Citrix Workspace app for Chrome
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What’s new in Citrix Workspace app for Chrome

January 17, 2019

What’s new in 1901

Support for managed Chromebook devices to stay awake

With this release, Citrix Workspace app for Chrome keeps managed Chromebook devices awake even when the users are not active. Earlier, when users were not active, by default, the operating system was dimming the screen and eventually suspending the system. For more information, see Configuring awake setting.

What’s new in 1811.3

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

What’s new in 1811.2

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

What’s new in 1811

Support for DPI scaling

With this release, Citrix Workspace app for Chrome allows the operating system to control the resolution of a desktop session.

Citrix Workspace app for Chrome provides support for DPI scaling by allowing you to set the VDA resolution on the monitors that have a high pixel ratio. When you set the resolution correctly on the VDA, blurry text becomes crisper. For more information about DPI scaling, see DPI scaling.

Support for assistive cursor

Citrix Workspace app for Chrome now supports an assistive cursor to be displayed in a desktop session when the cursor is not visible within the session. For more information about assistive cursor, see Configuring assistive cursor.
What’s new in 1809.1

Enhanced support for multi-monitor display in kiosk mode for desktop sessions

Citrix Workspace app for Chrome provides enhanced support for multi-monitor display in kiosk mode for desktop sessions. The applications inside a desktop session can now be maximized to either of the two monitors instead of spanning across both monitors. For more information about enhanced multi-monitor display in kiosk mode, see To use enhanced multi-monitor display in kiosk mode.

Improved network throughput for graphics over high latency connections

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

What’s new in 1809

USB device redirection support for UC-Logic Tablet WP5540U

Citrix Workspace app for Chrome now supports USB redirection for the UC-Logic Tablet WP5540U into a session.

What’s new in 1808

Support for proxy connections

Citrix Workspace app for Chrome supports opening documents from Google drive using published applications through the unauthenticated proxy servers. To enable this, configure the proxy setting in internet options.

Fixed issues

January 17, 2019

Fixed issues in Citrix Workspace app 1901 for Chrome

• When the HDX SDK for Chrome and the Virtual Channel SDK for Chrome files are included in the same HTML file, the APIs of one SDK might override the other, depending on the order added. [RFHTMCRM-2581]

• The DPI scaling feature might not work for managed Chromebook devices. [RFHTMCRM-2594]
Fixed issues in Citrix Workspace app 1811.3 for Chrome
This release addresses a number of issues that help to improve overall performance and stability.

Fixed issues in Citrix Workspace app 1811.2 for Chrome
This release addresses a number of issues that help to improve overall performance and stability.

Fixed issues in Citrix Workspace app 1811 for Chrome
This release addresses a number of issues that help to improve overall performance and stability.

Fixed issues in Citrix Workspace app 1809.1 for Chrome
This release addresses a number of issues that help to improve overall performance and stability.

Fixed issues in Citrix Workspace app 1809 for Chrome

• The touch screen might behave inconsistently in a user session. For each tap performed, double clicks are reported. [LC9703]

Fixed issues in Citrix Workspace app 1808 for Chrome
Version 18.8.1.4043

• The LongCommandLine path to the VDA might be formed incorrectly if the path has LongCmd-Line parameters. [RFHTMCRM-2413]

Known issues

January 17, 2019

Known issues in Citrix Workspace app 1901 for Chrome
No new issues have been observed in this release.
Known issues in Citrix Workspace app 1811.3 for Chrome

No new issues have been observed in this release.

Known issues in Citrix Workspace app 1811.2 for Chrome

No new issues have been observed in this release.

Known issues in Citrix Workspace app 1811 for Chrome

- After you redirect the USB device UC-Logic Tablet WP5540U and enable the assistive cursor in a multi-monitor environment, the assistive cursor movement might not align with the stylus action. [RFHTMCRM-2472]

Known issues in Citrix Workspace app 1809.1 for Chrome

No new issues have been observed in this release.

Known issues in Citrix Workspace app 1809 for Chrome

No new issues have been observed in this release.

Known issues in Citrix Workspace app 1808 for Chrome

Version 18.8.1.4043

No new issues have been observed in this release.

Version 1808

- When you start applications and desktops from multiple VDAs and set one VDA with applications and desktops in focus, the applications and desktops from the other VDAs that are not in focus might become black. As a workaround, minimize all the applications and then start the required applications from the taskbar. [RFHTMCRM-2408]

System requirements

January 17, 2019
User device requirements

All devices must meet the minimum hardware requirements for the installed operating system. Users devices require the Google Chrome operating system (version 50 or later) to access desktops and apps using Citrix Workspace app for Chrome. Citrix recommends that you use Citrix Workspace app for Chrome with releases from the Google Chrome stable channel. Citrix Workspace app for Chrome is supported only on Chrome OS.

Citrix supported server platforms

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

- StoreFront 2.5 and later
- Web Interface 5.4

Citrix Workspace app for Chrome can be used to access desktops and applications delivered by the following product versions:

- XenApp and XenDesktop 7.6 and later
- XenApp 6.5

Secure user connections

In a production environment, Citrix recommends securing communications between Citrix Workspace for Web sites and users’ devices with Citrix Gateway and HTTPS. Citrix recommends using SSL certificates with a key size of at least 1024 bits throughout the environment in which Citrix Workspace app for Chrome is deployed. Citrix Workspace app for Chrome 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 Chrome 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 Chrome, configure the cipher suites as specified in TLS settings on VDAs.
Secure ICA

Starting with Version 2.1, Citrix Workspace app for Chrome supports RC5 (128 bit) encryption.

**Note**

If any encryption format other than basic is set, Citrix Workspace app for Chrome upgrades the encryption format to RC5 (128 bit).

**Tip:** Citrix recommends that you use a SSL-enabled VDAs for end-to-end SSL encryption.

Deploy

January 17, 2019

There are a number of options for deploying Citrix Workspace app for Chrome.

- You can use Google App management console to configure Citrix Workspace using Google policy. For more information on Chrome configuration, see Knowledge Center article CTX141844.
- You can repackage Citrix Workspace app for Chrome to include a Citrix Workspace configuration (.cr) file you have generated. The .cr file contains the connection details for Citrix Gateway and the Citrix Workspace for Web site that provides users’ desktops and apps. Users browse to chrome://extensions and then drag and drop the repackaged app (.crx) file onto the Chrome window to install Citrix Workspace app for Chrome. Because the app is pre-configured, users can start working with Citrix Workspace app for Chrome as soon as they install it, without a need to perform additional configuration steps.

You can deliver your custom Citrix Workspace app for Chrome application to users in the following ways:

- Publish the repackaged application for users through Google Apps for Business using the Google Admin Console.
- Provide the .crx file to users through other means, such as through email.
- Users install Citrix Workspace app for Chrome from the Chrome Web Store by searching for Citrix Workspace and clicking Add to Chrome.

Once installed, Citrix Workspace app for Chrome must be configured with connection details for Citrix Gateway and the Citrix Workspace for Web site providing that provides users’ desktops and apps. This can be achieved in two ways:

- Generate a .cr file containing the appropriate connection details and distribute this file to users. To configure Citrix Workspace app for Chrome, users double-click the .cr file and click Add when prompted. For more information about generating .cr files from StoreFront, see Export store provisioning files for users.
Citrix Workspace app for Chrome

- Provide users with the URL they must enter manually when they first start Citrix Workspace app for Chrome.

**To repackage Citrix Workspace app for Chrome**

To simplify the deployment process for users, you can repackage Citrix Workspace app for Chrome with a new .cr file to preconfigure Citrix Workspace app for Chrome with the appropriate connection details for your environment. Users can start working with Citrix Workspace app for Chrome as soon as they have installed it without the need to perform any additional configuration steps.

1. Download the unpackaged version of Citrix Workspace app for Chrome to a suitable location.
2. Download the sample configuration file and customize it as appropriate for your environment.
3. Rename the modified configuration file to default.cr and copy it to the Citrix Workspace app for Chrome root directory.

   Configuration files with different names or in other locations are not included when Citrix Workspace app for Chrome is repackaged.

4. If you want to enable the in-session toolbar that lets users send the CTRL+ALT+DELETE key combination to their desktops and applications, complete the following steps.

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

   a) Use a text editor to open the configuration.js file in the Citrix Workspace app for ChromeApp root directory.
   b) Locate the following section in the file.

   ```
   pre codeblock    'appPrefs': { 'chromeApp': { 'ui': { 'toolbar': { 'menubar':false, 'clipboard': false
   ```
   c) Change the setting for the menubar attribute to **true**.

   When you enable the in-session toolbar in this way, it is not necessary to enable the toolbar in the Citrix Workspace for Web site configuration file.

5. By default, Citrix Workspace app for Chrome can open any file extension in the Files App in a Chromebook intended for opening files in Google Drive using the FileAccess component in the VDA. If an administrator wants to disable this option to download the unpackaged version of Citrix Workspace app for Chrome and edit the “file handlers” section in manifest.json to resemble the following:

```
1 "file handlers" : {
2   "text" :
```
In Chrome, browse to chrome://extensions, select the **Developer mode** check box in the top right corner of the page and then click the **Pack extension** button.

For security reasons, StoreFront only accepts connections from known Citrix Workspace app for Chrome instances. You must whitelist your repackaged application to enable users to connect to a Citrix Workspace for Web site.

On the StoreFront server, use a text editor to open the web.config file for the Citrix Workspace 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.

Locate the following element in the file.

```
<html5 ... chromeAppOrigins="chrome-extension://haiffjcagjlijoggckpgfnoeifl
... />
```

Change the value of the `chromeAppOrigins` attribute to `chrome-extension://packageid`, where `packageid` is the ID generated for your repackaged application.

---

**Configure**

January 17, 2019

**Content Collaboration Service integration in Citrix Workspace app**

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 Workspace app for Chrome

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:

![Files tab example](image)

**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 Citrix Workspace app for Chrome for users to access resources hosted on Citrix Virtual Apps and Desktops, you must create a StoreFront store. You must also enable WebSocket connections on Citrix Gateway, Citrix Virtual Apps, and Citrix Virtual Apps and Desktops, as required.
Configuring multiple StoreFront support

You can change the Store address without having to restart Citrix Workspace. Existing Citrix Workspace sessions, if any, continue to run uninterrupted.

To add multiple stores and switch between them using Chrome:

1. Click **Settings** in Citrix Workspace app for Chrome and, in the **Account** pane, click **Add a store**.

2. Enter the StoreFront URL in the **Store Address** field.

3. Click **Apply** to save the new store.
4. You can select an existing store from the drop-down list.
5. To delete a store from the list, click the **Delete** icon next to the store address you want to delete and confirm deletion.
6. When you select a different store from the drop down-list, the **Apply** button changes to **Switch**.

7. Click **Switch** to confirm that you want to switch to a different store.
Limitations

- This feature is supported in user and public modes but not in kiosk mode.
- This feature supports adding up to five stores.

Configuring Selective H.264

Configuring Selective H.264 in StoreFront using the web.config file

To change the Selective H.264 configuration using the web.config file:

1. Open the web.config file for Citrix Workspace for Web site. This file is typically located in the C:\inetpub\wwwroot\Citrix\<Storename> Web folder, where Storename is the name specified for the store when it was created.
2. Locate the chromeAppPreferences field and set its value with the configuration as a JSON string; for example:
   chromeAppPreferences="{"graphics":{"selectiveH264":false}}"
## Configuring Selective H.264 using the configuration.js file

The configuration.js file is located in the ChromeApp root folder. Edit this file to make changes to Citrix Workspace app for Chrome.

By default, selective H.264 is set to true.

To disable the Selective H.264 configuration using the configuration.js file:

1. Open the configuration.js file and set the selectiveH264 attribute to `false`.

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

### Note

- Citrix recommends that you back up the configuration.js file before making any changes to it.
- Citrix recommends using this method only when Citrix Workspace app for Chrome 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.

### Configuring full-screen mode for a published desktop in public sessions

To configure your desktop session to always open in full-screen mode, edit the Google Admin Policy by including the following:

```json
{
    "settings": {
        "Value": {
            "settings\_version": "1.0",
            "engine\_settings": {
                "ui": {
                    "sessionsize": {
                    }
                }
            }
        }
    }
}
```
Configuring awake setting

Citrix Workspace app for Chrome keeps managed Chromebook devices awake even when the users are not active.

The awake setting feature is disabled by default.

To enable the feature, edit the Google Admin Console policy and set the value of the keep_awake_level property under power_settings to either “system” or “display” and then restart the session.

The “system” level keeps the system awake, but allows the screen to be dimmed or turned off. The “display” level keeps the system awake and active.
Note

For Kiosk mode, make sure that the Allow app to manage power setting in the Google Admin console is disabled.

Configuring multi-monitor display

By default, the multi-monitor feature is set to enabled.

Note

- If you are using Citrix Workspace app for Chrome running on XenApp 6.5, set the shadowing policy to Disabled to use the multi-monitor feature.
- In a desktop session, when the window is set to full screen, the Display Resolution option in Preferences is deactivated.
- UI dialogs and toolbars appear only on primary monitor. However, USB and smart card authentication dialogs span across monitors.

To use enhanced multi-monitor display in kiosk mode

Enhanced multi-monitor display in kiosk mode is enabled by default.

To disable kiosk mode, edit the configuration.js file or the Google Admin Console policy and set the value of kioskMultimonitor property to false.

```javascript
{
   "settings": {
      "Value": {
         "settings_version": "1.0",
         "engine_settings": {
            "features": {
               "graphics": {
                  "kioskMultimonitor": false
               }
            }
         }
      }
   }
}
```
To be able to launch a session in kiosk mode, you must enable **Unified Desktop** mode.

1. Launch a web browser and enter the following command: `chrome://flags`
2. From the list of flags, search for `UnifiedDesktopMode` and set it to **Enabled**.

**To configure Unified Desktop mode using Google Admin policy**

1. Log on to the Google Admin console.
2. Go to **Device management > Chrome Management > User Settings**.
3. Set the Unified Desktop policy to **Make Unified Desktop mode available to user**.
4. Click **Save**.

**To disable multi-monitor feature in Citrix Workspace app for Chrome**

By default, multi-monitor is enabled.

1. Launch Citrix Workspace app for Chrome.
2. Select **Settings > General**.
3. Uncheck **Use all the monitors to span display**.
Multi-monitor display is available on both desktops and applications. When using multi-monitor display, the desktop session can span across multiple monitors in two ways:

4. Windowed mode: The desktop session displays in single monitor mode.

5. Full-screen mode: When a desktop session is switched to full-screen mode, the session displays in multi-monitor mode only when Use all the monitors to span display is selected.

For the display to span across monitors in a desktop session, select **Use all the monitors to span display** option and click full-screen mode when the two monitors are connected.

In an application session, when two monitors are connected and **Use all the monitors to span display** option is selected, the session automatically displays in a multi-monitor mode.

**HDX SDK for Chrome**

**Procedure to consume the API in the third-party Chrome app**

1. Install the latest version of Citrix Workspace app for Chrome. See Citrix downloads page for details.
2. Whitelist the third-party Chrome app by adding the policy file for Citrix Workspace app for Chrome using Chrome management settings.
   For more details, see Manage Chrome Apps by organizational unit on Google support.
   The Sample policy.txt file to whitelist the third-party Chrome app is as below:

   ```
   {
   "settings": {
       "Value": {
           "settings_version": "1.0",
           "store_settings": {
               "externalApps": ["<3rdParty_App1_ExtnID>“, "<3rdParty_App2_ExtnID>“]
           }
       }
   }
   }
   ```

   **Note**
   
   `<3rdParty_App1_ExtnID>` is used as an example for the name of `externalApps` and can send messages to Citrix Workspace app for Chrome. Get your `appId` from the chrome://extensions site.

3. Launch the application or desktop session in Citrix Workspace for Chrome by following the steps below:

   - Get the workspaceappId
     ```
     var workspaceappId = “haiffjcadagijjogcgkpgfnoeiflnem“;
     ```
   
   **Note**
   
   In this example, `workspaceappId` indicates the store version of Citrix Workspace app for Chrome. If you are using a repackaged version of Citrix Workspace app for Chrome, use the appropriate `workspaceappId`.

   - Convert ICA data from INI to JSON format.
Note

Typically, the ICA file is retrieved from StoreFront as an INI file. Use the following helper function to convert an ICA INI file into JSON.

```javascript
// Helper function to convert ICA in INI format to JSON
function convertICA_INI_TO_JSON(data) {
    var keyVals = {};
    if (data) {
        var dataArr;
        if (data.indexOf('') === -1) {
            dataArr = data.split('
');
        } else {
            dataArr = data.split('
');
        }
        for (var i = 0; i < dataArr.length; i++) {
            var nameValue = dataArr[i].split('=', 2);
            if (nameValue.length === 2) {
                keyVals[nameValue[0]] = nameValue[1];
            } else if (nameValue[0] == "LaunchReference") {
                var index = dataArr[i].indexOf('=');
                var value = dataArr[i].substr(index + 1);
                keyVals[nameValue[0]] = value;
            }
        }
        console.log(keyVals); // to remove
        return keyVals;
    }
    return null;
}
```

- Send an ICA message from the third-party Chrome app to Citrix Workspace app for Chrome.

```javascript
var icaFileJson = {
... }
; // ICA file passed as JSON key value pairs.
var message = {
```
Citrix Workspace app for Chrome

```javascript
"method" : "launchSession",
"icaData" : icaJSON
}
;
chrome.runtime.sendMessage(workspaceappID, message,
function(launchStatus) {
if (launchStatus.success) {
    // handle success.
    console.log("Session launch was attempted successfully");
} else {
    // handle errors.
    console.log("error during session launch: ", launchStatus.message);
}
});
```

For more details on sendMessage API commands, see the following links:

https://developer.chrome.com/extensions/runtime#event-onMessageExternal

https://developer.chrome.com/extensions/runtime#method-sendMessage

**Configuring Citrix Workspace app for Chrome features and functionalities**

You can configure the features and functionalities of Citrix Workspace app for Chrome using any of the following methods:

- Google Admin Policy
- Web.config in StoreFront
- default.ica
- configuration.js

**Note**

As of version 1901, the splash screen is no longer visible to users. The schema “splashScreen”: false will no longer be supported in future releases. You must remove the schema, if present, from the Google Admin policy or the configuration.js file.
Using Google Admin policy

**Note**

Citrix recommends using this method only when Citrix Workspace app for Chrome is repackaged for users.

Before Version 2.1, only store/beacon related configurations could be pushed through Google Admin Policy. For additional information about this policy, see the Knowledge Center article CTX141844.

With Citrix Workspace app for Chrome Version 2.1, other Chrome configurations can also be pushed through the Google Admin Policy.

For more information, see the sample policy text below:

```json
{
    "settings": {
        "Value": {
            "settings_version": "1.0",
            "store_settings": {
                "name": "RTST",
                "gateways": [
                    {
                        "url": "https://yourcompany.gateway.com",
                        "is_default": true
                    }
                ],
                "beacons": {
                    "internal": [
                        {
                            "url": "http://yourcompany.internalwebsite.net"
                        }
                    ],
                    "external": [
                        {
                            "url": "http://www.yourcompany.externalwebsite.com"
                        }
                    ]
                }
            }
        }
    }
}
```
"rf_web": {
  "url": "http://yourcompany.storefrontstoreweb.net"
}

"engine_settings": {
  "ui": {
    "sessionsize": {
      "windowstate": "fullscreen",
      "available": {
        "default": "Fit_To_Window",
        "values": ["Fit_To_Window", "Use_Device_Pixel_Ratio","1280x800","1440x900","1600x1200"]
      }
    }
  }
  "toolbar": {
    "menubar": true,
    "usb": true,
    "fileTransfer": true,
    "about": true,
    "lock": true,
    "disconnect": true,
    "logoff": true,
    "fullscreen": true,
    "multitouch": true,
    "preferences": true,
    "gestureGuide": true
  }
  "features": {

"com": {
  "portname": "COM5"
}

"graphics": {
  "features": {
    "graphics": {
      "jpegSupport": true,
      "h264Support": {
        "enabled": true,
        "losslessOverlays": true,
        "dirtyRegions": true,
        "yuv444Support": false
      }
    }
    "filetransfer": {
      "allowupload": true,
      "allowdownload": true,
      "maxuploadsize": 2147483647,
      "maxdownloadsize": 2147483647
    }
    "nacl": {
      "supportNacl": true,
      "graphics": {
        "enable": true
      }
    }
    "video": {
      "enable": true
    }
  }
}
"audio": {
  "enable": true
}
}
}
}

Using Web.config

Note

Citrix recommends that you use the web.config file method for configuration purposes only when a store version of Citrix Workspace app for Chrome is being used.

To change the configuration using the Web.config file:

1. Open the web.config file for the Citrix Workspace for Web site. This file is typically located in C:\inetpub\wwwroot\Citrix\storenameWeb, where storename is the name specified for the store when it was created.
2. Locate the chromeAppPreferences field and set its value with the configuration as a JSON string.

For example:

chromeAppPreferences = {"ui": {"toolbar": {"menubar": false}}}

Using the default.ica file

Note

Citrix recommends that you use the default.ica file method for configuration purposes only for Web Interface users.

Citrix Workspace app for Chrome allows Custom .ica files without any initial program value.

To change the configuration using the default.ica file:

1. Open the default.ica file typically located at C:\inetpub\wwwroot\Citrix\<sitename>\conf\default.ica for Web interface customers, where sitename is the name specified for the site when it was
Citrix Workspace app for Chrome

created.
In case of Storefront customers, **default.ica** file is typically located at C:\inetpub\wwwroot\Citrix\<Storename>\App_Data\default.ica, where **storename** is the name specified for the store when it was created.

2. Add a new key at the end of the file, **chromeAppPreferences** with its value set to configuration as the JSON object.

For example:

```
chromeAppPreferences={"ui":{"toolbar": {"menubar": false}}}
```

A sample **default.ica** file looks like below:

```
```
[Application]

TransportDriver=TCP/IP

DoNotUseDefaultCSL=On

BrowserProtocol=HTTPonTCP

LocHttpBrowserAddress=!'

WinStationDriver=ICA 3.0

ProxyTimeout=30000

AutologonAllowed=ON

;EncryptionLevelSession=RC5 (128 bit)

[EncRC5-0]

DriverNameWin16=pdc0w.dll

DriverNameWin32=pdc0n.dll

[EncRC5-40]

DriverNameWin16=pdc40w.dll

DriverNameWin32=pdc40n.dll

[EncRC5-56]

DriverNameWin16=pdc56w.dll

DriverNameWin32=pdc56n.dll

[EncRC5-128]

DriverNameWin16=pdc128w.dll

DriverNameWin32=pdc128n.dll
Using the `configuration.js` file

The `configuration.js` file is located in the ChromeApp root folder. Access this file directly to make changes to Citrix Workspace app for Chrome.

**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; after editing the file, repackage the app to make additional modifications to toolbar elements.
- In kiosk mode, the toolbar is hidden by default. When editing the `configuration.js` file to enable the toolbar, ensure that kiosk mode is disabled. Citrix recommends that you use one of the alternative methods (for example, the default.ica file) to enable the toolbar.

Smart card authentication

Citrix Workspace app for Chrome provides support for USB smart card readers with StoreFront. You can use smart cards for the following purposes:

- Smart card logon authentication to Citrix Workspace app for Chrome.
- Smart card-aware published apps to access local smart card devices.
- Applications such as Microsoft Word and Outlook that are launched in ICA sessions can access smart cards for signing documents and email.

Supported smart cards include:
Citrix Workspace app for Chrome

- PIV cards
- common access cards

Prerequisites:

- StoreFront versions 3.6 or later

**Important**

For smart card authentication to StoreFront 3.5 or earlier, users require a custom script to enable smart card authentication. Contact Citrix Support for details.

- XenDesktop 7.6 or later
- XenApp 6.5 or later

To configure smart card support on your Chrome device:

1. Install the smart card connector application. Note that the smart card application is required for PCSC support on the Chrome device. This application reads the smart card using the USB interface. You can install this application from the Chrome website.

2. Install the middleware application. Note that a middleware application (for example, Charismathics, or CACKey) is required because it serves as an interface that communicates with the smart card and other client certificates.
   - To install the Charismathics smart card extension or CACKey, see the instructions on the Chrome website.
   - For more information about middleware applications and smart card authentication, see the Google support site.

3. Configure smart card authentication using Citrix Gateway. For more details, see Configuring Smart Card Authentication in Citrix Gateway documentation.

**Limitations:**

- The smart card certificate is cached even after the smart card is removed from the Chrome device. This is a known issue that exists in Google Chrome. Restart the Chrome device to clear the cache.
- When Citrix Workspace app for Chrome is repackaged, administrators should get the appID whitelisted by Google to ensure that the smart card connector application passes through.
- Only one smart card reader is supported at a time.

**Configuring serial COM port redirection**

To configure serial COM port redirection, enable the feature by applying Citrix Virtual Apps and Desktops port redirection policy settings. For more information on port redirection, see Port redirection policy settings.

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Note

By default, Citrix Workspace app for Chrome maps COM5 as a preferred serial COM port for redirection.

After enabling serial COM port redirection policy settings on the VDA, configure Citrix Workspace app for Chrome using one of the following methods:

- Google Admin Policy
- configuration.js file
- Changing the default mapping by issuing a command in an active ICA session.

Using Google Admin Policy to configure COM port redirection

Use this method to redirect the serial COM port by editing the policy file.

Tip

Citrix recommends that you configure the COM port using the policy file only when Citrix Workspace app for Chrome is repackaged.

Edit the Google Admin Policy by including the following:

```json
"settings": {
    "Value": {
        "settings_version": "1.0",
        "store_settings": {
            "rf_web": {
                "url": "http://YourStoreWebURL"
            }
        },
        "engine_settings": {
            "features": {
                "com": {
                }
            }
        }
    }
}
```
Using the configuration.js file to configure COM port redirection

Use this method to redirect the serial COM port by editing the configuration.js file. Locate the port-name field in the configuration.js file and edit the value by changing the port number.

For example:

```
"com": {
  "portname": "COM4"
}
```

Note

Citrix recommends using the configuration.js file method to configure serial port redirection only when Citrix Workspace app for Chrome is repackaged and republished from StoreFront.

Issuing a command in an ICA session to configure COM port redirection

Use this method to redirect the serial COM port by executing the following command in an active ICA session:

```
net use COM4 : \\Client\COM5
```
In the example above, COM4 is the preferred serial port used for redirection.

**Configuring Single Sign-on (SSON) with Google and Citrix using SAML authentication**

To configure Single Sign-on:

1. Set up the third-party Identity provider (IdP) for SAML authentication if it is not already configured (for example, ADFS 2.0). For more information, see Knowledge Center article CTX133919.

2. Setup Single Sign-on with Google Apps using SAML IdP; this enables users to leverage third-party identity to use Google apps instead of the Google Enterprise account. For more information, see Set up Single Sign-On (SSO) for Google Apps accounts using third-party identity providers on Google support.

3. Configure Chrome devices to log on via SAML IdP. This enables users to log on to Chrome devices using a third-party identity provider. For more information, see Configure SAML Single Sign-On for Chrome devices on Google support.

4. Configure Citrix Gateway to log on via SAML IdP. This enables users to log on to Citrix Gateway using a third-party identity provider. For more information, see Configuring SAML Authentication.

5. Configure Citrix Virtual Apps and Desktops for Federated Authentication to allow logons to Citrix Virtual Apps and Desktops sessions using dynamically generated certificates after the SAML logon process instead of typing username/password combinations. For more information, see Federated Authentication Service.

6. Install and configure SAML SSO for Chrome app extension on Chrome devices. For more information, see the Google website. This extension retrieves SAML cookies from the browser and provides them to Citrix Workspace. This extension must be configured with the following policy to allow Citrix Workspace to get SAML cookies.

```json
{
   "whitelist" : {
      "Value" : [
         {
            "appId" : "haiffjcadagjlijoggckpgfnoeiflnem",
            "domain" : "saml.yourcompany.com"
         }
      ]
   }
}
```
If you are repackaging Citrix Workspace app for Chrome, change the appId accordingly. In addition, change the domain to your company’s SAML IdP domain.

7. Configure Citrix Workspace to use Citrix Gateway configured for SAML logon. This enables users to use the Citrix Gateway configured for SAML logon. For more information on Chrome configuration, see Knowledge Center article CTX141844.

**Citrix Universal Print Driver**

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 or later. 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 then opens in a new window for viewing and printing through Google Cloud Print.

**Important**

Local PDF printing is supported only on XenApp and XenDesktop 7.6 or later.

**Requirements**

To access the Citrix Workspace app for Chrome download page, you need a MyCitrix account.

Download the Citrix PDF Printer from the Citrix downloads page.

To enable users to print documents opened with hosted desktop and applications:

1. Download the Citrix PDF Printer and install the Citrix PDF Universal Printer driver on each machine that delivers desktops or apps for Citrix Workspace app for Chrome 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.
Google Cloud Print support

Google Cloud Print allows you to make remote printing devices (such as a printer at home) available to you or anyone you choose.

You can configure Citrix Workspace to use Google Cloud Print by default to redirect your files, rather than having to select and configure it every time you print.

To use Google Cloud Print:

- You must install the Citrix PDF printer driver in the VDA; refer to the Citrix download site for the latest software packages.
- Google Cloud Printers should be registered with a user’s Google account. Refer to the Google Cloud Print website for more information.
- If a customized Citrix Workspace app for Chrome package is deployed using the Google Management console, ensure the Citrix Workspace app for Chrome package contains the correct OAuth2.0 credentials in the manifest.json file. Refer to the Google Developers site for information about obtaining OAuth2.0.

For example:

```json
"oauth2": {
  "client_id": "replace this with your client ID",
  "scopes": [
    "https://www.googleapis.com/auth/cloudprint"
  ]
}
```

Note

This feature only works with Google Cloud Printer. Refer to the Google Developers site for additional information.

Enabling and disabling access to Google Drive

With Google drive support your users can open, edit, and save Windows file types from a Chrome device running Citrix Workspace. While running a Google Chrome device, your users can seamlessly use existing Windows-based applications (for example, Microsoft Word) and access the files residing on Google Drive
Citrix Workspace app for Chrome

For example, if a user opens a file in Google Drive (for instance, a .DOC file attachment downloaded from Gmail), edits it, and saves it to Google Drive, the file can be accessed in a Citrix Virtual Apps hosted application. The file can be viewed, edited, and saved to Google Drive.

**Prerequisites**

To enable Google Drive access, you must install the Citrix File Access component (FileAccess.exe) on your VDA and enable file type associations in Citrix Studio. You can download Citrix File Access from the [Citrix downloads page](https://accounts.google.com). Only files from Google Drive can be opened using Citrix Workspace. To open a file from Google Drive, right-click and and open the file using Citrix Workspace.

Citrix recommends that you associate one file type with only one published application.

**Proxy connection support**

The Citrix Workspace app for Chrome supports opening documents from Google drive using published applications through the unauthenticated proxy servers. To enable this, configure the proxy setting in internet options.

**To disable Google Drive access from Citrix Workspace**

In the manifest.json file, replace:

```json
"file_handlers": {
  "all-file-types": {
    "extensions": [
```

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with:

```
"file_handlers" : {

  "cr-file-type" : {

    "extensions" : [
      "cr",
      "ica"
    ]
  }
}
```

Kiosk mode

Citrix Workspace app for Chrome kiosk mode provides the ability to run all apps in the same window. Using this feature, you can run Citrix Workspace apps in kiosk mode, and then launch any Windows app or desktop using the same mode. In addition, kiosk mode allows you to publish remote apps or desktops as a dedicated Chrome package using a persistent URL.

You can control this feature by adjusting the kiosk settings in the Chrome admin panel for managed Chrome devices.

See the Google support site for instructions on enabling the Citrix Workspace app to run in kiosk mode on managed and non-managed Chrome devices.

If you are deploying a Citrix Workspace app, you should publish using the visibility options set to Public/unlisted to ensure interoperability with kiosk mode. Go to the Chrome Web Store Developer Dashboard

The store URL is read-only when kiosk mode is active and cannot be edited using the Account settings screen. However, you can change this setting by either repackaging the app with the .cr file or through Google Policy Management using the Google Admin Console.
<Services version="1.0">
  <Service>
    <rfWeb>http://your_RfWebURL_or_persistenturl</rfWeb>
  </Service>
  <Name>Mystore</Name>
  <Gateways>
    <Gateway>
      <Location>https://yourcompany.gateway.com</Location>
    </Gateway>
  </Gateways>
  <Beacons>
    <Internal>
      <Beacon>http://yourcompany.internalwebsite.net</Beacon>
    </Internal>
    <External>
      <Beacon>http://www.yourcompany.externalwebsite.com</Beacon>
    </External>
  </Beacons>
</Services>

If you are using the Google Admin Console, edit the policy.txt file containing the Citrix Workspace configuration. Replace the value of “url” under “rf_web” with a persistent URL.

{  
  "settings": {  
    "Value": {  
      "settings_version": "1.0",  
      "store_settings": {  
        "beacons": {  
          "external": [  
            {  
              "url": "http://www.yourcompany.externalwebsite.com"  
            }  
          ],  
          "internal": [  
            {  
              

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Citrix Workspace app for Chrome

```json
"url": "http://yourcompany.internalwebsite.net"
}

"gateways": [
{
"is_default": true,
"url": "https://yourcompany.gateway.com"
}
],

"name": "mystore",
"rf_web": {
"url": "http://your_RfWebURL_or_persistenturl "
}

Clipboard support

Citrix Workspace app for Chrome supports HTML format in addition to plain text between the client and the VDA in a session. This support is useful when using Microsoft Office apps and browsers. Enhanced clipboard support is available only on Chrome and Safari browsers.

Configuring clipboard

You can copy HTML content and retain formatting when copying a link in Chrome. An `<img>` tag is added in HTML format, which allows you to copy images as well as text. This feature is richer than plain text.

To enable this feature, add the following registry entry to the VDA:
Citrix Workspace app for Chrome

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

“Name”=”HTML Format”

Warning

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

Note

For additional information about the issues resolved by the introduction of this feature, see Knowledge Center article CTX112063 and CTX086028.

USB device redirection

Citrix Workspace app for Chrome supports a wide range of USB peripherals. With this added functionality, you can create a Google policy to identify the PID/VID of the device to enable its use in Citrix Workspace. This support extends to new USB devices, including 3D Space mouse, additional composite devices, Bloomberg keyboards, and UC-Logic Tablet WP5540U.

For more information on configuring USB devices, see the Knowledge Center article CTX200825.

Automatic redirection of USB devices

In kiosk mode, USB devices are redirected automatically inside a session without any manual intervention. In user and public modes, for the first time, you must manually redirect the USB device into the session from the toolbar or the Connection Center. This manual USB redirection is done to grant permission to the Chrome operating system for accessing the USB device. When a USB device is inserted, it is redirected into the session automatically.

If you insert a USB device when multiple sessions are running, it is redirected into the session that is in focus. If there are no sessions in focus, the USB device is not redirected into any session. If a single session is running and if it is not in focus when you insert the USB device, the device might not be redirected.

File transfer

Citrix Workspace app for Chrome provides secure file transfer functionality between a user device and a Citrix Virtual Apps and Desktops session. This feature uses a file transfer virtual channel instead of client drive mapping.
Citrix Workspace app for Chrome

By default, users can:

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

Administrators can configure file transfer, uploads, and downloads using policies in Citrix Studio.

Prerequisites

- XenApp or 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)
- If either the ‘Upload file to Desktop’ or the ‘Download file from Desktop’ policy is set to Disabled, the toolbar still displays both the Upload and the Download icons but the functionality is based on the policy setting. However, if both policies are set to Disabled, the Upload and Download icons are not displayed in the toolbar.

Configuring file transfer policies

To configure file transfer using a Citrix Studio policy

By default, file transfer is enabled.

Use Citrix Studio to change the following policies, located under User Setting > ICA > File Redirection.

<table>
<thead>
<tr>
<th>CITRIX STUDIO POLICY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow file transfer between desktop and client</td>
<td>To enable or disable the file transfer feature</td>
</tr>
<tr>
<td>Upload file to Desktop</td>
<td>To enable or disable file upload in the session. Requires the “allow file transfer between desktop and client” policy to be set to true.</td>
</tr>
</tbody>
</table>

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Download file from Desktop  To enable or disable file download from the session. Requires the “allow file transfer between desktop and client” policy to be set to true.

To configure file transfer using configuration.js file

The configuration.js file is located in the ChromeApp root folder. Edit this file directly to make changes to Citrix Workspace app for Chrome.

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

Note: Administrator-level credentials are required to edit the configuration.js file; After editing the file, repackaged the app to make additional modifications to toolbar elements.

To change the file transfer configuration using the configuration.js file:

Open the configuration.js file and configure the settings as below:

<table>
<thead>
<tr>
<th>FILE TRANSFER CLIENT SETTINGS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AllowUpload</td>
<td>To enable or disable upload from client-side. By default set to true (enabled).</td>
</tr>
<tr>
<td>AllowDownload</td>
<td>To enable or disable download from the client-side. By default set to true (enabled).</td>
</tr>
<tr>
<td>MaxUploadSize</td>
<td>To set the maximum size of the file that can be uploaded in bytes. By default set to 2147483648 bytes (2GB)</td>
</tr>
<tr>
<td>MaxDownloadSize</td>
<td>To set the maximum size of the file that can be downloaded in bytes. By default set to 2147483648 bytes (2GB).</td>
</tr>
</tbody>
</table>

Following are the behavior cases when the policy set in Citrix Studio and the client are different.

<table>
<thead>
<tr>
<th>Citrix Studio Policy Upload / Download</th>
<th>Client-side setting Upload / Download</th>
<th>Resulting Behavior</th>
</tr>
</thead>
</table>

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### Note

When there is a conflicting value set for **Maximum File Size upload or download** in the registry and in the client-side settings, the minimum size value among the two is applied.

**File transfer logs**

The file transfer logs can be retrieved from both the client and the server.

To retrieve file transfer logs from the client:

1. Launch a browser.
2. Go to the following URL to start logging:
   ```html
   <storefronturl>/clients/html5client/src/viewlog.html
   ```
   where `<storefronturl>` is the FQDN or IP address of the StoreFront server where the store is configured.

For more information on file transfer, see [HTML5 and Chrome File Transfer Explained](#).

### User experience

January 17, 2019

After installing and configuring Citrix Workspace app for Chrome, select the Citrix Workspace icon in the Chrome apps list to start Citrix Workspace app for Chrome, as shown in the following figure. To remove Citrix Workspace app for Chrome from their devices, right-click the Citrix Workspace icon in the Chrome apps list and select Uninstall.
Citrix Workspace app for Chrome

Desktops and applications appear after logging in. You can search for resources and click an icon to start a desktop or application in a new window.

When you start an additional application, Citrix Workspace app for Chrome checks if the application can be launched in an existing session before creating a new session. This enables you to access multiple applications in a single session.

For session sharing, 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.

You 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. Only Unicode plain text can be copied and pasted between hosted applications and the local clipboard on the device.

Users can use standard Windows keyboard shortcuts with Citrix Workspace app for Chrome because these shortcuts are passed from Chrome OS to hosted applications. Similarly, shortcuts specific to particular applications can also be used, provided they do not conflict with any Chrome OS shortcuts. However, note that the Windows key must also be pressed for function keys to be recognized, so an external keyboard is required. For more information about using Windows keyboards with Chrome OS, see https://support.google.com/chromebook/answer/1047364. Citrix-specific shortcuts, such as those for switching between sessions and windows, cannot be used with Citrix Workspace app for Chrome.

When printing a document opened with a hosted application or an application running on a virtual...
Citrix Workspace app for Chrome

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 or Google Cloud Print. The file is not stored in Citrix Workspace app for Chrome.

Enable logging

Citrix Workspace app for Chrome provides timestamps for the logs generated by the user device. To assist with troubleshooting connection issues, logs can be generated on both the user device and the machines providing desktops and applications.

To enable logging on user devices

1. On the user device, select the button with a settings image on it in the bottom-right corner of the Citrix Workspace app for Chrome login page.
2. In the Settings dialog, select Start Logging.
   Details of the collected log files are listed in the Settings dialog.
3. Select Stop Logging to end the collection of logs on the user device.

Separate icons in Chrome OS taskbar

Applications and desktops configured using Citrix Virtual Apps and Desktops in an active session are displayed as separate apps in the taskbar (shelf) on a Chrome device. This feature applies to published applications and desktops. The functionality and behavior of this feature is similar to the taskbar experience that is provided by the Windows Operating system.

By default, this feature is enabled.

Configuring taskbar icons using Google Admin policy

Note

Citrix recommends using this method only when Citrix Workspace app for Chrome is repackaged for users.

1. Log on to the Google Admin Console.
2. Go to Device management > Chrome Management > User Settings.
3. Add the below strings to the policy.txt file.
Configuring taskbar icons using the Web.config in StoreFront

Note
Citrix recommends that you use the web.config file method for configuration purposes only when a store version of Citrix Workspace app for Chrome is being used.

1. Open the web.config file for the Citrix Workspace for Web site. This file is typically located in C:\inetpub\wwwroot\Citrix\<Storename>Web, where Store name is the name specified for the Store when it was created.
2. Locate the `chromeAppPreferences` field and set its value with the configuration as a JSON string.

For example:

```
1 chromeAppPreferences='{
2   "seamless": {
3   "showInShelf":false
4  }
```

Configuring taskbar icons using the configuration.js file

The configuration.js file is located in the ChromeApp root folder. Access this file directly to make changes to Citrix Workspace app for Chrome.

Note: Administrator-level credentials are required to edit the configuration.js file; after editing the file, repackage the app for the changes to take effect.

To change the Chrome OS taskbar using the configuration.js file:

1. Open the configuration.js file and set the `showInShelf` attribute to true.

For example:
Citrix Workspace app for Chrome

```javascript
//Preferences for chrome app
'appPrefs':{
    'chromeApp':{
        'seamless':{
            'showInShelf': false
        }
    }
}
```

**Limitations:**

1. When more than one instance of the same application is launched, the app icon is not stacked and appears as two separate icons. For example, two instances of Notepad display two icons of Notepad in the taskbar.
2. App pinning is not supported.

**Configuring CEIP**

**Note**

1. When CEIP is disabled, minimal information, containing the installed Citrix Workspace app for Chrome version is uploaded; this happens weekly. This minimal information is valuable to Citrix because it provides the distribution of different versions used by customers.
2. When Citrix Workspace app for Chrome is launched in a public session mode, CEIP data is not collected.

No user identifiable information is collected from the customer environment with CEIP; collected information includes:

- System information details like the version of operating system, installed version of Citrix Workspace, language, and the browser version.
- Usage tracking details like statistics of application launch over the course of a week, monitor resolutions, graphics mode, decoder, and renderer.
- Critical to quality details like connection and launch failures and statistics on session connection time.
- Configuration tracking details like data points tracking to check if a feature is enabled or disabled.

**To disable CEIP using Google Admin Policy**

Note: Administrator-level credentials are required to perform this procedure

1. Log on to the Google Admin Console.
2. Go to Device management > Chrome Management > User Settings.
3. Add the below strings under the `engine_settings` key to the policy.txt file.
4. Click Save.
Citrix Workspace app for Chrome

For more information on google policy, see Knowledge Center article CTX141844.

'ceip' : {
    'enabled' : false
}

To disable CEIP using configuration.js

The configuration.js file is located in the ChromeApp root folder. Edit this file to configure Citrix Workspace app for Chrome.

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 Chrome 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. Open the configuration.js file and set the enabled attribute under ceip to false.
   For example:

   'ceip' : {
       'enabled' : false
   }

To disable CEIP using graphical user interface

Note

You can modify the CEIP settings using GUI only when the administrator has enabled it using any of the above methods.

1. Launch Citrix Workspace app for Chrome.
2. Select **Settings > General**.
3. Uncheck **Help improve Citrix Workspace by sending anonymous usage statistics**.

Relaunch the session for the changes to take effect.
Citrix Workspace app for Chrome

To disable CEIP using configuration.js using the web.config file

1. Open the web.config file for Citrix Workspace for Web site.
   This file is typically located in the C:\inetpub\wwwroot\Citrix\<Storename>Web folder, where Storename is the name specified for the store when it was created.
2. Locate the `chromeAppPreferences` field and set its value with the configuration as a JSON string.
   For example:

   ```
   chromeAppPreferences='{
   "ceip":{
   "enabled":false }
   }
   ```

Redesigned toolbar

Citrix Workspace app for Chrome provides a redesigned toolbar to improve the user experience. This enhancement provides new options that are accessible from the toolbar to facilitate common tasks, such as:

- switching to full-screen mode
- upload or download a file
- copy content from an active session to the clipboard to enable sharing between sessions
- access additional options

Configuring redesigned toolbar

By default, the enhanced toolbar is enabled.

To hide the toolbar configuration using the configuration.js file:
Citrix Workspace app for Chrome

The configuration.js file is located in the ChromeApp root folder. Edit this file directly to make changes to Citrix Workspace app for Chrome.

1. Open the configuration.js file and set the menubar attribute to false.

You can also hide an individual icon to prevent it from displaying in the toolbar. For example, to hide the Ctrl+Alt+Del button in the toolbar:

1. Open the configuration.js file and set the lock attribute to false.

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; after editing the file, repackagethe app for the changes to take effect.

DPI scaling

Citrix Workspace app for Chrome allows the operating system to control the resolution of a desktop session.
The DPI scaling feature **Scale the session for monitors with high device pixel ratio** is enabled by default.

Citrix Workspace app for Chrome provides support for DPI scaling by allowing you to set the VDA resolution on monitors that have a high pixel ratio. To do this, go to the **session toolbar** and select **Preferences > Display Resolution > Use device pixel ratio** for the correct resolution to be set on the VDA. When the resolution is set properly on the VDA, blurry text becomes crisper.

To disable the feature, edit the **Google Admin Console** file and set the value of **scaleToDPI** property to **false**:

```json

{"settings": {
    "Value": {
        "settings_version": "1.0",
        "engine_settings": {
            'features': {
                'graphics': {
                    'dpiSetting': {
                        'scaleToDPI': false
                    }
                }
            }
        }
    }
}
```

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Citrix Workspace app for Chrome

Configuring assistive cursor

When a cursor is not visible inside a desktop session, you can enable an assistive cursor. Launch the next session for the setting to take effect.

The assistive cursor feature is disabled by default.

To enable the feature, edit the Google Admin Console policy and set the value of the assistiveCursor property under ui to true and then restart the session.

```json
{
    "settings": {
        "Value": {
            "settings_version": "1.0",
            "engine_settings": {
                "ui": {
                    "assistiveCursor": true
                }
            }
        }
    }
}
```
Note:

- If an administrator enables the assistive cursor as described above, the corresponding check box in the client-side setting is selected by default. To disable the feature, clear the check box.
- If an administrator disables the assistive cursor as described above, the check box is cleared and the feature disabled.

Connection Center

Connection Center facilitates application management in seamless sessions. This is done by providing a taskbar that lists all opened applications.

To launch the Connection Center, right- click the Citrix Workspace icon and then select **Connection Center**.

Using Connection Center, you can select an application and:
1. Display devices.
2. Send a Ctrl+Alt+Del command.
3. Disconnect from a session.
4. Logoff from the session.

You can also terminate an app using the Connection Center by selecting the radio button of the corresponding application and clicking **Terminate**.

**Seamless window integration**

Citrix Workspace app for Chrome improves the user experience by adding seamless integration of multiple apps hosted in separate windows within an active session. Using this functionality, Citrix Workspace app for Chrome enables you to launch applications in an independent user interface compared as opposed to launching all apps for a session in a single window.

Seamless applications can be hosted in separate windows; with this functionality, remote applications are run natively on the client device.
Limitations

- Extra entries appear in the Chrome task bar; click any of these to bring the selected session to the front.
- All opened apps in an active session run in a single window; focusing on one app in an active session brings that window into focus along with all other apps belonging to that session.

Use the seamless session taskbar to quickly move between apps:
Tip

All apps in one session run in a single window. When moving an app to a second monitor, all apps that are part of that session move to the second monitor.

Reload store URL button

In Citrix Workspace app for Chrome window, a button is added for reload operation. By clicking the button, the cookies of the store get cleared and the store page is reloaded.

Hardware encode webcam support

Citrix Workspace app for Chrome provides an enhancement to webcam redirection functionality. H.264 hardware encoding for webcam input helps reduce CPU load and increases battery efficiency for Chromebook devices. These devices have encoders for H.264, which leverages Intel functionality through the PPB_VideoEncoder API.

SDK and API

January 17, 2019
HDX SDK for Chrome

Citrix Workspace app for Chrome introduces an API (Experimental API) that allow third-party Chrome apps to lock, unlock and disconnect from a Citrix Virtual Apps and Desktops session. Using this API, Citrix Workspace app for Chrome can be launched in both embedded mode and kiosk mode. Sessions launched in embedded mode function in ways similar to sessions launched kiosk mode.

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

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

Citrix Virtual Channel SDK for Citrix Workspace app for Chrome

The Citrix Virtual Channel Software Development Kit (SDK) provides support for writing server-side applications and client-side drivers for additional virtual channels using the ICA protocol. The server-side virtual channel applications are on Citrix Virtual Apps or Citrix Virtual Apps and Desktops servers. This version of the SDK provides support for writing new virtual channels for Citrix Workspace app for Chrome. If you want to write virtual drivers for other client platforms, contact Citrix.

The Virtual Channel SDK provides:

- An easy interface that can be used with the virtual channels in the Citrix Server API SDK (WFAPI SDK) to create new virtual channels.
- Working source code for several virtual channel sample programs that demonstrate programming techniques.
- The Virtual Channel SDK requires the WFAPI SDK to write the server side of the virtual channel.

For the VC SDK documentation, see Citrix Virtual Channel SDK for Citrix Workspace app for Chrome.

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