
Amazon WorkSpaces

User Guide



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 \(p. 1\)](#)
- [Verify Networking Requirements \(p. 2\)](#)
- [\(Optional\) Integrate with 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 \(p. 6\)](#)
- [Chromebook Client Application \(p. 11\)](#)
- [iPad Client Application \(p. 14\)](#)

- [OS X Client Application \(p. 20\)](#)
- [PCoIP Zero Client \(p. 25\)](#)
- [Web Access \(p. 26\)](#)
- [Windows Client Application \(p. 27\)](#)

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) Integrate with WorkDocs

Amazon WorkDocs Drive enables you to stream your Amazon WorkDocs files to your WorkSpace on demand. You can easily access any file on Amazon WorkDocs without needing to keep a local copy. For more information, see [Amazon WorkDocs Drive for Amazon WorkSpaces](#).

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

Manage Your WorkSpace from Your Client

If you use the [Windows client \(p. 27\)](#) or the [OS X client \(p. 20\)](#) for Amazon WorkSpaces, you can perform the following management tasks directly from your client.

Note

You can perform these tasks only if they are enabled by your Amazon WorkSpaces administrator.

Tasks

- [Use Remember Me to Save Your Credentials \(p. 3\)](#)
- [Restart Your WorkSpace \(p. 3\)](#)
- [Increase Your WorkSpace Disk Size \(p. 4\)](#)
- [Change Your WorkSpace Compute Type \(p. 4\)](#)
- [Switch Your WorkSpace Running Mode \(p. 5\)](#)
- [Rebuild Your WorkSpace \(p. 5\)](#)

Use Remember Me to Save Your Credentials

You can choose whether to save your credentials securely so that you can reconnect to your WorkSpace without re-entering your credentials while the client application remains running. Your credentials are securely cached in RAM only. You can disable **Remember Me** and enable it again at any time.

To use Remember Me to save your credentials

1. Open your Amazon WorkSpaces client.
2. On the client login screen, choose the gear icon (Windows) or the **Option** menu (Mac), and choose **Advanced Settings**.
3. Select or clear the **Remember Me** check box to enable or disable this option as required.

Restart Your WorkSpace

If you are experiencing issues with your WorkSpace, you can restart it. Restarting a WorkSpace disconnects you from your WorkSpace, so that it can be shut down and restarted. To avoid losing changes, save any open documents and other application files before you restart your WorkSpace. Your user data, operating system, and system settings are not affected.

To restart your WorkSpace

1. Open your Amazon WorkSpaces client and connect to your WorkSpace.
2. Choose **Amazon WorkSpaces, Restart WorkSpace**.
3. When prompted to restart your WorkSpace, choose **Restart**.

4. After you are disconnected from your Workspace, the client application login screen remains open. You can log back into your Workspace, or close the screen.

Increase Your Workspace Disk Size

You can increase your Workspace disk size to add more storage capacity. You can increase the size of your C: drive up to 175 GB, and the size of your D: drive up to 100 GB without contacting your administrator. If your administrator recently created your Workspace, you must wait 6 hours before you can increase your Workspace disk size. After that, you can do so once in a 6-hour period.

When your Workspace disk size increase is in progress, you can perform most tasks on your Workspace. However, you can't change your Workspace compute type, switch the Workspace running mode, rebuild your Workspace, and restart your Workspace. This process may take up to an hour.

Note

You can only resize SSD volumes. Also, increasing your Workspace disk size will increase the amount that your organization pays for your Workspace.

To increase your Workspace disk size

1. Open your Amazon WorkSpaces client and connect to your Workspace.
2. Choose **My Workspace, Increase disk size**.
3. In the **Increase disk size** dialog box, the current disk size of your C: drive and D: drive displays. It also displays the amount by which your storage increases, if you proceed with the disk size increase.
4. To proceed with the disk size increase, choose **Increase**.
5. A message displays information about the disk size increase process. Review the information, and choose **Close**.

Change Your Workspace Compute Type

You can change your Workspace compute type to choose a different bundle for your Workspace. If your administrator recently created your Workspace, you must wait 6 hours before you can change your Workspace compute type. After that, you can switch to a larger compute type once in a 6-hour period, or to a smaller compute type once in a 30-day period.

When your Workspace compute type change is in progress, you are disconnected from the Workspace. During this time, you can't use or make changes to the Workspace. To avoid losing changes, save any open documents and other application files before you change your Workspace compute type. This process may take up to an hour.

Note

Changing your Workspace compute type will change the amount that your organization pays for your Workspace.

To change your Workspace compute type

1. Open your Amazon WorkSpaces client and connect to your Workspace.
2. Choose **My Workspace, Change compute type**.
3. In the **Change compute type** dialog box, the current compute type for your Workspace displays. Choose a different compute type from the list, and then choose **Update**.
4. A message displays information about the compute type change process. Review the information, and choose **Update**.

Switch Your WorkSpace Running Mode

You can change your WorkSpace running mode to determine if your WorkSpace is always running or stops after a specified period of inactivity. Amazon WorkSpaces provides the following two running modes that you can choose from:

- **Always On** — Keeps your WorkSpace always running.
- **AutoStop** — Your WorkSpace starts when you sign in and stops after a specified period of inactivity. After your WorkSpace stops, the state of your apps and data is saved.

Note

Switching your WorkSpace running mode will change the amount that your organization pays for your WorkSpace.

To switch your WorkSpace running mode

1. Open your Amazon WorkSpaces client and connect to your WorkSpace.
2. Choose **My WorkSpace, Switch running mode**.
3. In the **Switch running mode** dialog box, choose a different running mode, and then choose **Switch**.
4. A message confirms your choice. Choose **Close**.

Rebuild Your WorkSpace

You can rebuild your WorkSpace to restore the operating system running on the WorkSpace to its original state.

If you want to rebuild your WorkSpace to resolve an issue that you are experiencing with the WorkSpace, try restarting it first. If you rebuild your WorkSpace, any applications that you installed and system settings that you configured after the WorkSpace was created are lost. When a WorkSpace is rebuilt, the D: drive is recreated from the latest backup. Because backups are completed every 12 hours, your data may be up to 12 hours old. If your administrator recently created your WorkSpace, you must wait 12 hours before you can rebuild your WorkSpace.

While your WorkSpace rebuild is in progress, you are disconnected from the WorkSpace. During this time, you can't use or make changes to the WorkSpace. To avoid losing changes, save any open documents and other application files before you rebuild your WorkSpace. This process may take up to an hour.

To rebuild your WorkSpace

1. Open your Amazon WorkSpaces client and connect to your WorkSpace.
2. Choose **My WorkSpace, Rebuild WorkSpace**.
3. In the **Rebuild WorkSpace** dialog box, review the information. If you choose to proceed with the rebuild, choose **Rebuild**.

Amazon WorkSpaces Clients

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

The Amazon WorkSpaces client applications support USB and Bluetooth keyboards and mice, USB audio headsets, and USB printers. The clients do not support webcams or other video devices, or other locally attached peripherals such as storage devices. If you have an issue with a particular device, send a report to <https://console.aws.amazon.com/support/home#/>.

Clients

- [Android Client Application \(p. 6\)](#)
- [Chromebook Client Application \(p. 11\)](#)
- [iPad Client Application \(p. 14\)](#)
- [OS X Client Application \(p. 20\)](#)
- [PCoIP Zero Client \(p. 25\)](#)
- [Web Access \(p. 26\)](#)
- [Windows Client Application \(p. 27\)](#)

Amazon WorkSpaces Android Client Application

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

Contents

- [Requirements \(p. 6\)](#)
- [Setup and Installation \(p. 7\)](#)
- [Connecting to Your WorkSpace \(p. 7\)](#)
- [Gestures \(p. 7\)](#)
- [Radial Menu \(p. 8\)](#)
- [Keyboard \(p. 9\)](#)
- [Mouse Modes \(p. 9\)](#)
- [Disconnect \(p. 10\)](#)
- [Release Notes \(p. 10\)](#)

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 4.4 and later. The client application works on most tablets with Android version 4.4 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 \(p. 8\)](#)

Two finger scroll

Scrolls vertically.

Two finger pinch

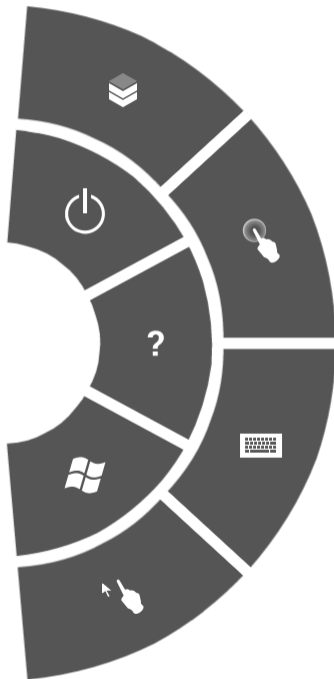
Zooms display in or out.

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 – Disconnects the client application without logging off.



Direct Mouse Mode – Sets the input to direct mouse mode. For more information, see [Mouse Modes \(p. 9\)](#).



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 \(p. 9\)](#).

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 \(p. 8\)](#).

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
2.4.13	Minor fixes
2.4.12	<ul style="list-style-type: none"> Resolves an issue that makes the login page bounce on a few devices. Minor bug fixes
2.4.11	<ul style="list-style-type: none"> Resolves an issue with content being selected with two-finger scrolling Minor bug fixes
2.4.10	Improves support for Japanese keyboard layouts
2.4.9	Adds support for Samsung Galaxy Note 9
2.4.7	<ul style="list-style-type: none"> Improves clipboard redirection Improves DeX startup
2.4.6	Adds support for uniform resource identifiers (URIs), which enable login orchestration
2.4.5	<ul style="list-style-type: none"> Adds support for time zone redirection for more regions: America/Indianapolis America/Indiana/Marengo America/Indiana/Vevay America/Indiana/Indianapolis Includes text changes to the Login page user interface
2.4.4	Minor improvements to session provision handling
2.4.2	<ul style="list-style-type: none"> Minor fixes Improves copy and paste
2.4.0	<ul style="list-style-type: none"> New logo

Release	Changes
	<ul style="list-style-type: none"> Improves the user interface and stability
2.3.4	<ul style="list-style-type: none"> Addresses a display overlay issue on Android Oreo when a mouse is connected to the device Adds support for Samsung S8/S8+ screen configurations Resolves minor issues
2.3.3	Localization enhancements
2.2.0	<ul style="list-style-type: none"> Adds support for the German language Improves the Japanese user interface Improves stability
2.1.0	<ul style="list-style-type: none"> Adds support for the following new WorkSpace states: STOPPING and STOPPED Adds support for audio in, enabling you to make calls or attend web conferences Resolves minor bugs and improves stability
2.0.0	<ul style="list-style-type: none"> Adds support for saving registration codes, enabling you to switch WorkSpaces without re-entering the registration codes Improves usability and stability
1.0.15	<ul style="list-style-type: none"> Adds advanced connection health checks, enabling you to troubleshoot connection issues Improves stability
1.0.11	<ul style="list-style-type: none"> Improves the user interface and login experience Adds support for choosing the screen resolution Adds support for choosing the scrolling direction
1.0.10	<ul style="list-style-type: none"> Improves the login experience Adds time zone synchronization between the local device and the WorkSpace
1.0.9	Improves 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 \(p. 12\)](#)
- [Setup and Installation \(p. 12\)](#)
- [Connecting to Your WorkSpace \(p. 12\)](#)
- [Gestures \(p. 13\)](#)

- [Release Notes \(p. 13\)](#)

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
2.4.13	Fixed an issue that causes the app not to restore to full-screen mode after a screen unlock
2.4.12	Minor bug fixes
2.4.11	Minor bug fixes
2.4.10	Improves support for Japanese keyboard layouts
2.4.8	Improves support for UK keyboards
2.4.7	<ul style="list-style-type: none"> Improves clipboard redirection Adds support for tap-to-click for trackpads Improves device resolution
2.4.6	<ul style="list-style-type: none"> Resolves an issue that causes screens to freeze Resolves trackpad issues
2.4.5	<ul style="list-style-type: none"> Adds support for time zone redirection for more regions: America/Indianapolis America/Indiana/Marengo America/Indiana/Vevay America/Indiana/Indianapolis Includes text changes to the Login page user interface
2.4.4	Minor improvements to session provision handling
2.4.2	Resolves a bug with Caps Lock
2.4.0	<ul style="list-style-type: none"> New logo Improves the user interface and stability
2.2.7	Resolves minor issues

Release	Changes
2.2.4	Localization enhancements
2.2.1	<ul style="list-style-type: none"> • Adds support for the German language • Improves the Japanese user interface • Improves stability
2.1.3	<ul style="list-style-type: none"> • Adds support for the following new WorkSpace states: STOPPING and STOPPED • Adds support for audio in, enabling you to make calls or attend web conferences • Resolves minor bugs and improves stability
2.0.0	<ul style="list-style-type: none"> • Adds support for saving registration codes, enabling you to switch WorkSpaces without re-entering the registration codes • Improves 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 \(p. 14\)](#)
- [Setup and Installation \(p. 14\)](#)
- [Connecting to Your WorkSpace \(p. 15\)](#)
- [Gestures \(p. 15\)](#)
- [Radial Menu \(p. 16\)](#)
- [Keyboard \(p. 17\)](#)
- [Mouse Modes \(p. 17\)](#)
- [Swiftpoint GT Mouse \(p. 18\)](#)
- [Disconnect \(p. 18\)](#)
- [Release Notes \(p. 18\)](#)

Requirements

The Amazon WorkSpaces iPad client application requires the following:

- iPad 2 or later with iOS 8.0 or later
- iPad Retina with iOS 8.0 and later
- iPad Mini with iOS 8.0 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 \(p. 16\)](#)

Two finger scroll

Scrolls vertically.

Two finger pinch

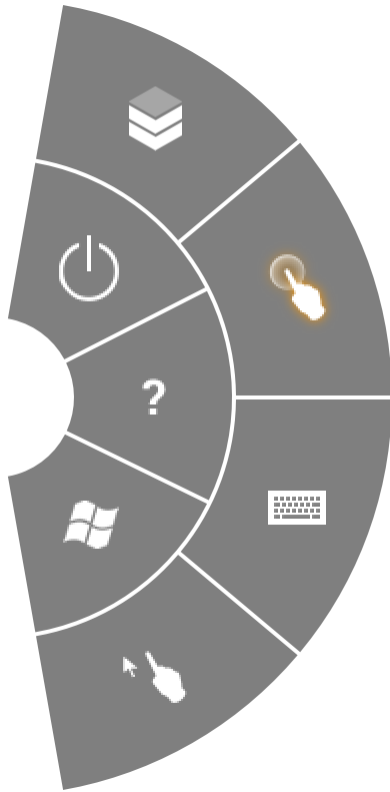
Zooms display in or out.

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 of the WorkSpace and peripheral devices.



Disconnect – Disconnects the client application without logging off.



Direct Mouse Mode – Sets the input to direct mouse mode. For more information, see [Mouse Modes \(p. 17\)](#).



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 \(p. 17\)](#).

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 \(p. 16\)](#).

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.



Swiftpoint GT Mouse

You can use the [Swiftpoint GT mouse](#) on an iPad WorkSpace. To do so, before you launch the Amazon WorkSpaces iPad client application, enable Bluetooth on your iPad and pair the GT mouse with your iPad (the GT mouse should pair automatically). To check the connection status of the GT mouse and your iPad client, display the radial menu, and tap **Connection Status**.

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
2.4.9	Minor bug fixes.
2.4.7	Closing the WorkSpaces client app now expires the reconnect token. You can only reconnect to your WorkSpace when the client app is running.
2.4.6	Minor fixes to the on-screen keyboard
2.4.5	Adds support for uniform resource identifiers (URIs), which enable login orchestration
2.4.4	<ul style="list-style-type: none">Adds support for time zone redirection for more regions: America/Indianapolis America/Indiana/Marengo America/Indiana/Vevay America/Indiana/IndianapolisIncludes text changes to the Login page user interface
2.4.3	<ul style="list-style-type: none">Adds support for the Swiftpoint GT mouse scroll wheelMinor improvements to session provision handling
2.4.2	<ul style="list-style-type: none">Minor fixesImproves copy and pasteAdds initial support for the Swiftpoint GT mouse (the scroll wheel is not supported)

Release	Changes
2.4.0	<ul style="list-style-type: none"> • New logo • Improves the user interface and stability
2.2.4	Localization enhancements
2.2.3	<ul style="list-style-type: none"> • Enables ATS to support HTTPS TLS 1.2 • Adds a microphone privacy statement • Improves the default resolution for iPad Pro models • Improves localization in multiple languages • Resolves a black screen issue on 9.7-inch iPad Pro models • Resolves the app icon zooming issue on iOS 10 • Resolves an audio echo issue • Security fixes and various improvements
2.2.0	<ul style="list-style-type: none"> • Adds support for audio session management, enabling you to play music in the background while using WorkSpaces • Adds support for the German language • Adds support for local IPv6 networking
2.1.0	<ul style="list-style-type: none"> • Adds support for the following new WorkSpace states: STOPPING and STOPPED • Resolves minor bugs and improves stability
2.0.0	<ul style="list-style-type: none"> • Adds support for saving registration codes, enabling you to switch WorkSpaces without re-entering the registration codes • Resolves an issue with arrow key support on Bluetooth keyboards • Resolves an issue with Bluetooth keyboards inadvertently activating the on-screen shortcut bar • Improves usability and stability
1.1	<ul style="list-style-type: none"> • Adds advanced connection health checks, enabling you to troubleshoot connection issues • Improves stability
1.0.11	Improves stability on iOS 8
1.0.10	Improves stability
1.0.9	<ul style="list-style-type: none"> • Improves the user interface and login experience • Adds support for choosing the screen resolution • Adds support for choosing the scrolling direction
1.0.8	<ul style="list-style-type: none"> • Improves error messages • Improves the Bluetooth keyboard experience • Improves the scrolling experience
1.0.7	Improves the login experience
1.0.6	Improves the login experience
1.0.5	<ul style="list-style-type: none"> • Improves the login experience • Improves network connectivity

Release	Changes
1.0.4	Improves the login experience
1.0.3	Improves the login experience
1.0.2	<ul style="list-style-type: none">• Adds connection health checks• Resolves specific issues with the iPad Air and iPad mini
1.0.1	Improves radial functionality
1.0	Initial release

Amazon WorkSpaces Mac OS X Client Application

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

Contents

- [Requirements](#) (p. 20)
- [Setup and Installation](#) (p. 20)
- [Connecting to Your Workspace](#) (p. 20)
- [Client Views](#) (p. 21)
- [Client Language](#) (p. 21)
- [Display Support](#) (p. 21)
- [Proxy Server](#) (p. 22)
- [Command Shortcuts](#) (p. 22)
- [Release Notes](#) (p. 22)

Requirements

The client application requires Mac OS X 10.8.1 or later.

Setup and Installation

Download and install the Amazon WorkSpaces Mac 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

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** 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 Mac 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.

Display Support

Amazon WorkSpaces supports a maximum of four displays and a maximum resolution of 3840x2160 (ultra-high definition, or UHD). The maximum supported resolution depends on the number of displays, as shown in the following table.

Displays	Resolution
2	3840x2160
4	1920x1200

The Amazon WorkSpaces client application extracts the Extended Display Information Data (EDID) of all attached displays and determines the best compatibility match before starting the session. If you have a High DPI display, the client application automatically scales the streaming window according to your local DPI settings.

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 Mac 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 client application.

Release	Changes
2.5.6	Minor fixes
2.5.5	<ul style="list-style-type: none">• Resolves an issue with sub-optimal resolution with external displays in full-screen mode connected using USB-C.• Minor bug fixes
2.5.2	<ul style="list-style-type: none">• Resolves an issue that results in crashes when multiple monitors are used and clients are connected to WorkSpaces running Amazon Linux 2• Resolves an intermittent issue with the Caps lock key becoming stuck.• Minor bug fixes
2.5.1	<ul style="list-style-type: none">• Resolves an issue that periodically results in repeated key presses with WorkSpaces running Amazon Linux 2• Adds support for localized date and time formats in the user interface• Adds handling for URIs that end with an extra '/'

Release	Changes
	<ul style="list-style-type: none"> Minor user interface improvements
2.5.0	Adds support for user self-service Workspace management capabilities
2.4.10	Minor fixes
2.4.9	Minor fixes
2.4.8	<ul style="list-style-type: none"> Adds support for uniform resource identifiers (URIs), which enable login orchestration Improves the behavior of function (Fn) keys on MacOS Improves protocol handling Minor fixes
2.4.7	<ul style="list-style-type: none"> Adds support for time zone redirection for more regions: America/Indianapolis America/Indiana/Marengo America/Indiana/Vevay America/Indiana/Indianapolis Includes text changes to the Login page user interface
2.4.6	<ul style="list-style-type: none"> Adds support for configuring the logging level to include advanced logging for debug scenarios Minor improvements to session provision handling Increases error handling for keyboard connections
2.4.4	<ul style="list-style-type: none"> Minor fixes Improves copy and paste
2.4.2	Minor fixes
2.4.0	<ul style="list-style-type: none"> New logo Improves the user interface and stability
2.3.7	<ul style="list-style-type: none"> Addresses a grey screen issue that occurs when displays are in different orientations Resolves a crashing issue on macOS
2.3.6	Localization enhancements
2.3.5	Minor improvements
2.3.3	<ul style="list-style-type: none"> Improves support for multiple monitors Localization enhancements Improves security and performance
2.3.1	Minor fixes
2.3.0	<ul style="list-style-type: none"> Improves support for multiple monitors Improves security and stability
2.2.3	Resolves minor bugs and improves stability

Release	Changes
2.2.1	<ul style="list-style-type: none">• Adds support for the German language• Resolves issues with time zone mapping for some regions• Resolves a connection issue on Russian systems• Improves the Japanese user interface• Improves stability
2.1.4	Resolves 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">• Adds support for the following new WorkSpace states: STOPPING and STOPPED• Resolves minor bugs and improves stability
2.0.8	<ul style="list-style-type: none">• Resolves an issue with out-of-app keyboard input passing to WorkSpaces• If Remember Me is disabled, the username is not shown on restart• Adds a confirmation dialog box when deleting a registration code• Improves stability
2.0.4	<ul style="list-style-type: none">• Adds support for audio in, enabling you to make calls or attend web conferences• Adds support for devices with high DPI screens• Adds support for saving registration codes, enabling you to switch WorkSpaces without re-entering the registration codes• Improves support for Mac OS X El Capitan• Improves usability and stability
1.1.80	<ul style="list-style-type: none">• Adds CloudWatch metrics for session latency, session launch time, and session disconnects• Improves auto session resume so that you are interrupted less frequently when network conditions are degraded• Resolves specific issues and improves stability

Release	Changes
1.1.6	<ul style="list-style-type: none"> • Adds support for status notifications. The client application notifies you about the state of your WorkSpace when it cannot to the WorkSpace. • Improves 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. • Adds 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). • Improves network health checks so they are faster and more reliable • Adds client-side validation of registration codes • Improves the synchronization of Caps Lock and Num Lock status between the local device and the WorkSpace
1.1.4	<ul style="list-style-type: none"> • Adds support for saving your credentials, enabling you to easily reconnect to your WorkSpace • Improves advanced connection health checks • Improves stability
1.0.8	<ul style="list-style-type: none"> • Introduces a full-file installation package • Improves network connectivity checks • Adds 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:

- If your Tera2 zero client device has firmware version 6.0.0 or later, you can connect to your WorkSpace directly without using PCoIP Connection Manager.
- If your Tera2 zero client device has a firmware version between 4.6.0 and 6.0.0, your Amazon WorkSpaces administrator must set up an EC2 instance with Teradici PCoIP Connection Manager for Amazon WorkSpaces. Your administrator also provides you with a server URI that you can use to connect to your WorkSpace.
- WorkSpaces multi-factor authentication requires a Tera2 zero client device with firmware version 6.0.0 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, Session**.
2. If the page is locked, choose **Unlock** and type 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

If your zero client device has firmware version 6.0.0 or later, you can connect directly. Otherwise, you connect through PCoIP Connection Manager.

To connect to your WorkSpace directly (recommended)

1. From the PCoIP zero client device, choose **Options, Configuration, Session**, and choose the **OSD: Amazon WorkSpaces Session Settings** connection type.
2. Type the registration code from your welcome email.
3. Type a name for this registered WorkSpace.
4. Choose **Connect**.

To connect to your WorkSpace using PCoIP Connection Manager

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

Open [Amazon WorkSpaces Web Access](#) to log on to your WorkSpace through your web browser.

Requirements

You can access a Workspace running the Windows 7 or Windows 10 desktop experience and one of the following bundles:

- Value
- Standard
- Performance
- Power

You must run one of the following web browsers on your Windows, Mac, or Linux computer:

- Chrome 53 and later
- Firefox 49 and later

You must have web connectivity.

Your administrator must enable Amazon WorkSpaces Web Access. For more information, see [Control Device Access](#) in the *Amazon WorkSpaces Administration Guide*.

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. 28)
- [Setup and Installation](#) (p. 28)
- [Connecting to Your Workspace](#) (p. 28)
- [Client Views](#) (p. 28)
- [Client Language](#) (p. 29)
- [Display Support](#) (p. 29)
- [Proxy Server](#) (p. 29)

- [Command Shortcuts](#) (p. 29)
- [Troubleshooting](#) (p. 30)
- [Release Notes](#) (p. 30)

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.

Display Support

Amazon WorkSpaces supports a maximum of four displays and a maximum resolution of 3840x2160 (ultra-high definition, or UHD). The maximum supported resolution depends on the number of displays, as shown in the following table.

Displays	Resolution
2	3840x2160
4	1920x1200

The Amazon WorkSpaces client application extracts the Extended Display Information Data (EDID) of all attached displays and determines the best compatibility match before starting the session. If you have a High DPI display, the client application automatically scales the streaming window according to your local DPI settings.

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
2.5.6	Minor fixes
2.5.5	Minor fixes
2.5.2	<ul style="list-style-type: none"> • Resolves an intermittent issue with the Caps lock key becoming stuck. • Minor bug fixes
2.5.1	<ul style="list-style-type: none"> • Resolves an issue that periodically results in repeated key presses with WorkSpaces running Amazon Linux 2 • Adds support for localized date and time formats in the user interface • Minor user interface improvements
2.5.0	Adds support for user self-service WorkSpace management capabilities
2.4.10	Minor fixes
2.4.9	Minor fixes
2.4.8	<ul style="list-style-type: none"> • Adds support for uniform resource identifiers (URIs), which enable login orchestration • Minor fixes
2.4.7	<ul style="list-style-type: none"> • Resolves an issue with the user interface text not displaying correctly on Microsoft Surface Pro 4 models (Windows only).

Release	Changes
	<ul style="list-style-type: none"> • Adds support for time zone redirection for more regions: America/Indianapolis America/Indiana/Marengo America/Indiana/Vevay America/Indiana/Indianapolis • Includes user interface text changes for the Login page
2.4.6	<ul style="list-style-type: none"> • Adds support for configuring the logging level to include advanced logging for debug scenarios • Minor improvements to session provision handling
2.4.5	<p>Adds a check to ensure that certificates issued by Amazon Trust Services are trusted by Windows during installation. By default, an up-to-date Windows local Root CA list includes Starfield Service Root Certificate Authority - G2, and therefore trusts Amazon Trust Services certificates. If the local Root CA list is outdated, the client installer installs the Starfield Service Root Certificate Authority - G2 certificate to the system. If you do not have administrator access to the client device, you'll be prompted to confirm the installation of the Root CA certificate.</p>
2.4.4	<ul style="list-style-type: none"> • Minor fixes • Improves copy and paste
2.4.2	Minor fixes
2.4.0	<ul style="list-style-type: none"> • New logo • Improves the user interface and stability
2.3.7	Addresses a grey screen issue that occurs when displays are in different orientations
2.3.6	Localization enhancements
2.3.5	Minor improvements
2.3.3	<ul style="list-style-type: none"> • Improves the support for multiple monitors • Localization enhancements • Improves security and performance
2.3.2	Installer fixes
2.3.1	Minor fixes
2.3.0	<ul style="list-style-type: none"> • Improves support for multiple monitors • Improves security and stability
2.2.3	Resolves minor bugs and improves stability
2.2.1	<ul style="list-style-type: none"> • Adds support for the German language • Resolves time zone mapping issues for some regions • Resolves a connection issue on Russian systems • Improves the Japanese user interface • Improves 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.

Release	Changes
2.1.1	Minor improvement to protocol handling
2.1.0	<ul style="list-style-type: none"> • Adds support for the following new WorkSpace states: STOPPING and STOPPED • Resolves minor bugs and improves stability
2.0.8	<ul style="list-style-type: none"> • Resolves a conflict with running iTunes or Garmin processes during installation • Adds support for a password-free installation experience if installing only for the current user • Resolves 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 • Adds a confirmation dialog box when deleting a registration code. • Improves stability
2.0.6	Resolves bugs and includes other improvements
2.0.4	<ul style="list-style-type: none"> • Adds support for audio in, enabling you to make calls or attend web conferences • Adds support for devices with high DPI screens • Adds support for saving registration codes, enabling you to switch WorkSpaces without re-entering the registration codes • Improves support for Windows 10 • Improves usability and stability
1.1.80	<ul style="list-style-type: none"> • Adds CloudWatch metrics for session latency, session launch time, and session disconnects • Improves auto session resume so that you are interrupt less frequently when network conditions are degraded • Resolves specific issues and improves stability
1.1.6	<ul style="list-style-type: none"> • Adds support for status notifications. The client application notifies you about the state of your WorkSpace when it cannot to the WorkSpace. • Improves 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. • Adds 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). • Improves network health checks so they are faster and more reliable • Adds client-side validation of registration codes • Improves the synchronization of Caps Lock and Num Lock status between the local device and the WorkSpace

Release	Changes
1.1.4	<ul style="list-style-type: none">• Adds support for saving your credentials, enabling you to easily reconnect to your WorkSpace• Improves advanced connection health checks• Improves stability
1.0.8	<ul style="list-style-type: none">• Introduces a full-file installation package• Improves network connectivity checks• Adds 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 \(p. 34\)](#)
- [Other Printing Methods \(p. 34\)](#)

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 \(p. 35\)](#)
- [It sometimes takes several minutes to log in to my Workspace \(p. 37\)](#)
- [Sometimes I am logged off of my Workspace, even though I closed the session, but did not log off \(p. 37\)](#)
- [I can't connect to the Internet from my Workspace \(p. 37\)](#)
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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.

Amazon WorkSpaces enforces the use of digital certificates issued by Amazon Trust Services as of May 2018. Amazon Trust Services is already a trusted Root CA on the operating systems supported by Amazon WorkSpaces. If the Root CA list for your operating system is not up-to-date, your device cannot connect to WorkSpaces and the client gives a network error.

To recognize connection issues due to certificate failures

- PCoIP zero clients — The following error message is displayed:

```
Failed to connect. The server provided a certificate that is invalid. See below for details:  
- The supplied certificate is invalid due to timestamp  
- The supplied certificate is not rooted in the devices local certificate store
```

- Other clients — The health checks fail with a red warning triangle for **Internet**.

To resolve certificate failures

- [Windows Client Application \(p. 36\)](#)
- [PCoIP Zero Clients \(p. 36\)](#)
- [Other Client Applications \(p. 36\)](#)

Windows Client Application

Use one of the following solutions for certificate failures.

Solution 1: Update the client application

Download and install the latest Windows client application from [Amazon WorkSpaces Client Downloads](#). During installation, the client application ensures that your operating system trusts certificates issued by Amazon Trust Services.

Solution 2: Add Amazon Trust Services to the local Root CA list

1. Open <https://www.amazontrust.com/repository/>.
2. Download the Starfield certificate in DER format (2b071c59a0a0ae76b0eadb2bad23bad4580b69c3601b630c2eaf0613afa83f92).
3. Open the Microsoft Management Console. (From a Command Prompt window, run **mmc**.)
4. Choose **File, Add/Remove Snap-in, Certificates, Add**.
5. On the **Certificates snap-in** page, select **Computer account** and choose **Next**. Keep the default, **Local computer**. Choose **Finish**. Choose **OK**.
6. Expand **Certificates (Local Computer)** and select **Trusted Root Certification Authorities**. Choose **Action, All Tasks, Import**.
7. Follow the wizard to import the certificate that you downloaded.
8. Exit and restart the WorkSpaces client application.

Solution 3: Deploy Amazon Trust Services as a trusted CA using Group Policy

Add the Starfield certificate to the trusted Root CAs for the domain using Group Policy. For more information, see [Use Policy to Distribute Certificates](#).

PCoIP Zero Clients

To connect directly to a Workspace using firmware version 6.0 or later, download and install the certificate issued by Amazon Trust Services.

To add Amazon Trust Services as a trusted Root CA

1. Open <https://certs.secureserver.net/repository/>.
2. Download the certificate under **Starfield Certificate Chain** with the thumbprint 14 65 FA 20 53 97 B8 76 FA A6 F0 A9 95 8E 55 90 E4 0F CC 7F AA 4F B7 C2 C8 67 75 21 FB 5F B6 58.
3. Upload the certificate to the zero client. For more information, see [Uploading Certificates](#) in the Teradici documentation.

Other Client Applications

Add the Starfield certificate (2b071c59a0a0ae76b0eadb2bad23bad4580b69c3601b630c2eaf0613afa83f92) from [Amazon Trust Services](#). For more information about how to add a Root CA, see the following documentation:

- Android: [Add & remove certificates](#)
- Chrome OS: [Manage client certificates on Chrome devices](#)
- macOS and iOS: [Installing a CA's Root Certificate on Your Test Device](#)

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'm having trouble when I try to connect to my WorkSpace using Web Access

Some WorkSpaces rely on a specific logon screen configuration to enable you to log on from your Web Access client. For example, depending on the type of WorkSpace, your network administrator may need to configure a Group Policy setting and a Local Security Policy setting to enable you to log on to your WorkSpace from your Web Access client. If these two settings are not correctly configured, you may experience long logon times or black screens when you try to log on to your WorkSpace. 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.