

To connect to your Workspace, complete the following procedure.

To connect to your Workspace

- The first time that you run the client application, you are prompted for your registration code, which is contained in your welcome email. The Amazon WorkSpaces client application uses the

registration code and username to identify which WorkSpace to connect to. When you launch the client application later, the same registration code is used. You can enter a different registration code by launching the client application and choosing **Options, Register** in the upper-left corner on the login screen menu.

2. Enter your username and password in the login screen and choose **Sign In**. If your Amazon WorkSpaces administrator has enabled multi-factor authentication for your organization's WorkSpaces, you are prompted for a passcode to complete your login. Your Amazon WorkSpaces administrator will provide more information about how to obtain your passcode.
3. If your Amazon WorkSpaces administrator has not disabled the "Remember Me" feature, you are prompted to save your credentials securely so that you can connect to your WorkSpace easily while the client application remains running. Your credentials are securely cached up to the maximum lifetime of your Kerberos ticket.

After the client application connects to your WorkSpace, your WorkSpace desktop is displayed.

4. (Optional) If your WorkSpace uses an AD Connector directory, you can update the maximum lifetime of the Kerberos ticket by following the steps in [Configuring Kerberos Policies](#) in the Microsoft TechNet Library. If you need to disable the "Remember Me" feature, search for help in the [Amazon WorkSpaces forum](#).

An interruption of network connectivity causes an active session to be disconnected. This can be caused by events such as closing the laptop lid, or the loss of your wireless network connection. The Amazon WorkSpaces client application for OS X attempts to reconnect the session automatically if network connectivity is regained within a certain amount of time. The default session resume timeout is 20 minutes, but this timeout may be modified by your network administrator through your domain's Group Policy settings.

Client Views

You can switch to full screen mode by choosing **View, Show Fullscreen** in the client application menu.

While in full screen mode, you can switch back to window mode by moving the mouse cursor to the top of the screen. The client application menu is displayed, and you can choose **View, Exit Fullscreen** in the client application menu.

Client Language

You can select the language displayed by the client by performing the following steps.

Note

In the client, Japanese is available in all regions. However, Japanese is only available in Tokyo for individual WorkSpaces.

To select the client language

1. In the Amazon WorkSpaces client application, open the **Advanced Settings** dialog box.
2. Enter your desired language in the **Select a language** list and choose **Save**.
3. Restart the client.

Proxy Server

If your network requires you to use a proxy server to access the Internet, you can enable the Amazon WorkSpaces client application to use a proxy for HTTPS (port 443) traffic. Proxy with authentication is not currently supported.

Note

The Amazon WorkSpaces client applications use the HTTPS port for updates, registration, and authentication. The desktop streaming connections to the WorkSpace require port 4172 to be enabled, and do not go through the proxy server.

To use a proxy server

1. In the Amazon WorkSpaces client application, open the **Advanced Settings** dialog box.
2. In the **Proxy Server Setting** area, check **Use Proxy Server**, enter the proxy server address and port, and choose **Save**.

Command Shortcuts

The Amazon WorkSpaces OS X client supports the following command shortcuts:

- Control+Option+Return—Toggle fullscreen display
- Control+Option+F12—Disconnect session

Release Notes

The following table describes the changes to each release of the OS X client application.

Release	Changes
2.3.1	Minor fixes
2.3.0	<ul style="list-style-type: none">• Improved the support for multiple monitors• Improved security and stability
2.2.3	Fixed minor bugs and improved stability
2.2.1	<ul style="list-style-type: none">• Added support for the German language• Fixed the timezone mapping for some regions• Fixed a connection issue on Russian systems• Improved the Japanese UI• Improved stability
2.1.4	Fixed a crash issue on MacOS Sierra
2.1.3	Closing the client expires the reconnect token. You can easily reconnect to your WorkSpace as long as the client is running.
2.1.0	<ul style="list-style-type: none">• Added support for new WorkSpace states STOPPING and STOPPED• Fixed minor bugs and improved stability
2.0.8	<ul style="list-style-type: none">• Fixed an issue with out-of-app keyboard input passing to WorkSpaces• If Remember Me is disabled, the username is not shown on restart• Added a confirmation dialog when deleting a registration code.• Improved stability

Release	Changes
2.0.4	<ul style="list-style-type: none"> Added support for audio in, enabling you to make calls or attend web conferences Added support for devices with high DPI screens Added support to save registration codes, enabling you to switch WorkSpaces without re-entering the registration codes Improved support for Mac OS X El Capitan Improved usability and stability
1.1.80	<ul style="list-style-type: none"> Added CloudWatch metrics for session latency, session launch time, and session disconnects Improved auto session resume to interrupt you less frequently when network conditions are degraded Fixed fixes and improved stability
1.1.6	<ul style="list-style-type: none"> Added support for status notifications. The client application notifies you about the state of your WorkSpace when it cannot to the WorkSpace. Improved the reconnect experience. The client automatically redirects to the login screen after 10 hours of inactivity. You can reconnect again if the client fails to launch a session using reconnect. Added support for auto session resume. The client application automatically attempts to resume your session if network connectivity is lost and then regained within the session resume timeout (default value is 20 minutes). Improved network health checks so they are faster and more reliable Added client-side validation of registration codes Improved synchronization of Caps Lock and Num Lock status between the local device and the WorkSpace
1.1.4	<ul style="list-style-type: none"> Added support to save your credentials, enabling you to easily reconnect to your WorkSpace Improved advanced connection health checks Improved stability
1.0.8	<ul style="list-style-type: none"> Introduced a full-file installation package Improved network connectivity checks Added version information to the About window
1.0	Initial release

PCoIP Zero Client

You can set up and use a PCoIP zero client device with Amazon WorkSpaces. For more information, see *Connecting to Amazon WorkSpaces Desktops* in the [PCoIP Connection Manager User Guide](#).

Requirements

To use a PCoIP zero client with Amazon WorkSpaces, you need the following:

- An EC2 instance with Teradici PCoIP Connection Manager for Amazon WorkSpaces. This is set up by your Amazon WorkSpaces administrator. Your administrator provides you with the server URI you need to connect to your WorkSpace.
- A Tera2 zero client device that has firmware version 4.6.0 or later.

Set Up the Zero Client Connection

Before you connect your zero client device to your WorkSpace for the first time, you might need to change some settings. Your Amazon WorkSpaces administrator can provide you with additional setup instructions that are needed for your particular environment.

Session Connection

To set the session connection

1. From the PCoIP zero client device, choose **Options, Configuration, and Session**.
2. If the page is locked, choose **Unlock** and enter your zero client password (if required).
3. For **Connection Type**, choose **PCoIP Connection Manager**.
4. For **Server URI**, copy the server URI provided by your administrator, and then choose **OK**.

Connect to Your WorkSpace

To connect to your WorkSpace

1. From the PCoIP zero client device, choose **PCoIP Connection Manager for Amazon WorkSpaces for Server**, and then choose **Connect**.
2. On the login page, type your Amazon WorkSpaces user name and password, and choose **Login**.

Disconnect from the Zero Client

To disconnect the zero client from your WorkSpace, you can press Ctrl+Alt+F12. Alternatively, you can log off the WorkSpace, which disconnects the client.

Amazon WorkSpaces Web Access

Users can access their WorkSpaces from any location using a web browser. This is ideal for users who must use a locked-down device or restrictive network. Instead of using a traditional remote access solution and installing the appropriate client application, users can visit the website to access their work resources.

Website

If you have Amazon WorkSpaces Web Access enabled, open [Amazon WorkSpaces Web Access](#) to log on to your WorkSpace through your web browser.

Requirements

The following operating systems are supported:

- Windows
- Mac
- Linux

The following web browsers are supported:

- Chrome 53 and later
- Firefox 49 and later

You must have web connectivity.

Client Views

Amazon WorkSpaces Web Access supports multiple screen resolutions. The minimum supported resolution is 960x720 pixels, and the maximum supported resolution is 2560x1600 pixels.

Proxy Servers

If you are required to use a proxy server to access the Internet, you can configure your browser to use the proxy server. Amazon WorkSpaces Web Access respects the settings for all related traffic.

Limits

- Proxy with authentication is not currently supported.
- Proxy server support for Web Access can vary by browser. Chrome (versions 55 and later) supports Web Access traffic routed through a web proxy, while the current Firefox does not.

Amazon WorkSpaces Windows Client Application

The following information will help you get started with the Amazon WorkSpaces Windows client application.

Contents

- [Requirements \(p. 21\)](#)
- [Setup and Installation \(p. 22\)](#)
- [Connecting to Your WorkSpace \(p. 22\)](#)
- [Client Views \(p. 22\)](#)
- [Client Language \(p. 22\)](#)
- [Proxy Server \(p. 23\)](#)
- [Command Shortcuts \(p. 23\)](#)
- [Troubleshooting \(p. 23\)](#)
- [Release Notes \(p. 23\)](#)

Requirements

The Amazon WorkSpaces Windows client application requires Microsoft Windows 7, Windows 8, or Windows 10.

Setup and Installation

Download and install the Windows client application from [Amazon WorkSpaces Client Downloads](#).

Connecting to Your WorkSpace

To connect to your WorkSpace, complete the following procedure.

To connect to your WorkSpace

1. The first time that you run the client application, you are prompted for your registration code, which is contained in your welcome email. The Amazon WorkSpaces client application uses the registration code and username to identify which WorkSpace to connect to. When you launch the client application later, the same registration code is used. You can enter a different registration code by launching the client application and choosing **Options, Register** on the login screen menu.
2. Enter your username and password in the login screen and choose **Sign In**. If your Amazon WorkSpaces administrator has enabled multi-factor authentication for your organization's WorkSpaces, you are prompted for a passcode to complete your login. Your Amazon WorkSpaces administrator will provide more information about how to obtain your passcode.
3. If your Amazon WorkSpaces administrator has not disabled the "Remember Me" feature, you are prompted to save your credentials securely so that you can connect to your WorkSpace easily while the client application remains running. Your credentials are securely cached up to the maximum lifetime of your Kerberos ticket.

After the client application connects to your WorkSpace, your WorkSpace desktop is displayed.

4. (Optional) If your WorkSpace uses an AD Connector directory, you can update the maximum lifetime of the Kerberos ticket by following the steps in [Configuring Kerberos Policies](#) in the Microsoft TechNet Library. If you need to disable the "Remember Me" feature, search for help in the [Amazon WorkSpaces forum](#).

An interruption of network connectivity causes an active session to be disconnected. This can be caused by events such as closing the laptop lid, or the loss of your wireless network connection. The Amazon WorkSpaces client application for Windows attempts to reconnect the session automatically if network connectivity is regained within a certain amount of time. The default session resume timeout is 20 minutes, but this timeout may be modified by your network administrator through your domain's Group Policy settings.

Client Views

You can switch to full screen mode by choosing **View, Show Fullscreen** in the client application menu.

While in full screen mode, you can switch back to window mode by moving the mouse cursor to the top of the screen. The client application menu is displayed, and you can choose **View, Exit Fullscreen** in the client application menu.

Client Language

You can select the language displayed by the client by performing the following steps.

Note

In the client, Japanese is available in all regions. However, Japanese is only available in Tokyo for individual WorkSpaces.

To select the client language

1. In the Amazon WorkSpaces client application, open the **Advanced Settings** dialog box.

2. Enter your desired language in the **Select a language** list and choose **Save**.
3. Restart the client.

Proxy Server

If your network requires you to use a proxy server to access the Internet, you can enable the Amazon WorkSpaces client application to use a proxy for HTTPS (port 443) traffic. Proxy with authentication is not currently supported.

Note

The Amazon WorkSpaces client applications use the HTTPS port for updates, registration, and authentication. The desktop streaming connections to the WorkSpace require port 4172 to be enabled, and do not go through the proxy server.

To use a proxy server

1. In the Amazon WorkSpaces client application, open the **Advanced Settings** dialog box.
2. In the **Proxy Server Setting** area, check **Use Proxy Server**, enter the proxy server address and port, and choose **Save**.

Command Shortcuts

The Amazon WorkSpaces Windows client supports the following command shortcuts:

- Ctrl+Alt+Enter - Toggle fullscreen display
- Ctrl+Alt+F12 - Disconnect session

Troubleshooting

After logging in, the client application only displays a white page and I cannot connect to my WorkSpace.

This problem can be caused by expired VeriSign/Symantec certificates on your client computer (not your WorkSpace). Remove the expired certificate and launch the client application again.

To find and remove expired VeriSign/Symantec certificates

1. In the Windows **Control Panel**, choose **Internet Options**.
2. In the **Internet Properties** dialog box, choose **Content, Certificates**.
3. In the **Certificates** dialog box, choose the **Intermediate Certificate Authorities** tab. In the list of certificates, select all certificates that were issued by VeriSign or Symantec that are also expired, and choose **Remove**. Do not remove any certificates that are not expired.
4. On the **Trusted Root Certificate Authorities** tab, select all certificates that were issued by VeriSign or Symantec that are also expired, and choose **Remove**. Do not remove any certificates that are not expired.
5. Close the **Certificates** dialog box as well as the **Internet Properties** dialog box.

Release Notes

The following table describes the changes to each release of the Windows client application.

Release	Changes
2.3.2	Installer fixes
2.3.1	Minor fixes
2.3.0	<ul style="list-style-type: none"> Improved the support for multiple monitors Improved security and stability
2.2.3	Fixed minor bugs and improved stability
2.2.1	<ul style="list-style-type: none"> Added support for the German language Fixed the timezone mapping for some regions Fixed a connection issue on Russian systems Improved the Japanese UI Improved stability
2.1.3	Closing the client expires the reconnect token. You can easily reconnect to your WorkSpace as long as the client is running.
2.1.1	Minor improvement to protocol handling
2.1.0	<ul style="list-style-type: none"> Added support for new WorkSpace states STOPPING and STOPPED Fixed minor bugs and improved stability
2.0.8	<ul style="list-style-type: none"> Fixed a conflict with running iTunes or Garmin processes during installation Added support for a password-free installation experience if installing only for the current user Fixed an issue with Excel formatting when copying and pasting data in BIFF5 format If Remember Me is disabled, the username is not shown on restart Added a confirmation dialog when deleting a registration code. Improved stability
2.0.6	Fixed bugs and made improvements
2.0.4	<ul style="list-style-type: none"> Added support for audio in, enabling you to make calls or attend web conferences Added support for devices with high DPI screens Added support to save registration codes, enabling you to switch WorkSpaces without re-entering the registration codes Improved support for Windows 10 Improved usability and stability
1.1.80	<ul style="list-style-type: none"> Added CloudWatch metrics for session latency, session launch time, and session disconnects Improved auto session resume to interrupt you less frequently when network conditions are degraded Fixed fixes and improved stability

Release	Changes
1.1.6	<ul style="list-style-type: none">• Added support for status notifications. The client application notifies you about the state of your WorkSpace when it cannot to the WorkSpace.• Improved the reconnect experience. The client automatically redirects to the login screen after 10 hours of inactivity. You can reconnect again if the client fails to launch a session using reconnect.• Added support for auto session resume. The client application automatically attempts to resume your session if network connectivity is lost and then regained within the session resume timeout (default value is 20 minutes).• Improved network health checks so they are faster and more reliable• Added client-side validation of registration codes• Improved synchronization of Caps Lock and Num Lock status between the local device and the WorkSpace
1.1.4	<ul style="list-style-type: none">• Added support to save your credentials, enabling you to easily reconnect to your WorkSpace• Improved advanced connection health checks• Improved stability
1.0.8	<ul style="list-style-type: none">• Introduced a full-file installation package• Improved network connectivity checks• Added version information to the About window
1.0	Initial release

Printing from a WorkSpace

The following printing methods are supported by Amazon WorkSpaces.

Printing Methods

- [Local Printers \(p. 26\)](#)
- [Other Printing Methods \(p. 26\)](#)

Local Printers

Amazon WorkSpaces supports local printer redirection. When you print from an application in your WorkSpace, the local printers are contained in your list of available printers. The local printers have "(Local - *<workspace username>. <directory name>. <client computer name>*)" appended to the printer's display name. Select one of the local printers and your documents are printed on that printer.

In some cases, you need to download and install the driver for your local printer manually on the WorkSpace. When you install a printer driver on your WorkSpace, there are different types of drivers that you may encounter:

- Add Printer wizard driver. This driver includes only the printer drivers, and are for users who are familiar with installation using the Add Printer wizard in Windows.
- Printer model-specific drivers which do not require communication with the printer. In these cases, you can install the printer driver directly.
- Printer model-specific drivers which require communication with the printer. In these cases, you can use the printer driver files to add a local printer using an existing port (LPT1:). After selecting the port, you can choose **Have Disk** and select the `.INF` file for the printer driver.

After installing the printer driver, you must restart the WorkSpace for the new printer to be recognized.

If you cannot print to your local printer from your WorkSpace, make sure you can print to your local printer from your client computer. If you cannot print from your client computer, refer to the printer documentation and support to resolve the issue. If you can print from your client computer, contact [AWS Support](#) for further assistance.

Other Printing Methods

You can also use one of the following methods to print from a WorkSpace:

- In a connected directory, you can attach your WorkSpace to network printers that are exposed through Active Directory.
- Use a cloud printing service, such as [Google Cloud Print](#) or [HP Mobile Printing](#).
- Print to a file, transfer the file to your local desktop, and print the file locally to an attached printer.

Troubleshooting Amazon WorkSpaces Client Issues

The following are common issues that you might have with your WorkSpaces client.

Issues

- [My WorkSpaces client gives me a network error, but I am able to use other network enabled apps on my device \(p. 28\)](#)
- [It sometimes takes several minutes to log in to my Workspace \(p. 29\)](#)
- [Sometimes I am logged off of my Workspace, even though I closed the session, but did not log off \(p. 29\)](#)
- [I can't connect to the Internet from my Workspace \(p. 29\)](#)
- [I installed a third-party security software package and now I can't connect to my Workspace \(p. 29\)](#)
- [I am getting a 'network connection is slow' warning when connected to my Workspace \(p. 29\)](#)
- [I got an invalid certificate error on the client application. What does that mean? \(p. 30\)](#)
- [I see the following error message: "Your device is not able to connect to the WorkSpaces Registration service." \(p. 30\)](#)

My WorkSpaces client gives me a network error, but I am able to use other network enabled apps on my device

The WorkSpaces client applications rely on access to resources in the AWS cloud and require a connection that provides at least 1 Mbps download bandwidth. If your device has an intermittent connection to the network, the WorkSpaces client application may report an issue with the network.

It sometimes takes several minutes to log in to my WorkSpace

Group Policy settings set by your system administrator can cause a delay on login after your WorkSpace has been launched or rebooted. This delay occurs while the Group Policy settings are being applied to the WorkSpace and is normal.

Sometimes I am logged off of my WorkSpace, even though I closed the session, but did not log off

Your system administrator applied a new or updated Group Policy setting to your WorkSpace that requires a logoff of a disconnected session.

I can't connect to the Internet from my WorkSpace

WorkSpaces cannot communicate with the Internet by default. Your administrator must explicitly provide Internet access.

I installed a third-party security software package and now I can't connect to my WorkSpace

You can install any type of security or firewall software on your WorkSpace, but Amazon WorkSpaces requires that certain inbound and outbound ports are open on the WorkSpace. If the security or firewall software that you install blocks these ports, the WorkSpace might not function correctly or might become unreachable. For more information, see [Port Requirements for Amazon WorkSpaces](#) in the *Amazon WorkSpaces Administration Guide*.

To restore your WorkSpace, ask your administrator to rebuild your WorkSpace. You will have to re-install the software and properly configure port access for your WorkSpace.

I am getting a 'network connection is slow' warning when connected to my WorkSpace

If the roundtrip time from your client to your WorkSpace is longer than 100ms, you can still use your WorkSpace, but this may result in a poor experience. A slow roundtrip time can be caused by many factors, but the following are the most common:

- You are too far from the AWS region that your WorkSpace resides in. For the best WorkSpace experience, you should be within 2000 miles of the AWS region that your WorkSpace is in.
- Your network connection is inconsistent or slow. For the best experience, your network connection should provide at least 300 kbps, with capability to provide over 1 Mbps when viewing video or using graphics intensive applications on your WorkSpace.

I got an invalid certificate error on the client application. What does that mean?

The WorkSpaces client application validates the identity of the WorkSpaces service through an SSL certificate. If the root certificate authority of the Amazon WorkSpaces service cannot be verified, the client application displays an error and prevents any connection to the service. The most common cause is a proxy server that is removing the root certificate authority and returning an incomplete certificate to the client application. Contact your network administrator for additional help.

I see the following error message: "Your device is not able to connect to the WorkSpaces Registration service."

When registration service failure occurs, you might see the following error message on the **Connection Health Check** page: "Your device is not able to connect to the WorkSpaces Registration service. You will not be able to register your device with WorkSpaces. Please check your network settings."

This error occurs when the WorkSpaces client application can't reach the registration service. Typically, this happens when the WorkSpaces directory has been deleted. To resolve this error, make sure that the registration code is valid and corresponds to a running directory in the AWS cloud.