

# About Citrix Receiver for HTML5 1.4

Oct 09, 2015

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 Receiver for Web site. With 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.

## What's new

This release provides the following new features and enhancements.

**Print to PDF.** Users can convert to PDF documents opened with hosted applications or applications running on virtual desktops to PDF. The PDF is then transferred to the local device for viewing and printing from a locally attached printer.

**Clipboard operations.** Users can copy and paste different types of data, including text, tables, and images, between hosted applications, both within the same session and between different sessions. Only plain text can be copied and pasted between hosted applications and files or applications running on the local device.

**Secure WebSocket connections.** Receiver for HTML5 supports secure WebSocket connections over Secure Sockets Layer (SSL) for direct connections to XenDesktop and XenApp without NetScaler Gateway.

**End-user experience metrics.** Receiver for HTML5 collects and makes available various metrics on user sessions to enable you to monitor the user experience through Director.

**Receiver unique ID per device.** Receiver for HTML5 generates a unique client name for each browser the first time a session is started and uses this name for all subsequent sessions, enabling you to track license usage for hosted applications.

## Known issues

The following is a list of known issues in this release. **Read it carefully before installing the product.**

### **Receiver for HTML5 cannot access desktops and applications when connecting directly over HTTPS**

Users connecting directly over HTTPS, without using NetScaler Gateway, who attempt to access desktops and applications with Receiver for HTML5 see the following error message: "Citrix Receiver cannot create a secure connection in this browser. Refer to the Citrix Knowledge Center article CTX134123." Workarounds are available for Chrome and Firefox, but not for Internet Explorer. For details, see <http://support.citrix.com/article/CTX134123>.

### **Copy and paste between sessions does not work with Internet Explorer and Safari**

Users running Internet Explorer or Safari cannot copy and paste data between different sessions. [#495281]

### **Multiple VM hosted applications published on the same machine cannot be started**

When Internet Explorer and Safari users start a VM hosted application and then attempt to start a second VM hosted application published on the same machine, the second application fails to start. When Chrome and Firefox users disconnect a VM hosted application and then attempt to start a second VM hosted application published on the same machine, the second application fails to start. [#494814]

### **Citrix PDF Printer does not work with Safari 6**

Users running Safari 6 cannot use the Citrix PDF Printer to convert documents opened with a hosted application or an application running on a virtual desktop to PDF and transfer the document to the local device. [#493870]

### **Applications cannot be started in a new browser tab on iOS devices**

When Receiver for HTML5 is set to start desktops and applications in a new browser tab rather than the existing browser tab containing the Receiver for Web site, which is the default setting, iOS users cannot start applications. [#472924]

### **Some location-based time zones cannot be mapped on non-Windows operating systems**

When you set the Use local time of client policy to Use client time zone in Studio, users accessing virtual desktops on non-Windows devices in time zones different from that of the desktop might not see the same time zone location and instead see the default time zone for the UTC offset. [#460538]

### **Third-party popup blockers will block Receiver for HTML5 client auto-reconnect attempts**

To re-establish their session, users can manually initiate a reconnection by clicking on a published Receiver application. To prevent the popup blocking software from interfering with the reconnect attempts, users can either disable popup blocking software or configure the software to allow popups from the StoreFront host or relevant domain. [#452754]

# System requirements

Sep 25, 2014

This topic lists the supported Citrix product versions for Receiver for HTML5 and the requirements for users to access virtual desktops and hosted 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 Receiver for HTML5.

### Browsers

- Internet Explorer 11 (32-bit mode)
- Internet Explorer 10 (32-bit mode)
- Safari 7
- Safari 6
- Google Chrome 36 or later
- Mozilla Firefox 31 or later

### Operating systems

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

## Citrix server requirements

Receiver for HTML5 supports access to desktops and applications through the following versions of StoreFront. Stores must be accessed through Receiver for Web sites. Receiver for HTML5 does not support direct access to StoreFront stores, either using the store URL or the XenApp Services URL.

- StoreFront 2.6
- StoreFront 2.5

When users connect through NetScaler Gateway, 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 details, see the [StoreFront 2.6 system requirements](#) or the [StoreFront 2.5 system requirements](#), as appropriate.

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

- XenDesktop
  - XenDesktop 7.6
- XenApp
  - XenApp 7.6
  - 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.

## Secure user connections

In a production environment, Citrix recommends securing communications between Receiver for Web sites and users' devices with NetScaler Gateway and HTTPS. Receiver for HTML5 enables user access to desktops and applications from public networks with the following versions of NetScaler Gateway.

- NetScaler Gateway 10.5
- NetScaler Gateway 10.1

# Configure

Aug 03, 2015

To enable users to access resources hosted on XenDesktop and XenApp in their browsers, you must create a StoreFront store and enable 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.

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.

To enable direct connections to XenDesktop and XenApp

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, WebSocket connections must be allowed 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](#).

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

1. 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](#).
2. Set the WebSockets connections policy setting to Allowed.
3. If you want to change the port used for WebSocket connections, edit the WebSockets port number policy setting.  
By default, XenDesktop and XenApp use port 8008 for WebSocket connections. If you decide to use a different port, due to firewall or other network restrictions, for example, you must also configure the Receiver for Web site to use the new port.
4. To restrict access to XenDesktop or XenApp to specific trusted Receiver for Web sites, specify a comma-separated list of trusted site URLs for the WebSockets trusted origin server list policy setting. By default, connections from all Receiver for Web sites are accepted.
5. On each machine providing desktops and applications for Receiver for HTML5 users, verify that incoming TCP connections to the port you configured for WebSocket connections are not blocked by firewalls, that no other applications are using the port, and that traffic to the port is not being redirected to other ports.
6. If you are running XenDesktop, ensure that you have updated each machine providing desktops for Receiver for HTML5 users with the latest available Virtual Delivery Agent updates and hotfixes.
7. If you plan to create machines using Machine Creation Services (MCS), on the master image, create a registry entry at HKEY\_LOCAL\_MACHINE\SOFTWARE\Citrix\GroupPolicy\Defaults\ICAPolicies if it is not already present and then add the following registry keys.
  - Create a registry key with a value type of REG\_DWORD at HKEY\_LOCAL\_MACHINE\SOFTWARE\Citrix\GroupPolicy\Defaults\ICAPolicies\AcceptWebSocketsConnections. Set the value of the new key to 1.

- Create a registry key with a value type of REG\_DWORD at HKEY\_LOCAL\_MACHINE\SOFTWARE\Citrix\GroupPolicy\Defaults\ICAPolicies\WebSocketsPort. Set the value of the new key to the port you chose for WebSocket connections in the XenDesktop or XenApp policy. The default port is 8008.
- Create a registry key with a value type of REG\_SZ at HKEY\_LOCAL\_MACHINE\SOFTWARE\Citrix\GroupPolicy\Defaults\ICAPolicies\WSTrustedOriginServerList. For the value of the new key, either specify a comma-separated list of trusted Receiver for Web site URLs or set the value to \* to accept connections from all Receiver for Web sites.

Do not apply the XenDesktop or XenApp WebSocket policies to machines provisioned using this master image. You can check whether the WebSocket policies are applied on the master image VM using the rsop.msc tool or by running the gpresult command from a command prompt.

This workaround cannot be used with deployments delivered and managed with App Orchestration.

8. 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 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\ICAPoliciesAcceptWebSocketsConnections

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 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 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 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 Receiver for HTML5 on StoreFront

SameYou 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 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 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 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 Receiver for HTML5 to access resources from the site. Windows and Mac OS X users without Citrix Receiver are prompted to install Citrix Receiver every time they log on to the site, but can use 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 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 Receiver for Web site.
  1. Use a text editor to open the web.config file for the Receiver for Web site, which is typically located in the C:\inetpub\wwwroot\Citrix\storename Web 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:port number**, where port number is the port that you configured in the policy.



# User experience

Sep 25, 2014

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

If you did not configure the site to always use 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 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 Receiver for HTML5. When you configure the Receiver for Web site to always use Receiver for HTML5, all users must access resources from the site through Receiver for HTML5 regardless of whether they have a locally installed version of Citrix Receiver.

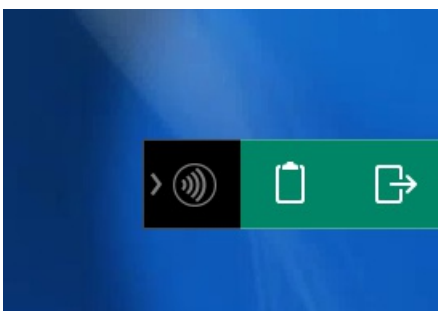
When a user accesses a desktop or application through Receiver for HTML5, the resource starts in a new browser tab or window, according to the user's browser settings. You can configure Receiver for HTML5 so that resources are always started in the same tab as the Receiver for Web site. For more information, see [To configure Receiver for HTML5 use of browser tabs](#).

When a user starts an additional application, 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.

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 Receiver for HTML5 is displayed in the browser tab. 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.

Receiver for HTML5 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 Receiver for HTML5 logs

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

1. Log on to the 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 Receiver for Web site, typically `http://server.domain/Citrix/StoreWeb`.
3. On the logging page, click Start Logging.
4. On the Receiver for Web site, access a desktop or application using Receiver for HTML5.

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