

# About Citrix Receiver for HTML5 2.1

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Citrix Receiver for HTML5 is hosted on StoreFront servers and enables users to access virtual desktops and hosted applications from a web browser. Resources delivered by XenDesktop and XenApp are aggregated in a StoreFront store and made available through a Citrix Receiver for Web site. With Citrix Receiver for HTML5 enabled on the site, users can access desktops and applications within their web browsers without needing to install Citrix Receiver locally on their devices.

When used in conjunction with the centralized customization and branding capabilities of the StoreFront 3.0 (and later), users of this Citrix Receiver for HTML5 release will receive a centrally managed app and desktop selection experience from StoreFront. This is the same consistent user experience that can be received by the Windows and Mac desktop Citrix Receivers and Chrome web Citrix Receiver when associated with the StoreFront.

New in this release

## Enhanced HDX SDK

This release of Citrix Receiver for HTML5 provides an enhanced user experience by incorporating additional APIs to the HDX SDK paradigm. With these additional APIs, the SDK consumers can:

- switch between fixed and dynamic resolution in an active session. With this functionality, users can change session resolution from fixed to auto fit and vice versa.
- disable the session close alert on reload/close of the page when the session is launched.
- set a preferred language for the session. By default, the session uses the language set in the browser.

Refer to the [download](#) page for the latest HDX SDK.

Fixed issues

This release resolves the following issue:

- After launching a session, a single tap would erroneously perform a tap and hold function which displayed a contextual menu. This issue occurred intermittently on hybrid platforms, and could also occur on other mobile devices. [#0621064]

Known issues

This release of Receiver for HTML5 has the following known issues:

- Environments with multiple VM hosted apps on the same machine are not supported on mobile Chrome devices and Edge browsers. [#649809]

Previously reported issues at version 2.0 include:

- Log files are not created in Edge browser. Changes made to local storage from one tab in Edge Browser is not reflected in other tabs that are already open. To resolve this issue, restart the browser. [#0589469]
- In some rare instances, a session may display a white screen on touch devices. [#0619196]
- In some situations, the toolbar may not reposition properly on the screen when launching a session in an external monitor. [#0631446]
- When using the Chrome browser on a hybrid platform, using a three finger tap fails to invoke the virtual keyboard. [#0621067]
- The virtual keyboard fails to display on Edge and Firefox browsers run on a hybrid device. On Edge browsers, 3 finger tapping fails but the keyboard can be invoked with the keyboard button in the toolbar, or by using the floating auto keyboard button. [#0621472]
- After launching a session, a single tap erroneously performs a tap and hold function which displays a contextual menu. This issue occurs intermittently on hybrid platforms and may also occur on other mobile devices. [#0621064]
- The virtual keyboard fails to pop up again when a user invokes it after manually closing it. [#0621063]

- Invoking a virtual keyboard in an Edge Browser of a hybrid device in tablet mode erroneously resizes the session. [#0626617]
- In some cases, panning up/down is not smooth and left/right panning fails to work when running a session in FireFox on a hybrid device. At this release, Citrix Receiver for HTML5 does not support mobility on FireFox running on hybrid devices. [#0621477]
- In some cases, the auto hide feature is not functioning for mobile devices. [#0625000]
- The Show Scroll Bars option is set to 'Always' in MAC Preferences; use Scroll Session if the display resolution is more than the device's pixel ratio in the Safari browser.
- In a Continuum device, Citrix recommends that you launch a session in the mobile device and extend it to an external monitor.
- Citrix recommends that you use the VDA's suggested display resolution for a better user experience in a mobile platform.
- Launching multiple instances of the same application does not group them together; a new taskbar entry is created for each instance.
- There is no option to disable the client side app switcher.
- A session may crash while copying and pasting a large amount of data inside a session. Citrix recommends copying less than 10 MB of data when using the clipboard.  
[#0586671]
- Citrix Receiver for HTML5 does not support cross language keyboard.  
[ENH0602652]

# System requirements for Citrix Receiver for HTML5

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This topic lists the supported Citrix product versions for Citrix Receiver 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.

## User device requirements

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

### Browsers

- Apple Safari 7
- Apple Safari 6
- Google Chrome 50 or later
- Microsoft Edge
- Microsoft Internet Explorer 11 (32-bit mode)
- Microsoft Internet Explorer 10 (32-bit mode)
- Mozilla Firefox 31 or later

### Operating systems

- Windows 10
- Windows 8.1
- Windows Phone 10
- Windows 8 Pro and Enterprise (32-bit and 64-bit editions)
- Windows 7 Service Pack 1 (32-bit and 64-bit editions)
- Mac OS X 10.9 Mavericks
- Mac OS X 10.8 Mountain Lion
- iOS (latest version)
- Android (latest version)

## Citrix server requirements

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

- StoreFront 2.5 (or higher) when using Citrix Receiver for HTML5 2.0
- Citrix Receiver for HTML5 allows you to upgrade from any version of StoreFront 2.5 or higher.

When users connect through NetScaler Gateway, Citrix Receiver for HTML5 can be used to access desktops and applications delivered by all the versions of XenDesktop and XenApp that are supported by StoreFront.

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

- LTSR (XenApp) CU1, LTSR (XenDesktop) CU1 - 7.6.100
- XenDesktop 7.9

- XenApp 7.9
- XenApp 6.5 (Hotfix Rollup Pack 3 or later and the Group Policy Management 1.7 update must also be installed on the XenApp 6.5 server.

## Note

Citrix Receiver for HTML5 supports all the supported versions of XenApp and XenDesktop as stated in the Citrix support lifecycle. See the [Product Matrix](#) for details.

## Secure user connections

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

- NetScaler Gateway 11.1
- NetScaler Gateway 11.0
- NetScaler Gateway 10.5

Citrix Receiver 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

# Configuring Citrix Receiver for HTML5

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

To enable direct connections to XenDesktop and XenApp

Citrix Receiver for HTML5 uses the WebSocket protocol to access virtual desktops and hosted applications. By default, WebSocket connections are prohibited on XenDesktop and XenApp. If you plan to enable users to access desktops and applications from the local network without connecting through NetScaler Gateway, you must allow WebSocket connections on XenDesktop and XenApp.

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

**Caution: 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.**

Important: If you are using SecureICA to encrypt communications between users' devices and your XenDesktop or XenApp servers, note that Citrix Receiver for HTML5 supports Basic encryption only.

To enable connections to XenDesktop and XenApp using Provisioning Services

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

Machines must be restarted to apply the WebSocket policies. For 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 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 Provisioning Services 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 [Managing 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 leave it with Access set 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.

HKEY\_LOCAL\_MACHINE\SOFTWARE\Policies\Citrix\ICAPolicies\AcceptWebSocketsConnections

HKEY\_LOCAL\_MACHINE\SOFTWARE\Policies\Citrix\WebSocketsPort

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 configure optional components

Two optional components are available that enhance the experience for Citrix Receiver for HTML5 users by increasing integration with XenDesktop and XenApp.

- App Switcher enables users to switch between multiple applications running in the same session. When session sharing is enabled on XenApp, which it is by default, applications opened within the same session appear in the same browser tab. App Switcher provides a taskbar running within the session that displays all the applications currently running in the session, enabling users to switch between them.
- The Citrix PDF Universal Printer driver enables users to print documents opened with hosted applications or applications running on virtual desktops delivered by XenDesktop 7.6 and XenApp 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.

1. If you plan to enable session sharing on your XenApp deployment, download the App Switcher installer. Ensure that .NET Framework 4.0.3 is installed and enabled, then install App Switcher on each machine providing applications for Citrix Receiver for HTML5 users.

App Switcher is configured to run automatically in the background when users establish a session.

2. 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 Receiver 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 XenDesktop and XenApp policies, see [Citrix policies](#).
  3. Set the Auto-create PDF Universal Printer policy setting to Enabled.

## To enable Citrix Receiver for HTML5 on StoreFront

You must enable Receiver for HTML5 on the Receiver for Web site for the StoreFront store that provides the desktops and applications you want to make available to Citrix Receiver for HTML5 users.

**Important:** In multiple-server StoreFront deployments, use only one server at a time to make changes to 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 that the other servers in the deployment are updated.

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 Receiver for HTML5 users.  
A Receiver for Web site is created automatically for new stores. For more information about creating StoreFront stores, see [Create a store](#).
2. In the Citrix StoreFront management console, select the Receiver for Web node in the left pane. From the results pane, select the site providing resources for Receiver for HTML5 users and, in the Actions pane, click Deploy Citrix Receiver.
3. Enable Citrix Receiver for HTML5 by selecting one of the following options.
  - If you want users to access desktops and applications from the site using a locally installed version of Citrix Receiver, where available, select Use Receiver for HTML5 if local install fails. Users who already have Citrix Receiver installed cannot use Citrix Receiver for HTML5 to access resources from the site. Windows and Mac OS X users without Citrix Receiver are prompted to install it every time they log on to the site, but can use Citrix Receiver for HTML5 if they are unable to install Citrix Receiver.
  - If you want all users to access desktops and applications from the site through Citrix Receiver for HTML5 regardless of whether they have a locally installed version of Citrix Receiver, select Always use Receiver for HTML5.
4. If you changed the port used when you allowed WebSocket connections on XenDesktop or XenApp, complete the following steps to change the WebSocket port for the Citrix Receiver for Web site.
  1. Use a text editor to open the web.config file for the Citrix Receiver for Web site, which is typically located in the C:\inetpub\wwwroot\Citrix\storenameWeb directory, where storename is the name specified for the store when it was created.
  2. Locate the following element in the file.  
`<html5 ... preferences="" ... />`
  3. Set the value of the preferences attribute to **wsPort:portnumber**, where portnumber is the port that you configured in the policy.

# Citrix Receiver for HTML5 user experience

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

The user experience with Citrix Receiver for HTML5 is as follows:

- If you did not configure the site to always use Citrix Receiver for HTML5, the site attempts to determine whether Citrix Receiver is installed locally on devices running Windows and Mac OS X. When Citrix Receiver cannot be detected, users are prompted to download and install the appropriate Citrix Receiver for their platform. For users who are unable to install Citrix Receiver, this happens every time they log on to the Citrix Receiver for Web site. Users who already have Citrix Receiver installed locally must use this version to access resources from the site and are not given the option to use Citrix Receiver for HTML5. When you configure the Citrix Receiver for Web site to always use Citrix Receiver for HTML5, all users must access resources from the site through Citrix Receiver for HTML5 regardless of whether they have a locally installed version of Citrix Receiver.
- When users access a desktop or application through Citrix Receiver for HTML5, the resource starts in a new browser tab or window, according to the user's browser settings. You can configure Citrix Receiver for HTML5 so that resources are always started in the same tab as the Citrix Receiver for Web site. For more information, see [To configure Citrix Receiver for HTML5 use of browser tabs](#).
- When a user starts an additional application, Citrix Receiver for HTML5 checks whether the application can be started within an existing session before creating a new session. This enables users to access multiple applications over a single connection so that the available resources are used more efficiently.

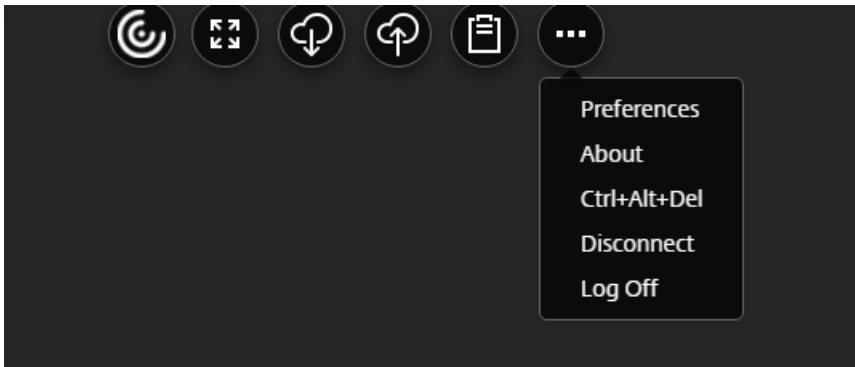
## Session sharing

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 Receiver 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.

#### To view Citrix Receiver for HTML5 logs

To assist with troubleshooting issues, you can view Citrix Receiver for HTML5 logs generated during a session.

1. Log on to the Citrix Receiver for Web site.
2. In another browser tab or window, navigate to `siteurl/Clients/HTML5Client/src/ViewLog.html`, where `siteurl` is the URL of the Citrix Receiver for Web site, typically `http://server.domain/Citrix/StoreWeb`.
3. On the logging page, click Start Logging.
4. On the Citrix Receiver for Web site, access a desktop or application using Citrix Receiver for HTML5.  
The log file generated for the Citrix Receiver for HTML5 session is shown on the logging page. You can also download the log file for further analysis.