Parallels Desktop for Chrome OS

Enterprise and Education Edition

IT Administrator's Guide

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Introduction

Welcome to Parallels® Desktop for Chrome OS Enterprise and Education Edition, world's first software to run Windows directly on a Chrome device — including full-featured applications such as Microsoft Office — even offline!

This guide is intended for IT administrators who want to give their users the ability to run Windows applications on Chrome devices.
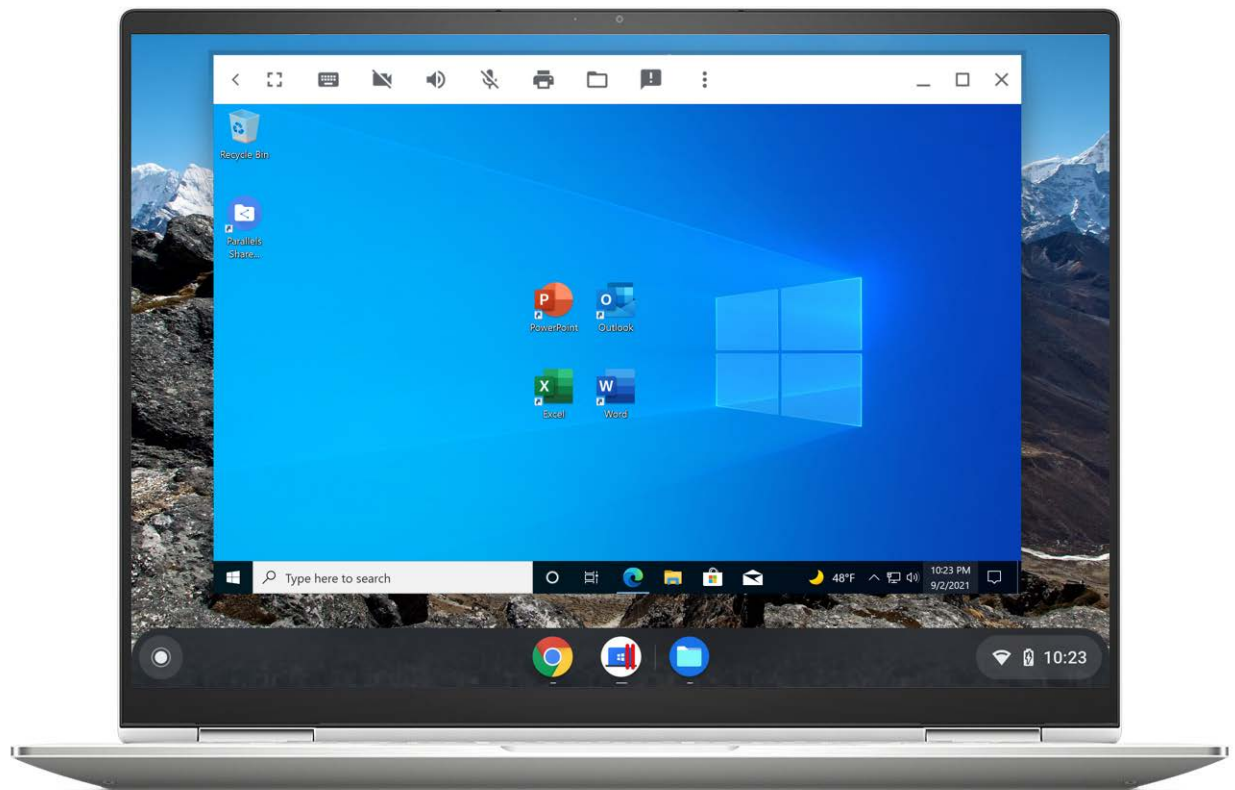
Prerequisites

In This Chapter

Hardware requirements

	Minimum	Best Performance
Processor	Intel Core i5 or i7 AMD Ryzen 5 or 7	Intel Core i5 or i7 + fan cooling AMD Ryzen 5 or 7 + fan cooling
Memory	8 GB	16 GB or more
Storage	128 GB	256 GB or more
Supported Devices with Parallels included	CTL Chromebox CBx2-7P with Parallels 1-yr license	
Supported devices	**HP:** • HP Elite c1030 Chromebook • HP Pro c640 Chromebook • HP Pro c645 Chromebook • HP Chromebox G3 • HP c640 Pro G2 Chromebook • HP Chromebook x360 14 • HP Chromebook x360 14c • HP Chromebook 15	

	Lenovo: • Lenovo ThinkPad C13 Yoga Chromebook • Lenovo Yoga C630 Chromebook • Lenovo IdeaPad Flex 5i Chromebook • Lenovo C340-15 Chromebook • Lenovo Slim 5 Chromebook
	Google: • Google Pixelbook • Google Pixelbook Go
	CTL: • CTL Chromebox CBx2
	Acer: • Acer Chromebook Spin 713 • Acer Chromebook Spin 13 • Acer Chromebook Spin 514 • Acer Chromebook 515 • Acer Chromebook 712 • Acer Chromebook 714 • Acer Chromebook 715 • Acer Chromebox CXI4
	Dell: • Dell Latitude 5300 2-in-1 Chromebook • Dell Latitude 5400 Chromebook • Dell Latitude 7410 Chromebook • Dell Inspiron Chromebook 14 2-in-1

	ASUS:
	• ASUS Chromebook Flip C436FA
	• ASUS Chromebook Flip CM5
	• ASUS Fanless Chromebox
	• ASUS Chromebox 4
	• ASUS Chromebook Flip CX3
	• ASUS Chromebook Flip CX5
	• ASUS Chromebook Flip CX9
	Samsung:
	• Samsung Galaxy Chromebook
	• Samsung Galaxy Chromebook 2

To provide Windows applications to users of low-end devices, consider Parallels Remote Application Server.

Software requirements

Chrome OS version

Chrome OS version 85 or later. See the following KB article for more info: https://kb.parallels.com/125192.

Google Admin console

The Google Admin console is used to set up organizational units, users, and to configure Parallels Desktop related properties. To perform these tasks, you must be a super admin or an admin with sufficient privileges in the Google Admin console.

Please note that Chrome Enterprise Upgrade or Chrome Education Upgrade licenses are required and can be acquired either with Chrome Enterprise devices or separately. For more information, please see https://support.google.com/chrome/a/answer/1289314.

Microsoft Windows

Microsoft Windows ISO image and Windows license are required.

Activating Windows in a virtual machine

Parallels Desktop for Chrome OS creates a virtual machine, which is essentially a computer with its own virtual hardware. The IT department sets up Windows on this computer and this requires a license. To run Windows on such a computer, activation options include the following:

- SOHO: activate each Windows installation manually or provide keys to employees on request. Windows Home or Windows Pro licenses can be used.

- SMB, SME, and Enterprise: use Microsoft Volume license program. Activate Windows using MAK, KMS, or Active Directory-based activation.

  Note: Windows Enterprise Edition is an upgrade license. To use it, the IT department should also buy a base Windows Pro license for each virtual machine (or Windows Home for qualified Academic purchases).

More information is available at https://docs.microsoft.com/en-us/windows/deployment/volume-activation/plan-for-volume-activation-client.

Corporate storage

To deploy a Windows virtual machine image on user devices, you need a corporate storage from where the image can be downloaded to individual Chrome devices in your organization via HTTP or HTTPS. Depending on the organization size, the following choices should be considered:

- SOHO (small office or home office with less than 10 users): A standalone server or Google Drive.

- SMB (small and medium-sized business with up to 100 users): Network-attached storage (NAS).

- SME and Enterprise (small to medium size or large enterprise): CDN or Enterprise-grade NAS.

When choosing where to host a virtual machine image, please also use the following general guidelines. As long as the image can be downloaded by a user using an HTTP ot HTTPS link, without any additional clicks/authentication, and the company is satisfied with the security (e.g. the link is long and complex enough, so nobody could guess it), then it can be hosted anywhere. Note that some cloud storages have a traffic quota, which may not be sufficient for many Chrome devices to download the virtual machine image in a given period of time.

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Enroll Chrome Devices

Before a user can sign in to a Chrome device, the device must be enrolled into management. This also applies to the admin's Chrome device, which will be used to create a Parallels Desktop Windows image.

For the information about enrolling a Chrome device, please see the following Google article: https://support.google.com/chrome/a/answer/1360534.

Redeem and Enable Parallels Desktop Licenses

To perform the steps described in this chapter, you must be an administrator with sufficient privileges in the Google Admin console. For instructions on how to create an admin user, please see the Google articles below:

- https://support.google.com/a/answer/33310

- https://support.google.com/a/answer/172176

In This Chapter

Redeem Parallels Desktop licenses

To redeem Parallels Desktop licenses in the Google Admin console, you need to use a link (URL) that you received from your Parallels Desktop reseller. The link looks similar to the following:

https://admin.google.com/ac/chrome/apps/licenses?redeem=PDCXXX-XXXXXX-XXXXXX-XXXXXX-XXXXXX

When you open the link in a web browser, it will take you to a page in the Google Admin console where you can redeem the licenses included in your order.
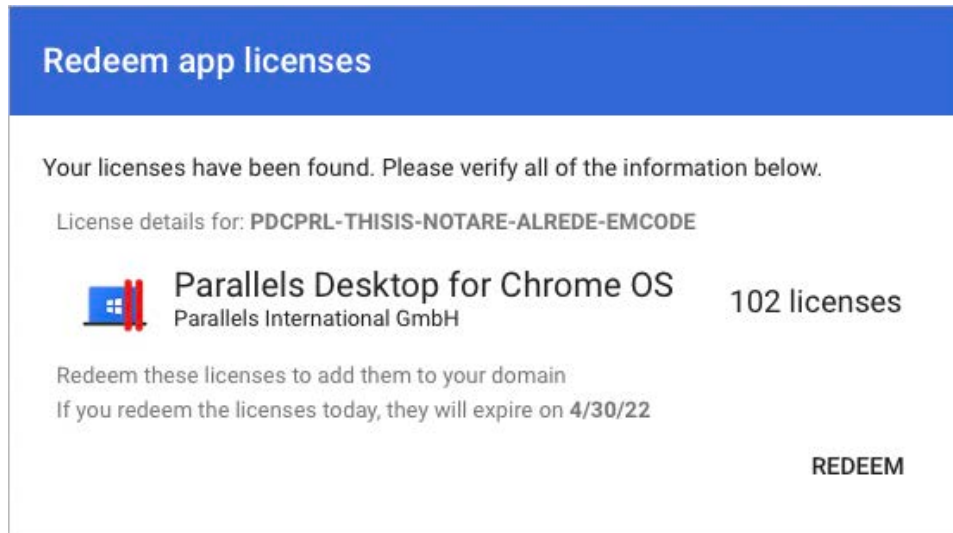
Review the information about your licenses and click **Redeem**. The licenses are added to your domain and you can see them on the **App Licensing** page. For the information about monitoring and managing your app licenses, visit the Google support page at https://support.google.com/chrome/a/answer/9681911.

Join your Parallels business account

When you redeem your Parallels Desktop licenses for the first time, a Parallels business account is created for you automatically. At the same time, an email is sent to your email address inviting you to join your new account. Follow the instructions included in the email and join the account. Once joined, you can receive premium support from Parallels.

For more information, see **Get Support** (p. 28).

Enable Parallels Desktop licenses for users

To enable Parallels Desktop licenses for certain users, you need to turn the licenses on for an organization unit or user group and then add user accounts to that organizational unit or group. For more information about organizational units and groups, please see the following Google articles:

* https://support.google.com/a/answer/182537

* https://support.google.com/a/answer/33329

To turn on Parallels Desktop licenses for an organizational unit or user group:

1   In the Google Admin console, navigate to **Devices** > **Chrome devices**.

2   In the drop-down menu at the top select **Apps & extensions**.
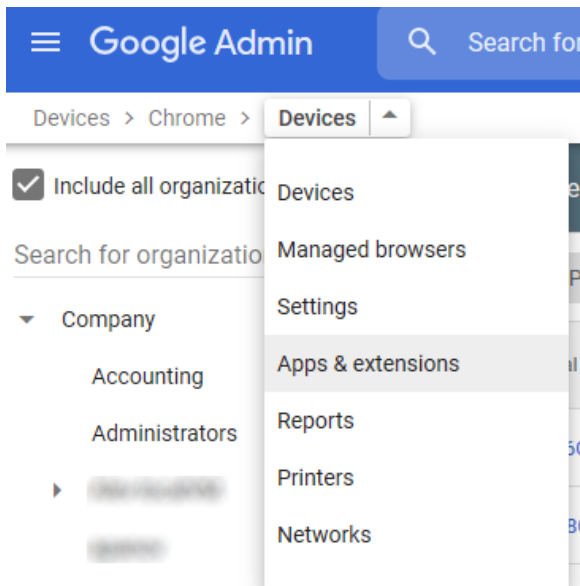
3   Select the **App Licensing** tab. You should see the **Parallels Desktop for Chrome OS** app in the list.

4   Select the organizational unit or user group containing your Chrome OS users in the left pane.

5   In the **License** column (right pane), select **ON** from the drop-down menu.
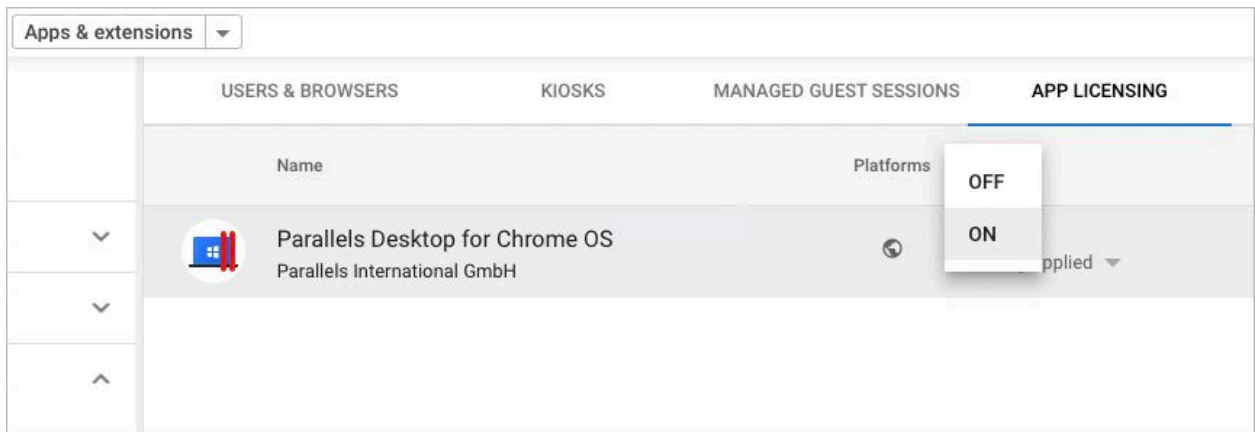
6   Click **Save** when prompted.

Prepare a Parallels Desktop Windows Image

Parallels Desktop Windows image is a virtual machine running Windows as a guest operating system. The image must first be created and then uploaded to a corporate network storage from where it can be downloaded to Chrome devices. The image settings must also be specified in the Google Admin console for users to be able to download it to their Chrome devices.

> **Note:** For special cases, a Windows ISO image can be hosted on a network storage instead of a prepared virtual machine. For example, if you are a small company or a company who would like to enable Parallels Desktop for a small group of professionals (e.g. administrators or developers), you may want to consider creating a virtual machine from a Window ISO image manually on each Chrome device. For more information, please see **Set up Parallels Desktop from a Windows ISO Image** (p. 27).

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Enable Parallels Desktop

First, make sure that the virtual machine command line is enabled. See **Disable or enable command line for users** (p. 22). The command line must be enabled in order to create a Windows image.

Before you prepare a Windows image, you need to enable Parallels Desktop in the Google Admin console. Please note that instructions below are only for enabling Parallels Desktop. You will specify more Parallels Desktop settings after you create a Windows image.

To enable Parallels Desktop:

1   Sign in to the Google Admin console.

2   On the home page, click **Devices**.

3   Click **Chrome devices**.

4   In the left pane, select the organizational unit containing your Chrome OS users.

5   In the navigation bar (at the top left), expand the drop-down menu and choose **Settings**.
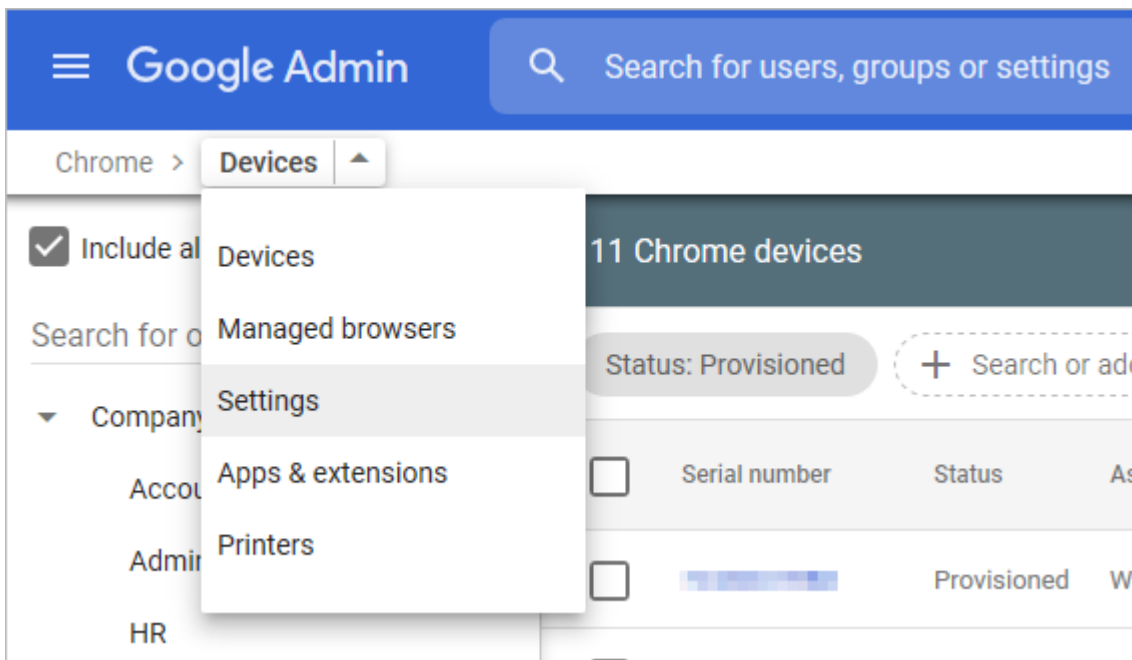
6   On the **User & Browser Settings** tab, scroll down and locate **Parallels Desktop** settings. To quickly find it, type "Parallels" in "Search or add a filter" at the top.
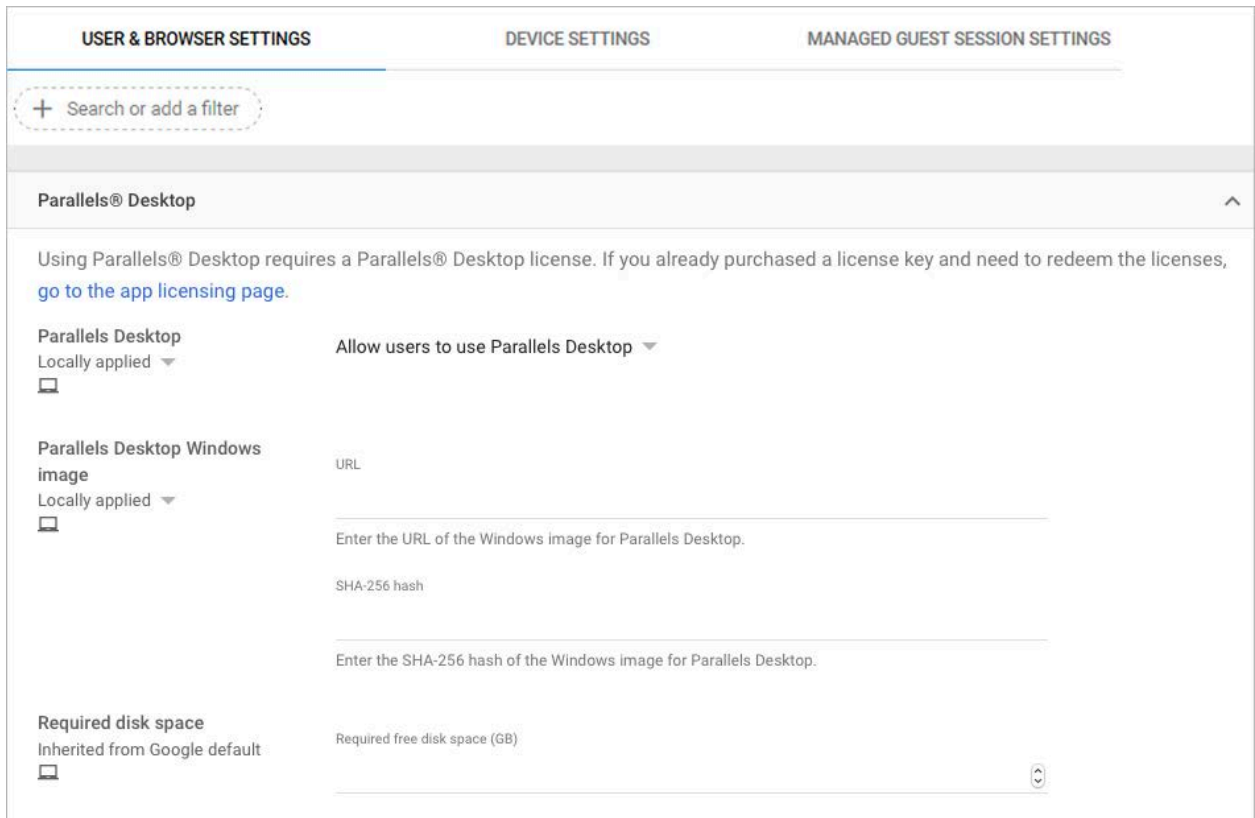
7   Select **Allow users to use Parallels Desktop** from the drop-down menu.This will enable Parallels Desktop for use on Chrome devices in your organization, including the admin's Chrome device.

Create a Windows image

Download the Windows ISO image and create a Parallels Desktop Windows image

First, you need to download a Windows 10 ISO disk image to your Chrome device. Windows 10 is available for download from Microsoft at the following location:

https://www.microsoft.com/en-us/software-download/windows10

Download the image to the **Downloads** folder in Chrome OS. Do not create subfolders, the image must reside in the root **Downloads** folder.

To create a Parallels Desktop Windows image, open Chrome browser and press **Ctrl+Alt+T** to open the **crosh** terminal. In the terminal, type the following command:

```
vmc create -p PvmDefault <filename.iso>
```

where

- `PvmDefault` is the default image name. Type it as it appears here. This is the only name that Chrome OS will recognize as valid by default, so the image can be fully integrated into the OS. The integration means that advanced features, such as Shared Profile (p. 18), will work as intended. If needed, you can change the image name later using the `vmc adjust` command. See **Renaming the image** below.

- `<filename.iso>` is the name of the Windows ISO disk image file. This must be just the file name with no path. The file must reside in the root **Downloads** folder.

For example:

```
vmc create -p PvmDefault Win10_English_x64.iso
```

The command above will create a Parallels Desktop Windows image named "PvmDefault" and mount the Windows 10 ISO disk image named "Win10_English_x64.iso" in it.

Wait until the command completes executing. You should see a text message that the command executed successfully. If the command fails, consider the following troubleshooting options:

- The ISO name is case sensitive. Verify that you typed it correctly.

- The device may not be supported. See **System Requirements** (p. 5).

- Policies are not enabled in the Google Admin console. See **Redeem and Enable Parallels Desktop Licenses** (p. 10).

Renaming an image

If you want to create more than one Parallels Desktop image on the same Chrome device, you need to rename the current `PvmDefault` image first. To do so, use the following command:

```
vmc adjust <VmName> rename <NewName>
```

For example:

```
vmc adjust PvmDefault rename MyWindowsImage
```

Note that when you have more than one image and want to run a particular one, you need to rename the current `PvmDefault` image to something else (or delete it if no longer needed) and then rename the image of interest to `PvmDefault`. You can also rename any other image (not just `PvmDefault`) if needed.

Removing an image

If you want to completely remove an existing Windows image from your Chrome device, you can do so using the following command:

```
vmc destroy <image-name>
```

For example:

```
vmc destroy PvmDefault
```

Run Windows Setup

You can now start the Parallels Desktop Windows image, which will launch **Windows Setup**. To do so:

1 In the Chrome browser, press **Ctrl+Alt+T** to open the **crosh** terminal.

2 In the terminal, type the following command:

```
vmc start PvmDefault
```

Note that if you renamed the image using the `vmc adjust` command, specify the new name instead of "PvmDefault".

3 Windows will start in its own window and you'll see the **Windows Setup** screen. Follow the onscreen instructions and install Windows as you normally would.

After Windows is started for the first time, the first thing that you should do is install Parallels Tools. This is a very important step in order to provide the best experience to your users. See below for instruction.

Install Parallels Tools

Parallels Tools is a collection of drivers and utilities which are installed in Windows to allow seamless operation between Windows and Chrome OS. Parallels Tools help users to operate Windows in the most comfortable and efficient way. For example, users will be able to change Windows screen resolution simply by resizing its window in Chrome OS, access user Windows folders in Chrome OS, copy and paste in both directions, and more. Installing Parallels Tools is highly recommended and is essential for providing the best possible user experience.

The Parallels Tools package is connected to the virtual CD in Windows from where the installer can be executed as follows:

1 Click the File Explorer icon on the Windows taskbar > This PC > Locate Parallels Tools CD drive. Then double-click on it to launch the Parallels Tools installer.

2 If the installer doesn't start, right-click on Parallels Tools CD, choose **Open**, locate the **Autorun.exe** file and double-click it to launch the installation.

3 If Parallels Tools are still not present, you can go to the ellipsis menu (in the upper right of the window), choose **Troubleshooting** and select **Install Parallels Tools** or **Reinstall Parallels Tools**.

When Parallels Tools are installed, restart Windows to complete the installation. You can now install Windows applications required by your organization. Make sure you set up a volume license for Windows and other third party software.

Configure Shared Profile

Shared Profile is a Parallels Desktop feature that allows you to map user folders in Windows to Chrome OS folders. This way Windows folders like Desktop, Documents, Downloads, Pictures, Videos, Music become accessible from the Chrome OS Files app. Users can use files contained in those folders in Chrome OS applications, backup these files using Chrome OS tools, and use these files when Windows is not running.

> **Note:** When an IT administrator starts a Parallels Desktop Windows image by executing the "vmc start" command, they will not see the Shared Profile feature working. In order to test the image with this feature enabled, and to also see how end users will experience Windows on their devices, Windows must be shut down and then started from Chrome OS Launcher.

Folder mapping is done automatically by Parallels Desktop. A folder structure is created in the Chrome OS Files app where each folder (Desktop, Documents, etc.) is mapped to the corresponding folder in Windows.

Disabling Shared Profile

The Shared Profile feature is enabled by default and is designed to improve user experience. However, if for example Roaming Profile or FSLogix like solutions will be used in Windows, then Shared Profile can be disabled by executing the following command in **crosh** terminal:

```
vmc adjust PvmDefault pvm.shared-profile off
```

Export the Windows image

Once you've created and configured a Parallels Desktop Windows image, you need to export it as an archive and then make the archive available for download to Chrome OS users.

To export a Windows image, in the Chrome browser press **Ctrl+Alt+T** to open the **crosh** terminal. In the terminal, type the following command:

```
vmc export -d PvmDefault <ArchiveName.zip>
```

where:

- `PvmDefault` is the default source image name (the name was used to create the image earlier using the `vmc create` command). It must be typed as is.

- `<ArchiveName.zip>` is a name of the target archive file.

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- The **-d** option calculates the SHA-256 checksum of the archive and saves it as a text file in the same folder. You will need to specify the checksum later in the Google Admin console.

> **Note:** The **-d** option is important. Please make a note of it. The SHA-256 checksum is required when specifying the Windows image in the Google Admin console (described later in this guide).

Example:

```
vmc export -d PvmDefault Windows.zip
```

When you execute the command above, the following will happen:

- The image is exported to the **Downloads** folder in Chrome OS. The image file is a ZIP archive with the ".pvm" bundle inside (.pvm is the extension that Parallels Desktop uses for its virtual machine bundles).

- The SHA-256 checksum file is also created in the same folder and is named PvmDefault.zip.sha256.txt. It is a text file containing the SHA256 hash string.

Testing a Windows image

When creating a Windows image, you may want to experiment with it by installing different apps, using different settings, configuring Sysprep, etc. To keep the original image intact (so you can start from scratch if needed), you can use the exported archive as a backup. Here's a typical scenario:

1 Create a clean Windows image and export it to a file (p. 18). This becomes your original backup copy.

2 Run the original image and configure Windows as desired.

3 To try a different configuration, export the modified image to a file using a different filename, rename the image in Chrome OS (or delete it), and then import the first image (the original backup) back into Chrome OS. See below for the syntax of the import command.

4 Work on the image and export again when done making the changes.

5 Repeat as many times as necessary. As a result, you should have an exported image archive for every configuration you have tried. You can import an image back into Chrome OS at any time, so you can continue working on it.

The import command has the following syntax:

```
vmc import -p <vm-name> <file-name>
```

where:

- `vm-name` is the target Windows image name. To be able to run the image in Chrome OS with full functionality, it must be named `PvmDefault`. If `PvmDefault` already exists in Chrome OS, rename it using the `adjust` command (p. 15) or delete it using the `destroy` command (p. 15).

- `file-name` is the exported archive filename.

Upload the Windows image

Chrome OS users will download the Windows image to their Chrome devices from a network storage via HTTP or HTTPS. Copy the ".zip" image file that you created in the previous step to a server with HTTP or HTTPS download access.

For additional information about choosing where to host a virtual machine image, please see **System Requirements** (p. 5).

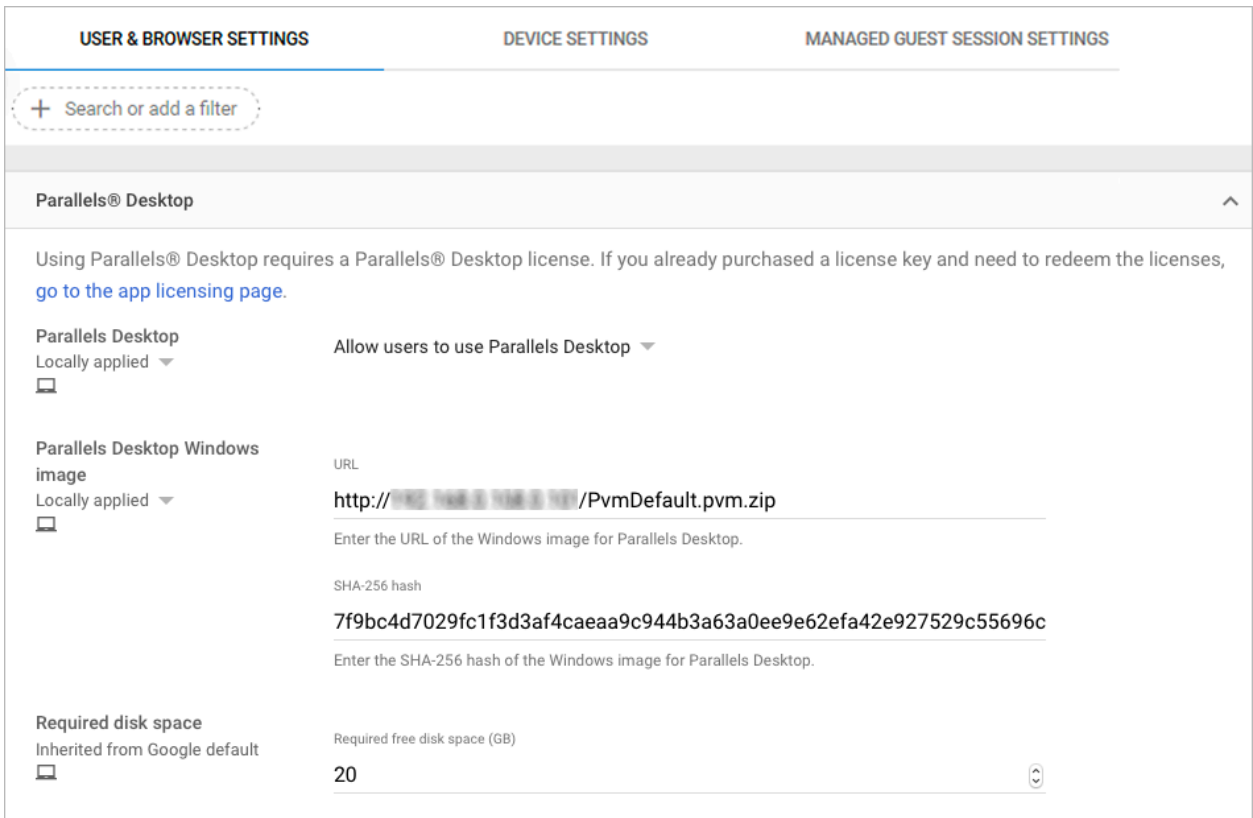# Configure Parallels Desktop settings

Parallels Desktop settings in the Google Admin console control whether users are allowed to use Parallels Desktop and specify Parallels Desktop Windows image settings.

To specify Parallels Desktop image settings:

1   Sign in to the Google Admin console.

2   On the home page, click **Devices**.

3   Click **Chrome devices**.

4   In the left pane, select the organizational unit containing your Chrome OS users.

5   In the navigation bar (at the top left), expand the drop-down menu and choose **Settings**.
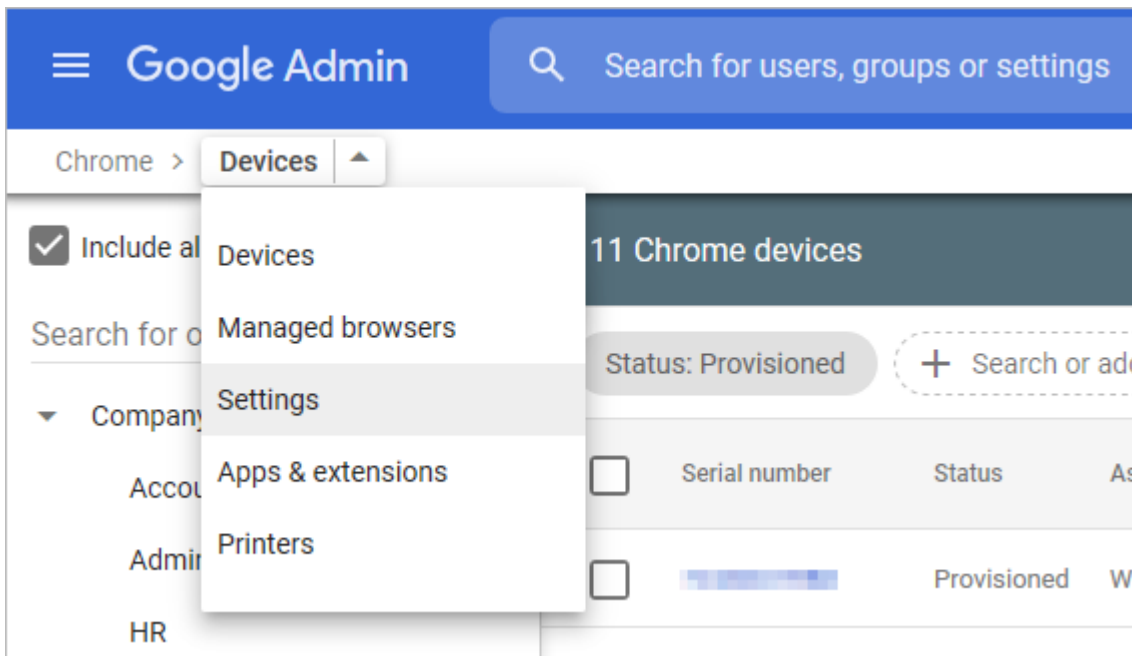
6 On the **User & Browser Settings** tab, scroll down and locate **Parallels Desktop** settings. To quickly find it, type "Parallels" in "Search or add a filter" at the top.

Specify the settings as described below.

Parallels Desktop

We've already described this setting in **Enable Parallels Desktop** (p. 14), so you should have it already configured. If not sure, double check that **Allow users to use Parallels Desktop** is selected from the drop-down menu. This enables users to download the Parallels Desktop Windows image and run Windows on their Chrome devices.

Parallels Desktop Windows image

Specify the image download location and the checksum:

- **URL:** Enter the URL from which the Windows image can be downloaded. For example, http://storage.enterprise.net/VMs/PvmDefault.pvm.zip. Please note that the protocol (HTTP or HTTPS) and the Parallels Desktop Windows image file name and path must be included in the URL.

- **SHA-256 hash:** Specify the SHA-256 hash (checksum) of the image file. The `vmc export` command (that we used to export an image) includes an option to generate the SHA256 hash for the exported image. The hash is exported to a file "name.sha256.txt" in the same destination folder. See **Export the Windows Image** (p. 18).

Required disk space

Specify a free disk space limit (in gigabytes). The minimum recommendation is the size of the original Parallels Desktop Windows image (before it is exported as an archive) plus an additional 20 GB. You can specify more if you wish to make sure that users have enough disk space for Windows and application updates, documents, and other data.

> **Tip:** To obtain the size of the original Parallels Desktop Windows image, execute the **vmc list** command in the **crosh** terminal. The command displays the image name and its size in bytes.

Diagnostic information

This is an optional setting. We recommend to enable it, as it will ensure that your configurations and usage scenarios will be our priority in further improving Parallels Desktop to your requirements.

Click **Save** when prompted to save the settings.

Disable or enable command line for users

You can enable or disable the Parallels Desktop command line functionality for users who run Windows on their Chrome devices. If command line is enabled, users will be able to use command line tools to manage Parallels Desktop. If it is disabled, no management from the command line is possible.

To enable or disable command line:

1 In the Google Admin console, navigate to **Devices** > **Chrome devices**.

2 In the drop-down menu at the top select **Settings**.

3 On the **User & Browser Settings** tab, search for the **Virtual machines (VMs) and developers** section.

4 Set the **Command line access** option to **Enable VM command line access** or **Disable VM command line access**.

Set up Parallels Desktop on a Chrome device

> **Note:** If you are an IT administrator and want to test the Parallels Desktop Windows image installation on a Chrome device, you can use the same device that you used to create the image. To do so, you need rename the image using the `vmc adjust <VmName> rename <NewName>` command (see **Create a Windows Virtual Machine** (p. 15)). When the image is renamed, it will no longer conflict with the image available on the corporate storage and you can perform the steps described below to download and install it.
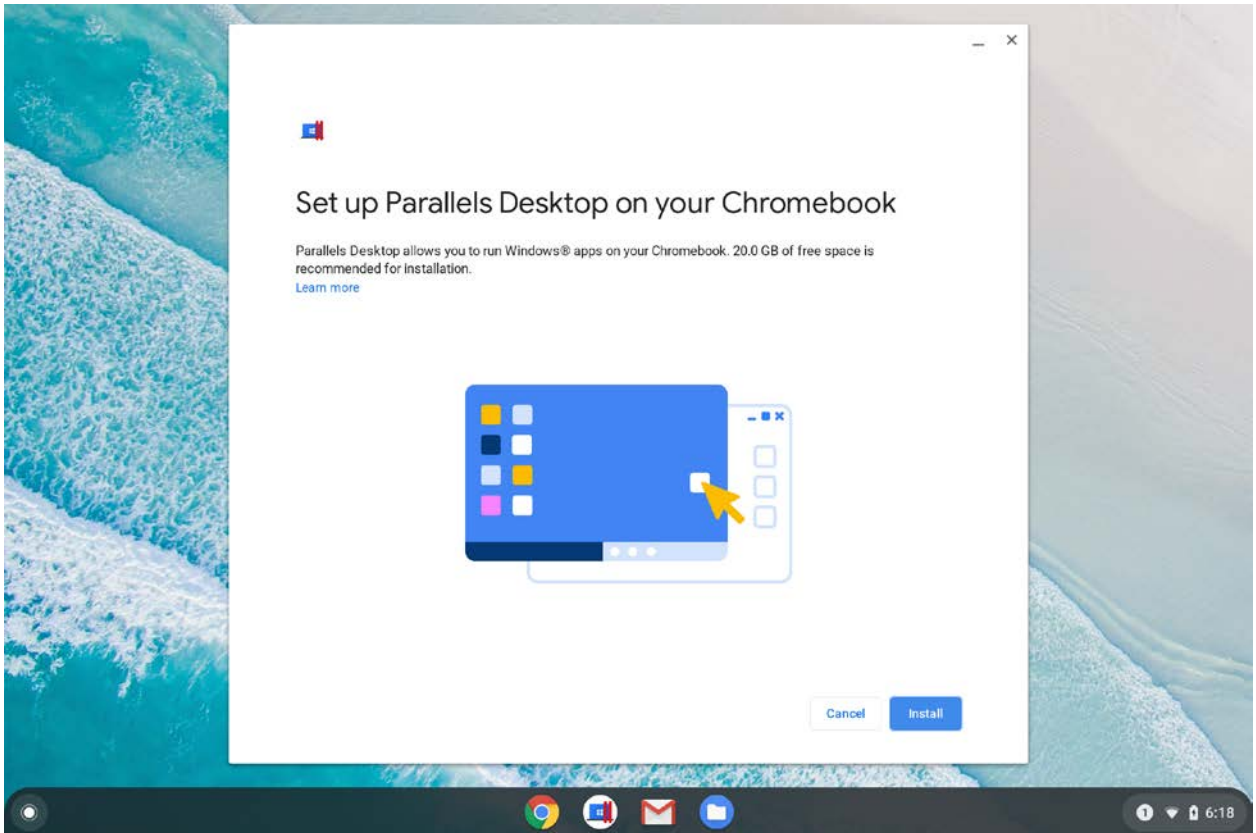
To set up Parallels Desktop on a Chrome device, a user needs to do the following:

1 Sign in to Chrome OS using credentials given to them by the administrator.

2 Open Launcher.

3 Locate the Parallels Desktop icon in the list of apps. You may need to scroll the list to locate the icon.


> **Note:** If you don't see the icon, please see **Checking Chrome policies** (p. 30) for troubleshooting tips.

4 Click the Parallels Desktop icon. The **Set up Parallels Desktop on your Chrome device dialog** opens. If the dialog doesn't open, once again, see **Checking Chrome policies** (p. 30) for a possible solution.

5   Click **Install**. The Parallels Desktop Windows image (virtual machine) is downloaded to the user's Chrome device and the dialog displays the download progress.
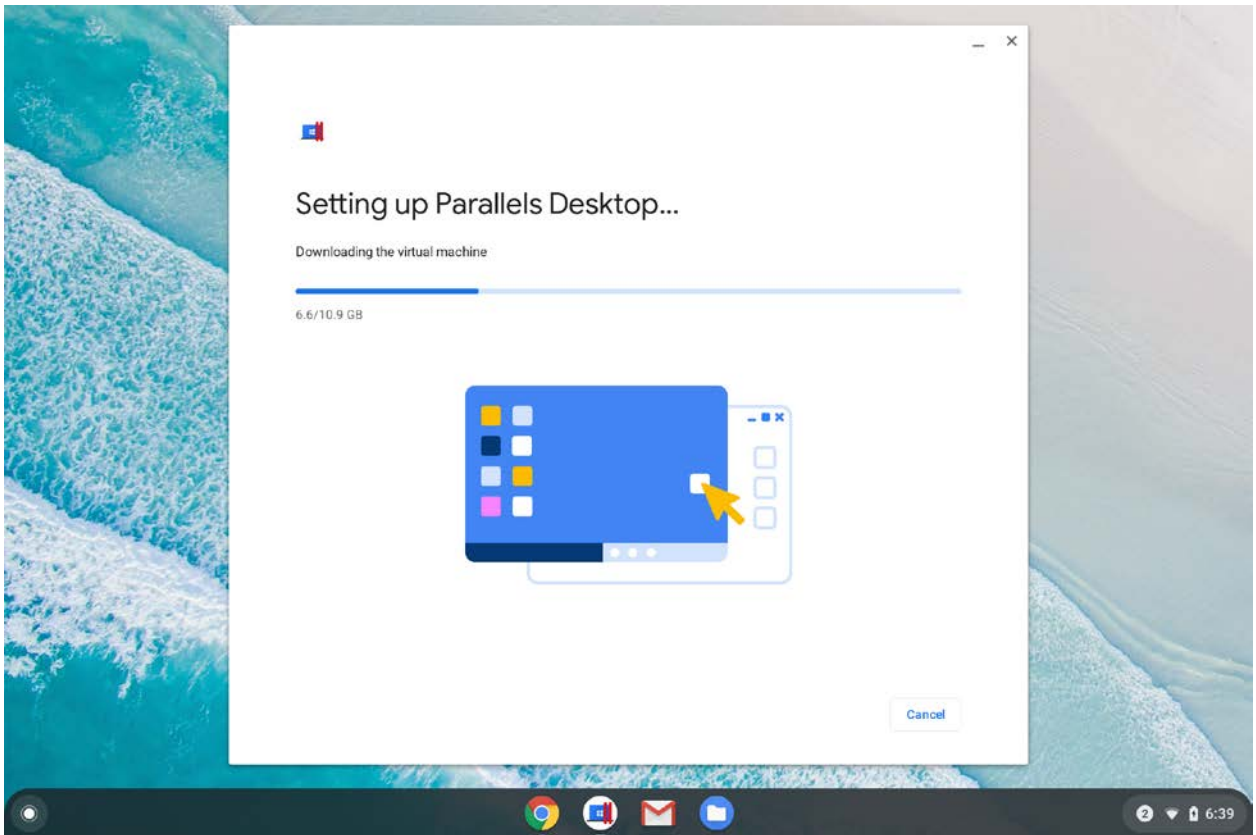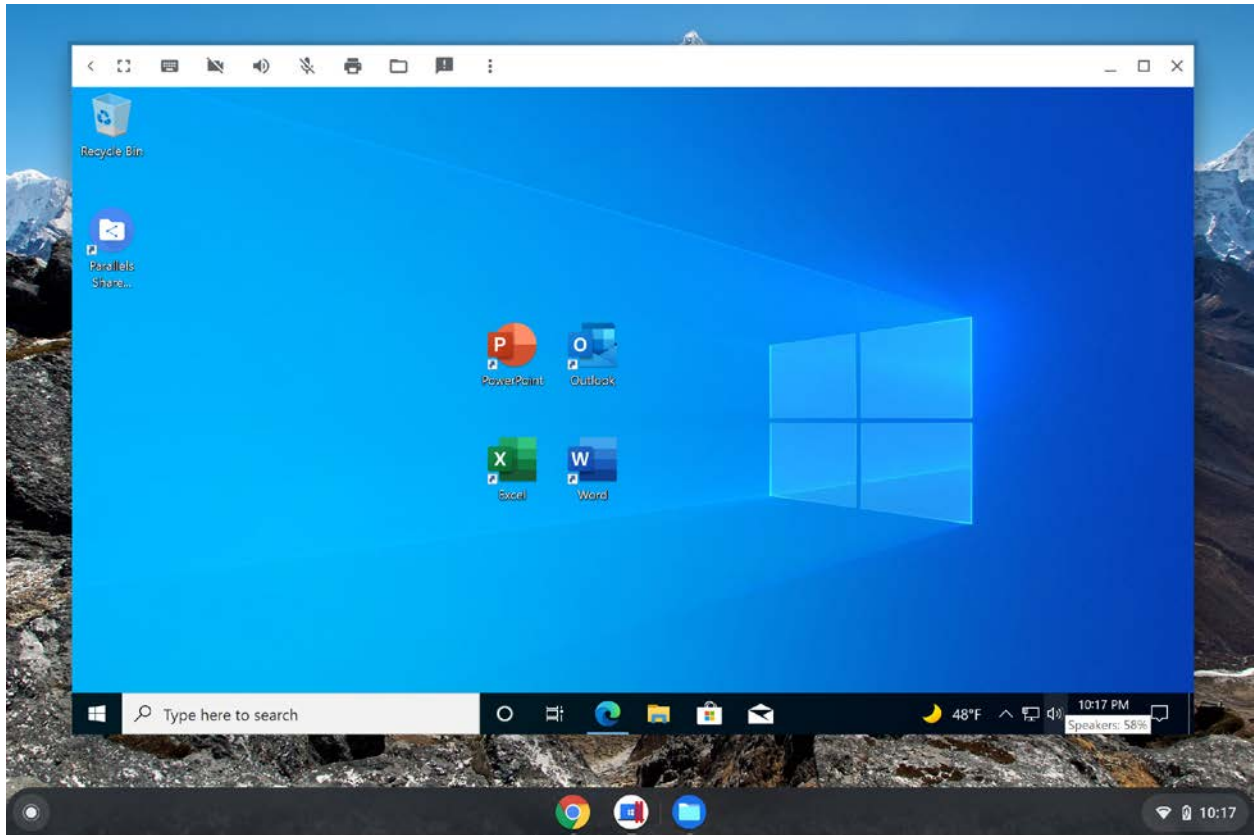

6   After the download is complete, the Windows image archive is unpacked and is prepared to run on the Chrome device. When the image is ready, you'll see the **Launch** button. Click it to start Windows.

Windows starts in its own window and the user can run Windows applications on the Chrome device:

Set up Parallels Desktop from a Windows ISO Image

This chapter describes a special case of setting up Parallels Desktop on a Chrome device using a Windows ISO image instead of a prepared virtual machine. Using this approach, you need to upload a Windows ISO image to your corporate storage and specify a link to it in the Google Admin console. When the Parallels Desktop setup is initiated on a Chrome device, the ISO image is downloaded to it and the user installs and activates Windows as they normally would on a PC.

You can use this deployment scenario if you are a small company or a company that would like to enable Parallels Desktop for a limited group of users, such as system administrators or developers, who know how to install and activate Windows and who would like to customize the installation according to their needs.

The configuration consists of the following steps:

1   Upload a Windows 10 ISO image to your corporate storage.

2   In the Google Admin console, perform the steps described in **Configure Parallels Desktop Settings** (p. 20). The only difference is you need to specify a link to the Windows 10 ISO image, not the Parallels Desktop virtual machine.

3   Enable the command line as described in **Disable or enable command line for users** (p. 22).

The Parallels Desktop setup on a Chrome device is almost identical to the procedure described in **Set up Parallels Desktop on a Chrome device** (p. 23). The difference is, when Windows starts in the virtual machine, you will see the standard **Windows Setup** screen from where you install and activate Windows as you normally would on a physical computer.

Support and Troubleshooting

In This Chapter

Get support

A Parallels business account is required before you can contact the Parallels support. The account is created for you automatically when you redeem your Parallels Desktop licenses for the first time.

When you redeem your licenses (p. 10), an email is sent to your email address inviting you to join your new Parallels account. Read the instructions in the email and then do the following:

1 Click the **Join Business Account** button. You will be taken to the Parallels My Account page.

2 Choose and type a password to be used to log in to your Parallels business account. Your name and email address are taken from your Google Admin account. When you log in to your Parallels account later, use your email address and the password you specify here.

3 Click **Join Account**.

4 Follow the onscreen instructions and sign in to your new account.

5 Once signed in, click **Dashboard** in the menu at the top. The page opens displaying your registered Parallels product(s).

6 Click **Support** inside the **Parallels Desktop for Chrome OS** product card.

7 On the **Support** page, click a category that best suits your inquiry. To see popular topics, expand a subcategory and click on a link to a topic. To search for a solution for an issue, type the issue description in the box at the top of the page.

If you haven't found a solution, you can request support as follows:

1 On the support category page, type a short issue description and click **Request Support**. Note that you need to type a description or the **Request Support** button will not take you to the next step.

2 Select a support method (email, phone) and follow the onscreen instructions.

When contacting Parallels Support by email or phone, you'll need a ticket ID, which is displayed on the screen when you select one of the support options. You can place a call immediately or you can click **Book a Call** to book it for another time. You can also see a ticket ID by clicking **Support** on a page header and then clicking the **My Tickets** link in the upper right.

Modifying admin contact info

You can change the managing admin name and/or email address in the Google Admin console if needed. When you do, an invitation email to join Parallels business account is sent to the specified address.

To change the managing admin information:

1   In the Google Admin console, navigate to **Devices** > **Chrome devices**.

2   In the drop-down menu at the top, select **Apps & extensions**.

3   Select the **App Licensing** tab.

4   Click on the **Parallels Desktop for Chrome OS** app in the list.

5   A pane opens on the right side. Click the "person" icon ("Manage contact info").

6   In the dialog that opens, type a new name and/or an email address.

7   Click **Save** when done.

Send technical data

If you are having an issue running Windows on a Chrome device, you can send technical data to Parallels right from your device. Please note that sending technical data is not a support request. When you require assistance, you should create a support ticket in Parallels My Account as described in the previous section.

To send technical data to Parallels:

1   In the window where Windows is running, click the ellipsis menu in the upper right and choose **Troubleshooting** > **Send Technical Data**.

2   Wait for the data to be generated.

3   In the **Technical Data Report** dialog, type a description of the problem that you are experiencing.

4   To preview the report, click the **See Details** button. This opens a dialog where you can browse the report categories and see the data included in the report.

5   When done, click **Send Report**.

Checking Chrome policies

If you performed all configuration steps described in this guide but the Parallels Desktop icon doesn't appear on a Chrome device or Windows doesn't start, you can examine Chrome policies to identify a possible issue.

To see Chrome policies, open Chrome browser and enter `chrome://policy` in the address field. On the **Policies** page, look for the policies as shown on the screenshot below. If any of the policies are missing or their values are not as shown, something went wrong and you will need to correct it.

Policy name	Policy value	Source	Applies to	Level	Status	
PluginVmAllowed⧉	true	Cloud	Device	Mandatory	OK	Show more
PluginVmImage⧉	{ "hash": "2f8f048f6ae72ad90ba41	Cloud	Current user	Mandatory	OK	Show more
PluginVmUserId⧉	********	Cloud	Current user	Mandatory	OK	Show more
UserPluginVmAllowed⧉	true	Cloud	Current user	Mandatory	OK	Show more

The policies on the screenshot above are:

• **PluginVmAllowed:** This is an internal policy that should always be "true" if the Chrome device supports running Parallels Desktop. If the device meets the requirements, but the policy is set to "false", the issue should be reported to Google for investigation.

- **PluginVmImage:** If this policy is missing or doesn't contain the value similar to what is shown on the screenshot above, it means Parallels Desktop Windows image settings are not configured in the Google Admin console. For details see **Configure Parallels Desktop settings** (p. 20).

- **PluginVmUserId:** If this policy is missing then the license is not enabled for the organizational unit or user group to which this user belongs.

- **UserPluginVmAllowed**: If this policy is missing or is set to "false", verify that users are allowed to use Parallels Desktop. For details see **Configure Parallels Desktop settings** (p. 20).

Please also note that if you don't see the last three policies (described above), it could also mean that the Chrome OS user is not a member of the organizational unit or user group for which Parallels Desktop licenses were enabled. See **Enable Parallels Desktop licenses for users** (p. 11).

When you correct an issue in the Google Admin console, refresh the **Policies** page on a Chrome device to see if the issue was resolved.

Error Codes

When you specify Parallels Desktop Windows image settings (p. 20), make sure that all information is entered correctly. If one or more settings are not specified correctly, an error will be shown to a user when they try to download and run the Parallels Desktop Windows image on their Chrome devices. The errors are described below.

Couldn't set up Parallels Desktop because of a configuration problem. Please contact your administrator. Error code: 4

The error is shown when the Windows image URL string has an error in it (e.g. a typo). For example, the semicolon is missing after "http", such as http//example.com/file.zip.

Couldn't set up Parallels Desktop because of a configuration problem. Please contact your administrator. Error code: 10

This error means that the SHA-256 hash didn't match the hash of the downloaded image file. There are three possible reasons for this: incorrect hash specified by the admin, data corruption during transfer, wrong Windows image file.

Couldn't install the virtual machine because of a network error. Please try again, or contact your administrator. Error code: 8

This error is shown when a network problem prevents the image to be downloaded to a Chrome device. One other possibility is when the Windows image URL contains a port number, but the specified port is wrong, e.g. 8080 instead of 80.

Communication Ports

Parallels Desktop for Chrome OS needs to communicate with hosts listed below using the specified ports. Please make sure that your Chrome devices can communicate with these hosts.

Licensing

- **Host:** desktop-chromebook.parallels.com
- **Port:** 443

Technical data reports

- **Host:** reportus.parallels.com
- **Port:** 443

Sending feedback

- **Host:** support.parallels.com
- **Port:** 443

Help, documentation, support portal and articles

- **Host:** www.parallels.com
- **Port:** 443

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