



Citrix Workspace app for HTML5

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About this release

April 1, 2022

What's new in 2203.2

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

Fixed issues in 2203.2

- After upgrading to version 2203, attempts to use keyboard inside a session fails. A few keys and key combinations using CTRL, ALT, Shift, Spacebar, and Caps Lock might not work as expected. [CVADHELP-19766]

Known issues in 2203.2

No new known issues have been observed in this release.

Earlier releases

This section provides information on the new features and fixed issues in the previous releases that we support as per the [Lifecycle Milestones for Citrix Workspace app](#).

2203.1

What's new

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

Fixed issues

- After upgrading to version 2203, attempts to use keyboard inside a session fails. A few keys like CTRL, ALT, Shift, Spacebar, and Caps Lock might not work as expected. [CVADHELP-19766]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2203

What's new

Generic Client IME for East Asian languages

With this release, Generic Client Input Method Editor (IME) feature enhances input and display experience with Chinese, Japanese, and Korean (CJK) language characters. When you are in a session, this feature allows you to compose CJK characters at the cursor position. The feature is available for the Windows VDA and Linux VDA environments.

Prerequisites:

- For Linux VDA, enable **Client keyboard layout sync and IME improvement** policy.
- For Windows VDA, enable **Unicode Keyboard Layout Mapping, Client Keyboard Layout Sync, and IME Improvement policies**.
- Use Citrix Linux VDA version 2012 and later. Note that for Citrix Windows VDA, all the currently available Windows VDA versions support the generic client IME feature.
- The browser language needs to be either Japanese, Chinese (Simplified), Chinese (Traditional), or Korean.
- Use Google Chrome, Mozilla Firefox, Microsoft Edge, or Apple Safari 13 and later.

Generally, IME provides user interface (UI) components such as a candidate window and a composition window. The composition window contains the composition characters and composition UI elements. For example, underline and background color. The candidate window displays the candidate list.

The composition window enables you to distinguish between the confirmed characters and the composing characters. The composition window and the candidate window move with the input cursor. As a result, the feature provides an enhanced input of characters at the cursor location in the composition window as well as an enhanced display in the composition and the candidate window.

Feature limitation:

- Character composition is unsuccessful within the Microsoft Excel cell. The issue occurs when the cell is selected using a mouse click. [RFHTMCRM-6086]

Known Issue in the feature:

- When Citrix IME is not added to the VDI VDA desktop session, you might not be able to type the IME characters. The issue occurs intermittently on VDA versions 2202 and earlier. [HDX-36748]

Session reliability enhancement

This feature enhances the user experience by having fewer dropped network connections when you are roaming. The session reconnection happens in a few seconds.

CEIP data to Citrix and Google Analytics

From this release, end users can:

- decide whether to send the usage data to Citrix and Google Analytics or not.
- block CEIP through GUI.

For more information, see [CEIP](#) section as a whole and in particular [Blocking CEIP](#) section.

Note:

- If you're on HTTP-based stores, for a secure context, we recommend that you transition to HTTPS-based stores. For more information, see [HTTPS](#).

Fixed issues

- When you try keyboard shortcut **Ctrl + punctuation key** in the Microsoft Edge and other non-English Google Chrome browsers, the shortcut key does not work as expected. The issue occurs when the **Ctrl + punctuation key** combination gets modified to a different combination before reaching the VDA. Thus, the VDA receives an inaccurate input. [CVADHELP-19445]
- When you set up a Microsoft Outlook meeting with Dutch regional settings and the option **Adjust the daylight saving time automatically** is enabled, the meeting invite in the remote calendar appears an hour early. [CVADHELP-17992]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2022

What's new

Microsoft Teams optimization [Tech preview]

Microsoft Teams optimization supports audio call, video call, and screen sharing functionalities on the Google Chrome browser only. The minimum Google Chrome version required is m97 and later. You can use this feature after enabling the origin trial and with the on-premises account only.

For more information, see [Microsoft Teams optimization](#).

Support for dynamic e911 [Tech preview]

Citrix Workspace app supports dynamic emergency calling. When used in Microsoft Calling Plans, Operator Connect, and Direct Routing, it provides the capability to:

- configure and route emergency calls

- notify security personnel

For more information, see [Support for dynamic e911](#).

Fixed issues in 2202

- When you enable Microsoft Teams optimization, the incoming audio is not be available. [CVADHELP-19456]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2201

What's new

Microsoft Teams Optimization [tech preview]

Microsoft Teams supports a single monitor for audio call, video call, and screen sharing functionalities on the Google Chrome browser only. The minimum required Google Chrome version is m97 and later. You can use this feature after enabling the origin trial and with the on-premises account only.

For more information, see [Microsoft Teams optimization](#).

Feature limitation:

- When you use Microsoft Teams optimization and share the screen, a red border that indicates the screen sharing is unavailable. [RFHTMCRM-6360]

Fixed issues

- When you try to launch a published application session in the Microsoft Edge browser, a white bar appears at the top of the screen. [RFHTMCRM-6372]
- In a session, when you type words using the Input Method Editor (IME) for Japanese, the word you type appears twice.

The issue occurs when:

- You use the mouse click to submit
- Citrix Workspace app for HTML5 is configured with the Generic Client IME feature and
- You use Google Chrome or Microsoft Edge Chromium browser on a Windows client. [RFHTMCRM-5187]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2112

What's new

Troubleshooting enhancement for mobile devices

With this release, you can get quick access to the session log file by tapping the **Get Logs** option. The logging option is renamed from **Logging** to **Get Logs**. When you select **Get Logs** from the secondary menu, the log file downloads on your device, unlike on a new browser tab.

Note:

You can collect logs for the ongoing session and a maximum of the previous five sessions.

Global App Configuration Service enhancement

With this release, administrators can customize user settings for on-premises deployments. Previously, this feature was available only on the Workspace (Cloud).

For prerequisites, see [Getting Started](#) section in the **Global App Configuration Service documentation**.

Notes:

- This feature is available for HTTPS-based stores only.
- For the Global App Configuration Service to work, ensure that your users can access the URL `discovery.cem.cloud.us`.

Fixed issues

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

Note:

To know the existing issues within the product, see [Known issues](#) section.

2111.1

What's new

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

Fixed issues

- Attempts to copy and paste an image from the clipboard of the local device to the relevant app in the session may fail. [RFHTMCRM-6218]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2111

What's new

Troubleshooting enhancement

With this release, Citrix Workspace app supports log collection for ongoing virtual desktop and app sessions. Previously, you could collect logs only for sessions launched after selecting **Start Logging** during an ongoing session. Now, the logs are collected for the ongoing and subsequent sessions until you select **Stop Logging**.

Global App Configuration Service

With this release, administrators can customize user settings in sessions launched in Citrix Workspace app by using the Global App Configuration Service. Previously, administrators could only use the **configuration.js** for this purpose, and it was applicable only for StoreFront users.

Configure

The Global App Configuration Service for Citrix Workspace allows a Citrix administrator to deliver Workspace service URLs and Workspace App settings through a centrally managed service.

For more information, see [Global App Configuration Service](#) documentation.

Notes:

- This feature is available for workspace and HTTPS-based stores only.
- For the Global App Configuration Service to work, ensure your users can access the URL `discovery.cem.cloud.us`.

Enhanced support for webcam redirection

Previously, Webcam redirection was available only on the Google Chrome and Microsoft Edge (Chromium) browsers. With this release, webcam redirection support is extended to the Mozilla Firefox and Apple Safari browsers. For configuration information see, [Webcam redirection](#).

Note (HTTPS)

If you are on HTTP-based stores, for a secure context, we recommend that you transition to HTTPS-based stores. For more information, see [HTTPS](#).

Fixed issues

- When you type words using the Input Method Editor (IME) for Japanese, the second word overlaps the first word. The issue occurs when the Citrix Workspace app for HTML5 is configured with the Generic Client IME feature. [RFHTMCRM-5186]
- In general, when you launch an HTML5 session, the **Windows logo** key and Windows key combinations such as **Windows + R** and **Windows + E** work with the Google Chrome and Microsoft Edge Chromium browsers only in full-screen mode and for HTTPS sites. Enable full-screen mode only through the toolbar.

On the Chrome OS devices, when you launch an HTML5 session, the **Windows logo** key, and Windows key combinations such as **Windows + R** and **Windows + E** work in both full-screen and windowed modes. [RFHTMCRM-5905]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2110

What's new

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

Note:

- If you're on HTTP-based stores, for a secure context, we recommend that you transition to HTTPS-based stores. For more information, see [HTTPS](#).

Fixed issues

- After upgrading the Citrix Workspace app for HTML5, you might see a white screen when launching a session. The issue occurs when Dynamic Compression is enabled through the IIS (Internet Information Services) manager in StoreFront. [RFHTMCRM-5524]
- On devices where only intranet access is allowed, sessions might not launch or there might be a delay. [RFHTMCRM-5440]
- Indefinite strings of characters appear, such as "oooooooooooooooooooo," while using CJK languages. The issue occurs when you press and don't release the letter key immediately for shortcuts such as Ctrl+ O, Ctrl+J, Ctrl+K, and Ctrl+L on sessions running on Linux VDA. [RFHTMCRM-5512]

- When you click **Disconnect** on your toolbar or through the HDX SDK for HTML5 disconnect API, your desktop and app session windows might not close. This issue occurs after disabling the seamless virtual channel. [RFHTMCRM-6000]
- You might see disconnection of sessions in Citrix Workspace app 2108 and 2109 for HTML5. The issue occurs in VDA version 7.15. [RFHTMCRM-5959]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2109

What's new

Support for copying image clips

Using the standard keyboard shortcuts, you can now copy and paste image clips between your local device and your virtual desktop and app sessions. You can use the standard keyboard shortcuts for copying and pasting while using apps such as Microsoft Word, Microsoft Paint, and Adobe Photoshop. Previously, this functionality was available only for text for the Google Chrome browser and the Microsoft Edge (Chromium) browser with HTTPS stores. This functionality is now available for both text and images for the Google Chrome browser and the Microsoft Edge (Chromium) browser with HTTPS stores.

Supported clipboard actions

Google Chrome browser and Microsoft Edge (Chromium) browser with HTTPS stores	Image clip copy and paste support. Text copy and paste support
Mozilla Firefox, Internet Explorer, HTTP stores	Text copy and paste support

Notes:

- In general, for security reasons, we recommend you use only HTTPS-based stores.
- Due to network bandwidth constraints, sessions might become unresponsive when you try to copy and paste an image clip larger than 2 MB.
- You can select and press Ctrl + C and Ctrl + V (Microsoft Windows OS, Chrome OS) or Command + C and Command + V (Apple Macs) to copy and paste. The right-click functionality works only when you copy and paste from your virtual desktop and app sessions to your local device. It doesn't work when you copy and paste from the local device to your virtual desktop and app sessions.
- We've tested this feature with BMP, PNG, JPEG, and GIF formats.

Battery status indicator

The battery status of the device now appears in the notification area within the virtual desktop session. Previously, the battery status indicator wasn't visible in the session, which sometimes led to a loss of productivity when the laptop shuts down after the battery runs out.

The newly available battery status indicator feature is supported on Google Chrome and Microsoft Edge (Chromium) browsers. It is supported only on VDA versions 7.18 and later.

Note:

With Microsoft Windows 10 VDA, the battery status indicator might take about 1 or 2 minutes to appear.

Support for Microsoft Windows logo key and additional keyboard shortcuts

This release adds support for the following key combinations with the Microsoft Windows logo key in your sessions running on Microsoft Windows.

- Windows + R
- Windows + D
- Windows + E
- Windows + M
- Windows + S
- Windows + CTRL + S
- Windows + T
- Windows + U
- Windows + Number
- Windows + X
- Windows + K

We're now also supporting the following, additional keyboard shortcuts in your sessions running on Microsoft Windows:

- Alt + Tab
- Esc key
- Ctrl + N
- Ctrl + T
- Ctrl + W

In sessions running on macOS, we now also support the following, additional keyboard shortcuts:

- Esc Key
- Command + N
- Command + T
- Command + W

- Ctrl + N
- Ctrl + T
- Ctrl + W

We don't support Alt + Tab and Microsoft Windows logo key shortcuts in sessions running on macOS.

Note:

The shortcut keys work only in full-screen mode selected through the toolbar. For more information, see [Keyboard shortcuts](#).

Note (HTTPS)

If you are on HTTP-based stores, for a secure context, we recommend that you transition to HTTPS-based stores. For more information, see [HTTPS](#).

Fixed issues

- In multi-monitor sessions, you might not be able to paste using the Ctrl + V shortcut key in the extended monitor. The issue occurs when you minimize the primary monitor. [RFHTMCRM-5789]
- Attempts to copy more than 10 MB worth of text from your local device to your virtual desktop and app session might fail. [RFHTMCRM-5831]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2108.2

What's new

Bidirectional audio

You can now make and receive calls within your Citrix Workspace app sessions. Earlier, audio redirection was limited to audio-out, which let you listen to only the audio being played inside the sessions.

The newly available microphone (audio-in) feature is supported on Google Chrome, Mozilla Firefox, and Microsoft Edge (Chromium) browsers.

Recommendations

- Use headsets for optimal audio quality.
- Sometimes, the audio quality isn't smooth on constrained networks. For such scenarios, we recommend that you set audio quality to **Medium** or **Low** in Citrix Studio.

Notes:

- When launching a session for the first time, the browser asks for permission to use your microphone, and then remembers your preference going forward for the particular store.
- At times, you might see an error message stating, “The microphone couldn’t be opened.” Disconnect and reconnect to the session for the microphone to be redirected.
- At times, when the session auto-reconnects after network disruption, the Microsoft Teams application might have difficulty utilizing the microphone for some duration. As a workaround, wait for some time, or quit and reconnect to the meeting.
- Audio features require a secure context to work. They’re supported on stores based on ‘https.’ We also recommend - in general - that stores be based on ‘https.’
- With VDA versions 2008 and earlier, you might see audio not working on the Google Chrome or Microsoft Edge (Chromium) browsers. We recommend that you move to a later VDA version. For more information, see [Audio](#).
- Bidirectional audio is available on video conferencing apps such as Microsoft Teams within the Workspace app.

Webcam support

You can now start using webcams, both built-in and external, within Citrix Workspace app for HTML5 virtual desktop and app sessions.

Webcam support is available on the Google Chrome and Microsoft Edge (Chromium) browsers.

Notes:

- When launching a session for the first time (from a store), a prompt appears requesting permission to use your camera.
- Camera features require a secure context to work. They are supported on stores based on ‘https.’ We also recommend - in general - that stores be based on ‘https.’
- Webcam support is available on video conferencing apps such as Microsoft Teams within the Workspace app.

Enhanced graphics

This enhancement provides higher frame rates. As a result, interactive graphics and video playback are smoother. Currently, this enhancement is limited to the Mozilla Firefox browser.

Recommendation

We recommend setting the **Legacy Graphics Mode** to **Disabled**.

Fixed issues

- Trying to print documents using the Citrix PDF printer might fail. For more information, see [PDF printing](#). [RFHTMCRM-5157, CVADHELP-17340]
- Applications launched inside the virtual desktop and app on a Chromebook might display visual artifacts. [CVADHELP-17805]
- You can't type characters in Notepad in Citrix Workspace app for HTML5 sessions launched in Mozilla Firefox on a MacBook. [RFHTMCRM-5406]
- On iOS devices, you can type only English language characters in sessions opened using Apple Safari browsers through the Linux VDA. Attempts to type other supported language characters such as CJK, Russian, and accented characters such as in Spanish and French don't work. [RFHTMCRM-5195]
- You might see rectangular blocks across the screen while using certain apps like Microsoft Excel. The issue might occur in sessions running on earlier VDA versions. [RFHTMCRM-5482]
- When you press the Ctrl + A, Ctrl + C, Ctrl + V, or Ctrl + X keys while using CJK languages, indefinite strings of characters appear, such as "aaaaaaaaaaaaaaaaaaaaaaaaaaaaa." The issue occurs with sessions running on the Linux VDA. [RFHTMCRM-5114]
- With the Legacy graphics policy enabled, sessions running on Microsoft Windows might display visual artifacts. The issue occurs with VDA versions 7.6 through 7.15. [RFHTMCRM-5521]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2106

What's new

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

Fixed issues

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

Note:

To know the existing issues within the product, see [Known issues](#) section.

2105.6

What's new

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

Fixed issues

- On devices running iOS 14 versions, when you open the Chrome browser and tap the keyboard icon in the toolbar, the keyboard doesn't appear. We recommend that you upgrade both Citrix Workspace app for HTML5 to version 21.5.6 and iOS to version 14.4 or later. [RFHTMCRM-5279]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2105.5

What's new

Enhanced East Asian language input and display feature

Improved input and display experience with Chinese, Japanese, and Korean characters. Currently, this enhancement is limited to sessions hosted on Linux VDAs.

Input Method Editor (IME) is a key feature for users of the Chinese, Japanese, and Korean (CJK) languages. A generic version of the feature is available in Citrix Workspace app and on VDAs. Earlier, the generic client IME user interface (including the **Composition** and the **Candidate** Windows) was positioned in the upper left corner of the screen. It did not follow the cursor and was therefore often located far from the cursor position. Starting with this release, we're enhancing the feature, allowing you to compose CJK characters at the current cursor location within your Citrix Workspace app for HTML5 session as shown below.

Limitations:

- This feature is currently supported on Citrix Workspace app for HTML5 sessions running on Linux VDA 2012 or later.
- This feature is not supported on Internet Explorer nor on Apple Safari 12 and earlier.

For more information, see [Configure - Generic Client IME](#).

Fixed issues

- When using a published app that is able to print using the Print Screen key in a client session, pages print twice. [RFHTMCRM-5085, CVADHELP-17119]
- Attempts to completely disable CEIP (Customer Experience Improvement Program) in cloud environments are unsuccessful. [CVADHELP-1741]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2103

What's new

Support for browsers

Citrix Workspace app for HTML5 now supports new features for only the following browsers:

- Mozilla Firefox
- Google Chrome
- Apple Safari
- Microsoft Edge Chromium

Browsers	Support for new features	Support for maintenance and security fixes
Mozilla Firefox	Yes	Yes
Google Chrome	Yes	Yes
Apple Safari	Yes	Yes
Microsoft Edge Chromium	Yes	Yes
Internet Explorer*	No	Yes
Microsoft Edge Legacy*	No	Yes

*Microsoft apps and services to end support for Internet Explorer and Microsoft Edge Legacy soon. For more information about product lifecycles, see Microsoft documentation.

Note:

Ensure that you use the latest version of the Citrix HDX SDK for HTML5 to launch the sessions. For more information, see [Citrix Workspace app for HTML5 HDX SDK](#). Otherwise, the launch of the sessions might fail.

Fixed issues

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

Note:

To know the existing issues within the product, see [Known issues](#) section.

2101.5

What's new

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 VDA, 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.

Fixed issues

- 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]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2101

What's new

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.

Fixed issues

- 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]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2011

What's new

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

Fixed issues

- 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]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2010.6

What's new

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

Fixed issues

- 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]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2010.5

What's new

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

Fixed issues

- 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 supports:
 - 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]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2010

What's new

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

Fixed issues

- 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 for HTML5, your device might exhibit 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]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2009

What's new

macOS 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.

Fixed issues

- 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 a macOS Big Sur update. [RFHTMCRM-3825]

Note:

To know the existing issues within the product, see [Known issues](#) section.

2007

What's new

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

Fixed issues in 2007

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

Note:

To know the existing issues within the product, see [Known issues](#) section.

Known issues

Known issues in 2203

- In a session, when you use Microsoft Teams optimization, you might be unable to answer an incoming Microsoft Teams call or join a Microsoft Teams meeting. The issue occurs intermittently when the Virtual Desktop Infrastructure's (VDI's) shim version is 1.8.0.12. [CVADHELP-19567]
- Webcam redirection might not work in some Citrix Virtual apps and Desktops or XenDesktop. [HDX-39396]

Known issues in 2202

- When you use Microsoft Teams optimization and share the screen, a red border that indicates the screen sharing is unavailable. [RFHTMCRM-6360]
- When you set up a Microsoft Outlook meeting with Dutch regional settings and the option **Adjust the daylight saving time automatically** is enabled, the meeting invite in the remote calendar appears an hour early. The issue occurs when the summer meeting is scheduled in winter. [CVADHELP-17992]

Known issues in 2201

- Microsoft Teams optimization isn't supported on multi-monitor mode. [RFHTMCRM-6413]
- Microsoft Teams optimization is supported only on the Google Chrome browser. [RFHTMCRM-6194] [RFHTMCRM-4724]
- When you use Microsoft Teams optimization, the screen sharing functionality is disabled by default. After you [enable](#), you can share the local device contents. [RFHTMCRM-6156]
- When you use Microsoft Teams optimization, the screen sharing functionality is disabled by default. After you enable, the local device content can also be shared. [RFHTMCRM-6156]

Known issues in 2111

Attempts to copy and paste an image from the clipboard of the local device to the relevant app in the session may fail. [RFHTMCRM-6218]

Known issues in 2108.2

When **Use Video Codec for Compression** is set to **For the Entire Screen** in Citrix Studio, a multi-monitor session might render incorrectly. We recommend changing the setting to **Use when preferred** in multi-monitor sessions. [RFHTMCRM-5523]

Known issues in 2106

Applications launched inside the virtual desktop might display visual artifacts. [CVADHELP-17805]

Known issues in 2105.5

- The input of the first character might not appear exactly at the location of the workspace session's cursor position. [RFHTMCRM-4909]
- When a CJK Generic Client IME user single-clicks a cell to type in Microsoft Excel, the Candidate and Composition Window UI might not appear at the focus position. As a workaround, double-click the cell. [RFHTMCRM-5185]

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]

Limitations

- **Disconnecting from a session:** When you disconnect from a session by closing a tab or closing the browser, the server might not get notified that the session was disconnected. As a result, the session on the server remains active for the default 180 seconds or the configured session reliability timeout.

Recommendation: We recommend that you disconnect the session through the toolbar option.

- When **Use Hardware Encoding for Video Codec** is set to **Enabled** in Citrix Studio, your screen might appear green during a session through an Intel vGPU VDA. [RFHTMCRM-5521]
- The server falls back to YUV420 even when configured to Graphics-Thinwire YUV444 setting. The graphics-rich applications are limited to the YUV420 range. [RFHTMCRM-5520]
- In a session, when you try to send **command + R** key combination prompts to disconnect the session instead of remoting to the session. The issue occurs when you use the Safari browser application. [RFHTMCRM-6415]
- When you use Microsoft Teams optimization and share the screen, a red border that indicates the screen sharing is unavailable. [RFHTMCRM-6360]
- External mouse and keyboard are not supported with Citrix Workspace app for HTML5 in any browser of Android and iOS operating systems. [RFHTMCRM-6623]

Prerequisites for installing

March 31, 2022

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. All browsers are supported only on their latest versions.

Browsers

- Apple Safari
- Google Chrome
- Microsoft Edge Legacy (Support for maintenance and security fixes only)
- Microsoft Edge Chromium
- Microsoft Internet Explorer (Support for maintenance and security fixes only)
- Mozilla Firefox

Operating systems

- Windows 11
- 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 and Citrix DaaS (formerly Citrix Virtual Apps and Desktops service) 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

Note:

Citrix Workspace app for HTML5 needs to be installed by the admins on the Storefront server to make it accessible for the end-users. Thus, the build is in the form of Windows binary. However, HTML5 doesn't require any installation on the client side.

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 certifi-

ates 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, configure the cipher suites as specified in [TLS settings on VDAs](#).

Install

March 31, 2022

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**.

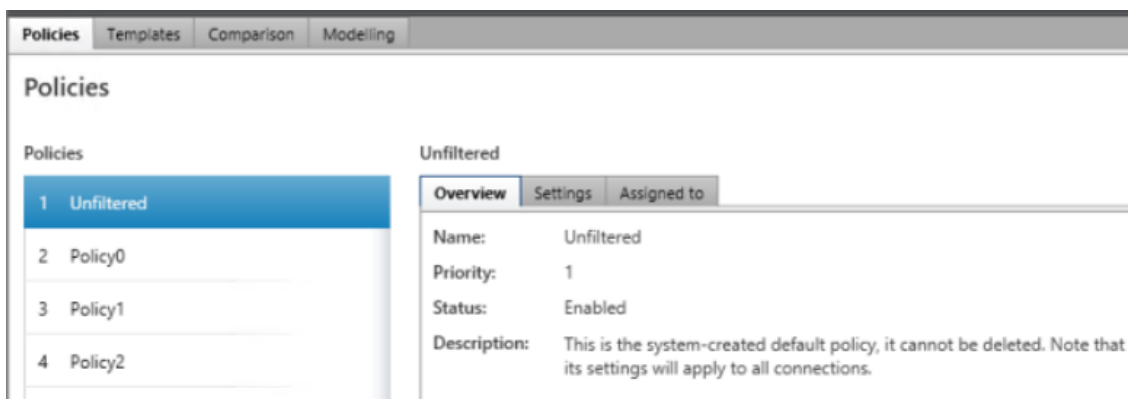
3. Enable Citrix Workspace app for HTML5 by selecting one of the options.
 - If you want to access desktops and applications from the site using a locally installed version of Citrix Workspace, select **Use Receiver for HTML5 if local Citrix Receiver/Workspace app is unavailable**. If you already have 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 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.

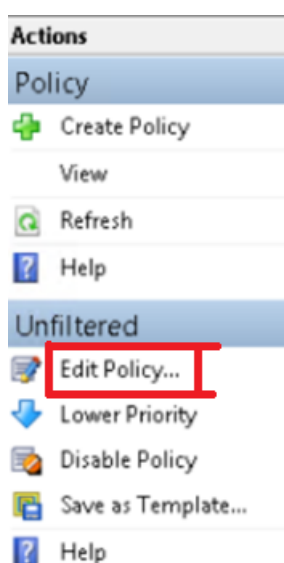
- If you want to use Citrix Workspace app for HTML5 to access applications or desktops from Citrix Virtual Apps and Desktops, select **Always use Receiver for HTML5**.

WebSocket

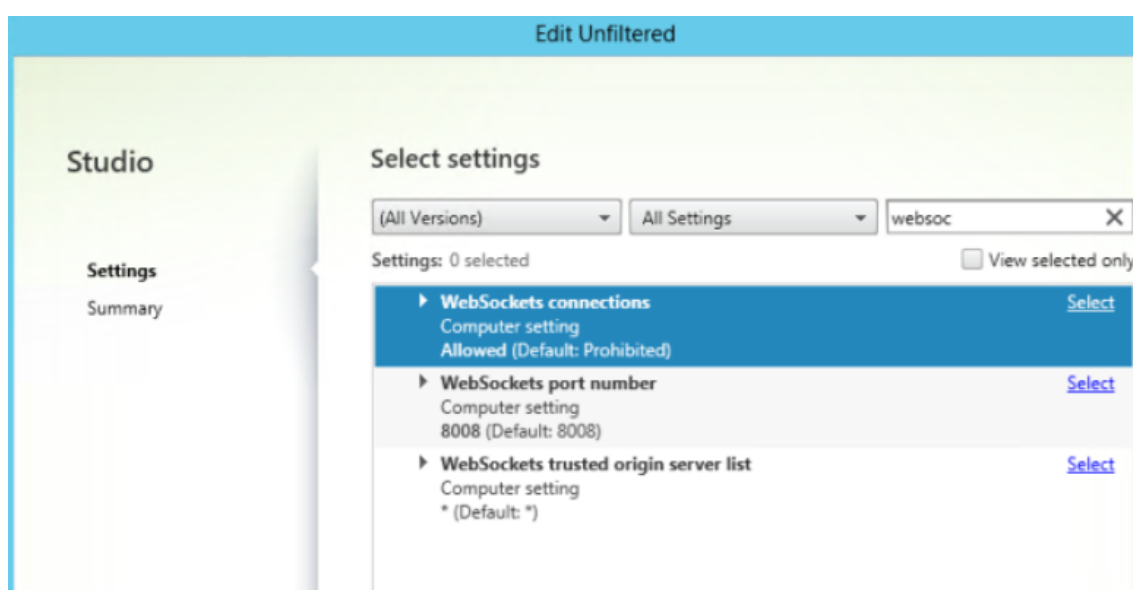
1. Go to the Group Policy Management Console or Citrix Studio and select **Policy** to configure the policies.
2. In the middle pane, under **Policies**, either modify an existing policy or create a policy.



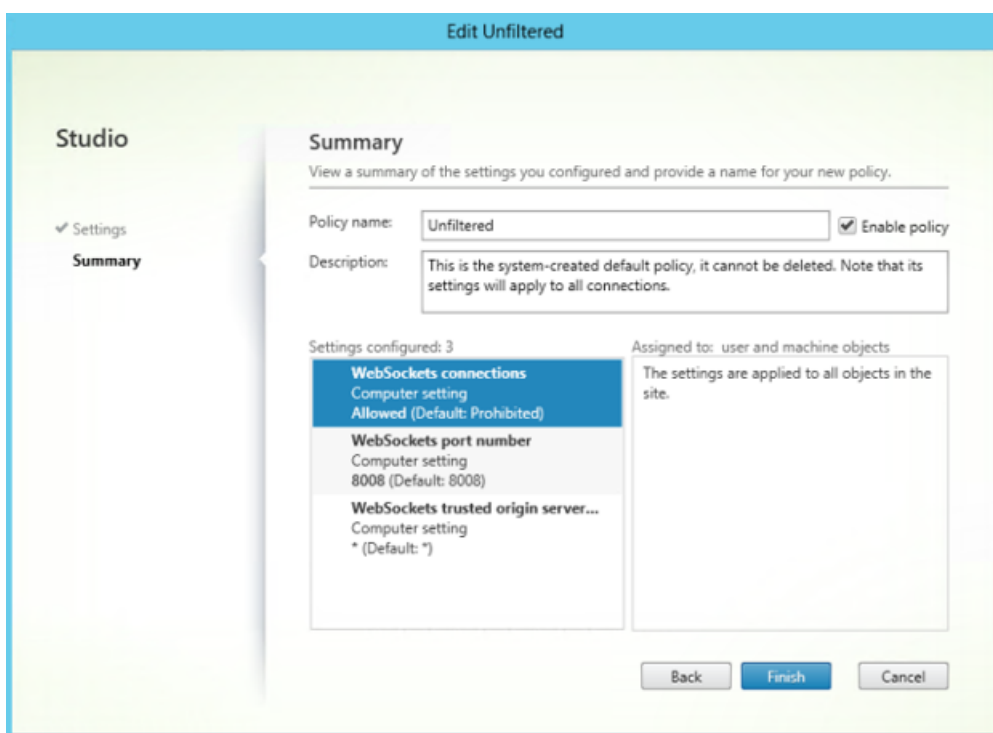
3. To edit an existing policy, in the right pane, under **Actions**, select **Edit Policy...**



4. The **Edit Unfiltered** window appears. Type **websoc** and select **Enter**. The three WebSockets related policy settings are filtered.



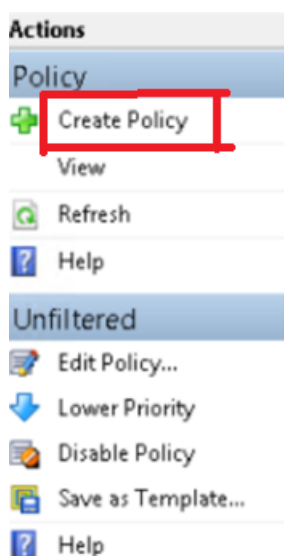
5. Click **Select** for each policy, select **Allowed**, and then click **OK**.
6. Leave the default values, select **OK**, and then click **Next**.
7. Enter a policy name or leave the default value. Ensure you select **Enable policy** and then click **Finish**.



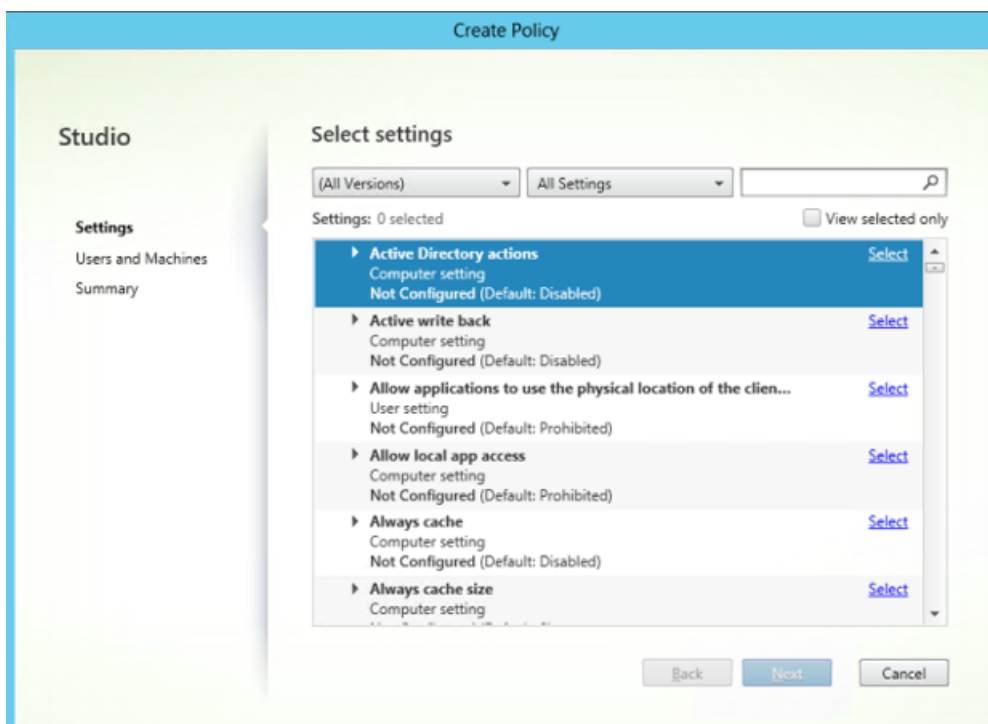
Note:

If you modify an existing default (unfiltered) policy, the option Assign policy to user and machine objects is not available. Therefore, we recommend you either modify an existing (not default) policy or create a policy.

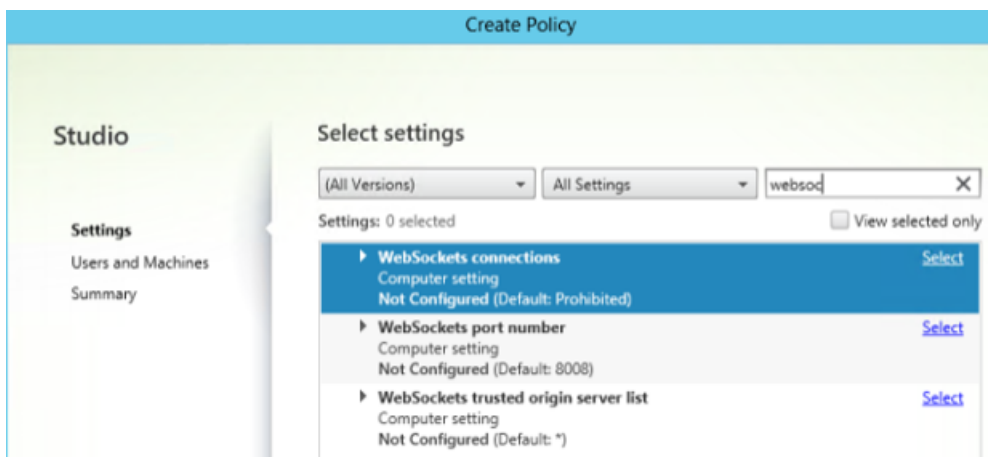
- To create a policy in Citrix Studio, under **Actions**, select **Policy** and then click **Create Policy**. The **Create Policy** window opens.



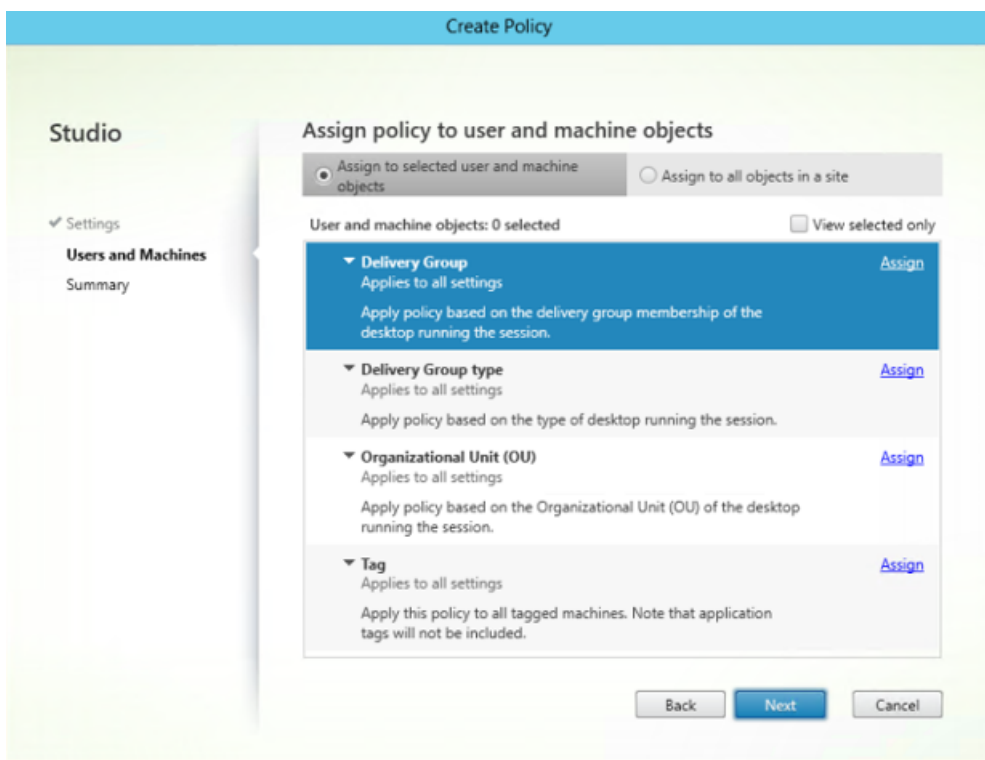
- In the search field, type **websoc** and select **Enter**. The search filters all three WebSockets related policy settings.



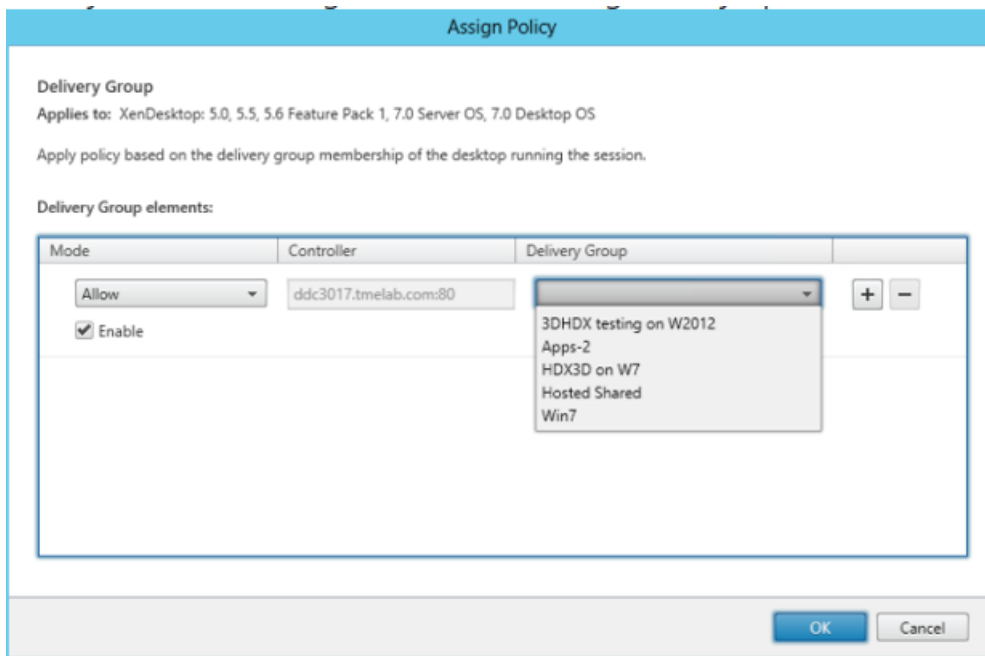
10. Click **Select** for each policy, and then select **Next**.



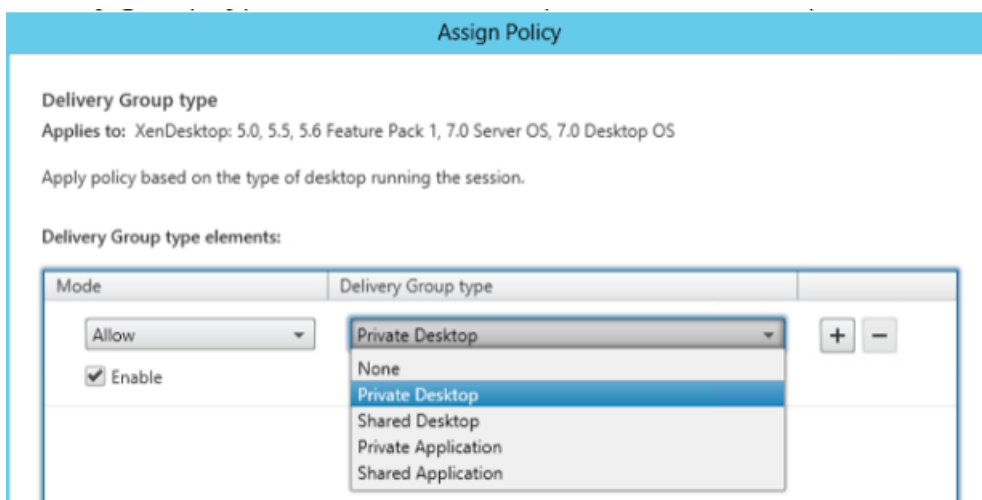
11. Assign the permission based on the Delivery Group. Select **Delivery Group** and click **Assign**.



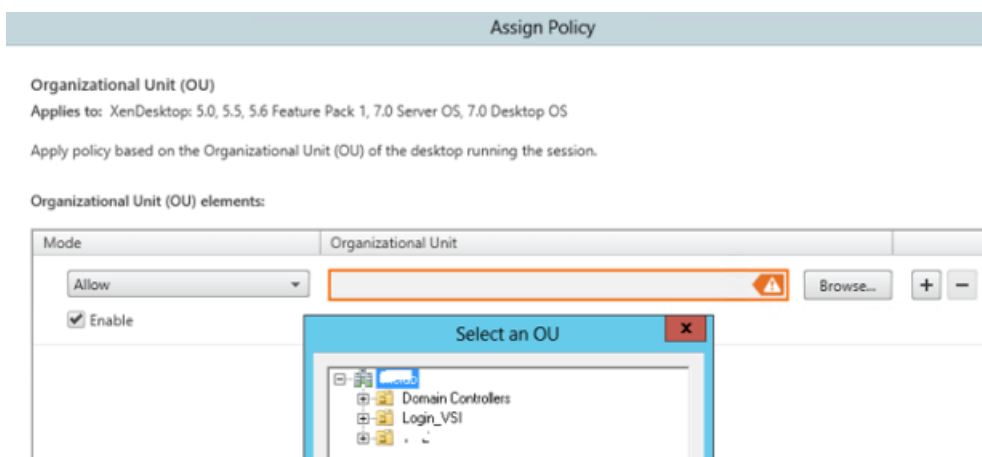
12. The **Assign Policy** window appears. Select the appropriate Delivery Group from the list and click **OK**.



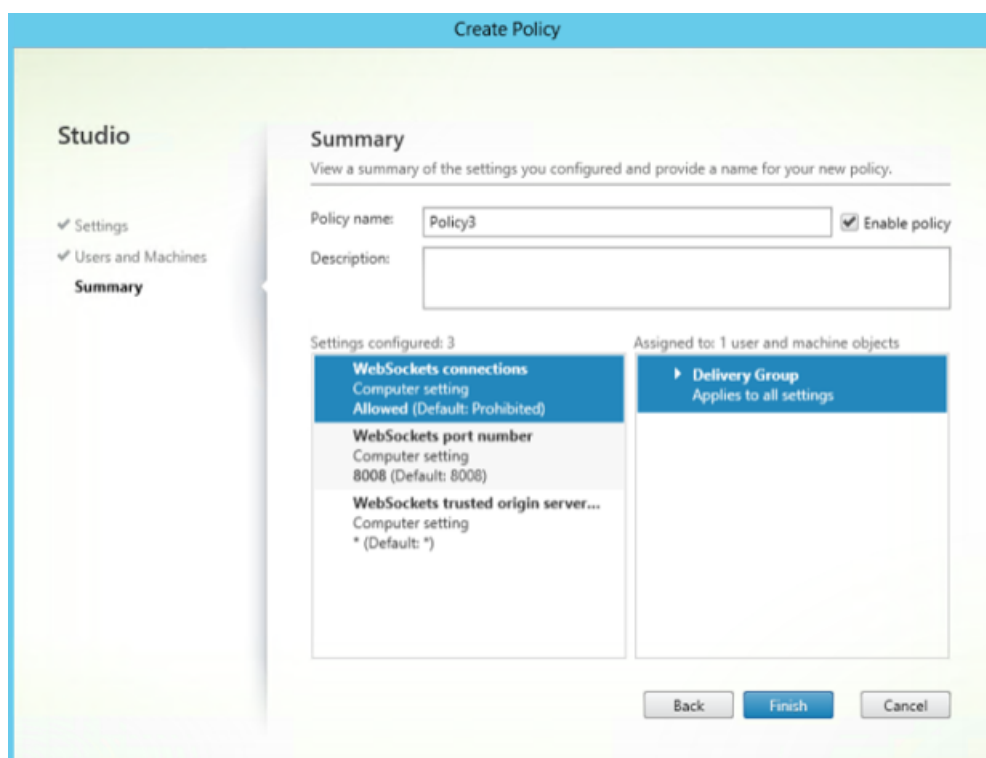
13. Select the **Delivery Group type** and click **Assign**. You can select the Delivery Group from the list.



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 click **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 *store-name* 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.

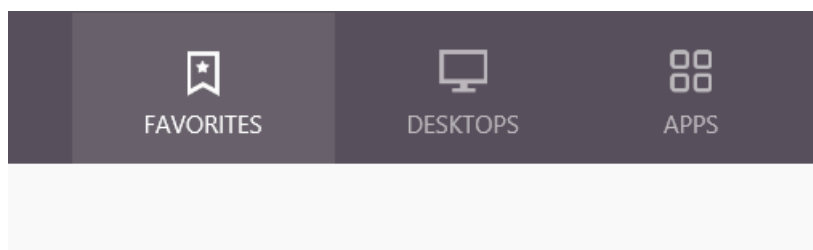
To verify HTML5 by accessing the desktop and applications using a web browser

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 and Citrix DaaS

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 and Citrix DaaS (formerly Citrix Virtual Apps and Desktops service). 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 and Citrix DaaS.

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 and Citrix DaaS 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.

Get Started

February 16, 2022

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

March 31, 2022

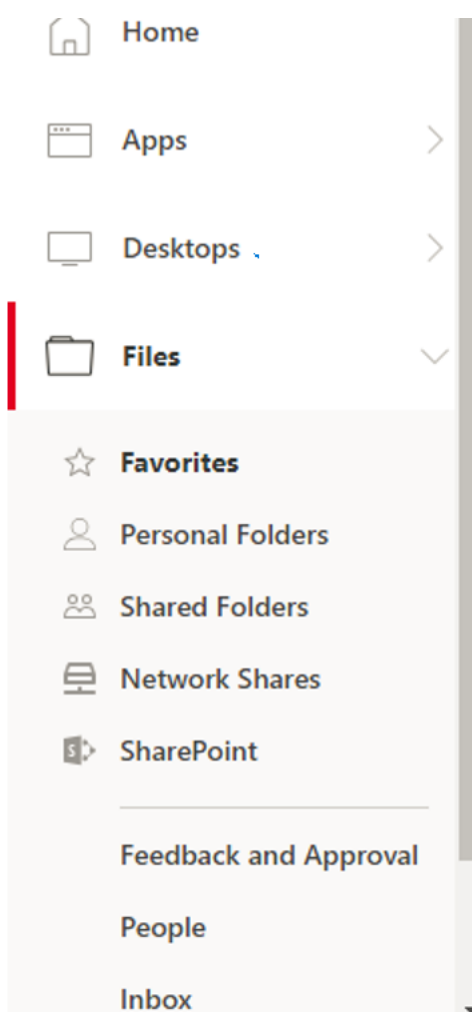
Content Collaboration Service integration

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 or Citrix DaaS (formerly Citrix Virtual Apps and Desktops service) 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 or Citrix DaaS, as required. Also, 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     },
8     <!--NeedCopy-->
```

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.

Feature flag management

Note:

- Once we've applied feature flags, you'll see the feature flag updates after the second subsequent launch of your Citrix Workspace app. When you're in the Incognito mode also, you'll see the updates after the second subsequent launch.

If an issue occurs with Citrix Workspace app in production, we can disable an affected feature dynamically in Citrix Workspace app even after the feature is shipped. To do so, we use feature flags and a third-party service called LaunchDarkly. You do not need to make any configurations to enable traffic to LaunchDarkly, except when you have a firewall or proxy blocking outbound traffic. In that case, you enable traffic to LaunchDarkly via specific URLs or IP addresses, depending on your policy requirements.

To date, for cloud customers, there is no access to StoreFront to customize Citrix Workspace app for HTML5. In the interim, LaunchDarkly can be leveraged to turn on or off a feature for a specific customer based on their store URLs.

You can enable traffic and communication to LaunchDarkly in the following ways:

Enable traffic to the following URLs

- events.launchdarkly.com
- app.launchdarkly.com

List IP addresses in an allow list

If you must list IP addresses in an allow list, for a list of all current IP address ranges, see [LaunchDarkly public IP list](#). You can use this list to ensure that your firewall configurations are updated automatically in keeping with the infrastructure updates. For details about the status of the infrastructure changes, see the [LaunchDarkly Status](#) page.

How to collect logs

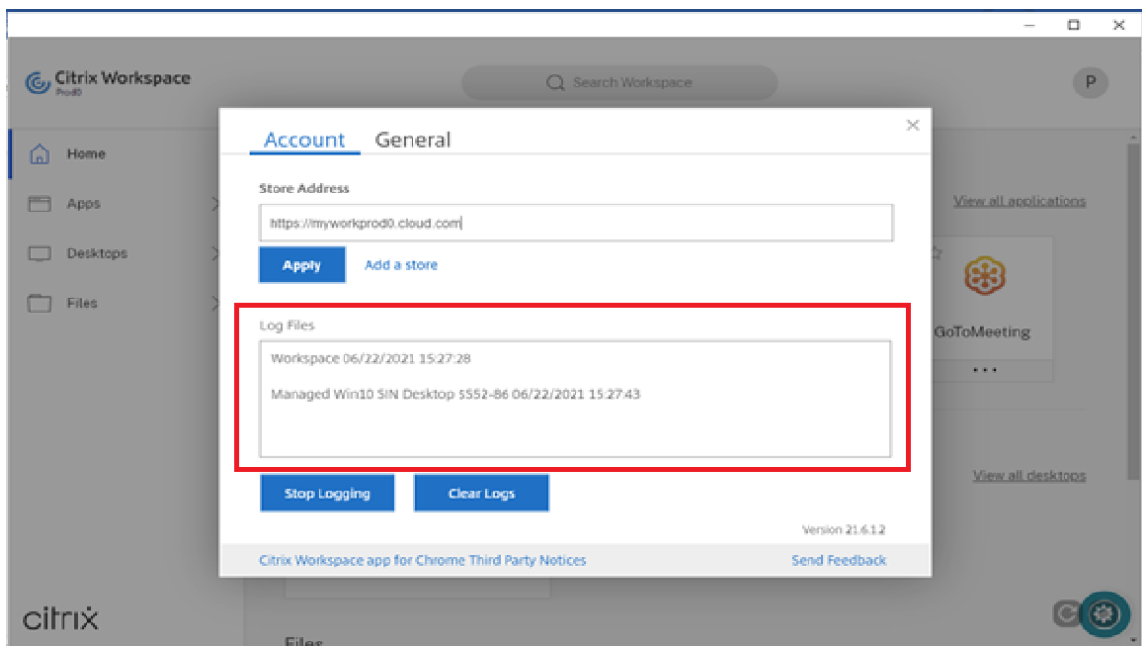
To collect Citrix Workspace app for HTML5 client logs:

1. Log onto Citrix Workspace app for HTML5.
2. Access the Log files page as follows:
 - For Citrix Workspace app HTML5 versions 1908 and later, open a new tab and navigate to `siteurl/Clients/HTML5Client/src/SessionWindow.html#engineType=log`, where `siteurl` is the URL of the Workspace for Web site (<https://server.domain/Citrix/StoreWeb>).
 - For Citrix Workspace app HTML5 versions 1907 and earlier, open a new tab and navigate to `siteurl/Clients/HTML5Client/src/ViewLog.html`, where `siteurl` is the URL of the Citrix Workspace for Web site (<https://server.domain/Citrix/StoreWeb>).
3. On the **Log files** page, click **Start Logging**.

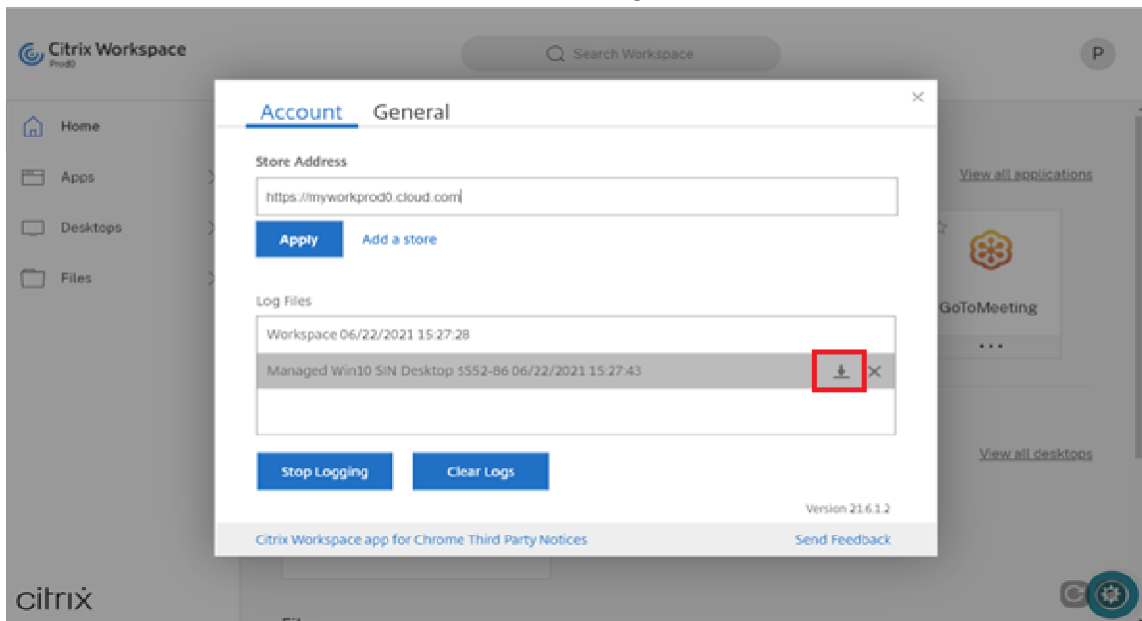


Logging will be enabled for subsequent session launches, and not for the current active session (if any).

4. Log into the Citrix Workspace app virtual desktop and launch your virtual app session and reproduce the issue to collect logs. Continue to work on the session to reproduce the issue.
5. Close the session once the problem is reproduced.
6. The log files generated for the Citrix Workspace app for HTML5 session is shown in the logging page.

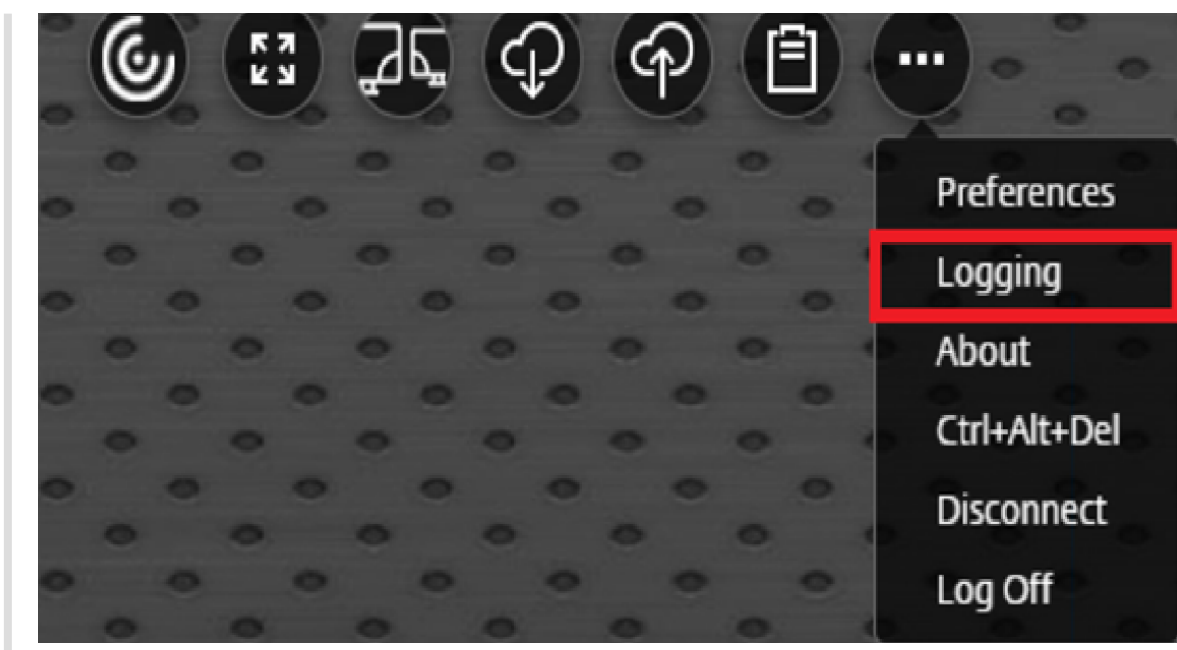


7. Click the arrow button to download and save the Log file.



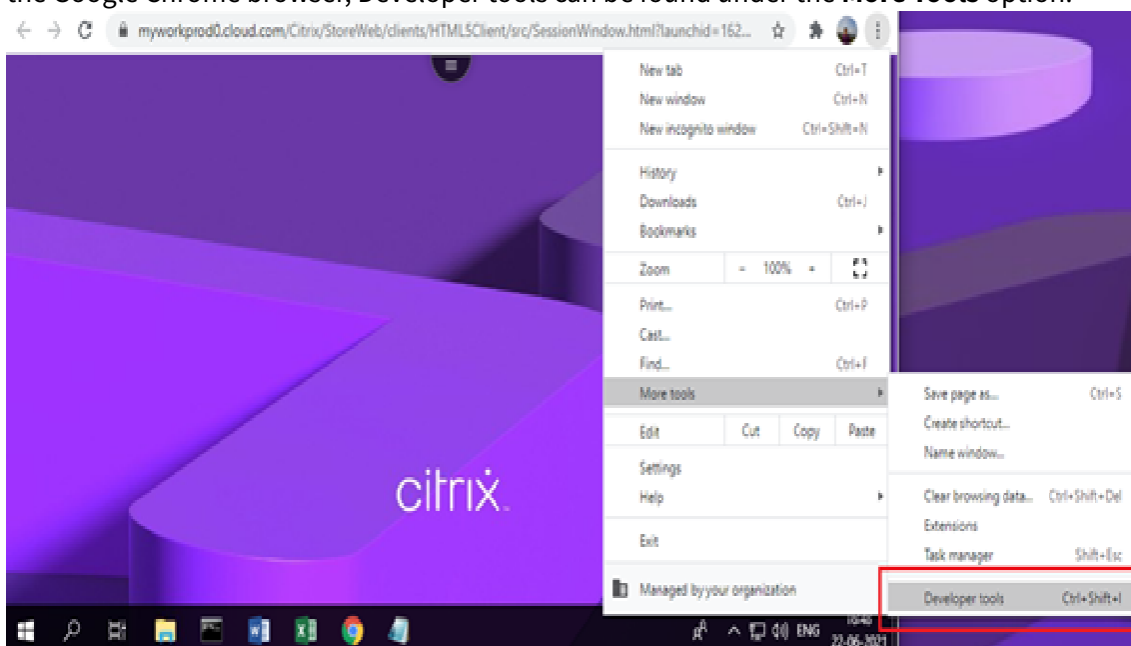
Note:

For Citrix Workspace app for HTML5 version 2.2 and later, **Logging** in the toolbar menu has been added to enable and view the logs for Citrix Workspace app for HTML5.

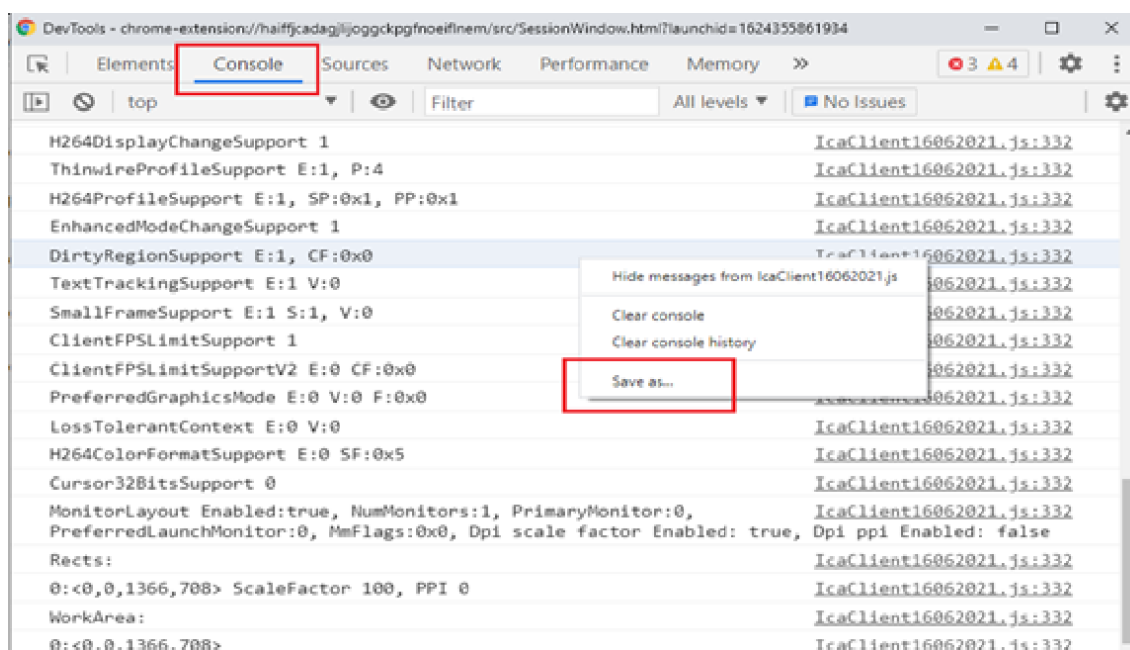


To collect Citrix Workspace app for HTML5 console logs:

1. Open the Developer tools on the browser tab where the session is running. For example, on the Google Chrome browser, Developer tools can be found under the **More Tools** option.



2. Click **Console** in the opened developer tool.
3. Save all the logs by right-clicking and selecting **Save as** option.



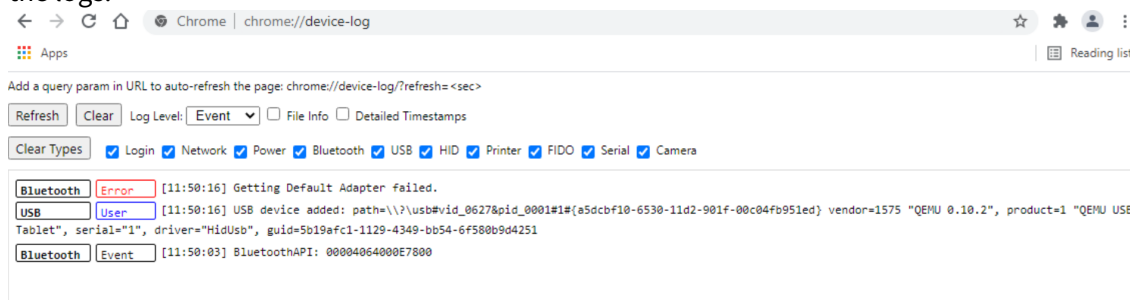
For USB redirection related issues:

To collect logs for USB redirection-related issues:

1. Edit the `configuration.js` file and navigate to HTML5_CONFIG section.
2. Add the value `moreLogs{‘usb’: true}`. This setting is applicable to the StoreFront.

The `configuration.js` file is usually located at `C:\program Files\Citrix actual path\HTML5Client`.

1. Open a new tab in the Google Chrome browser and enter **chrome://device-log** and share the logs.



Keyboard shortcuts

The default settings for Microsoft Windows logo key and additional keyboard shortcuts are as follows:

HTML5_CONFIG > features > keyboard > captureAllKeys

The **captureAllKeys** attribute defaults to true. To change the default settings, open the `configuration.js` file and set the attribute to false.

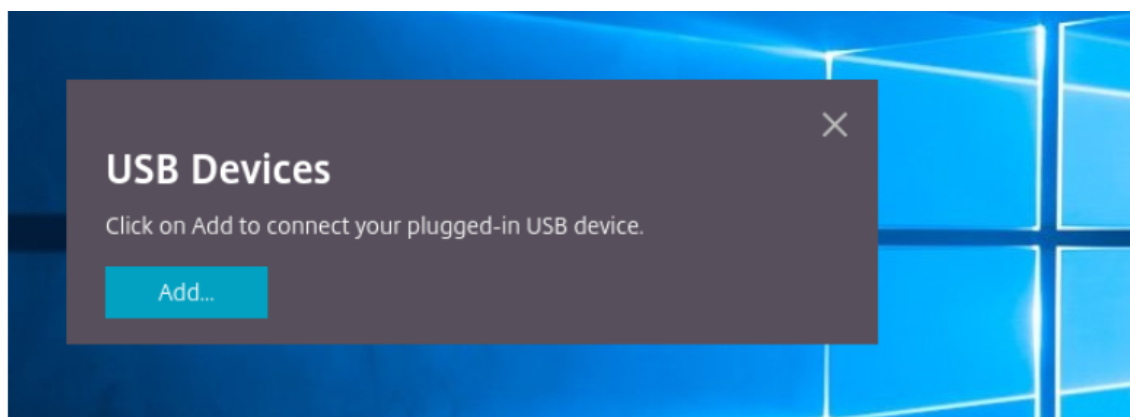
USB device redirection

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.

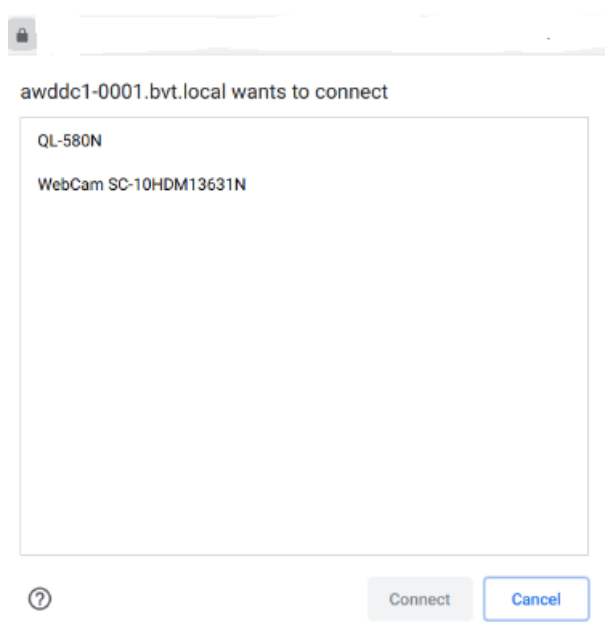
1. **Redirecting a USB device** As a prerequisite, enable the USB redirection policy on the server. For more information, see [Enabling USB redirection on the server](#).
2. Connect the USB device to the machine.
3. Click on the **USB Devices** icon available on the in-session toolbar.



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



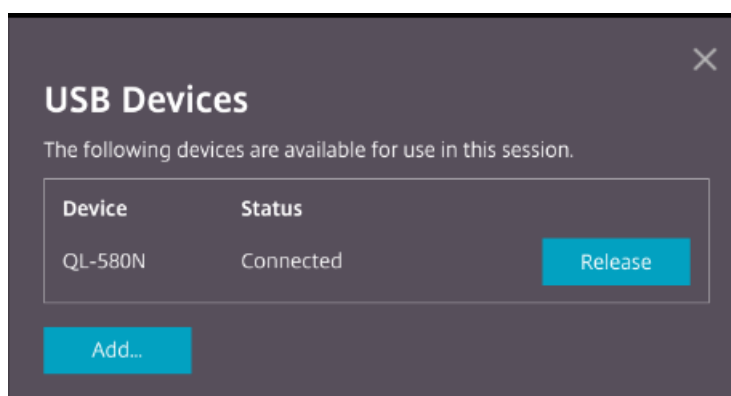
This action opens a Chrome dialog box that displays a list of devices.



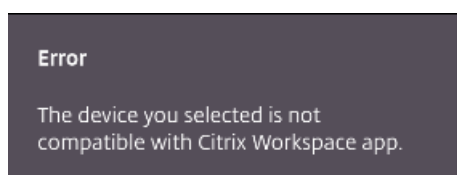
Note:

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.

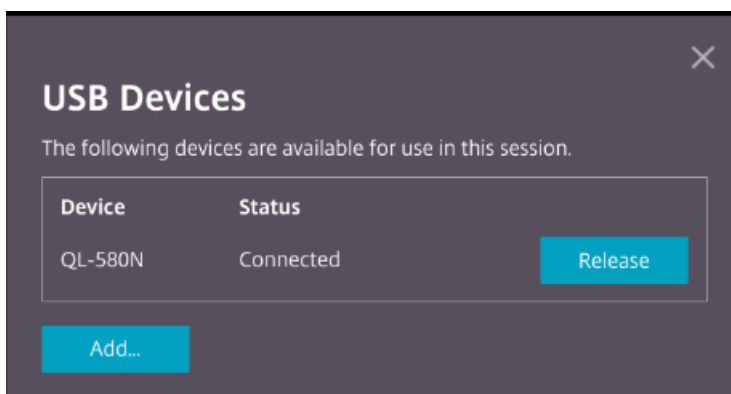
5. Select devices to be redirected and then click on **Connect**. After successful redirection, you are returned to the **USB Devices** dialog box, and the device appears as **Connected**.



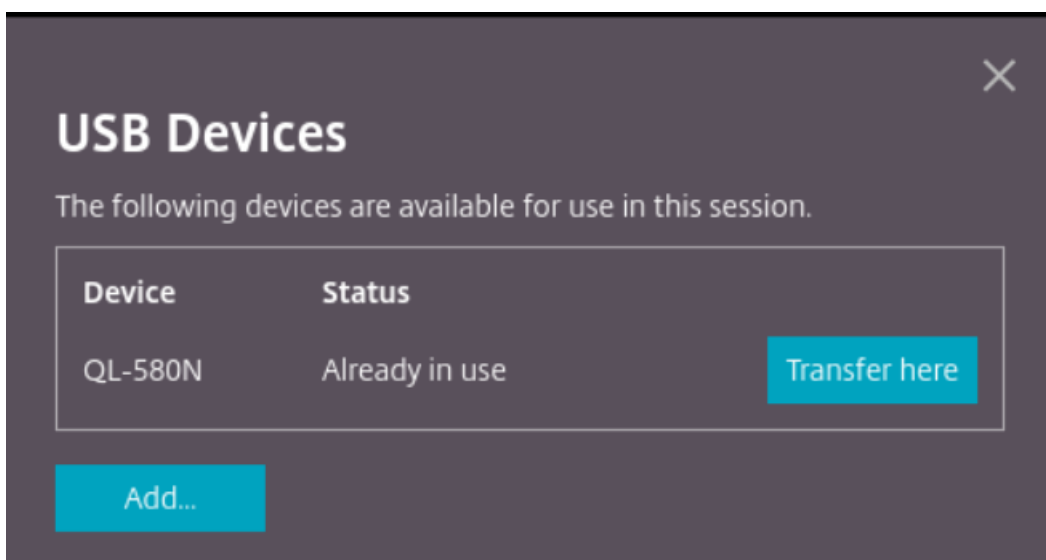
6. When you attempt to redirect a USB device that is not supported by Citrix Workspace app for HTML5, the following error message appears.



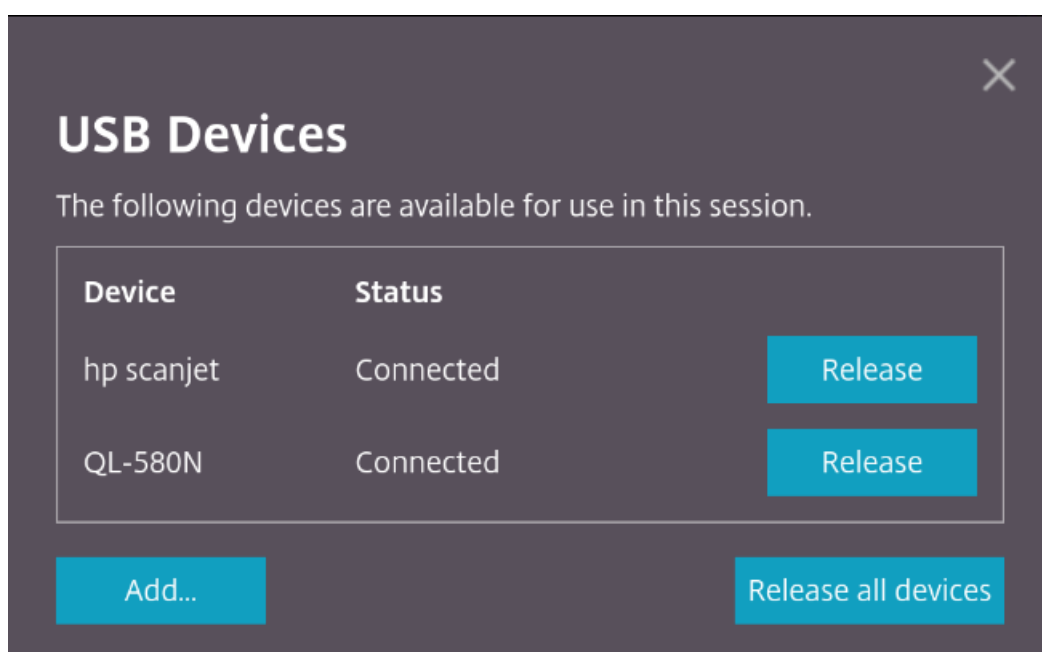
7. Click **Release** to release a device from the remote session.



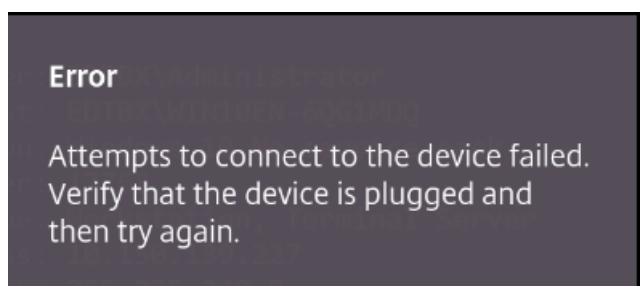
8. If you launch more than one session, USB devices that are connected inside a different session show as **Already in use**. Click **Transfer here** to transfer the devices to the current session.



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.



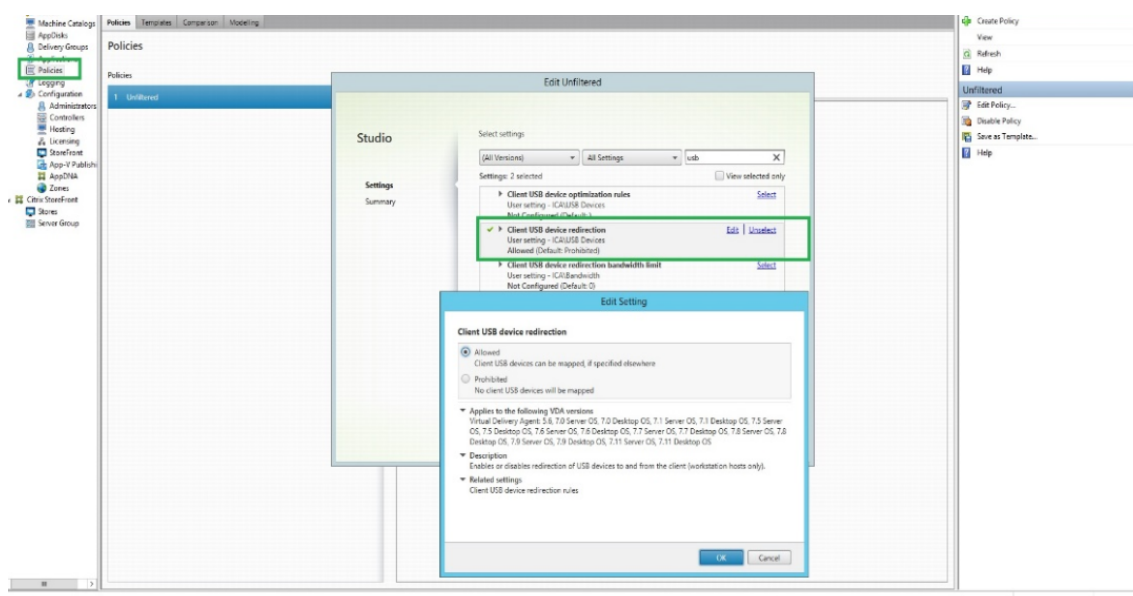
The USB device redirection feature is applicable only to USB devices for which the client operating systems (such as Mac and Chrome) do not load the device drivers by default. For example, the feature is applicable to the Brother QL-580N Label Printer.

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

Do the following 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  }
9
10 <!--NeedCopy-->

```

Behavior of Chrome browser

- When you click 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 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.



x

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     }
5
6 <!--NeedCopy-->
```

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, the 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 }  
5  
6  
7 <!--NeedCopy-->
```

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 }
5
6
7 <!--NeedCopy-->
```

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     }
5
6
7 <!--NeedCopy-->
```

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 and Citrix DaaS versions of the product.

To configure with CSP header added

PDF printing works, unless a Content-Security-Policy (CSP) header is added for users.

The CSP response header is a combination of policies that a browser uses to avoid Cross-site scripting attacks.

If the CSP *header* is added to Citrix Gateway *Rewrite Policies*, PDF printing doesn't work.

Configure as follows for the PDF printing to work:

img-src 'self' data: blob:

(blob: This parameter allows print preview to load and proceed with printing functionality)

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     }
14
15 <!--NeedCopy-->
```

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  }
6
7
8 <!--NeedCopy-->
```

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 }
25
26 <!--NeedCopy-->
```

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', '
8         MSEDGE']
9     }
10
11
12 <!--NeedCopy-->
```

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 or Citrix DaaS sessions.
- Download files from a Citrix Virtual Apps and Desktops or Citrix DaaS 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 or Citrix DaaS 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 or Citrix DaaS session.

- Download file from desktop. Allows or prevents users from downloading files from a Citrix Virtual Apps and Desktops or Citrix DaaS 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 available on Chrome and Safari browsers only. You can copy HTML content and retain formatting. When copying a link in Chrome, a `` tag is added in HTML format, which effectively allows you to copy images as well as text. This HTML formatting feature is richer than plain text but does not work in all applications.

For more information, see [Client clipboard redirection](#) in Citrix Virtual Apps and Desktops documentation.

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, images, but not 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.
- Occasionally, copying text requires an extra click through the **Copy** confirmation dialog when you use Google Chrome, Safari, Edge, and Firefox browsers.
- Use the **Ctrl c** or **CMD C** and **Ctrl V** or **CMD V** keys to copy and paste. Occasionally, 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**.

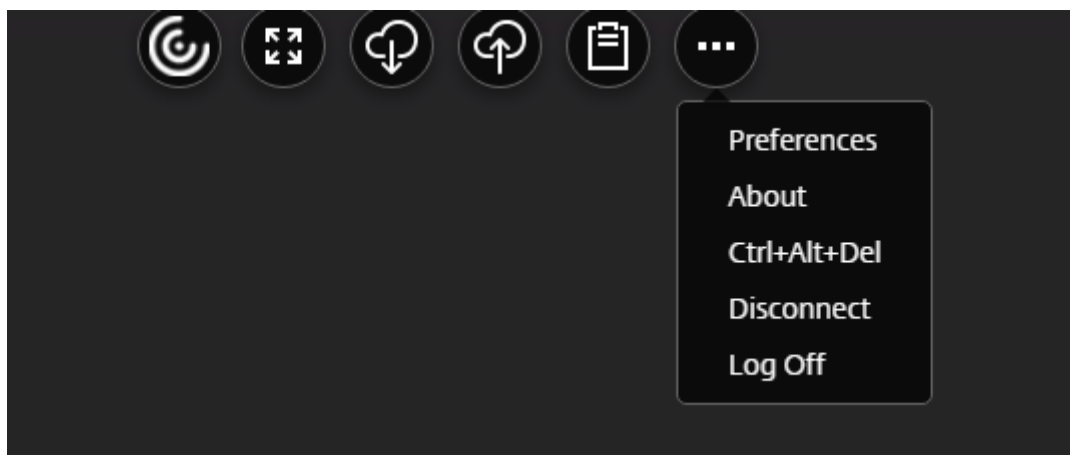
Session sharing

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 HTML5 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

- For audio to work in VDA versions 2008 and earlier, configure as follows for a temporary workaround:

Add the following to the end of the `chrome.exe` launch parameters:

`-disable-features=AudioServiceSandbox`

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

Webcam

Citrix Workspace app supports webcam optimizations for both 32-bit and 64-bit applications with built-in webcams.

Webcam redirection

To configure webcam redirection:

1. Open the **configuration.js** file.
2. Navigate to **HTML5_CONFIG > features > video > config > codecType**.

Note:

- The Google Chrome and Microsoft Edge Chromium browsers use both hardware and software codecs. The Mozilla Firefox and Apple Safari browsers use only software codec.

3. Select the **codecType** value:
 - 1 - HARDWARE_CODEC with SOFTWARE_CODEC fallback (default)
 - 2 - Only SOFTWARE_CODEC
 - 3 - Only HARDWARE_CODEC

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](#).

Generic Client IME

Prerequisites:

- Enable the [Client Keyboard Layout Sync and IME Improvement policy](#).
- Use Citrix Linux VDA version 2012 or later.
- The browser language needs to be Japanese, Chinese (Simplified), Chinese (Traditional), or Korean.
- Use Google Chrome, Mozilla Firefox, Apple Safari 13 or later, or Microsoft Edge.

Configuration:

The Generic Client IME feature is **enabled by default** as of version 2105. As an administrator, you can enable or disable the feature using the **configuration.js** file on the StoreFront server (%Program-Files%\Citrix\Receiver StoreFront\HTML5Client).

To disable this feature for a browser language, edit the configuration.js file and set `features.ime.mode.<languageID>` to “seamlessIme.” If “seamlessIme” is set, the Generic Client IME feature is disabled.

configuration.js:

```
1   var HTML5_CONFIG = {
2
3   ...
4   'features': {
5
6       ...
7       ime: {
8
9           mode: {
10
11               "ja": "seamlessIme",
12               "zh": "seamlessIme",
13               "ko": "seamlessIme"
14           }
15       }
16   }
17 }
18
19 }
20
21 }
22
23
24 <!--NeedCopy-->
```

To **enable** this feature for a browser language, edit the configuration.js file and set `features.ime.mode.<languageID>` to “ctxIme”, or leave the **mode** property empty (`{}`), which is the **default** behavior.

configuration.js:

```
1   var HTML5_CONFIG = {
2
3   ...
4   'features': {
5
6       ...
```

```
7     ime: {
8
9         mode: {
10
11             "ja": "ctxIme",
12             "zh": "ctxIme",
13             "ko": "ctxIme"
14         }
15
16     ...
17 }
18
19 }
20
21 }
22
23
24 <!--NeedCopy-->
```

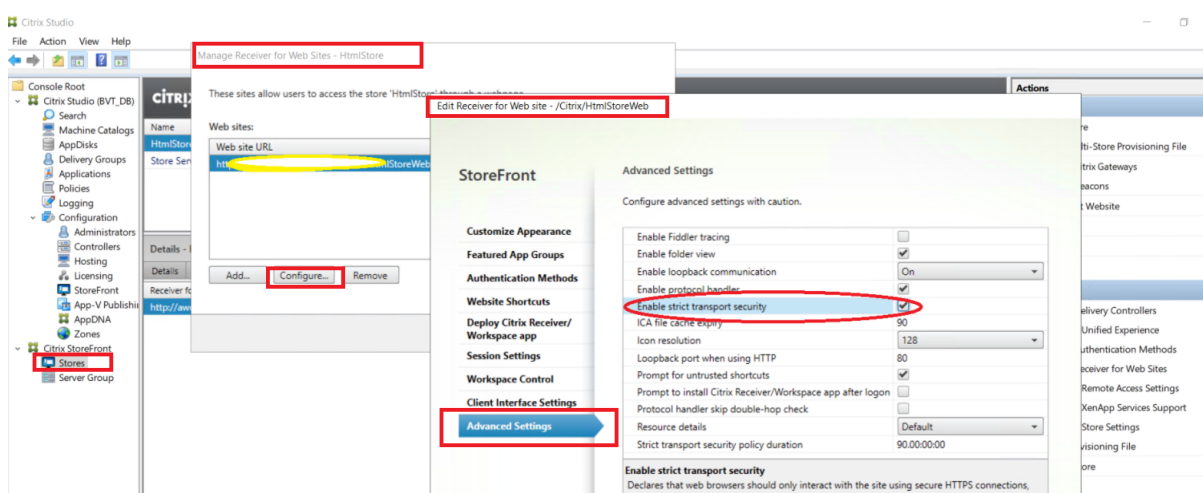
Security settings

Citrix recommends using stores that are secure. Besides, it is a good practice to have HTTP strict transport security (HSTS) setting enabled for secure stores.

Perform the following steps to enable the HSTS setting:

1. In **Citrix StoreFront**, under **Stores**, click on the link of the particular store to enable the security settings.
2. The **Manage Receiver for Web Sites** dialog box appears.
3. Click **Configure**.
4. The **Edit Receiver for Web site** dialog box appears.
5. Click the **Advanced Settings** tab and select **Enable strict transport security**.

Citrix Workspace app for HTML5



Global App Configuration Service

Administrators can customize user settings in sessions launched in Citrix Workspace app by using the Global App Configuration Service. Previously, administrators could only use the **configuration.js** for this purpose, and it was applicable only for StoreFront users.

Configure

The Global App Configuration Service for Citrix Workspace allows a Citrix administrator to deliver Workspace service URLs and Workspace App settings through a centrally managed service.

For more information, see [Global App Configuration Service](#) documentation.

Notes:

- This feature is available for workspace and HTTPS-based stores only.
- For the Global App Configuration Service to work, ensure your users can access the URL discovery.cem.cloud.us.

End user experience

Language support

Citrix Workspace app for HTML5 is available in the Brazilian Portuguese and Italian languages.

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.

Microsoft Teams optimization

Microsoft Teams optimization supports audio call, video call, and screen sharing functionalities on the Google Chrome browser only. The minimum Google Chrome version required is m97 and later. You can use this feature after enabling the origin trial and with the on-premises account only.

Note:

The screen sharing functionality is disabled by default. To enable, edit the **configuration.js** file in StoreFront typically at **C:\Program Files\Citrix\Receiver StoreFront**HTML5Client**, and set the value to **true** in the path:

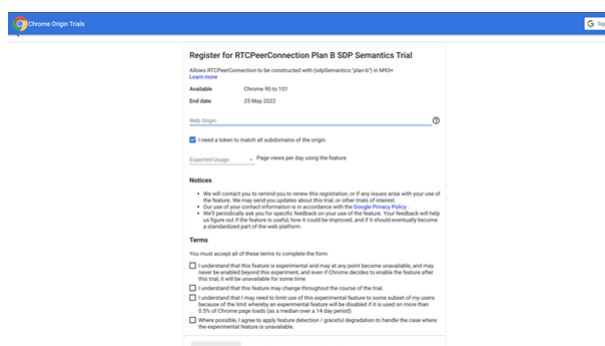
```
'{"features":{"msTeamsOptimization":{"screenSharing":true}}}'
```

As an administrator, follow the steps to enable Microsoft Teams optimization for HTML5:

1. Sign in to your Google account.
2. Register for the origin trial by using the link: https://developer.chrome.com/origintrials/##/register_trial/3892235977954951169.

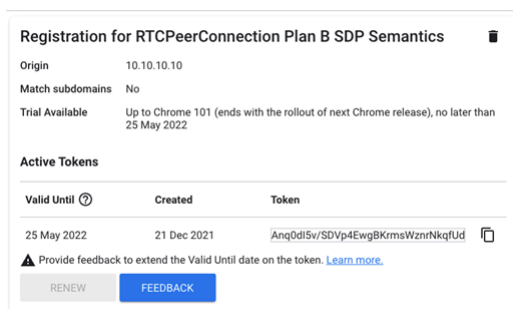
Note:

If you don't have a Google account, you can create one [here](#).



3. In the **Web Origin** text box, enter either the:
 - Store URL, for example, <https://yourcompany.storefrontstoreweb.net>
 - Gateway URL, for example, <https://yourcompany.gateway.com>
 - Custom portal URL, if you are HDX SDK for HTML5 user.
4. Select the **Expected Usage** from the drop-down menu that suits your needs.
5. Read all the terms and accept all of them by selecting respective check boxes.

6. Click **REGISTER**. The registration token is generated.



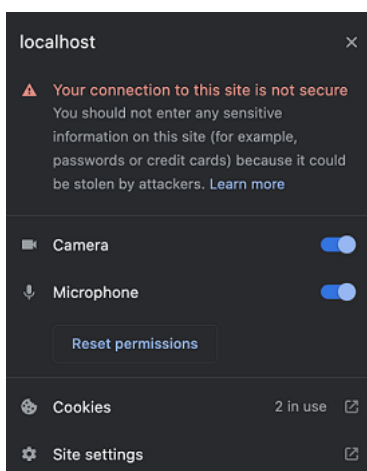
7. Copy the token.
8. Edit the **configuration.js** file in StoreFront typically located at **C:\Program Files\Citrix\Receiver StoreFront\HTML5Client** and paste the token in the path:

```
{ "features":{ "msTeamsOptimization":{ "originTrialToken":{ "chrome": "  
<token goes here>" } } } }
```

For example,

```
'msTeamsOptimization':{  
  'screenSharing' : false,  
  'seamlessApps' : true,  
  'webcamSupportInMM' : true,  
  'originTrialToken' : {  
    'chrome': "<token-goes-here>"  
  }  
},
```

9. After you launch the Microsoft Teams app, allow permission to access the **Camera** and **Microphone** to use the Microsoft Teams audio, video, and screen sharing capabilities.



You can now use Microsoft Teams for HTML5 on the Google Chrome browser.

Feature limitation:

- When you use Microsoft Teams optimization and share the screen, a red border that indicates the screen sharing is unavailable. [RFHTMCRM-6360]

Known issues in the feature:

- Microsoft Teams optimization isn't supported on multi-monitor mode. [RFHTMCRM-6413]
- Microsoft Teams optimization is supported on the Google Chrome browser only. [RFHTMCRM-6194] [RFHTMCRM-4724]
- When you use Microsoft Teams optimization, the screen sharing functionality is disabled by default. After you enable, you can share the local device contents. [RFHTMCRM-6156]

For troubleshooting on shim library version, see [Microsoft Teams optimization logs](#) section.

Support for dynamic e911

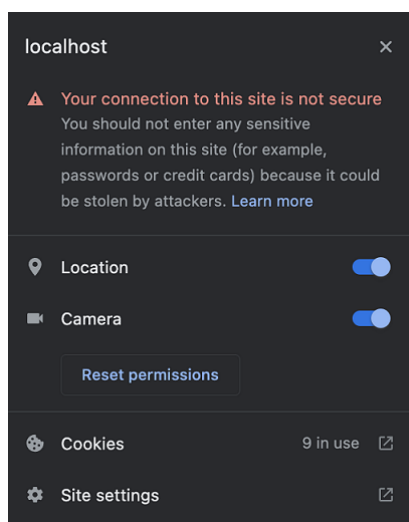
Citrix Workspace app supports dynamic emergency calling. When used in Microsoft Calling Plans, Operator Connect, and Direct Routing, it provides the capability to:

- configure and route emergency calls
- notify security personnel

The notification is provided based on the current location of the Citrix Workspace app running on the endpoint, instead of the Microsoft Teams client running on the VDA.

Ray Baum's law requires the 911 caller's dispatchable location to be transmitted to the appropriate Public Safety Answering Point (PSAP). Starting from Citrix Workspace app 2202 for HTML5, Microsoft Teams Optimization with HDX is compliant with Ray Baum's law.

For Microsoft Teams optimization e911 calling, enable **Location** access as shown:



Troubleshoot

February 18, 2022

Microsoft Teams optimization logs

Microsoft Teams optimization supports the latest shim library version 1.8.0.12.

To know the current shim version you use:

1. Launch the Microsoft Teams application and initiate a call with one of the users.
2. Maximize the Microsoft Teams window after the call is established.
3. Open the **On-screen keyboard** inside the session and click **Ctrl + Alt + Shift + 1** keys.
You can now view the log files under the downloads folder.
4. Open the **MSTeams_Diagnostics Log <date><time>.txt** file and search for the shim version under **type_script**.
Compare the shim version with 1.8.0.12.
5. (Optional) If the shim version is not 1.8.0.12, contact your administrator to upgrade to the latest version.

SDK and API

January 30, 2022

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](#).

Latest version of Citrix HDX SDK for HTML5

Ensure that you use the latest version of the Citrix HDX SDK for HTML5 to launch the sessions. For more information, see [Citrix Workspace app for HTML5 HDX SDK](#). Otherwise, the launch of the sessions might fail.

**Locations**

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