Citrix Workspace app for HTML5

Contents

About this release

March 8, 2021

What's new

What's new in 2101.5

Improved soft keyboard performance

Earlier, the following issues occurred in a session when using a soft keyboard:

- The soft keyboard appeared intermittently.
- Focus issues occurred when you switched between Tablet mode and Normal mode.
- The clipboard feature failed to work because of focus issues.

This release addresses those issues and improves the overall performance and stability of the soft keyboard feature.

Enhanced audio performance

Citrix Workspace app for HTML5 now allows you to experience smooth audio quality on your calls when using a webcam. You will no longer see much lag between audio and video. Also, earlier, when you set pulse-code modulation (PCM) audio through a Virtual Desktop Agent, you were unable to hear the audio. This release addresses those issues and improves the overall audio performance and stability.

Audio recommendations

For best performance, use a USB headset within a session to speak and to listen.

What's new in 2101

Enhanced app switcher support

Starting with this release, when you launch a published application session in full-screen or kiosk mode, the session does not overlap with the desktop taskbar. The app switcher no longer hides the session. This enhancement is supported only in single-monitor mode.

What's new in 2011

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 2010.5

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 2010

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 2009

Mac OS Big Sur Day 0 support

Citrix Workspace app for HTML5 adds support for Safari browsers introduced with macOS Big Sur.

Session performance improvements in multi-monitor scenarios

Citrix Workspace app for HTML5 improves the overall performance and stability of sessions in multi-monitor scenarios. In earlier versions, when a session was running on multiple monitors, you experienced sluggish performance.

Improved audio performance

In earlier releases, you might hear a crackling sound when listening to audio. Citrix Workspace app for HTML5 now enriches the user experience by providing smooth audio.

What's new in 2007

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 2006

Support for specifying the duration of overlay sessions

As an administrator, you can specify the duration of overlay sessions by using the **resizeOverlayDuration** value in the configuration.js file. The value defaults to 3,500 milliseconds. You can set it in a range of 0 through 3,500. The **onResize** events are generated when you resize a session. This feature is applicable only for sessions launched through the HDX SDK for HTML5. For more information, see Specifying the duration of overlay sessions.

Support for blocking PDF printing for specific browsers

As an administrator, you can now block PDF printing on the following browsers across platforms: Internet Explorer, Google Chrome, Firefox, Safari, and Microsoft Edge (including Microsoft Edge Chromium). For more information, see Blocking PDF printing.

What's new in 2005

This release contains enhancements that help improve overall performance and stability, along with some security improvements.

Language support

Citrix Workspace app for HTML5 is now available in the Italian language.

What's new in 2004

Portuguese language support

Citrix Workspace app for HTML5 is now available in the Brazilian Portuguese language.

What's new in 2002

Support for USB device redirection

This release supports generic USB device redirection on Chrome browsers (Version 61 and later) running on Chrome, Mac, and Linux operating systems. This feature is supported on sessions launched over secure HTTPS connections. This feature supports redirection of two USB devices simultaneously. For more information, see USB device redirection.

What's new in 1912

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1911

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1910

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1909

Support for DPI scaling

Starting with this release, Citrix Workspace app for HTML5 supports DPI scaling for app and desktop sessions on a single monitor. It lets you set the VDA resolution on the monitors that have a high pixel ratio. When you set the resolution correctly on the VDA, blurry text becomes crisper. For more information about DPI scaling, see DPI scaling.

What's new in 1908

Autoupdate support for Citrix Workspace app for HTML5 using HDX SDK for HTML5

Starting in this release, Citrix HDX SDK for HTML5 enhances the `setPath API` to consume the latest build of Citrix Workspace app for HTML5 from the Content Delivery Network (CDN). This enhancement allows Citrix Workspace app for HTML5 to run on the latest version seamlessly. For existing HDX SDK for HTML5 users, change `citrix.receiver.setPath` in the customer code to use the latest version from the CDN. For new users, the `setPath` API provides the option by default. For more information, see HDX SDK for HTML5.

Change in the URL to view the log page

The URL to view the log page for Citrix Workspace app 1907 for HTML5 and earlier is changed now. The new URL to view the log page is `siteurl/Clients/HTML5Client/src/SessionWindow.html##engineType=log`, where siteurl is the URL of the Citrix Receiver for Web site <`http://server.domain/Citrix/StoreWeb`>. For more information, see To view Citrix Workspace app for HTML5 logs by navigating to the log page.

What's new in 1907

Support for copy and paste between a remote session and a local device

In earlier versions, you had to use the toolbar to perform copy and paste operations between the session and your client device. Starting in this release, you can use the `Ctrl C` and `Ctrl V` hotkeys (for Windows or Chrome operating systems) and `CMD C` and `CMD V` hotkeys (for Mac operating system) to copy and paste. For more information, see Enhanced clipboard experience.

What's new in 1906

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1905

Support for copy and paste between a remote session and a local device - Experimental feature

In earlier versions, you had to use the toolbar to perform copy and paste operations between the session and your client device. Starting in this release, as an experimental feature, you can now use the `Ctrl C` and `Ctrl V` hotkeys to copy and paste.

What's new in 1904

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1902.1

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1902

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1901

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1811.3

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1811.2

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1811

This release addresses a number of issues that help to improve overall performance and stability.

What's new in 1809.1

Support for file downloads using the Safari browser

Citrix Workspace app for HTML5 supports downloading files on a MacBook using the Safari browser.

Improved network throughput for graphics over high latency connections

The default number of ICA output buffers that are used to send and receive data has been raised. This change provides improved network throughput performance even on high latency connections.

What's new in 1809

Support for application and desktop titles in parentheses

Citrix Workspace app for HTML5 supports displaying titles of the applications and desktops in parentheses (for example, VDA(1) and VDA(2)) in the browser tab. For more information, see Get started.

Fixed issues

Fixed issues in 2101.5

- When you attempt to print a PDF from a remote session, the file might open in a new tab instead of the same tab. The issue occurs with the Chromium Edge browser. This fix provides an enhanced PDF printing experience. [RFHTMCRM-4749]

Fixed issues in 2101

- In scenarios where a VDA is configured with a NVIDIA GPU, with hardware encoding enabled, a black screen might appear when the session runs in full-screen mode. Also, videos might not render when the selective H.264 graphic mode is enabled through **For actively changing regions** policy. [RFHTMCRM-4589]

- When you open **Gesture Guide** in an application or a desktop session launched through Citrix Workspace app for HTML5, user interface details might be exposed. [RFHTMCRM-4597]

Fixed issues in 2011

- When you launch a session from a Linux VDA through Citrix Workspace app for HTML5, the mouse cursor might not be rendered correctly within the session. For this fix to work, you must launch a session from Linux VDA 2012 or later. For more information, see Linux VDA bug ID LNXVDA-9074. [RFHTMCRM-4437]

Fixed issues in 2010.6

- When you launch an application through a Linux VDA, the application might overlap with the App Switcher taskbar. As a result, you cannot use control options because they are hidden behind the App Switcher taskbar. [RFHTMCRM-4439]

Fixed issues in 2010.5

- On a Chrome or an Edge browser, when you attempt to launch a session through the HDX SDK for HTML5, event listeners might not be called properly. The issue occurs when extensions such as **Grammarly** are installed on the browser. [RFHTMCRM-3848]

- This fix provides support for:

- Disabling the High DPI onboarding dialog.

- Sending the correct work area when the High DPI scaling is enabled for app sessions.

  [RFHTMCRM-3938]

- When you connect to an app session launched through Citrix Workspace app for HTML5, the **Adjusting Screen Resolution** message appears with a spinning circle. [RFHTMCRM-3948]

Fixed issues in 2010

- When you launch an application through a Linux VDA, the application might get cut off and overlap with the **App Switcher** taskbar. [RFHTMCRM-3816]

- When you launch a session using Citrix Workspace app HTML5, the user device might exhibit a poor bandwidth. [RFHTMCRM-3821]

- Attempts to launch a session using Citrix Workspace app for HTML5 on the cloud might fail. The issue occurs when the store takes more than 30 seconds to fetch an ICA file, resulting in a timeout. With this fix, the session time out after three minutes. [RFHTMCRM-3845]

Fixed issues in 2009

- Audio playback might unexpectedly stop working in a session. To work around the issue, reconnect the session. [CVADHELP-15186]

- Attempts to launch applications might fail. The issue occurs when you connect to a cloud store enabled with Citrix Gateway service by using Citrix Workspace app for HTML5. [RFHTMCRM-3530]

- Attempts to launch a session using Citrix Workspace app for HTML5 on a Safari browser might fail. The issue occurs on devices running macOS Big Sur update. [RFHTMCRM-3825]

Fixed issues in 2007

This release addresses few issues that help to improve overall performance and stability.

Fixed issues in 2006

- In a session launched through Citrix Workspace app for HTML5, the icon of a published application might appear incorrectly on the taskbar. The issue occurs with Chrome browsers. [RFHTMCRM-3150]

- On an iPad, the virtual keyboard might appear on every touch in a remote session. [RFHTMCRM-3414]

- If you attempt to copy and paste content that contains more than 10,000 words, a session might become unresponsive. [RFHTMCRM-3450]

Fixed issues in 2005

- Touch functionalities might not work in sessions that are launched on hybrid touch screen devices. [RFHTMCRM-3188]

- After you launch a session from the Linux VDA through Citrix Workspace app for HTML5, attempts to print a document by clicking the Print button fail with the following message: **Cannot print PDF.** [RFHTMCRM-3260]

- On an Android device, if you launch a session and then zoom in or out, the session might not pan. The issue occurs with Chrome browsers. [RFHTMCRM-3342]

- When you attempt to print a document using the Citrix PDF printer, the PDF might fail to open in a new tab through the blob URL. The issue occurs with sessions that are launched through the HDX SDK for HTML5 and that are launched through StoreFront with enhanced printing disabled. This issue is observed on the latest version of the Firefox (76) browser. [RFHTMCRM-3359]

Fixed issues in 2004

- Attempts to type an open square bracket ([) in a session launched from Citrix Workspace app for HTML5 might fail. The issue occurs with Mozilla Firefox. [RFHTMCRM-3116]

- In an HTML5 session, an initial attempt to print a file using the Citrix PDF printer might fail. Subsequent attempts to print in the same session also fail. The issue occurs if you launch the session through a Chrome or Firefox browser in guest mode or after clearing the cache. The issue occurs with a cloud store. [RFHTMCRM-3177]

- When you use Safari on macOS, attempts to play audio within a session might fail. [RFHTMCRM-3227]

- When you attempt to print a document using the Citrix PDF printer, content in the document might appear blurry. The `printResolution` value defaults to 150 in order to improve the resolution. For crisper content, you can change the value of `printResolution` in the `configuration.js` file to 300 or 600 according to your requirement:

```
1    'pdfPrinting' :
2
3    {
4
5        'directPrint' :
6
7            {
8
9
10               'printResolution' :150
11
12           }
13
14
15   }
```

[RFHTMCRM-3266]

- Attempts to launch a session might fail. The issue occurs after you install some third-party applications (ad blockers) that are used to block advertisements. [RFHTMCRM-3279]

- After you press Ctrl+Alt+Delete within a session, the keyboard and the mouse might not work as expected. [CVADHELP-13217]

Fixed issues in 2002

This release addresses few issues that help to improve overall performance and stability.

Fixed issues in 1912

- Attempts to launch sessions might fail on touch screen devices. [RFHTMCRM-3109]

Fixed issues in 1911

- When you attempt to launch a session in private browsing mode on Internet Explorer or Microsoft Edge browser, the session might fail to launch. [RFHTMCRM-3039]

Fixed issues in 1910

This release addresses a number of issues that help to improve overall performance and stability.

Fixed issues in 1909

- When you use the Korean Input Method Editor (IME) to input the characters dkdk, the keystrokes are incorrectly interpreted after you input the last character k. The issue occurs when you use the Firefox and the Internet Explorer browsers. [LD1614]

- Attempts to launch sessions might fail if the uBlock extension is added to the browser. [RFHTMCRM-2998]

Fixed issues in 1908

This release addresses few issues that help to improve overall performance and stability.

Fixed issues in 1907

- When you select the **Citrix PDF printer** to print a blank PDF file, the message **Getting PDF File** displays indefinitely. The issue occurs on the Chrome and Firefox browsers with XenApp and XenDesktop 7.15 LTSR CU2 installed. Subsequent print operations fail until you restart the session. [RFHTMCRM-2667]

Fixed issues in 1906

- The desktop app switcher is disabled, and you launch the application sessions using Citrix Workspace app for HTML5. You then enable the desktop app switcher by navigating to the **Toolbar** > **Switch apps** > **Show taskbar**, and maximize and minimize the app. When you click the desktop app switcher icon to bring the app to focus, the desktop app switcher is hidden. [RFHTMCRM-2767]

- Attempts to enter a **backslash** in an HTML5 session that you launch through a Firefox browser might fail. [RFHTMCRM-2777]

- When you select the **Citrix PDF printer** to print a PDF file, the message **Getting PDF File** displays indefinitely. The issue occurs on the Chrome and Firefox browsers when you print the file inside the session with Citrix Gateway logged off. [RFHTMCRM-2789]

Fixed issues in 1905

This release addresses a number of issues that help to improve overall performance and stability.

Fixed issues in 1904

- When you open a session that is a fixed size through the HTML5 HDX SDK and then change the resolution by setting **autoresize: true** to auto fit to the browser, the session might not resize.

[RFHTMCRM-2571]

- With this fix, Citrix Workspace app for HTML5 supports localization in the Dutch language. [RFHTMCRM-2663]

- When you open a Citrix Workspace app for HTML5 session in a browser on a mobile device and use the display resolution dialog box to change the resolution to a fixed value that is larger than the mobile screen size, the session might not pan. [RFHTMCRM-2712]

- When you use the Japanese Input Method Editor (IME) and press the Spacebar or the Shift key along with the Spacebar, the space does not appear as an input. The issue occurs when you use the Internet Explorer 11 or Firefox browsers. [LD1343]

Fixed issues in 1902.1

- Attempts to print documents using the Citrix PDF printer in the Chrome and Firefox browsers might fail. The issue occurs for sessions that are launched through the HTML5 HDX SDK. [RFHTMCRM-2630]

Fixed issues in 1902

This release addresses several issues that help to improve overall performance and stability.

Fixed issues in 1901

- When you attempt to click **Multimonitor** in the toolbar, the multi-monitor mode might not work. The issue occurs when the sessions are launched using the HTML5 HDX SDK. [RFHTMCRM-2575]

- Time zone redirection might not work for certain time zones when using the Chrome browser. The issue occurs when observing daylight savings time and the time zone in the session doesn't match the time zone on the endpoint. [LD0289]

Fixed issues in 1811.3

This release addresses a number of issues that help to improve overall performance and stability.

Fixed issues in 1811.2

This release addresses some issues that help to improve overall performance and stability.

Fixed issues in 1811

This release addresses a number of issues that help to improve overall performance and stability.

Fixed issues in 1809.1

This release addresses various issues that help to improve overall performance and stability.

Fixed issues in 1809

- When you start a YouTube video in full-screen mode from a published application that is connected to a Linux VDA 1808, HTML5 might display the following error message: **General error: To resolve this issue, please report this error to your help desk.** [RFHTMCRM-2407]

- If you open Microsoft Internet Explorer on an iPad using Citrix Receiver for HTML5 and attempt to open the soft keyboard on an iPad, the webpage zooms in. However, you must manually zoom out the webpage after closing the soft keyboard. [LC9838]

Fixed issues in 1808

Version 18.8.1.4043

- The `LongCommandLine` path to the VDA might be formed incorrectly if the path has LongCmdLine parameters. [RFHTMCRM-2413]

Version 1808

- With **SmartControlPolicy** policy enabled, the Citrix Workspace app for HTML5 might fail to connect to Linux VDA through NetScaler Gateway 12.0 and later versions. [RFHTMCRM-2349]

Known issues

Known issues in 2101.5

No new issues have been observed in this release.

Known issues in 2101

No new issues have been observed in this release.

Known issues in 2011

No new issues have been observed in this release.

Known issues in 2010.5

No new issues have been observed in this release.

Known issues in 2010

- When you reconnect to an application session, the bottom of the application might get partially cut off or hidden behind the **App Switcher** taskbar. The application is displayed correctly when you resize the session. [RFHTMCRM-3892]

Known issues in 2009

- In multi-monitor mode, screen corruption might be observed intermittently. The issue occurs when you drag applications. The issue occurs with XenDesktop 7.6 VDAs running Windows 2012 R2. [RFHTMCRM-3550]

- With legacy graphics mode enabled (for example, in XenApp 6.5) in multi-monitor mode, screen corruption might occur. [RFHTMCRM-3586]

Known issues in 2007

No new issues have been observed in this release.

Known issues in 2006

No new issues have been observed in this release.

Known issues in 2005

- On an Android device, attempts to fetch the soft keyboard using a three finger tap might fail. The issue occurs with Chrome browsers. [RFHTMCRM-3358]

- On a Microsoft Edge (Chromium version) or Google Chrome browser, when you attempt to print a document using the Citrix PDF printer, the PDF might open in a new tab and the tab closes immediately. The issue occurs after you install a third-party application (for example, ad blocker) on the browser. The issue occurs with sessions that are launched through the HDX SDK for HTML5 and that are launched through StoreFront with enhanced printing disabled. [RFHTMCRM-3360]

- When you attempt to print a document using the Citrix PDF printer, the PDF might fail to open in a new tab through the blob URL. The issue occurs with sessions that are launched through the HDX SDK for HTML5 and that are launched through StoreFront with enhanced printing disabled. The following issues can be observed:

- On a Chrome browser, a new tab opens. The PDF is rendered in the upper part of the screen. Only a quarter of the PDF is visible. But the PDF can be downloaded and printed.

- On a Firefox browser, a new tab opens. The PDF is not rendered and a blank page appears. This issue is observed on the latest version of the Firefox (76) browser and on Citrix Workspace app for HTML5 version 2004 and earlier.

  [RFHTMCRM-3361]

Known issues in 2004

- Touch functionalities might not work in sessions that are launched on hybrid touch screen devices. [RFHTMCRM-3188]

- After you launch a session from the Linux VDA through Citrix Workspace app for HTML5, attempts to print a document by clicking the **Print** button fail with the following message: **Cannot print PDF.** [RFHTMCRM-3260]

- Attempts to play an audio file using Google Chrome browser v 79 in a session launched from Citrix Workspace app for HTML5 might fail.

  For more information, see Google bug ID 1007255.

  [RFHTMCRM-3327]

Known issues in 2002

No new issues have been observed in this release.

Known issues in 1912

- When you launch mstsc.exe in full screen mode in a remote session, the AppSwitcher taskbar running on Citrix Workspace app for HTML5 might overlap the remote desktop window. [CVADHELP-12522]

Known issues in 1911

No new issues have been observed in this release.

Known issues in 1910

No new issues have been observed in this release.

Known issues in 1909

- In certain scenarios, the connecting screen might remain stuck when there is a network disruption. No error message appears, and you cannot perform any action. As a workaround, relaunch the session. [RFHTMCRM-2956]

Known issues in 1908

No new issues have been observed in this release.

Known issues in 1907

When you select the **Disable Copy Confirmation** option in the **Preferences** dialog, the **Display Resolution** button might overlap the **Preferences** dialog in non-English language environments. [RFHTMCRM-2918]

Known issues in 1906

No new issues have been observed in this release.

Known issues in 1905

No new issues have been observed in this release.

Known issues in 1904

No new issues have been observed in this release.

Known issues in 1902.1

- The audio is playing on the VDA. When you start a session, the audio that is already playing might not be heard until you click anywhere within the session. The issue occurs for sessions that are launched through the HTML5 HDX SDK. The HTML5Client originates somewhere else. [RFHTMCRM-2659]

Known issues in 1902

No new issues have been observed in this release.

Known issues in 1901

- Attempts to print documents using the Citrix PDF printer in Chrome and Firefox browsers might fail. The issue occurs for sessions that are launched through the HTML5 HDX SDK.

  As a workaround, set **supportedBrowsers** to **false** in the **configuration.js** file:

```
1  'pdfPrinting' : {
2
3              'directPrint' : {
4
5                              'supportedBrowsers':true
6                                          'IE':
                                               false

7              }
8
9          }
```

  When you use the preceding workaround and attempt to print a PDF, a **Continue** print dialog appears, prompting your confirmation to print. [RFHTMCRM-2592]

Known issues in 1811.3

No new issues have been observed in this release.

Known issues in 1811.2

No new issues have been observed in this release.

Known issues in 1811

No new issues have been observed in this release.

Known issues in 1809.1

No new issues have been observed in this release.

Known issues in 1809

No new issues have been observed in this release.

Known issues in 1808

Version: 18.8.1.4043

No new issues have been observed in this release.

Version: 1808

No new issues have been observed in this release.

Prerequisites for installing

September 14, 2020

System requirements and compatibility

This topic lists the supported Citrix product versions for Citrix Workspace app for HTML5 and the requirements for users to access virtual desktops and applications. It is assumed that all computers meet the minimum hardware requirements for the installed operating system.

Requirements

Users require devices running the following web browsers and operating systems to access desktops and applications using Citrix Workspace app for HTML5.

Browsers

- Apple Safari 7 or later
- Google Chrome 50 or later
- Microsoft Edge
- Microsoft Edge Chromium
- Microsoft Internet Explorer 11
- Mozilla Firefox 35 or later

Operating systems

- Windows 10
- Windows Phone 10
- Windows 8.1
- Windows 8 Pro and Enterprise (32-bit and 64-bit editions)

- Windows 7 Service Pack 1 (32-bit and 64-bit editions)
- Windows Server 2008 R2
- Windows Server 2012 R2
- Windows Server 2016
- Mac OS X 10.8 and later
- iOS (latest version)
- Android (latest version)

Supportability matrix

Citrix Workspace app for HTML5 supports access to desktops and applications through the following versions of StoreFront. Stores must be accessed through Citrix Receiver for Web site. Citrix recommends the following:

- StoreFront 2.5 (or later)
- Citrix Workspace app for HTML5 allows you to upgrade from any version of StoreFront 2.5 or later.

When users connect through Citrix Gateway, Citrix Workspace app for HTML5 can be used to access desktops and applications delivered by all the versions of Citrix Virtual Apps and Desktops that are supported by StoreFront.

For direct connections through StoreFront without Citrix Gateway, Citrix Workspace app for HTML5 can be used to access desktops and applications delivered by the following product versions:

- XenDesktop 7.6 and later

Connections

In a production environment, Citrix recommends securing communications between Citrix Receiver for Web site and users' devices with Citrix Gateway and HTTPS. Citrix recommends using SSL certificates with a key size of at least 1024 bits throughout the environment in which Citrix Workspace app for HTML5 is deployed. Citrix Workspace app for HTML5 enables user access to desktops and applications from public networks with the following versions of Citrix Gateway.

- NetScaler Gateway 10.5 and later

Citrix Workspace app for HTML5 now supports CloudBridge disabling compression and printer compression as well as using HDX Insight analytics to display in CloudBridge Insight Center.

- CloudBridge 7.4 and later

> **Note:**
>
> If there is an issue connecting to the SSL-enabled VDA with Citrix Workspace app for HTML5, con-

figure the cipher suites as specified in TLS settings on VDAs.

Install

October 6, 2020

StoreFront

Enable Citrix Workspace app for HTML5 on the Citrix Receiver
for Web site for the StoreFront store that provides the desktops and applications you want to make
available to Citrix Workspace app for HTML5 users.

> **Important:**
>
> In multiple-server StoreFront deployments, use only one server at a time to change the configuration of the server group. Ensure that the Citrix StoreFront management console is not running on any of the other servers in the deployment. Once complete, propagate your configuration changes to the server group so you update the other servers in the deployment.

1. If you have not already done so, deploy StoreFront and create a store aggregating the desktops and applications you want to make available to Citrix Workspace app for HTML5 users.

   A Citrix Receiver for Web site is created automatically for new stores. For more information about creating StoreFront stores, see Create or remove a store.

2. In the Citrix StoreFront management console, perform the following steps:

   - On the Windows **Start** screen or **Apps** screen, locate and click the **Citrix StoreFront** tile.
   - In the left pane, select **Stores** and in the **Action** pane, select **Manage Receiver for Web Sites**, and click **Configure**.
   - Select **Deploy Citrix Receiver/Workspace app**.

3. Enable Citrix Workspace app for HTML5 by selecting one of the options.

   - If you want to access desktops and applications from the site using a locally installed version of Citrix Workspace, select **Use Receiver for HTML5 if local Citrix Receiver/Workspace app is unavailable**. If you already have Citrix Workspace installed, you cannot use the Citrix Workspace app for HTML5 to access resources from the site. Windows and macOS X users without Citrix Workspace app for HTML5 are prompted to install it every time they log on to the site. They can use Citrix Workspace app for HTML5 if they are unable to install Citrix Workspace.

     When you select **Use Receiver for HTML5 if local Citrix Receiver/Workspace app is unavailable**, the **Change Citrix Receiver** option appears. This option allows you to switch

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to the light or the native version dynamically based on the application or the desktop that you want to launch. Also, you can view the **Change Citrix Receiver** option under the Profile option.

- If you want to use Citrix Workspace app for HTML5 to access applications or desktops from Citrix Virtual Apps and Desktops, select **Always use Receiver for HTML5**.

WebSocket

1. Go to the Group Policy Management Console or Citrix Studio and select **Policy** to configure the policies.

2. In the middle pane, under **Policies**, either modify an existing policy or create a policy.
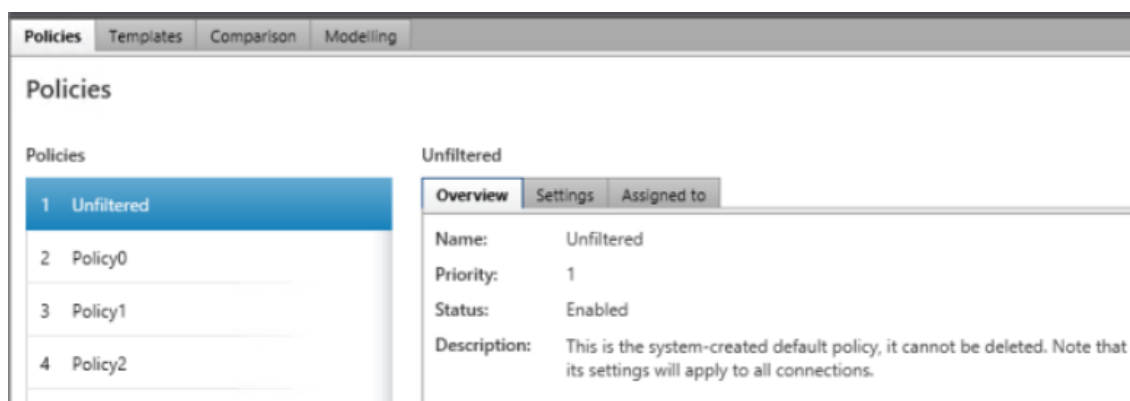
3. To edit an existing policy, in the right pane, under **Actions**, select **Edit Policy…**.
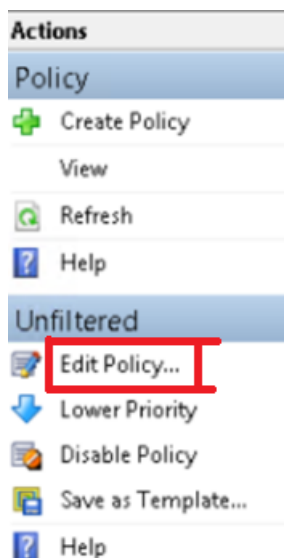
4. The **Edit Unfiltered** window appears. Type **websoc** and select **Enter**. The three WebSockets related policy settings are filtered.
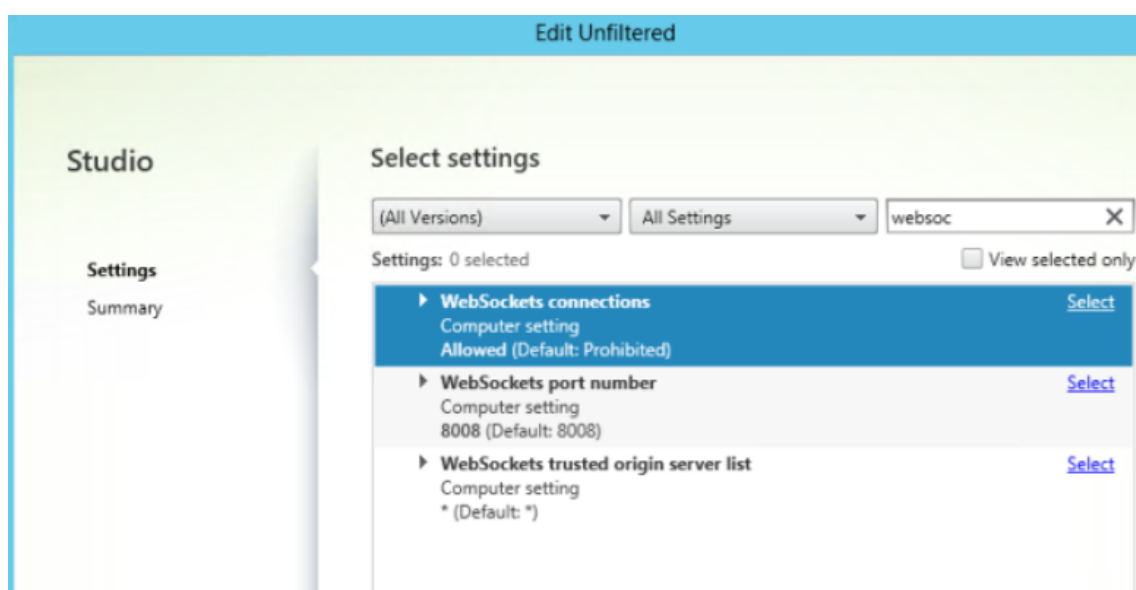
5. Click **Select** for each policy, select **Allowed**, and then click **OK**.

6. Leave the default values, select **OK**, and then click **Next**.

7. Enter a policy name or leave the default value. Ensure you select **Enable policy** and then click **Finish**.
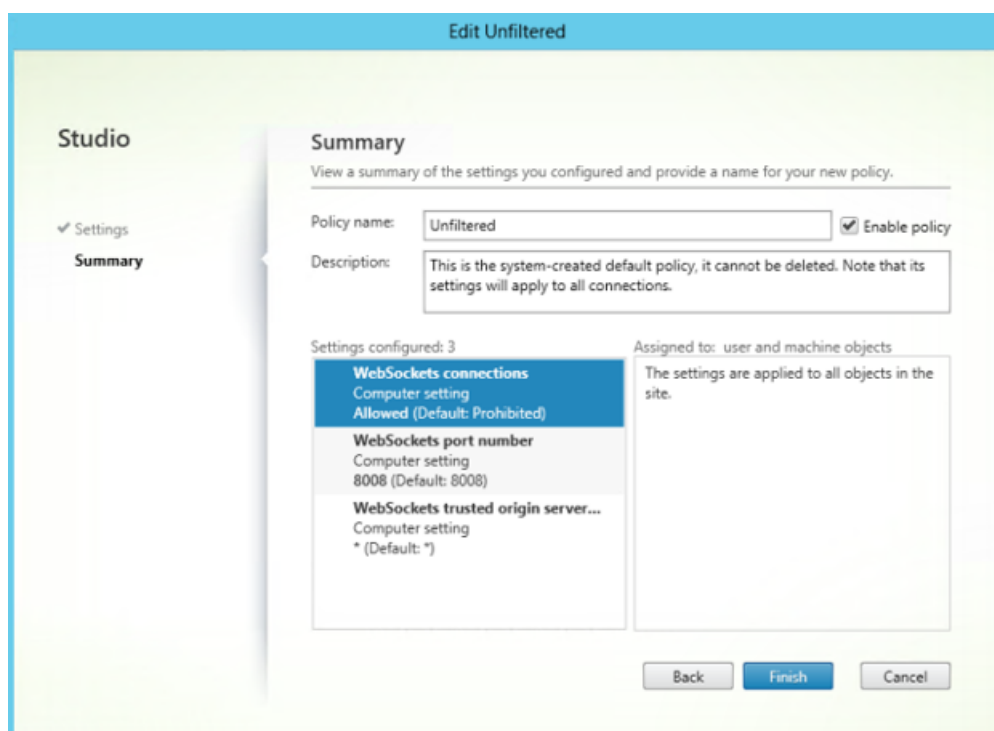
Note:

If you modify an existing default (unfiltered) policy, the option Assign policy to user and

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> machine objects is not available. Therefore, we recommend you either modify an existing
> (not default) policy or create a policy.

8. To create a policy in Citrix Studio, under **Actions**, select **Policy** and then click **Create Policy**. The **Create Policy** window opens.
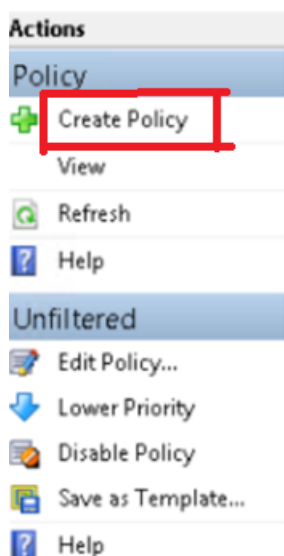
9. In the search field, type **websoc** and select **Enter**. The search filters all three WebSockets related policy settings.
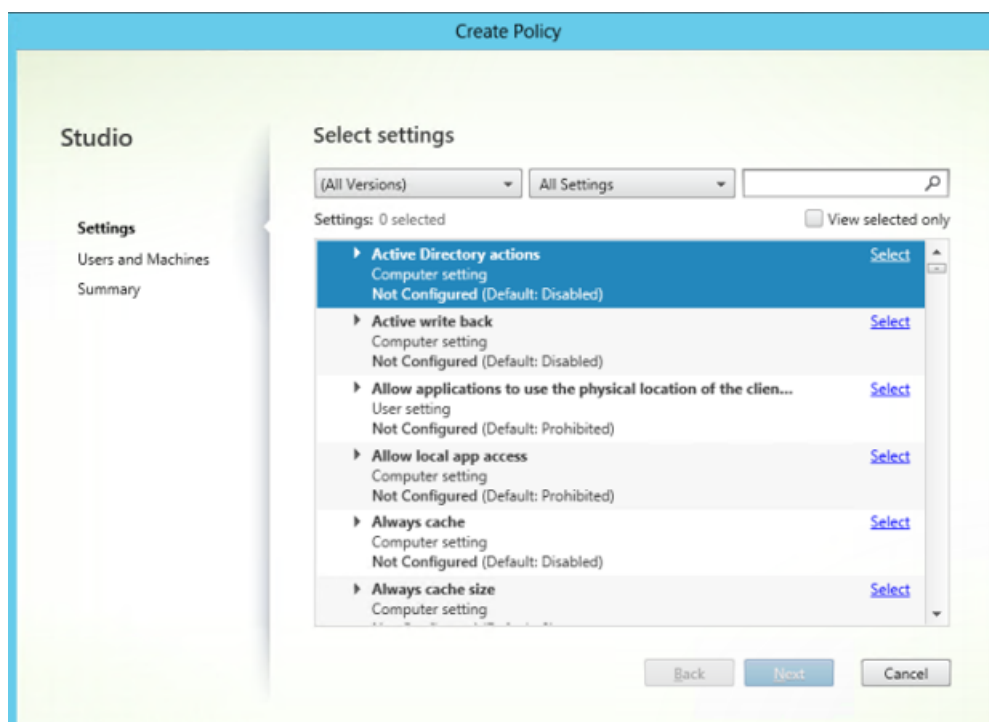
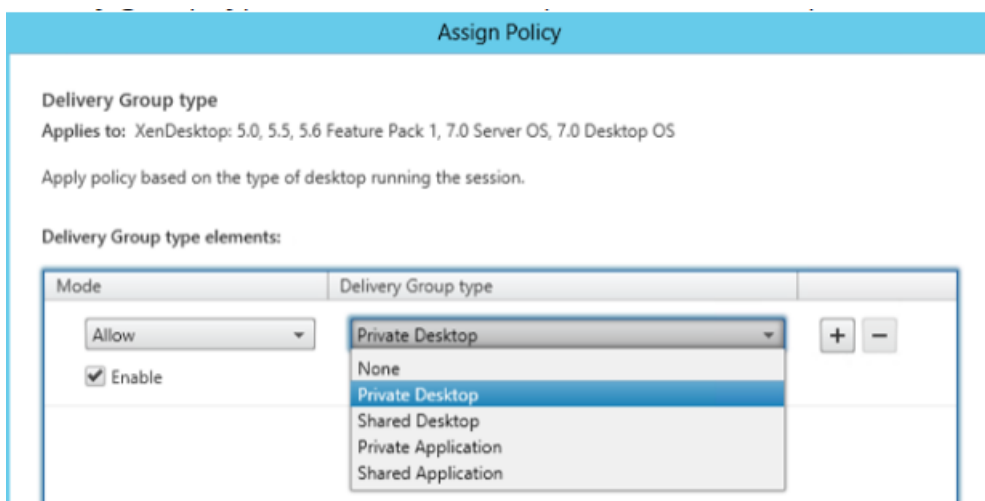10. Click **Select** for each policy, and then select **Next**.
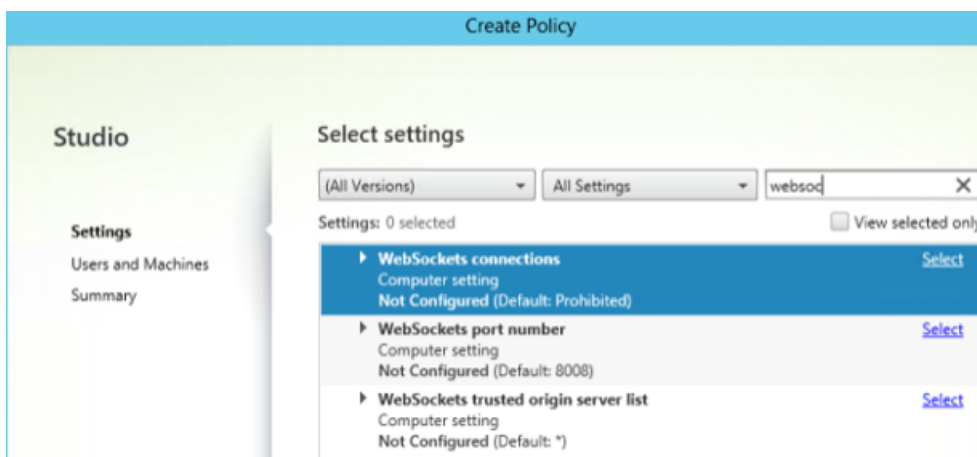
11. Assign the permission based on the Delivery Group. Select **Delivery Group** and click **Assign**.
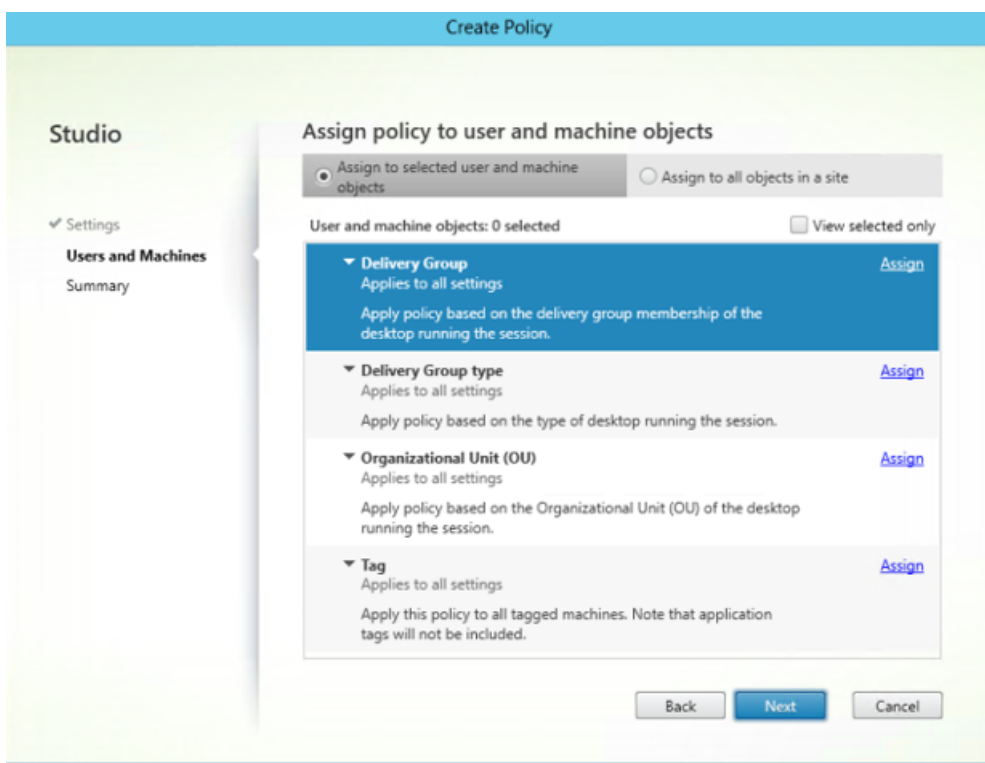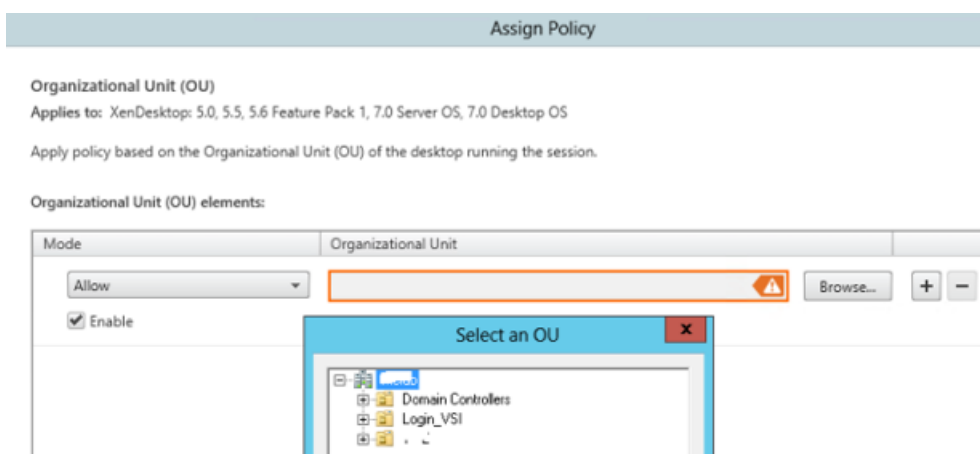

12. The **Assign Policy** window appears. Select the appropriate Delivery Group from the list and click **OK**.
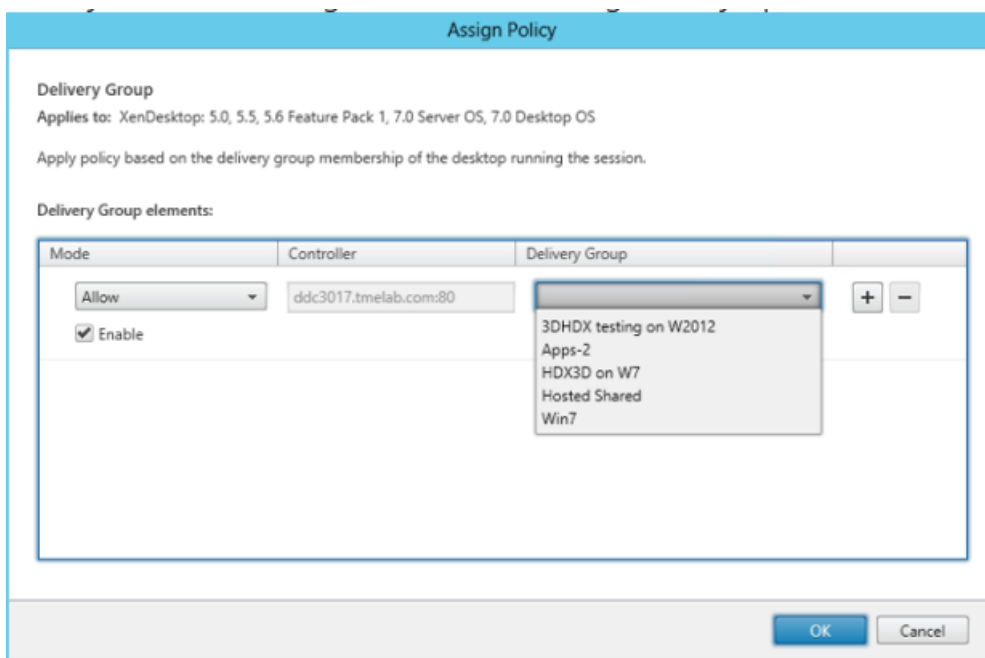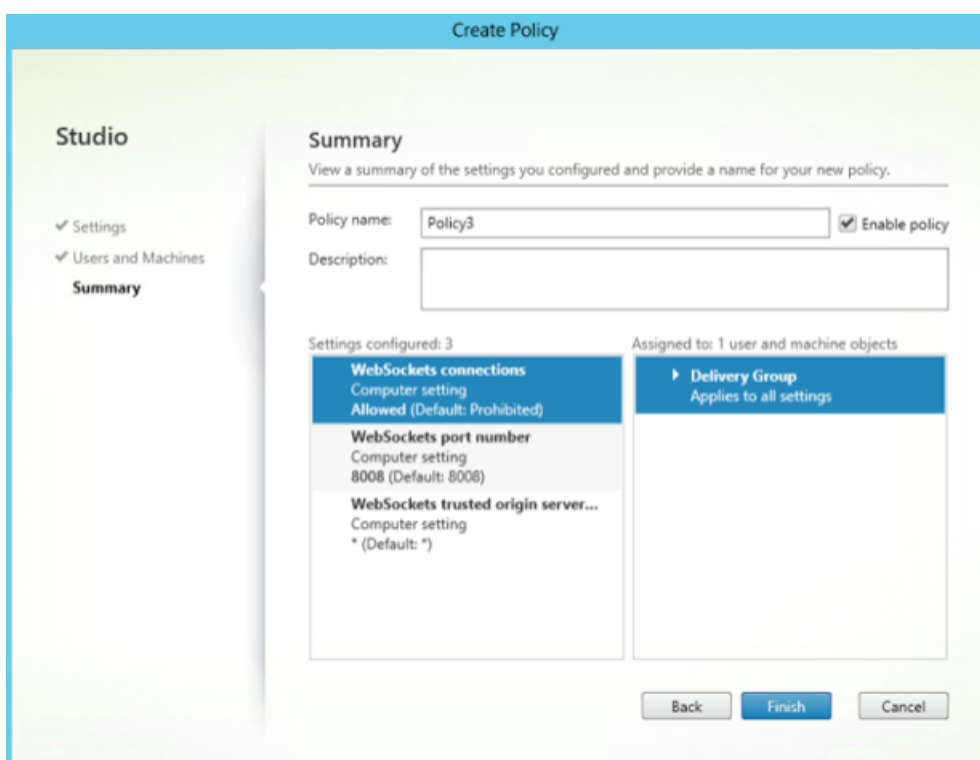
13. Select the **Delivery Group type** and click **Assign**. You can select the Delivery Group from the list.

14. If you select **Organizational Unit (OU)**, you can select a specific OU from your Active Directory environment.

15. On the **Summary** window, review your policy settings, and select **Finish**.

16. If you changed the port used when you allowed WebSocket connections on Citrix Virtual Apps or Citrix Virtual Apps and Desktops, complete the following steps to change the WebSocket port for the Citrix Workspace for Web site.

    a) Use a text editor to open the web.config file for the Citrix Receiver for Web site, which is typically located in the C:\inetpub\wwwroot\Citrix\storenameWeb directory, where *storename* is the name specified for the store when it was created.

    b) Locate the following element in the file.

       ```
       <html5 ... preferences=""... />
       ```

---

c) Set the value of the preferences attribute to **wsPort:portnumber;**, where *portnumber* is the port that you configured in the policy.

To verify HTML5 by accessing the desktop and applications using a web browser

1. Log on to the StoreFront using the URL, `http://<XDControllerIPaddressorFQDN>/Citrix/StoreWeb` using domain credentials based on the permission (users/groups) in the Delivery Group. When you select **Use Receiver for HTML5 if local CItrix Receiver/Workspace app is unavailable**, a page appears. Use the light version to access HTML5.

    You have the following two options:

    - Citrix Receiver Plug-in
    - Receiver for HTML5

2. Click **Log On**.

3. Enter the correct User name and Password.

4. The page enumerates all the apps and desktops you have access to. You can launch desktops and applications using an HTML5 browser. The desktops and applications are launched in a new tab.
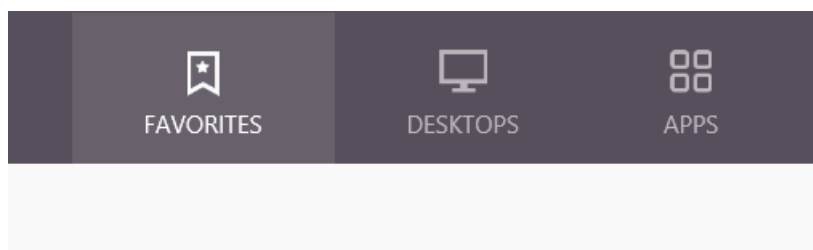
To view Citrix Receiver for HTML5 logs by navigating to the log page

1. Log on to the Citrix Receiver for Web site.

    - For Citrix Workspace app 1908 for HTML5 and later, open a new tab and navigate to **siteurl/Clients/HTML5Client/src/SessionWindow.html#engineType=log**, where siteurl is the URL of the Citrix Receiver for Web site (`http://server.domain/Citrix/StoreWeb`).

    - For Citrix Workspace app 1907 for HTML5 and earlier, open a new tab and navigate to siteurl/Clients/HTML5Client/src/ViewLog.html, where siteurl is the URL of the Citrix Receiver for Web site (`http://server.domain/Citrix/StoreWeb`).

Direct connections to Citrix Virtual Apps and Desktops

Citrix Workspace app for HTML5 uses the WebSocket protocol to access virtual desktops and hosted applications. By default, WebSocket connections are prohibited on Citrix Virtual Apps and Desktops. If you plan to enable users to access desktops and applications from the local network without connecting through Citrix Gateway, allow WebSocket connections on Citrix Virtual Apps and Desktops.

WebSocket connections are also disabled by default on Citrix Gateway. For remote users accessing their desktops and applications through Citrix Gateway, you must create an HTTP profile with WebSocket connections enabled and either bind this to the Citrix Gateway virtual server or apply the profile globally. For more information about creating HTTP profiles, see HTTP Configurations.

> **Warning:**
>
> Editing the registry incorrectly can cause serious problems that may require you to reinstall your operating system. Citrix cannot guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk. Be sure to back up the registry before you edit it.
>
> **Note:**
>
> If you are using SecureICA to encrypt communications between users' devices and your Citrix Virtual Apps and Desktops or Citrix Virtual Apps servers, Citrix Workspace app for HTML5 supports **Basic** encryption only.

Citrix Provisioning Services

To deploy provisioned (non-persistent) machines using Citrix Provisioning Services, create the machine catalog and delivery group on which you want to enable Citrix Workspace app for HTML5 connections. Ensure that the configured WebSocket policies apply to your machine catalog.

Restart the machine to apply the WebSocket policies. For Citrix Provisioning Services-based machines configured to use persistent write cache files and machines deployed using MCS (which have separate identity disks), the policies are persisted when the machines restart. However, for Citrix Provisioning Services-based machine catalogs configured to use temporary write cache files, these policies must be applied to the vDisk or they will not be implemented successfully on target devices.

Complete the following steps to ensure that the policies are correctly applied to the vDisk.

1. Using the Citrix Provisioning Console, shut down a target device that is part of the machine catalog and delivery group. Change the access type of the target device from Production to Maintenance.

   For details, see Target Devices. You must use a target device that is part of the machine catalog and delivery group or the policies will not be applied.

---

2. Create a new version of your vDisk and set the Access to Maintenance. For details, see Manually updating a vDisk image.

3. Start the maintenance target device, selecting the maintenance vDisk version from the boot menu. Verify that the following keys are added to the registry.

    a) HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Citrix\ICAPolicies\AcceptWebSocketsConnections

    b) HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Citrix\WebSocketsPort

    c) HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Citrix\WSTrustedOriginServerList

4. Shut down the target device, change the target device access type back to Production, and promote the new vDisk version to production. Then, start the target device and restart any other target devices currently running from the existing vDisk.

If you do not use vDisk versioning, you can apply the policies to your base vDisk image by shutting down all the target devices that use the vDisk, placing the vDisk in Private Image mode, and then starting the target device to update the image.

To Upgrade Citrix Workspace app for HTML5 on StoreFront

To upgrade to the new Citrix Workspace app, perform the following steps:

- Verify the current version of Citrix Workspace app for HTML5.

- Download CitrixHTML5Client-x64.exe.

- Copy CitrixHTML5Client-x64.exe to the StoreFront machine.

- Install CitrixHTML5Client-x64.exe as an administrator to update Citrix Workspace app for HTML5.

- Refresh the StoreFront console.

For the documentation of Citrix Receiver for HTML5, see Citrix Receiver.

Get Started

December 21, 2020

Set up

Citrix Workspace app for HTML5 integrates with Citrix Receiver for Website. To access their virtual desktops and hosted applications, users navigate to a Citrix Receiver for Website using a compatible browser running on a supported operating system.

The user experience with Citrix Workspace app for HTML5 is as follows:

- If you did not configure the site to always use Citrix Workspace app for HTML5, the site attempts to determine whether Citrix Workspace is installed locally on devices running Windows and macOS X. When Citrix Workspace cannot be detected, users are prompted to download and install the appropriate Citrix Workspace for their platform. For users who are unable to install Citrix Workspace, this happens every time they log on to the Citrix Receiver for Website. Users who already have Citrix Workspace installed locally must use this version to access resources from the site. They are not given the option to use Citrix Workspace app for HTML5. When you configure the Citrix Receiver for Website to always use Citrix Workspace app for HTML5, all users must access resources from the site through Citrix Workspace app for HTML5. This is regardless of whether they have a locally installed version of Citrix Workspace.

- When users access a desktop or an application through Citrix Workspace app for HTML5, the resource starts in a new browser tab or window, according to the user's browser settings. You can configure Citrix Workspace app for HTML5 so that resources are always started in the same tab as the Citrix Receiver for Website.

- When a user starts an additional application, Citrix Workspace app for HTML5 checks whether the application can be started within an existing session before creating a session. This enables users to access multiple applications over a single connection so that the available resources are used more efficiently.

- Citrix Workspace app for HTML5 supports displaying titles of the applications and desktops in parentheses (for example, VDA(1) and VDA(2)) in the browser tab. To enable this feature, select **Launch applications in the same tab as Receiver for Web** in StoreFront. For more information, see Configure.

Configure

February 12, 2021

Content Collaboration Service integration

This release introduces integration of Citrix Content Collaboration Service with Citrix Workspace app. Citrix Content Collaboration enables you to easily and securely exchange documents, send large documents by email, securely handle document transfers to third parties, and access a collaboration space. Citrix Content Collaboration provides many ways to work, including a web-based interface, mobile clients, desktop apps, and integration with Microsoft Outlook and Gmail.

You can access Citrix Content Collaboration functionality from the Citrix Workspace app using the `Files` tab displayed within Citrix Workspace app. You can view the `Files` tab only if Content Collaboration Service is enabled in the Workspace configuration in the Citrix Cloud console.

Note: Citrix Content Collaboration integration in Citrix Workspace app is not supported on Windows Server 2012 and Windows Server 2016 due to a security option set in the operating system.

The following image displays example contents of the `Files` tab of the new Citrix Workspace app:
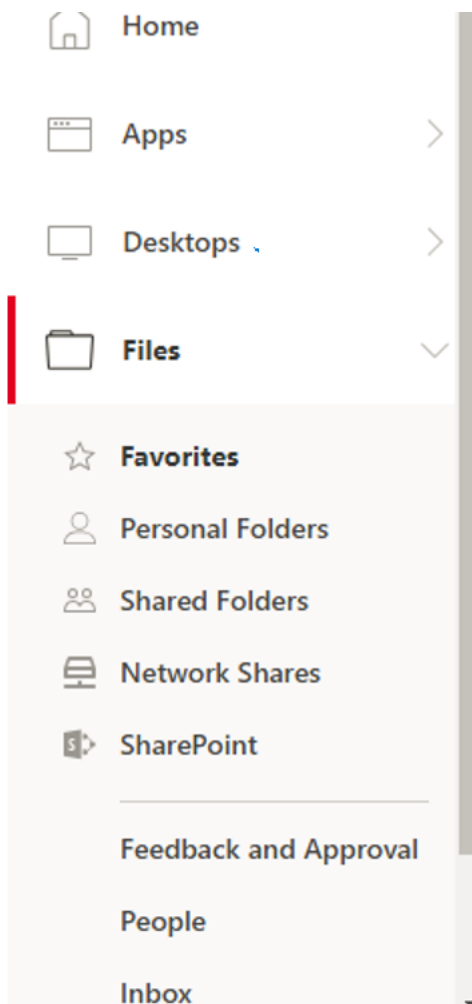
Limitations:

- Resetting Citrix Workspace app does not cause Citrix Content Collaboration to log off.
- Switching stores in Citrix Workspace app does not cause Citrix Content Collaboration to log off.

To enable users to access resources hosted on Citrix Virtual Apps and Desktops in their browsers, you must create a StoreFront store and enable Citrix Workspace app for HTML5. You must also enable WebSocket connections on Citrix Gateway, Citrix Virtual Apps, and Citrix Virtual Apps and Desktops, as required. Additionally, you can enhance the user experience by installing optional components on the machines providing the desktops and applications.

Multi-monitor display

Multi-monitor display lets you create a secondary window of the desktop or application session to which you are connected. You can then drag the secondary window to the secondary monitor.

Multi-monitor display is available for both desktop and application sessions.

To switch to multimonitor mode, click **Multimonitor** in the toolbar. Doing so creates a secondary window with a 1024x768 resolution. It also updates the server with the dual monitor information. You can drag and resize the secondary window and even go to full-screen mode on one or both monitors. Every time you resize the window, the secondary window resolution is updated on the server. To exit multi-monitor mode, close the secondary window.

Even though the resolution details of the secondary monitor are unknown to Citrix Workspace, multi-monitor mode gives you the flexibility of resizing to adjust to the resolution you prefer.

For the session to take focus, click **Multimonitor** in the toolbar.

This feature is enabled by default.

To disable the feature, edit the **configuration.js** file and set the value of the **multiMonitor** property to **false**.

```
1      'ui' : {
2
3          'toolbar' : {
4
5              'multiMonitor' : true
6          }
7      ,
```

Using Citrix Virtual Desktops on dual monitors:

1. Click **Multimonitor** in the toolbar.

2. An extended window is created. Drag the window to the extended monitor.

   The screen is now extended to both the monitors.

Multi-monitor performance

Citrix Workspace app for HTML5 improves the overall performance and stability of sessions in multi-monitor scenarios. In earlier versions, when a session was running on multiple monitors, you experienced sluggish performance.

Limitations:

- This feature is supported on desktop browsers except for Internet Explorer and Edge.

- On a Mac, the secondary window opens as a new tab in Chrome. When you drag this secondary window directly to the secondary monitor and resize it, the window might become invisible with an entry being shown in the Chrome taskbar.

  Workaround: Drag the window to the primary monitor and then back to the secondary monitor.
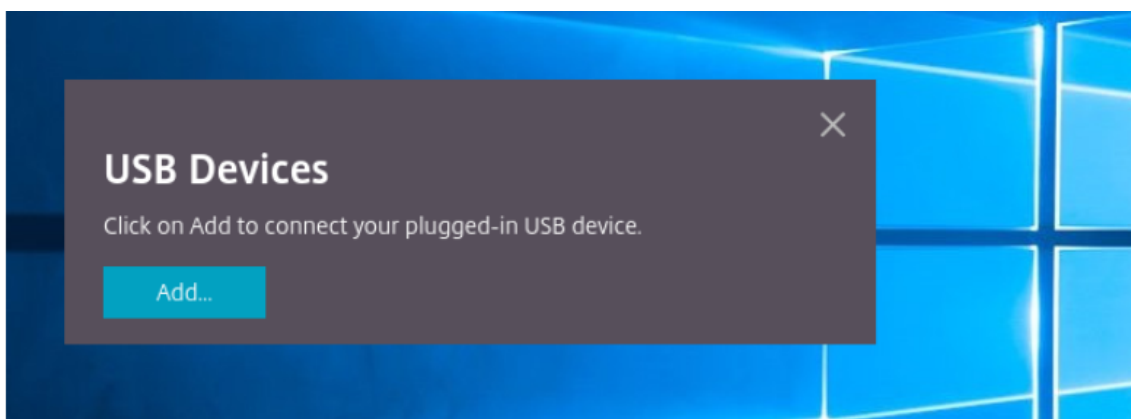
USB device redirection

Generic USB device redirection is supported on Chrome browsers (Version 61 and later) running on Chrome, Mac, and Linux operating systems. This feature is supported on sessions launched over secure HTTPS connections. This feature supports redirection of two USB devices simultaneously.

1. **Redirecting a USB device** As a prerequisite, enable the USB redirection policy on the server. For more information, see Enabling USB redirection on the server.

2. Connect the USB device to the machine.

3. Click on the `USB Devices` icon available on the in-session toolbar.

4. In the `USB Devices` dialog box, click on `Add`.

This action opens a Chrome dialog box that displays a list of devices.
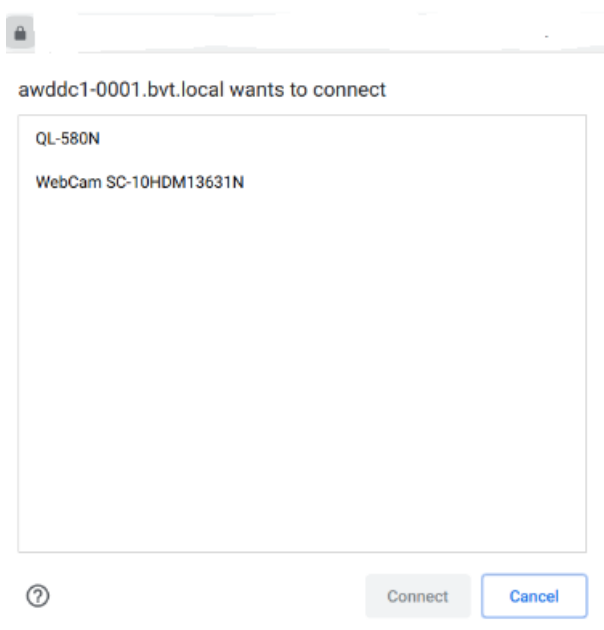
Note:

The Chrome dialog box displays USB devices that might not always be redirected through Citrix Workspace app for HTML5. The USB devices that can be redirected through Citrix Workspace app for HTML5 are displayed in the USB devices dialog box within the app.

5. Select devices to be redirected and then click on `Connect`. After successful redirection, you are returned to the `USB Devices` dialog box, and the device appears as `Connected`.
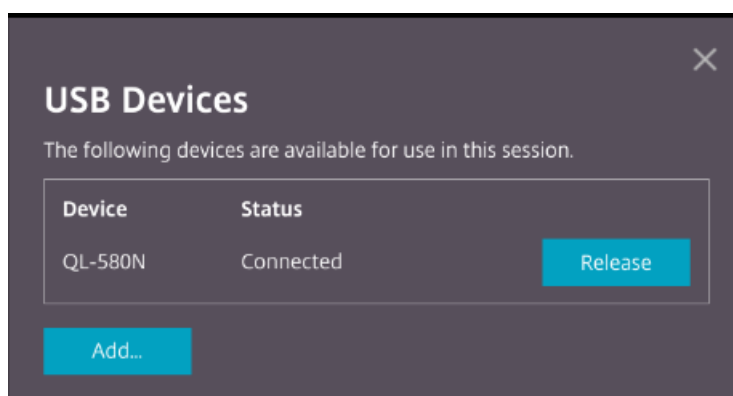
6. When you attempt to redirect a USB device that is not supported by Citrix Workspace app for HTML5, the following error message appears.
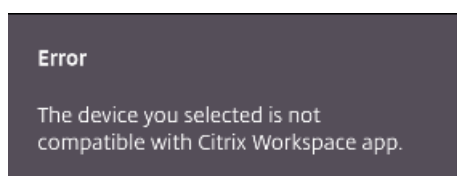

7. Click `Release` to release a device from the remote session.
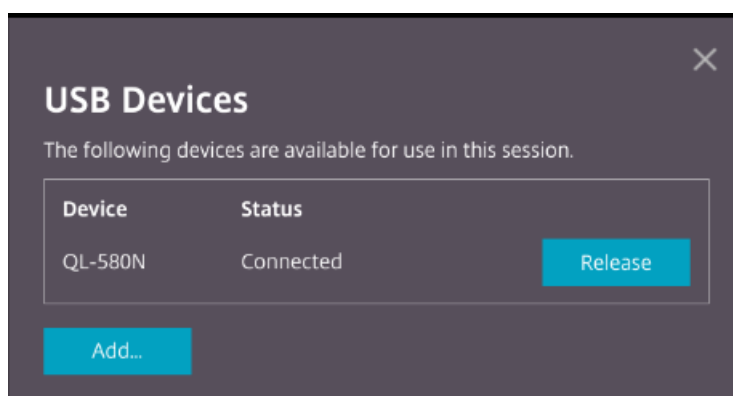
8. If you launch more than one session, USB devices that are connected inside a different session show as `Already is use`. Click `Transfer here` to transfer the devices to the current session.
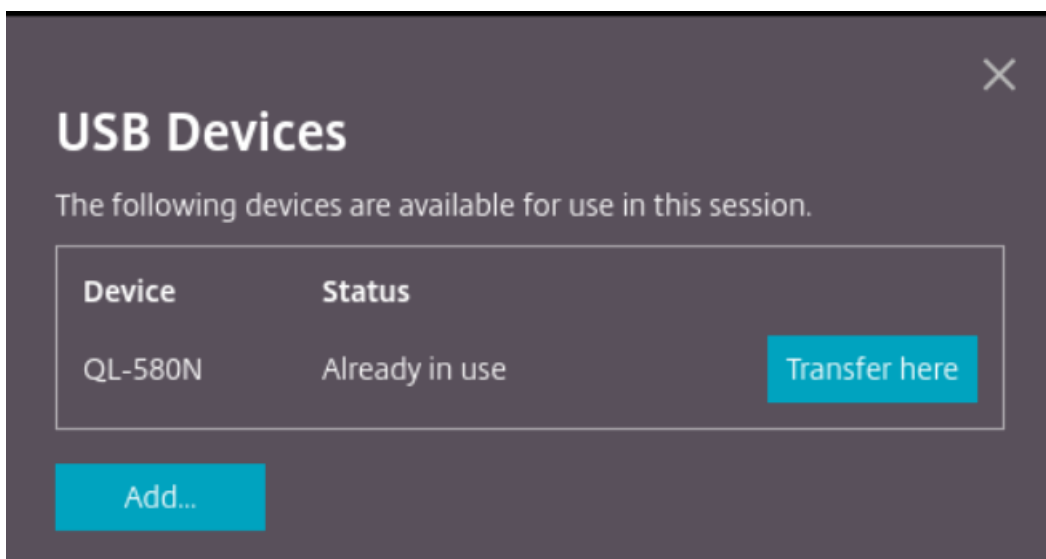
9. When you redirect more than one USB device to a session, click `Release all devices` to remove the devices from the session.
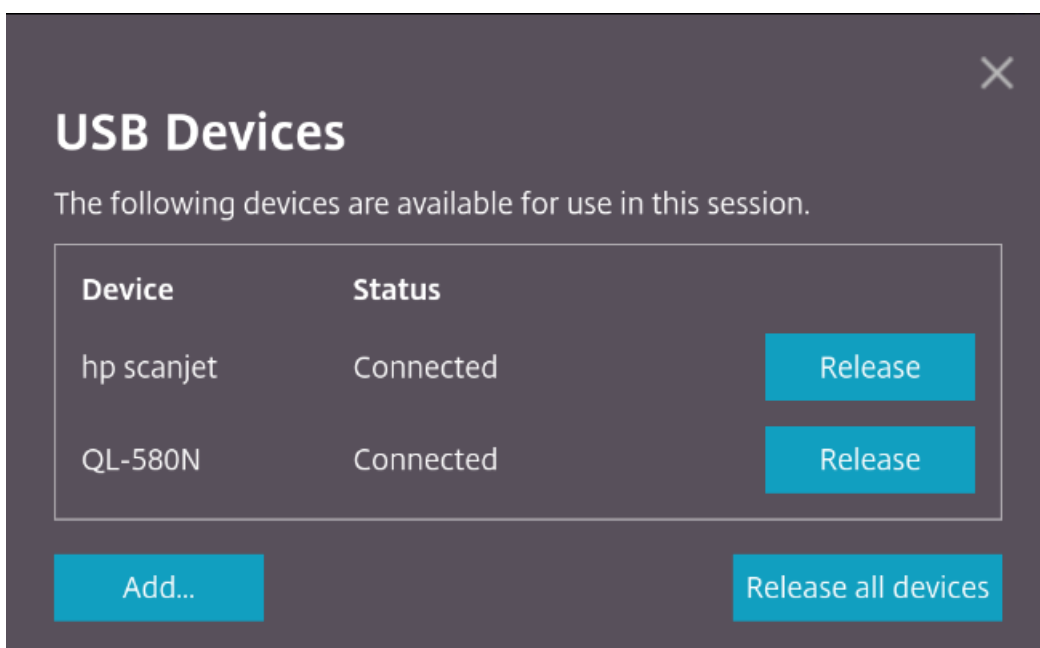
10. When you disconnect a redirected USB device from the machine without clicking `Release`, the following error message appears.
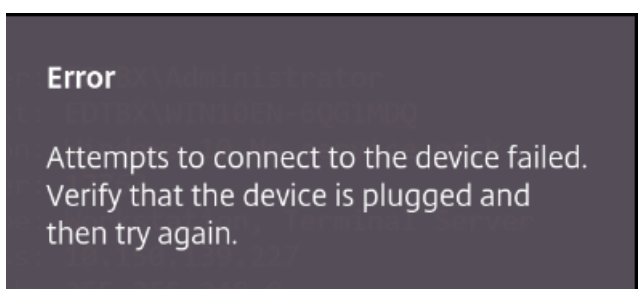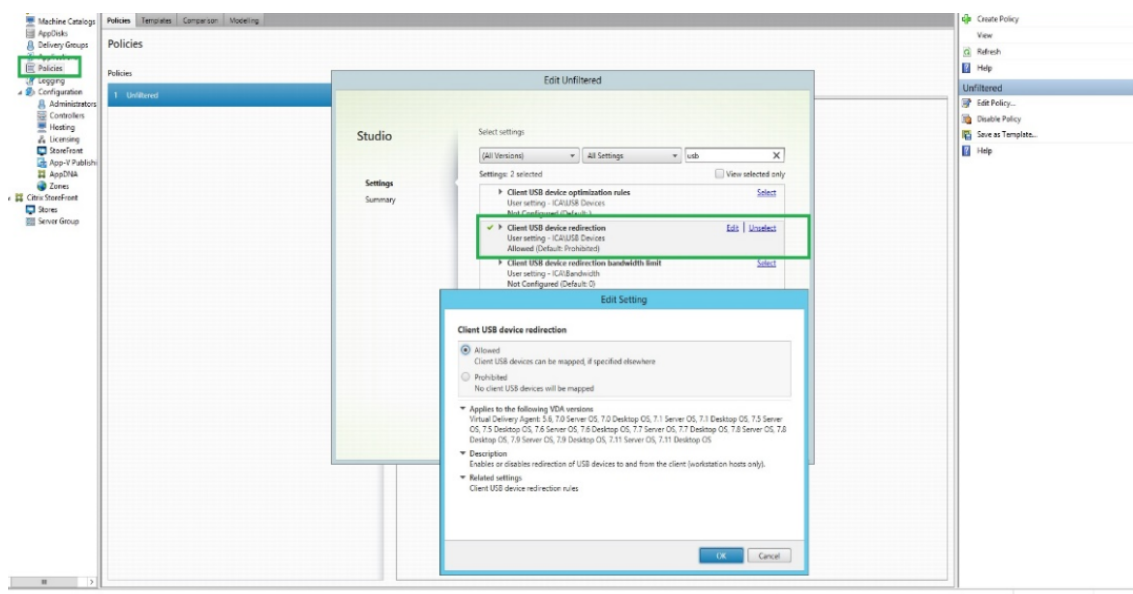
The USB device redirection feature is applicable only to USB devices for which the client operating systems (such as Mac and Chrome) does not load the device drivers by default. For example, the feature is applicable to Brother QL-580N Label Printer.

In case you are unable to redirect USB devices on a Linux operating system, try setting up the user accounts and providing permissions to open the USB devices as described in the Google developers' document https://developers.google.com/web/fundamentals/native-hardware/build-for-webusb#linux.

Enabling USB redirection on the server

Perform the following step to enable the USB device redirection on the server:

- Enable the policy for USB device redirection on the `Domain Controller`.

Configuring USB redirection for Citrix HTML5 client

By default, the USB device redirection feature is enabled on the client if the USB device redirection policy is enabled on the server.

To disable it, edit the configuration.js file and set the value of `usb` under `toolbar` to **false**. This setting is applicable to the StoreFront. The configuration.js file is located in C:\program Files\Citrix`actual path`\HTML5Client.

```
1      'ui' : {
2
3          'toolbar' : {
4
5                  'usb' : false
6              }
7    ,
8          }
```

Behavior of Chrome browser

- When you click on the padlock icon, the browser tab shows the Secure Connection dialog box. You can see the USB devices for which the browser tab has received user permission. Although there are multiple USB devices, only the devices that the Citrix HTML5 client can redirect appear in the Citrix `USB Devices` dialog box. Those devices can be used inside a remote session.

- If you want to revoke access permissions granted to the browser tab, click on the `x` icon next to the USB device. As a result, the `Reload` button appears. If you click on `Reload`, the session closes. Relaunch the session for the changes to take effect.

Limitations:

- The USB device redirection feature is not applicable to some USB devices for which the client operating system such as Windows loads the device drivers by default.

- Only USB Type A devices can be redirected to the session. But, you can connect Type A devices through a Type C connector.

- Releasing a USB hub device might not result in releasing connected `USB Type A` devices.

- HID devices, Mass Storage devices, and Web camera redirection might not work.

- This feature has been tested and is supported on VDAs running on Windows 10.

- This feature has been tested for up to two USB devices simultaneously.

Specifying the duration of overlay sessions

As an administrator, you can specify the duration of overlay sessions by using the **resizeOverlayDuration** value in the configuration.js file. The value defaults to 3,500 milliseconds. You can set it in a range of 0 through 3,500. The **onResize** events are generated when you resize a session. This feature is applicable only for sessions launched through the HDX SDK for HTML5.

```
1    'ui' : {
2
3        'resizeOverlayDuration': 3500
4            }
```

DPI scaling

Citrix Workspace app for HTML5 supports DPI scaling for app and desktop sessions on a single monitor.

Citrix Workspace app for HTML5 lets you set the VDA resolution on the monitors that have a high pixel ratio. The DPI scaling feature is disabled by default for app and desktop sessions.

For Citrix Workspace app 1908 for HTML5 and earlier, go to the session toolbar and then select **Toolbar** > **More** > **Preferences** > **Display Resolution** to set the resolution for app and desktop sessions. The correct resolution is set on the VDA.

For Citrix Workspace app 1909 for HTML5 and later, go to the session toolbar and then select **Toolbar** > **More** > **Display Resolution** > **Device Pixel Ratio Scaling** to set the resolution for app and desktop sessions. The correct resolution is set on the VDA.

When you set the resolution correctly on the VDA, blurry text becomes crisper.

Limitations:

- The High DPI scaling feature is disabled on touch screen devices.

Custom Cursor

Citrix Workspace app for HTML5 now supports custom cursors on the Microsoft Internet Explorer. This enhancement ensures that you have a consistent browsing experience across browsers. By default, the custom cursor is enabled.

To disable the custom cursor in Microsoft Internet Explorer or Edge using configuration.js

The configuration.js file is located in the HTML5Client folder. Edit this file to configure Citrix Workspace app for HTML5 by performing the following step:

Open the **configuration.js** file and set the value of **'handleMouseCursorUsingDivForIE'** under **ui** to false.

'ui': {
'handleMouseCursorUsingDivForIE' : false
}

Customer Experience Improvement Program (CEIP)

Data Collected	Description	What we Use it for
Configuration and usage data	The Citrix Customer Experience Improvement Program (CEIP) gathers configuration and usage data from Citrix Workspace app for HTML5 and automatically sends the data to Citrix and Google Analytics.	This data helps Citrix improve the quality, reliability, and performance of Citrix Workspace app.

Additional Information

Citrix will handle your data in accordance with the terms of your contract with Citrix, and protect it as specified in the Citrix Services Security Exhibit available on the Citrix Trust Center.

Citrix also uses Google Analytics to collect certain data from Citrix Workspace app as part of CEIP. Please review how Google handles data collected for Google Analytics.

You can turn off sending CEIP data to Citrix and Google Analytics. To do that, use one of the following methods:

- Disable CEIP using graphical user interface
- Disable CEIP using configuration.js

Note:

- When CEIP is disabled for Version 2006 and earlier, minimal information, containing the installed Citrix Workspace app for HTML5 version is uploaded. This minimal information is valuable to Citrix because it provides the distribution of different versions used by customers.

To disable CEIP using graphical user interface

Note:

You can modify the CEIP settings using the graphical user interface only when the administrator has enabled it using configuration.js.

1. Launch Citrix Workspace app for HTML5.
2. From the toolbar, select **Preferences**.
3. Clear **Help improve Citrix Workspace by sending anonymous usage statistics**.

Note:

Relaunch the session for the changes to take effect.

To disable CEIP using graphical user interface

Note:

You can modify the CEIP settings using the graphical user interface only when the administrator has enabled it using configuration.js.

1. Launch Citrix Workspace app for HTML5.
2. From the toolbar, select **Preferences**.
3. Clear **Help improve Citrix Workspace by sending anonymous usage statistics**.

Note:

Relaunch the session for the changes to take effect.

To disable CEIP using configuration.js

In Citrix Workspace app for HTML5, the configuration.js file is located in the HTML5Client folder. Edit this file to configure Citrix Workspace app for HTML5.

Note:

- Citrix recommends that you back up the configuration.js file before making any changes to it.
- Administrator-level credentials are required to edit the configuration.js file.

For Version 1905 and earlier, set the enabled attribute under **ceip** to **false** in the configuration.js file.

```
1  'ceip':{
2
3      'enabled':false,
4  }
```

For Version 1906 and later, set the enabled attribute under **analytics** to **false** in the configuration.js file.

```
1   'analytics':{
2
3       'enabled':false,
4   }
```

Blocking CEIP

For Version 2007 and later, administrators are allowed to block CEIP through the configuration.js file. This configuration takes precedence over the configuration made through the graphical user interface and CEIP data is not sent to Citrix.

- Open the configuration.js file, add the **connectionEnabled** attribute, and set the attribute to **false**:

```
1   'analytics':{
2
3   'connectionEnabled':false,
4                   }
```

Selective H.264

Configuring selective H.264 using the configuration.js file

> **Note:**
>
> - Citrix recommends that you back up the configuration.js file before making any changes to it.
> - Citrix recommends using this method only if Citrix Workspace app for HTML5 is repackaged for users.
> - Administrator-level credentials are required to edit the configuration.js file; after editing the file, repackage the app for the changes to take effect.

By default, selectiveH264 is set to **true**.

The configuration.js file is located under C:\program Files\Citrix<actual path>\HTML5Client. Edit this file and change **selectiveH264** to **false** as shown below.

```
'graphics': {
        'selectiveH264': false
}
```

PDF printing

To configure PDF printing

The Citrix PDF Universal Printer driver enables users to print documents opened with hosted applications or applications running on virtual desktops delivered by XenApp and XenDesktop Version 7.6. When a user selects the Citrix PDF Printer option, the driver converts the file to PDF and transfers the PDF to the local device. The PDF is then opened in a new browser tab for viewing and printing from a locally attached printer.

If you want to enable users to print documents opened with hosted applications or applications running on virtual desktops delivered by XenDesktop 7.6 and XenApp 7.6, complete the following steps.

1. Download the Citrix PDF Printing Feature Pack and install the Citrix PDF Universal Printer driver on each machine providing desktops or applications for Citrix Workspace app for HTML5 users. After installing the printer driver, restart the machine.
2. In Citrix Studio, select the Policy node in the left pane and either create a new policy or edit an existing policy. For more information about configuring Citrix Virtual Apps and Desktops policies, see Policies.
3. Set the **Auto-create PDF Universal Printer** policy setting to **Enabled**.

Note:

When you use Citrix PDF printer in a session launched from Citrix Workspace app for HTML5, set the **Client printer names** setting as default or select **Standard printer names**. Select **Legacy printer names** to use old-style client printer names and to preserve backward compatibility with legacy printers names as present in the XenApp and XenDesktop versions of the product. You can use this option with the current Citrix Virtual Apps and Desktops versions of the product.

Enhanced PDF printing experience

In earlier releases, when attempting to print a PDF, a **Continue** print dialog appeared, prompting your confirmation to print.

With this release, the **Print** window appears within your Citrix Workspace session. You can directly print the document from the **Print** window.

This enhancement is fully supported and enabled by default in Chrome and Firefox. To disable it in

Chrome and Firefox, set the value of **supportedBrowsers** to **false** in the **configuration.js** file. The configuration.js file is located under C:\program Files\Citrix<actual path>\HTML5Client.

This enhancement is partially supported in Internet Explorer 11 with some known limitations, and disabled by default. To enable this feature in Internet Explorer, set the value of **IE** to **true** in the **configuraton.js file**. The configuration.js file is located under C:\program Files\Citrix<actual path>\HTML5Client.

```
1      'pdfPrinting' : {
2
3                'directPrint' : {
4
5
6
7      'supportedBrowsers':true,
8
9
10                                    'IE':false
11                                        }
12
13                                        }
```

Optimized resolution

In earlier releases, content in a document appeared blurry when you attempted to print the document using the Citrix PDF printer.

This release introduces optimizations to improve the user experience. The `printResolution` value defaults to 150. Also, for crisper content, you can change the value in the `configuration.js` file to 300 or 600 depending on your requirement:

```
1  'pdfPrinting' : {
2
3      'directPrint' :
4          {
5  'printResolution' :150  }
```

Limitations:

- In Internet Explorer, the content of a printed PDF is scaled down and does not fit the page.
- In Internet Explorer, when printing a large file or a file with a large number of pages, the browser might stop responding or the print operation might fail intermittently.

- This enhancement is not supported for sessions that are launched through the HTML5 HDX SDK.

To suppress the Continue print dialog

When the enhanced printing experience feature is disabled, you can print a PDF by suppressing the appearance of the **Continue** print dialog.

By default, the '**printDialog**' property of the '**hide**' object is set to **false.**

The configuration.js file is located under C:\program Files\Citrix<actual path>\HTML5Client.

To do this, set the '**printDialog**' property of the '**hide**' object to **true**.

> **Note:**
>
> - Citrix recommends that you back up the configuration.js file before making any changes to it.
> - Citrix recommends using this method only if Citrix Workspace app for HTML5 is repackaged for users.
> - Administrator-level credentials are required to edit the configuration.js file; after editing the file, repackage the app for the changes to take effect.

```
1      {
2
3
4
5      'ui' : {
6
7
8
9        ”hide”:{
10
11
12
13           'printDialog': true
14
15
16         }
17
18
19
20       }
21
22
23
```

```
24            }
```

Blocking PDF printing

As an administrator, you can now block PDF printing on the following browsers across platforms: Internet Explorer, Google Chrome, Firefox, Safari, and Microsoft Edge (including Microsoft Edge Chromium).

By default, PDF printing is allowed across all browsers. To prohibit PDF printing, follow these steps:

1. Navigate to the **configuration.js** file, available at C:\Program Files\Citrix\Receiver Store-Front\HTML5Client.

2. Edit that file and set the value of disableForBrowsers to **'ALL'**.

   - To disable PDF printing on specific browsers, set the value of **disableForBrowsers** to **'MSIE'**, **'Chrome'**, **'FIREFOX'**, **'SAFARI'**, **'CHROMIUMEDGE'**, or **'MSEDGE'**.

```
1      'pdfPrinting' : {
2
3          'disableForBrowsers' : ['All']
4
5      or
6
7          'disableForBrowsers' : ['MSIE', 'Chrome',  'CHROMIUMEDGE' , '
           MSEDGE']
8
9                      }
```

The following describes each of the values in detail:

- 'MSIE': All the versions of Internet Explorer
- 'MSEDGE': All the versions of Microsoft Edge
- 'CHROMIUMEDGE': All the versions of Microsoft Edge Chromium
- 'Chrome': All the versions of Google Chrome
- 'FIREFOX: All the versions of Firefox
- 'SAFARI': All the versions of Safari

Session reliability

With session reliability, the session remains active on the server. To indicate that connectivity is lost, the user's display freezes until connectivity resumes on the other side of the tunnel. The user continues to access the display during the interruption and can resume interacting with the application

when the network connection is restored. Session reliability reconnects users without reauthentication prompts.

> **Note:**
>
> Citrix Workspace app for HTML5 users cannot override the server setting.

You can use session reliability with Transport Layer Security (TLS).

> **Note:**
>
> TLS encrypts only the data sent between the user device and Citrix Gateway.

For more information on configuring session reliability, see Session reliability policy settings in Citrix Virtual Apps and Desktops documentation.

Mobility support

To enable the auto soft keyboard popup

To enable this feature, configure the automatic keyboard policy to display the soft keyboard when clicking any editable area:

1. Open Citrix Studio on DDC.
2. Select **Policies**.
3. Click **Create Policy**.
4. Search for **Automatic Keyboard Display** and select **Allowed**.

File Transfer

By default, users can:

- Upload files from a local download folder or attached peripheral and seamlessly access the data from a Citrix Virtual Apps and Desktops sessions.
- Download files from a Citrix Virtual Apps and Desktops session to a folder or peripheral on their user device.

Administrators can selectively enable or disable file transfer, uploads, or downloads through policies in Citrix Studio.

Citrix Workspace app for HTML5 supports downloading files on a MacBook using the Safari browser.

Requirements

- XenApp and XenDesktop 7.6 or later, with:
    - Hotfix ICATS760WX64022.msp on server OS VDAs (Windows 2008 R2 or Windows 2012 R2)

      – Hotfix ICAWS760WX86022.msp or ICAWS760WX64022.msp on client OS VDAs (Windows 7 or Windows 8.1)
- To change file transfer policies: Group Policy Management (GPM) hotfix GPMx240WX64002.msi or GPMx240WX86002.msi on machines running Citrix Studio

Limitations:

- A user can upload or download a maximum of 10 files at a time.
- Maximum file size:
  - For uploads: 2147483647 bytes (2 GB)
  - For downloads: 262144000 bytes (250 MB)

File Transfer policies

By default, file transfer is enabled. Use Citrix Studio to change these policies, located under **User Setting < ICA\File Redirection**. Consider the following when using file transfer policies:

- Allow file transfer between desktop and client. Allows or prevents users from transferring files between a Citrix Virtual Apps and Desktops session and their devices.
- Upload file to the desktop. Allows or prevents users from uploading files from their device to a Citrix Virtual Apps and Desktops session.
- Download file from desktop. Allows or prevents users from downloading files from a Citrix Virtual Apps and Desktops session to their device.

Clipboard

Prior to introducing this feature, Citrix Workspace did not support copying and pasting HTML-formatted text from a local application to another application (for example, Microsoft Excel) using the Paste Special feature. As a result, the targeted app (in this case, Microsoft Excel) would not retain its HTML formatting characteristics.

Citrix Workspace app for HTML5 supports HTML format in addition to plain text between client and a session. This support is useful for Office apps and browsers. Enhanced clipboard support is only available on Chrome and Safari browsers. You can copy HTML content and retain formatting. When copying a link in Chrome, a <img> tag is added in HTML format, which effectively allows you to copy images as well as text. This feature is richer than plain text but does not work in all applications.

To configure clipboard support, add the following registry entry to the VDA:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Citrix\wfshell\Virtual Clipboard\Additional Formats\HTML Format
"Name"="HTML Format"

For additional information about the issues resolved by the introduction of this feature, see Knowledge Center article CTX086028.

> **Warning:**
>
> Using Registry Editor incorrectly can cause serious problems that can require you to reinstall the operating system. Citrix cannot guarantee that problems resulting from incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk. Make sure you back up the registry before you edit it.

Enhanced clipboard experience

When you launch multiple Virtual Desktop hosted applications or desktops on Windows, Mac, or Chrome operating systems using the browser based Citrix Workspace app for HTML5, you might want to copy and paste text between the session and your client device. With this feature, you can use the `Ctrl C` and `Ctrl V` hotkeys (for Windows or Chrome operating systems) and `CMD C` and `CMD V` hotkeys (for Mac operating system) to copy and paste.

This feature is enabled by default.

On Firefox and Edge browsers, to copy the text from a remote session to a local device, press `Ctrl C` and then click **Confirm**.

Disable the copy confirmation dialog by selecting the **Disable Copy Confirmation** check box in **Preferences** on the toolbar. Clear the check box to enable the option again.

To disable the enhanced clipboard experience

To disable this feature, edit the **configuration.js** file located inside the HTML5Client folder (C:\Program Files\Citrix\Receiver StoreFront\HTML5Client) and set the value of **directClipboard** to **false**.

Limitations:

- You can copy and paste only plain text and not images and files.
- Does not support large data.
- The `Ctrl` key might remain stuck in the down position. This issue occurs when you press the right `Ctrl` key for a long time and then press `C` to copy the text. As a workaround, click the right `Ctrl` key multiple times.
- Copying text from a secondary monitor requires an extra click (through the **Copy** confirmation dialog) for Google Chrome and Safari browsers. For Edge and Firefox browsers, copying text from both, single and secondary monitors requires an extra click.
- Use the `Ctrl c` or `CMD C` and `Ctrl V` or `CMD V` keys to copy and paste. Using the **Edit** menu or right-click option to copy the text might require an extra click using the **Confirm** dialog.

Toolbar

By default, the enhanced toolbar feature is enabled.

To hide the toolbar:

1. While logged in as an administrator, access the **configuration.js** file in **C:\ProgramFiles\Citrix<actual path>\HTML5Client**.
2. Search the configuration.js file to locate '**menubar key**.'
3. In the configuration.js file, set **"menubar":false**.

You can also hide an individual icon to prevent it from showing up in the toolbar. For example, to hide the `ctrl`+`alt`+`del` button in the toolbar:

1. While logged in as an administrator, access the **configuration.js** file in **C:\ProgramFiles\Citrix<actual path>\HTML5Client**.
2. Search the configuration.js file to locate '**lock**.'
3. In the configuration.js file, set **lock:false**.

Session sharing

For session sharing to occur, the applications must be hosted on the same machine and must be configured in seamless window mode with the same settings for parameters such as window size, color depth, and encryption. Session sharing is enabled by default when a hosted application is made available.

If App Switcher is installed on the machine providing the applications, a taskbar appears at the bottom of the window. The taskbar displays all the applications currently running in the session, enabling users to switch between those applications. Users can configure the taskbar to auto-hide and switch to small icons to minimize the amount of space taken up by the taskbar.

A floating toolbar containing controls for Citrix Workspace app for HTML5 is displayed in the browser tab, as shown in the following figure. The clipboard button enables users to copy and paste Unicode plain text between the local clipboard on the device and the resource running in the browser. Users can use standard Windows shortcuts to copy data, including text, tables, and images, between hosted applications, both within the same session and between different sessions. Users can also send the CTRL+ALT+DELETE key combination to their desktops and applications using a button on the toolbar.
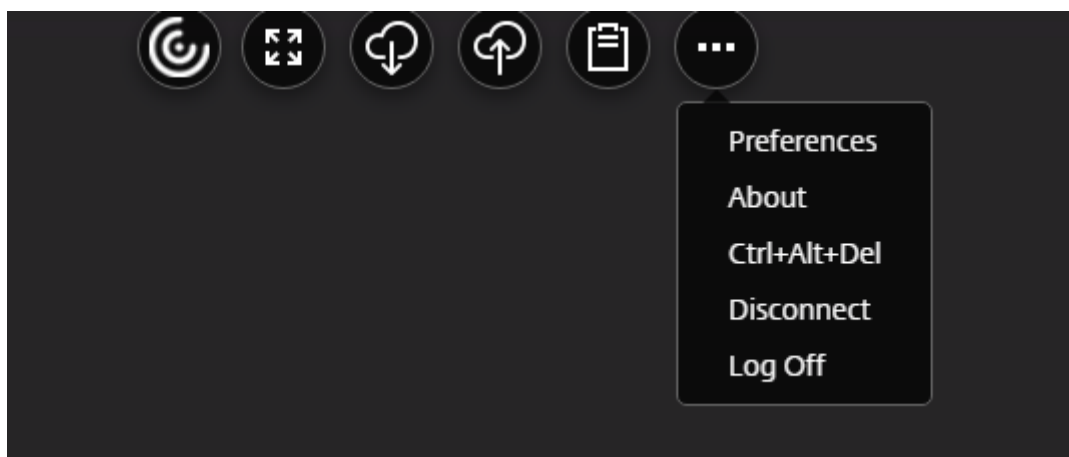
When printing a document opened with a hosted application or an application running on a virtual desktop, the user is given the option to print the document to PDF. The PDF is then transferred to the local device for viewing and printing from a locally attached printer. The file is removed from the device when the user closes the PDF.

A user who clicks a link in a document opened using a hosted application is given the choice of whether to open the **URL** in a hosted browser application within the session or to use the browser on the local device.

Enhanced app switcher support

Starting with this release, when you launch a published application session in full-screen or kiosk mode, the session does not overlap with the desktop taskbar. The app switcher no longer hides the session. This enhancement is supported only in single-monitor mode.

HTML5 logs

Citrix Workspace app for HTML5 provides timestamps for the logs generated by the user device.

To assist with troubleshooting issues, you can view Citrix Workspace app for HTML5 session logs.

The log page allows users to:

- Enable Logging: Enable logging to view the HMTL5 logs.
- Disable Logging: Disable logging to stop logging in a session.
- View logs: View the logs generated for a session.
- Clear logs: Delete the log file generated in a session.
- Download log file: Download the log file to a desired location.

To view Citrix Workspace app for HTML5 logs by navigating to the log page

1. Log on to the Citrix Receiver for website.

- For Citrix Workspace app 1908 for HTML5 and later, open a new tab and navigate to siteurl/-Clients/HTML5Client/src/SessionWindow.html#engineType=log, where siteurl is the URL of the Citrix Receiver for website `<http://server.domain/Citrix/StoreWeb>`.
- For Citrix Workspace app 1907 for HTML5 and earlier, open a new tab and navigate to siteurl/Clients/HTML5Client/src/ViewLog.html, where siteurl is the URL of the Citrix Receiver for website `<http://server.domain/Citrix/StoreWeb>`.

2. On the logging page, click Start Logging.

3. On the Citrix Receiver for website, access a desktop or application using Citrix Workspace app for HTML5.

The log file generated for the Citrix Workspace app for HTML5 session is shown on the logging page. You can also download the log file for further analysis.

To view Citrix Workspace app for HTML5 logs using the toolbar

1. Log on to the Citrix Receiver for website.
2. In the Citrix Receiver for website, access a desktop or application.
3. From the session toolbar, select **Logging**.
4. Click **Start Logging.**

Audio

You cannot play an audio file within a session on Safari macOS.

Host to client redirection

Content redirection allows you to control whether users access information by using applications published on servers or applications running locally on user devices.
Host to client redirection is one type of content redirection. It is supported only on Server OS VDAs (not Desktop OS VDAs).
When host to client redirection is enabled, URLs are intercepted on the server VDA and sent to the user device. Citrix Workspace app for HTML5 displays a dialog prompting the user to select whether to open the URL within the session or on the local device. The dialog appears for every URL. When host to client redirection is disabled, users open the URLs with web browsers or multimedia players on the server VDA. When host to client redirection is enabled, users cannot disable it.

Host to client redirection was previously known as server to client redirection.

For more information, see General content redirection.

SDK and API

July 15, 2020

HDX SDK

Citrix Workspace app for HTML5 enhances support for HDX and SDK sessions by enabling you to customize your delivery model for Citrix hosted apps and desktops through your website. This feature is useful for building a rich app experience in your Enterprise portals. It can be used to provide a rich app experience for users as a service when hosting Citrix Workspace app for HTML5 on your web server while launching Citrix hosted apps and desktops from your website.

For the HDX SDK for Citrix Workspace app for HTML5 documentation, see HDX SDK for HTML5.

For HDX SDK examples, refer to the Citrix download page.

Autoupdate support for Citrix Workspace app for HTML5 using HDX SDK for HTML5

Citrix HDX SDK for HTML5 enhances the `setPath` API to consume the latest build of Citrix Workspace app for HTML5 from the CDN. This enhancement allows Citrix Workspace app for HTML5 to run on the latest version seamlessly. For existing HDX SDK for HTML5 users, change `citrix.receiver.setPath` in the customer code to use the latest from the CDN. For new users, the `setPath` API provides the option by default.

CDN is provided as the default and the hosted location is provided as a fallback path if there are any issues with the CDN. For more information, see HDX SDK for HTML5.