# Citrix Receiver for HTML5 2.3

Mar 09, 2017

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# About Citrix Receiver for HTML5 2.3

Jan 12, 2017

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.

# What's new in 2.3

**Support for selective use of H.264 in Thinwire**

Citrix Receiver for HTML5 now supports selective use of H.264 in Thinwire, plus encoding of transient content instead of the JPEG encoder available on the VDA. This feature is available only on VDAs Version 7.11 or later.

For more information on configuring selective H.264, see Configuring selective H.264.

**Enhancement to caching behavior of video content in Thinwire**

Thinwire can now bypass caching of server-rendered video content while at the same time retaining cached bitmaps for other open windows using text-based data (for example Excel, Windows Explorer, desktop background), resulting in a 5% reduction in bandwidth use. This enhancement is available in XenApp and XenDesktop 7.11 or later.

For more information on configuring Thinwire, see the XenApp and XenDesktop documentation.

# Fixed issues

Fixed issues in Citrix Receiver for HTML5 2.3

Compared to: Citrix Receiver for HTML5 2.2

Citrix Receiver for HTML5 2.3 contains all fixes that were included in Versions 2.2, 2.1, 1.9, 1.8, 1.7, 1.6, 1.5, and 1.4, plus the following, new fixes:

- PDF printing does not work when the packages for HDX SDK and Citrix Receiver for HTML5 are hosted in different origins.

  [RFHTMCRM-301]

- When a user launches a Linux VDA session using HDX SDK, session ready event is not triggered.

  [RFHTMCRM-435]

Fixed issues in Citrix Receiver for HTML5 2.1

Compared to: Citrix Receiver for HTML5 2.0

Citrix Receiver for HTML5 2.1 contains all fixes that were included in Versions 2.0, 1.9, 1.8, 1.7, 1.6, 1.5, and 1.4, plus the following, new fix:

- 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.

  [#621064]

# Known issues

Mar 08, 2017

Known issues in Citrix Receiver for HTML5 2.3

- With legacy graphics mode enabled in XenDesktop 7.12 on a VDA running on Windows Server 2016, the ICA session ignores the preferred color depth and the session is terminated.

  [RFHTMCRM-965]

- When you play audio in a session, switching from the active session window might cause the audio to get distorted.

  [RFHTMCRM-1122]

- In a desktop session, the quality and performance of a video degrades when you reposition the video player app multiple times.

  [RFHTMCRM-1167]

Known issues in Citrix Receiver for HTML5 2.2

- The app switcher taskbar might not be present when launching an application session in any supported browser on a Linux VDA running on Cent OS.

  [#662540]

- When a new application is launched from StoreFront, session sharing might not work with a published application on a Linux VDA.

  [#662560]

Known issues in Citrix Receiver for HTML5 2.1

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

  [#649809]

Known issues in Citrix Receiver for HTML5 2.0

- A session may exit unexpectedly 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.

  [#586671]

- 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.

[#589469]

- Citrix Receiver for HTML5 does not support cross language keyboard.

  [#602652]

- In some rare instances, a session might display a white screen on touch devices.

  [#619196]

- The virtual keyboard fails to pop up again when a user invokes it after manually closing it.

  [#621063]

- When using the Chrome browser on a hybrid platform, using a three finger tap fails to invoke the virtual keyboard.

  [#621067]

- The virtual keyboard fails to display on Edge and Firebox 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.

  [#621472]

- 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.

  [#621477]

- In some cases, the auto hide feature is not functioning for mobile devices.

  [#625000]

- Invoking a virtual keyboard in an Edge Browser of a hybrid device in tablet made erroneously resizes the session.

  [#626617]

- In some situations, the toolbar may not reposition properly on the screen when launching a session in an external monitor.

  [#631446]

- 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.

- On 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.

# System requirements

Mar 09, 2017

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 or later
- Google Chrome 50 or later
- Microsoft Edge
- Microsoft Internet Explorer 11
- Mozilla Firefox 35 or later

**Operating systems**
- Windows 10
- Windows Phone 10
- Windows 8.1
- Windows 8 Pro and Enterprise (32-bit and 64-bit editions)
- Windows 7 Service Pack 1 (32-bit and 64-bit editions)
- Windows Server 2008 R2
- Windows Server 2012 R2
- Windows Server 2016
- Mac OS X 10.8 and later
- iOS (latest version)
- Android (latest version)

## Supported Citrix server platforms

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

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:

- XenDesktop 7.6 and later
- 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. 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 10.5 or later

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 or later

# Configuring Citrix Receiver for HTML5

Jan 12, 2017

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.

Configuring selective H.264

## Configuring selective H.264 using the configuration.js file

Note: Citrix recommends you to back up the configuration.js file before making any changes to it.

Note: Administrator level credentials are required to edit the configuration.js file.

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

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

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

To enable direct connections to XenApp and XenDesktop

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, allow WebSocket connections on XenApp and XenDesktop.

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 XenApp and XenDesktop 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 Citrix 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 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.

## 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 Receiver 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 NetScaler Gateway.

**Using session reliability policies**

The session reliability connections policy setting allows or prevents session reliability.

The session reliability time-out policy setting has a default value of 180 seconds, or three minutes. Though you can extend the amount of time session reliability keeps a session open, this feature is designed to be convenient to the user and it does not, therefore, disconnect the session.

Incoming session reliability connections use port 2598, unless you change the port number defined in the session reliability port number policy setting.

> ## Tip
>
> As you extend the amount of time a session is kept open, chances increase that a user might get distracted and walk away from the user device, potentially leaving the session accessible to unauthorized users.

## Configuring session reliability

By default, session reliability is enabled.

To disable session reliability:

1. Launch Citrix Studio.
2. Open the **Session Reliability connections** policy.
3. Set the policy to **Prohibited**.
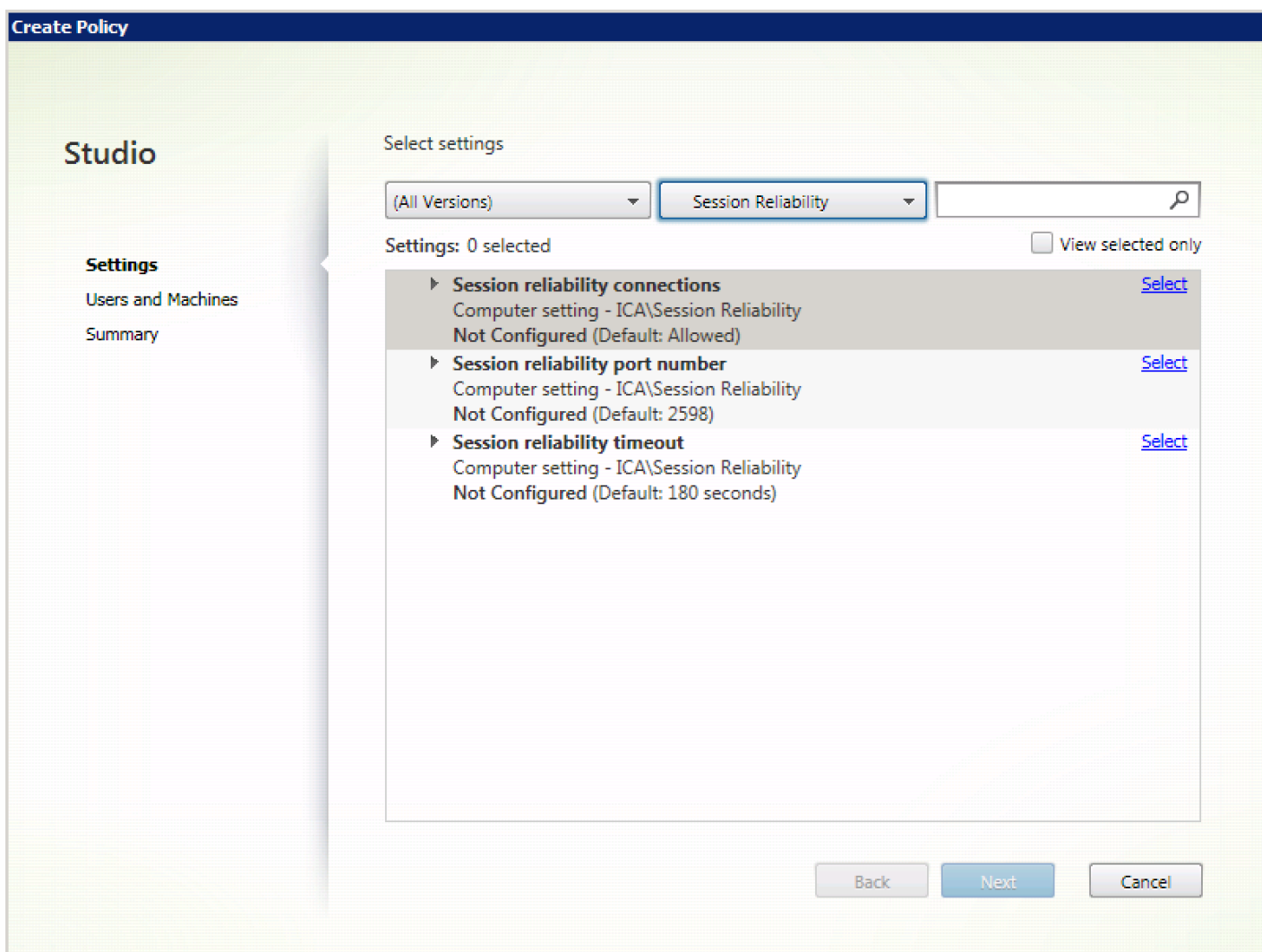
Configuring session reliability time-out

By default, the session reliability time-out is set to 180 seconds.

Note: Session reliability time-out policy can be configured only with XenApp/XenDesktop 7.11 or later.

To modify the session reliability time-out:

1. Launch Citrix Studio.
2. Open the **Session Reliability time-ou**t policy.
3. Edit the time-out value.
4. Click **OK**.

Configuring Reconnect user interface transparency level

The Session User Interface is displayed during session reliability reconnect attempts. The transparency level of the user interface can be modified using a Citrix Studio policy.

By default, the Reconnect user interface transparency is set to 80%.

To modify the Reconnect user interface transparency level:

1. Launch Citrix Studio.
2. Open the **Reconnect UI transparency level** policy.
3. Edit the value.
4. Click **OK**.

For XenDesktop Version 7.10 or earlier, use the default.ica file in StoreFront to modify the connection time-out for session reliability. By default, this time-out value is set to 180 seconds (or three minutes).

| Setting | Example | Default |
|---|---|---|
| SessionReliabilityTTL | SessionReliabilityTTL=120 | 180 |

**How session reliability works**

When session reliability is enabled, consider the following:

- A session window is grayed out when a reconnection is in progress. Once a session is timed out, it is disconnected.
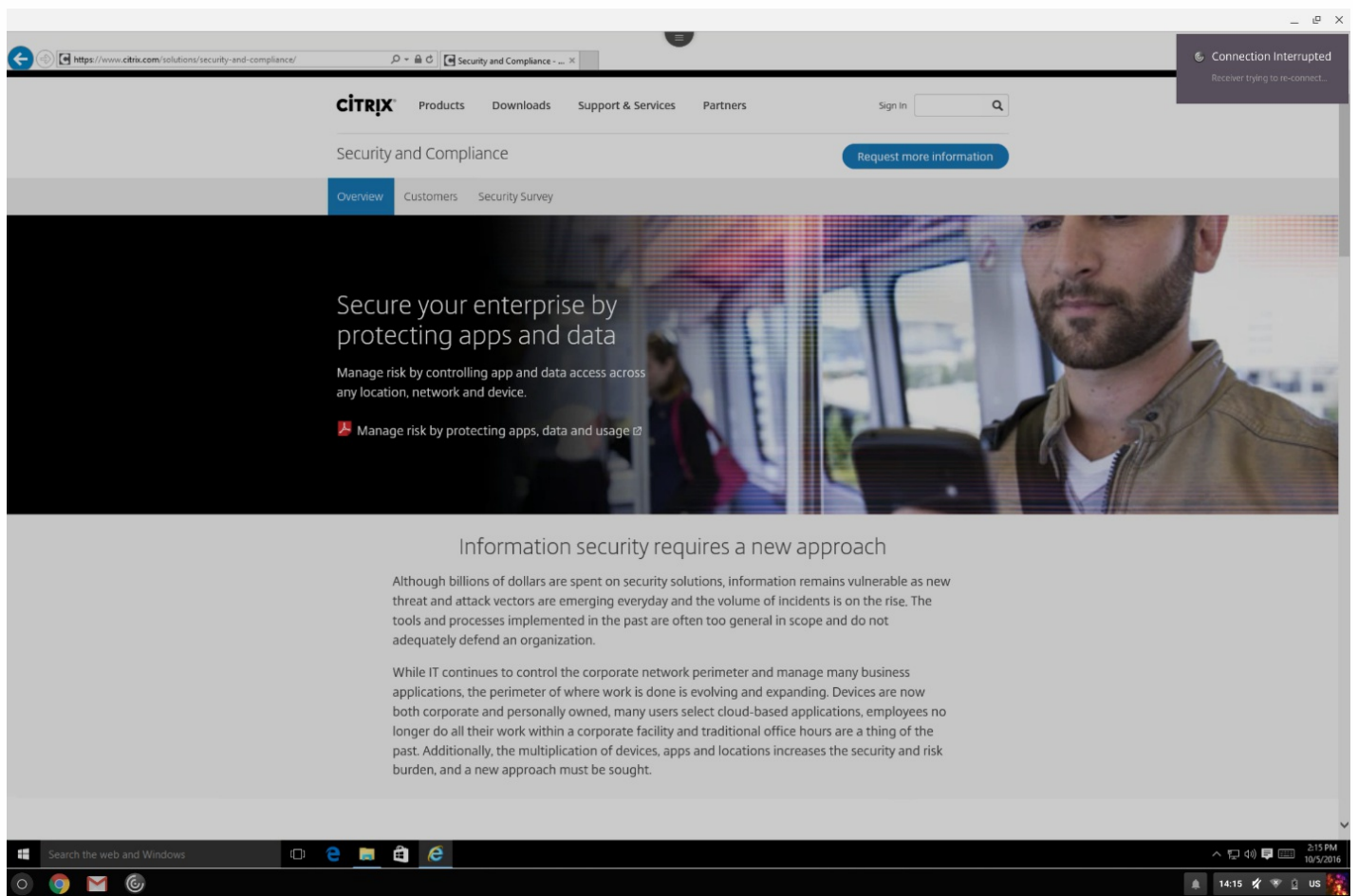


> Tip
>
> You can alter the grayscale level used for an inactive session using Desktop Studio. By default, this value is set to 80. The maximum

value cannot exceed 100 (indicates a transparent window) and the minimum value can be set to 0 (a fully blacked out screen).
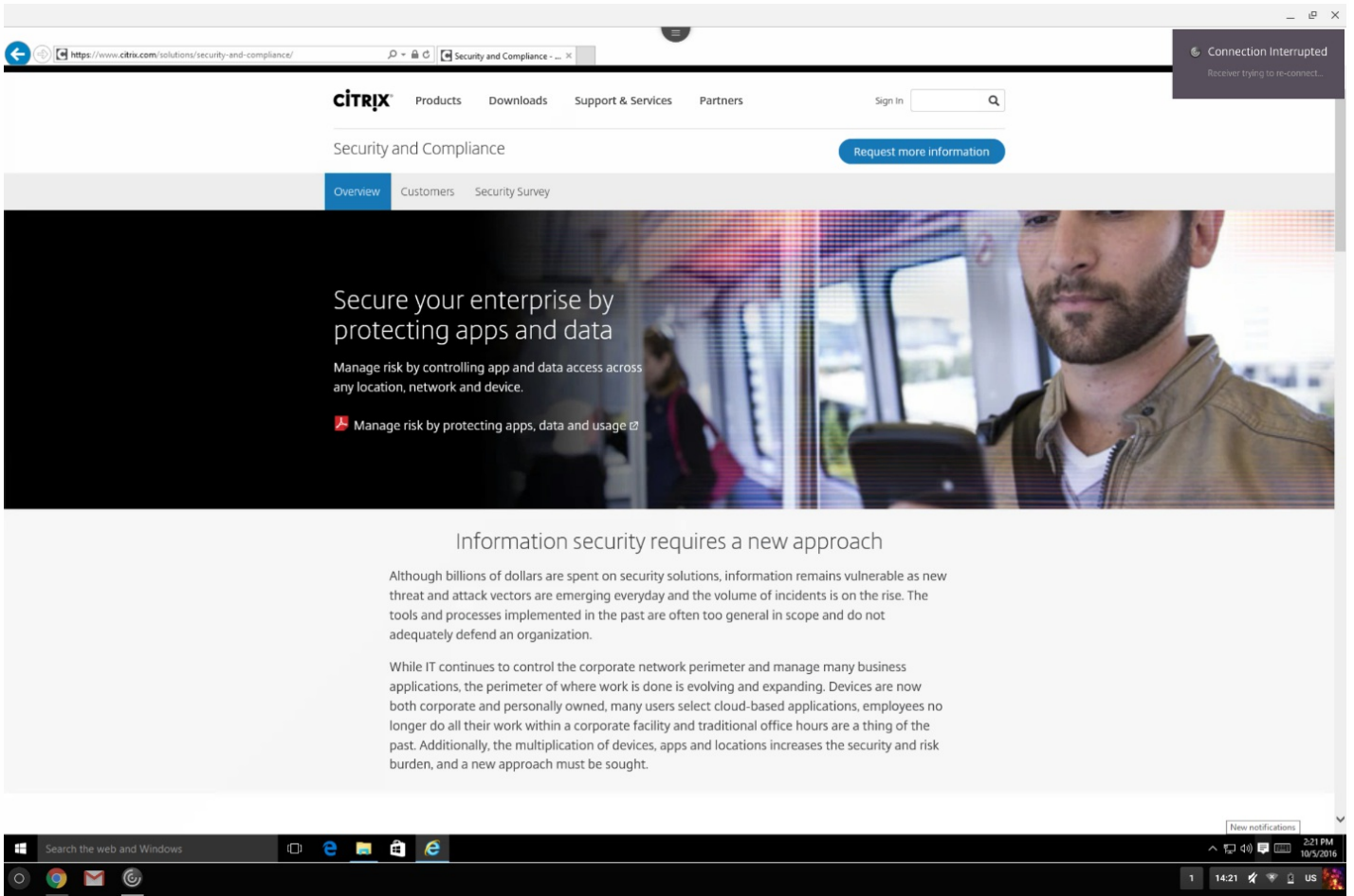
# Citrix Receiver for HTML5 user experience

Oct 18, 2016

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.
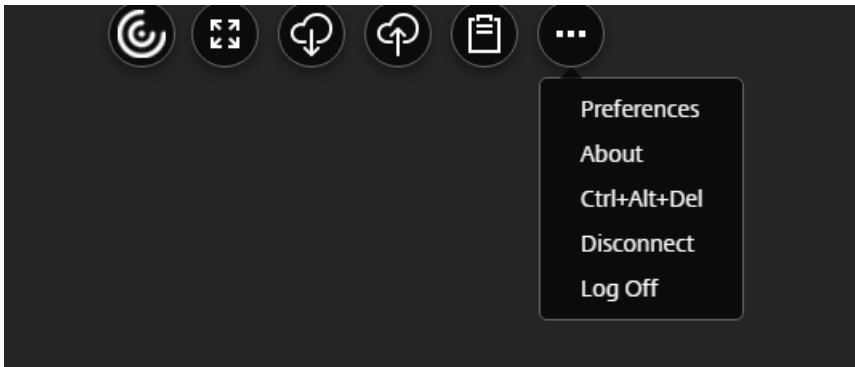
When printing a document opened with a hosted application or an application running on a virtual desktop, the user is given the option to print the document to PDF. The PDF is then transferred to the local device for viewing and printing from a locally attached printer. The file is removed from the device 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.

Citrix Receiver for HTML5 logs

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

The log page allows users to:

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

**To view Citrix Receiver for HTML5 logs by navigating to the log page:**

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.

**To view Citrix Receiver for HTML5 logs using the toolbar:**
1. Log on to the Citrix Receiver for Web.
2. In the Citrix Receiver for Web, access a desktop or application.
3. From the session toolbar, select **Logging**.
4. Click **Start Logging.**

Configuring Client Time Zone redirection

To enable client time zone redirection:

1. Launch Citrix Studio.
2. Open **Use local time of client** policy.
3. Set the policy to **Use client time zone**.