



HP Easy Shell Administrator Guide

SUMMARY

HP Easy Shell allows you to configure connections, websites, and applications for kiosk-style deployments of HP thin clients based on Windows® operating systems.

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1 Getting started

HP Easy Shell allows you to configure connections, websites, and applications for kiosk-style deployments of HP thin clients based on Windows® operating systems. You can also customize the kiosk interface that is presented to standard users and enable or disable user access to specific Control Panel settings. The configured environment can be deployed to multiple thin clients using HP Device Manager (HPDM) or HP Cloud Endpoint Manager (HPCEM).

 **NOTE:** Enabling user access to Control Panel settings might also give the user access to File Explorer.

Many thin client deployments need to provide either a single- or limited-purpose environment to users, such as an environment for web browsing or remote desktop access. HP Easy Shell simplifies this type of thin client deployment by hiding the standard Windows interface, restricting users to certain applications and functions, and locking down the system against user modification.

 **NOTE:** This guide applies to HP Easy Shell 3.5 or newer (see [Obtaining and opening HP Easy Shell on page 2](#) for information about obtaining the latest version).

Supported operating systems, connection types, and applications

The following table describes the operating systems, connection types, and applications supported by HP Easy Shell.

Table 1-1 HP Easy Shell Compatibility

Item	Description
Operating systems	Windows 10 IoT Enterprise (HP Easy Shell 3.5)
	Windows 10 RS5 or newer (HP Easy Shell 4.0 or later)
Connection types	Web browser*
	Citrix® ICA**, StoreFront**, Web Interface**
	Microsoft® RDP
	VMware® Horizon View™ (PCoIP, RDP)
Applications	All traditional desktop applications that are supported by the operating systems listed above should work with HP Easy Shell.
	HP Easy Shell does not support Windows Store apps.

* HP Easy Shell features a built-in kiosk-style web browser with limited functionality that is suitable for standard web browsing. Alternatively, you can configure a web browser connection to use the full Internet Explorer browser if you need additional functionality.

** Citrix® ICA®, StoreFront™, and Web Interface connections are created using different methods. See [Creating an HP Easy Shell configuration on page 4](#) for information about where to create each Citrix connection type.

Obtaining and opening HP Easy Shell

HP Easy Shell is typically preinstalled on HP thin clients. It can also be downloaded or updated via HP ThinUpdate.



NOTE: For more information, see the administrator guide for HP ThinUpdate.

HP Easy Shell contains the following two components:

- **HP Easy Shell**—This is the tile-based, kiosk-style user interface that allows standard users to launch applications, connections, and websites as configured by the administrator.
- **HP Easy Shell Configuration**—This is the configuration utility administrators use to configure the experience for standard users.

Opening HP Easy Shell in Windows

Follow the instructions outlined here to open HP Easy Shell in Windows.

- Windows 10 IoT Enterprise: Type `Easy Shell` into the taskbar search box, and then select the **HP Easy Shell** app.

Opening HP Easy Shell Configuration from outside HP Easy Shell

Follow the instructions outlined here to open HP Easy Shell Configuration from outside HP Easy Shell.

- Open **Control Panel** and select **HP Easy Shell Configuration**.



NOTE: You will be prompted for administrator credentials if you are logged on to Windows as a standard user.

Opening the Configuration from within HP Easy Shell

Follow the instructions outlined here to open HP Easy Shell Configuration from within HP Easy Shell to make configuration changes without having to log off to the standard user account.

1. In HP Easy Shell, select **Admin**.
2. Use the User Account Control dialog to log on as an administrator.
3. Configure changes as necessary, and then select **Apply**.
4. Select **Exit** to return to HP Easy Shell.

Using HP Easy Shell

The following information is the typical process for using HP Easy Shell to configure the environment for standard users.

The typical process for using HP Easy Shell to configure the environment for standard users is as follows:

1. Open the HP Easy Shell Configuration utility (see [Obtaining and opening HP Easy Shell on page 2](#) for more information).

2. Enable **Kiosk mode**, and configure the environment for standard users (see [Creating an HP Easy Shell configuration on page 4](#) for more information) and be sure to select **Apply** to apply the configuration.



NOTE: If you are using Shell Launcher v2 to enable **Kiosk mode**, it will be set through Windows WMI to set XML profiles.

3. If you are configuring HP Easy Shell from an administrator account, log off, and then log on as a standard user.

If you are configuring HP Easy Shell from a standard user account and you switched to the configuration utility using the **Admin** button, select **Exit** to return to the standard user interface.



NOTE: You can test the user experience from an administrator account, with the exception that the **Kiosk mode** setting does not affect administrator accounts.

4. Be sure that the environment is configured as needed. If it is not, return to HP Easy Shell Configuration to make additional changes.
5. The configuration can be deployed to other thin clients (see [Deployment on page 14](#) for more information).

2 Configuration

This chapter outlines configuration settings for HP Easy Shell.

Creating an HP Easy Shell configuration

The following table describes the settings available in each panel in the HP Easy Shell Configuration utility.

Table 2-1 Configuration options

Panel	Description
Settings	<p>Allows you to do the following:</p> <ul style="list-style-type: none">• Create custom Easy Shell profiles for specific users and domains (see Adding a custom Easy Shell profile on page 12).• Enable kiosk mode, which makes the traditional Windows interface (such as the desktop and taskbar) inaccessible to standard users. <p>NOTE: This global setting affects all standard user accounts in all Easy Shell profiles.</p> <ul style="list-style-type: none">• Customize the user interface for an Easy Shell profile (see Customizing the user interface on page 4 for more information).• Set up a reboot schedule for the thin client.
Applications	Allows you to add applications to an Easy Shell profile (see Adding an application on page 7).
Connections	Allows you to add Citrix ICA, RDP, and VMware connections to an Easy Shell profile (see Adding a Citrix ICA, RDP, or VMware connection on page 8).
StoreFront	Allows you to add Citrix StoreFront connections to an Easy Shell profile (see Adding a Citrix StoreFront connection on page 10).
Websites	Allows you to add internet, network, and Citrix Web Interface sites and set the default site for an Easy Shell profile (see Adding an internet, network, or Citrix Web Interface site on page 11).

Customizing the user interface

The settings under the **User Settings** heading let you enable or disable access to specific system settings for standard users. Select the **Advanced** button for quick access to HP Logon Manager and HP Hotkey Filter.



NOTE: For information about HP Logon Manager, see the administrator guide for your operating system. For information about HP Hotkey Filter, see the administrator guide for HP Hotkey Filter.

The settings under the **Behavior Settings** heading let you specify an action to occur when a smart card is removed from the system: **Log Off**, **Restart**, or **Shut down**.

The following table describes the settings under the **User Interface** heading.

For more customization options, see [Customizing through the registry on page 17](#).

Table 2-2 User interface options


Setting	Description
Display tiles button	If set to On , the Tiles button is displayed in the top-right corner of the user interface, allowing users to access the configured applications, connections, and websites. NOTE: If the Tiles button is disabled, users cannot access the configured applications, connections, or websites. If no applications, connections, or websites are configured, the Tiles button is not displayed even if this setting is enabled.
Display applications	If set to On , the configured applications are available to users in the Tiles panel of the user interface.
Display connections	If set to On , the configured Citrix ICA, RDP, and VMware connections are available to users in the Tiles panel of the user interface.
Display StoreFront	If set to On , the configured Citrix StoreFront connections are available to users in the Tiles panel of the user interface.
Enable StoreFront categories	If set to On , the All , Favorites , Apps , and Desktops categories appear.
Display websites	If set to On , the configured internet, network, and Citrix Web Interface sites are available to users in the Tiles panel of the user interface.
Display browser button	If set to On , the Browser button is displayed in the top-right corner of the user interface, allowing users to access the built-in web browser.
Display address box	If set to On , the address box for the built-in web browser is displayed in the user interface. NOTE: The setting does not apply to the full Internet Explorer browser. If the full Internet Explorer browser is used, the built-in web browser controls are always disabled.
Display navigation buttons	If set to On , the navigation buttons for the built-in web browser is displayed in the user interface. NOTE: The setting does not apply to the full Internet Explorer browser. If the full Internet Explorer browser is used, the built-in web browser controls are always disabled.
Display home button	If set to On , the home button is displayed in the top-left corner of the user interface when using the built-in browser or the full Internet Explorer browser in embedded mode (see Adding an internet, network, or Citrix Web Interface site on page 11). NOTE: The home button is not accessible if the full Internet Explorer browser is full screen but not embedded in the HP Easy Shell user interface.
Display admin button	If set to On , the Admin button is displayed in the top-right corner of the user interface, allowing administrators to access HP Easy Shell Configuration.
Display power button	If set to On , the power button is displayed in the top-right corner of the user interface, allowing users to select from the available settings.
Allow lock	If set to On , users can lock the computer using the drop-down menu for the power button.
Allow logoff	If set to On , users can log off the current user account using the drop-down menu for the power button.
Allow restart	If set to On , users can restart the computer using the drop-down menu for the power button.
Allow shutdown	If set to On , users can shut down the computer using the drop-down menu for the power button.
Display virtual keyboard button	If set to On , users can access a virtual keyboard using a button in the top-left corner of the user interface. NOTE: You can change the Virtual keyboard style through the registry.
Enable legacy touch keyboard	If set to On , the touch keyboard is displayed automatically for legacy apps, such as Notepad, that do not trigger the touch keyboard to display.
Display time	If set to On , the current time is displayed in the lower-left corner of the user interface.

Table 2-2 User interface options (continued)

Setting	Description
Display device name and IP address	If set to On , the computer name and IP address are displayed in the lower-left corner of the user interface.
Display MAC address	If set to On , the MAC address for the computer is displayed in the lower-left corner of the user interface.
Enable task switcher	<p>If set to On, the task switcher is available in the lower-right corner of the user interface, allowing users to quickly switch between tasks.</p> <p>NOTE: To enable the HP Write Manager icon to work within task switcher, you must remove <code>HPWFTray.exe</code> from startup programs.</p> <ul style="list-style-type: none"> You can delete the HP Write Manager app from startup programs from the registry at: <code>HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run</code> - or - Instead of deleting the entry, you can rename the file to a nonexistent file name. For example, you can change <code>hpwfttray.exe</code> to <code>hpwfttray123.exe</code>. This change has the same effect as deleting the entry.
Display notification tray	If set to On , a notification tray is displayed on the task switcher.
Permanent	If set to On , the task switcher is always displayed and is not hidden automatically.
Display time	Displays time and date in tray.
Display battery icon	<p>If set to On, the battery icon is displayed on the task switcher.</p> <p>NOTE: This icon is always read-only.</p>
Display cellular signal icon	<p>If set to On, the cellular signal icon is displayed on the task switcher.</p> <p>NOTE: This icon is always read-only.</p>
Display sound icon	If set to On , the sound icon is displayed on the task switcher.
Sound icon interaction	If set to On , you can adjust the system volume via the sound icon on the task switcher.
Display Wi-Fi icon	If set to On , the Wi-Fi icon is displayed on the task switcher.
Wi-Fi icon interaction	If set to On , you can access Wi-Fi settings via the Wi-Fi icon on the task switcher.
Display write filter icon	If set to On , the write filter icon is displayed on the task switcher.
Write filter icon interaction	If set to On , you can access write filter settings through the task switcher.
Enable network status notification	If set to On , notifications about network and internet connectivity are displayed.
Hide HP Easy Shell during session	If set to On , the HP Easy Shell interface is hidden during an application, connection, or website session.
Enable custom background	If set to On , the specified image file is used for the background of the user interface.
Extended background	<p>If set to On, the background used in HP Easy Shell is displayed on secondary monitors.</p> <p>NOTE: To activate this setting, set Enable Custom background to On.</p>

Table 2-2 User interface options (continued)

Setting	Description
Select theme	This button opens a dialog box that allows you to customize the color theme for the user interface.

 **NOTE:** Select **Apply** to apply the changes and add the settings to the registry. For information on exporting an HP Easy Shell configuration, see [Exporting and deploying an HP Easy Shell configuration on page 14](#).

Display settings


To manage monitor shortcut settings, use the keyboard shortcut **Win+P**.

- **PC Screen Only**—Allows for only one display on the main monitor of desktop thin clients, and the embedded monitor on laptops.
- **Duplicate**—Duplicates the image on the main display to all other displays.
- **Extend**—Other displays are an extension of the main display.
- **Second screen only**—Only the secondary displays are on.

Adding an application

Follow the instructions outlined here to add an application.

1. In the **Applications** panel, select the **Application** tile.
2. Configure settings in the application editor as necessary.

 **NOTE:** See the following table for a list of settings.

3. Select **OK** to finish adding the application.
4. Select **Apply** to save your changes.

You can edit or delete an application by selecting the corresponding button on that application tile.

The following table describes the settings available in the application editor.

Table 2-3 Application editor settings

Setting	Description
Name	Specifies a custom name to be displayed on the tile for the application.
Path	Specifies the full file path to one of the following file types: .exe, .com, .bat, .cmd, or .cpl.
Arguments	Allows you to specify command-line arguments.
Launch delay	Sets the delay, in seconds, for an auto-launched application.
Custom icon	Allows you to set a custom icon (.exe, .png, .jpg, .bmp, or .ico) for the application.
Exit action	Sets the action to take when the application is closed (None , Log off , Restart , Shut down).

Table 2-3 Application editor settings (continued)

Setting	Description
Auto-launch	When enabled, the application launches automatically when the user logs on to Windows.
Maximized	When enabled, the application maximizes automatically when opened.
Persistent	When enabled, the application reopens automatically when closed. NOTE: This setting can be enabled only if Exit action is set to None .
Admin only	When enabled, the application is available only for administrators.
No tracking	When set to Off , apps are tracked and a green indicator informs the user that the app is active. When set to On , apps are no longer tracked and there is no green indicator on the app tile. When set to On , it is possible to have multiple instances of a single app running at the same time.
Hide missing app	When enabled, if HP Easy Shell cannot find the executable file at the indicated path, the app tile is hidden from users.
Wait for network	When enabled, the application does not auto-launch until a network connection is found. A screen with the message Waiting for connectivity is displayed while the network connection is searched for. NOTE: This setting can be enabled only if Auto-launch is set to On .
Wait for Internet	When enabled, the application does not auto-launch until an internet connection is found. A screen with the message Waiting for connectivity is displayed while the internet connection is searched for. NOTE: This setting can be enabled only if Auto-launch and Wait for network are set to On .

Adding a Citrix ICA, RDP, or VMware connection

Follow the instructions outlined here to add a Citrix ICA, RDR, or VMware connection.

Adding a Citrix ICA, RDP, or VMware connection

Follow the instructions outlined here to add a Citrix ICA, RDR, or VMware connection.

1. In the **Connections** panel, select the tile for the connection type that you want to add.
2. Configure settings in the connection editor as necessary.



NOTE: See [Common connection settings on page 9](#) for descriptions of some basic connection settings that are common to all connection types. For information about RDP file customization, see [RDP file customization on page 9](#). For information about other advanced connection settings that vary by connection type, see the documentation provided by Citrix, Microsoft, or VMware.

3. Select **OK** to finish adding the connection.
4. Select **Apply** to save your changes.

Assigning a failover connection to a profile

Follow the instructions outlined here to assign a failover connection to a profile:

1. In the **Connections** panel, select the connection profile, and then drag it onto one of your previously created connections.
2. Select **Apply** to save your changes.



NOTE: A failover connection inherits the primary connection's settings for the **Exit action**, **Persistent**, and **Auto-launch** settings if the primary connection was launched. If the failover connection was launched manually, it follows its own settings for those settings.

Common connection settings

The following table describes some of the connection settings that are common to the Citrix ICA, RDP, and VMware connection editors.

Table 2-4 Connection settings

Setting	Description
Connection name	Specifies a custom name to be displayed on the tile for the connection.
Hostname	Specifies the host name or IP address for the connection.
Exit action	Sets the action to take when the connection is ended (None , Log off , Restart , Shut down).
Launch delay	Sets the delay, in seconds, for an auto-launched application.
Arguments	Allows you to specify command-line arguments.
Auto-launch	When enabled, the connection launches automatically when the user logs on to Windows.
Persistent	When enabled, the connection reconnects automatically when ended. NOTE: This setting can be enabled only if Exit action is set to None .
Wait for network	When enabled, the connection does not auto-launch until a network connection is found. A screen with the message Waiting for connectivity is displayed while the network connection is searched for. NOTE: This setting can be enabled only if Auto-launch is set to On .
Wait for Internet	When enabled, the connection does not auto-launch until an internet connection is found. A screen with the message Waiting for connectivity is displayed while the internet connection is searched for. NOTE: This setting can be enabled only if Auto-launch and Wait for network are set to On .

RDP file customization

Adding custom values

HP Easy Shell automatically generates the RDP file for the RDP connections that you create. To add custom values to the RDP file, use the **Expert** tab in the RDP connection editor. The value type can be **s** (string), **i** (integer), or **b** (byte).


Using a custom RDP file

Follow the instructions outlined here to use a custom RDP file.

1. On the **Basic** tab in the RDP connection editor, enable the **Custom RDP file** option.
2. Specify the RDP file path.

Adding a Citrix StoreFront connection


Follow the instructions outlined here to add a Citrix StoreFront connection.

 **NOTE:** On the devices that connect to the StoreFront server, you must install the SSL certificates for your StoreFront server. If no certificates exist, HP Easy Shell might fail to communicate with the server.


1. In the **StoreFront** panel, select the StoreFront tile.
2. Select the **Select store** button to use the wizard.

– or –


Enter the full path for the StoreFront URL in the **Store URL** box in a format similar to: <https://samplestorefrontaddress.net/citrix/thinclient>. Then, go to step 6.

 **TIP:** If you do not include `http://` or `https://` in the URL, it defaults to `https://`.


3. Enter the base path for the StoreFront URL. A base path should be entered in a format similar to the following: <https://samplestorefrontaddress.net>. Then, select **Next**.

 **TIP:** If you do not include `http://` or `https://` in the URL, it defaults to `https://`.

4. If prompted, enter the StoreFront Citrix credentials, and then select **OK**.
5. Select the StoreFront account, and then select **Next**.
6. Configure the settings in the connection editor as necessary.

 **NOTE:** See the following table for a list of settings.

7. Select **Save** to finish adding the connection.
8. Select **Apply** to save your changes.

 **NOTE:** NetScaler is supported as well. HP Easy Shell supports updating StoreFront and NetScaler passwords after they have expired.

The following information about StoreFront connections might be helpful:

- You can edit or delete a connection by selecting the corresponding button on that connection tile.
- At the bottom of the StoreFront panel, you can set the action to take when all StoreFront connections have ended.
- When a StoreFront session is active, you can select **Disconnect session** under the resource window to end the session.

The following table describes the settings available in the StoreFront connection editor.

Table 2-5 Citrix StoreFront connection settings

Panel	Setting	Description
StoreFront	Connection name	Specifies a custom name to be displayed on the tile for the connection.
StoreFront	Store URL	Specifies the StoreFront URL.
StoreFront	Launch delay	Sets the delay, in seconds, for an auto-launched application.

Table 2-5 Citrix StoreFront connection settings (continued)


Panel	Setting	Description
StoreFront	Exit action	Sets the action to take when the connection is ended (None , Log off , Restart , Shut down).
StoreFront	Logon method	Allows you to select Username and password , Smart card , or Single sign-on . IMPORTANT: By default, single sign-on is not enabled for Citrix Receiver on HP thin clients. For information about how to enable single-sign on for Citrix Receiver, see the administrator guide for your HP thin client operating system.
StoreFront	Domain	Allows you to hide the domain from users.
StoreFront	Enable auto-logon	When enabled, HP Easy Shell automatically logs on to the StoreFront connection when the user logs on to Windows. NOTE: This setting is available only if the logon method is set to Username and password .
StoreFront	Custom logo	Allows you to enter a custom logo (.exe, .png, .jpg, .bmp, or .ico) to show on the logon window for StoreFront.
StoreFront	Auto-launch	When enabled, the connection launches automatically when the user logs on to Windows.
StoreFront	Session timeout	Specifies in d.hh.mm.ss format the amount of time that the StoreFront session remains open. After the session timeout is reached, the connection automatically closes. NOTE: If you need the session timeout to be greater than 1 hour, see the StoreFront documentation. You must change the appropriate web.config file's lifetime token values for the auth store, because the Citrix default setting is 1 hour. For example, edit maxLifetime values in C:\inetpub\wwwroot\Citrix\Name_of_StoreAUTH\web.config to the appropriate value.
Options	Desktop Viewer toolbar	When enabled, the Citrix Desktop Viewer toolbar is displayed during published desktop sessions for the StoreFront.
Options	Disable resource interactivity	When enabled, auto-launch resources start, but the user cannot interact with StoreFront resources.
Options	Resource title	Allows you to set a specific StoreFront resource to launch automatically when the connection starts.
Behaviors	Wait for network	When enabled, the StoreFront connection does not auto-launch until a network connection is found. A screen with the message Waiting for connectivity is displayed while the network connection is searched for. NOTE: You can set this setting only if Auto-launch is set to On .
Behaviors	Wait for internet	When enabled, the StoreFront connection does not auto-launch until an internet connection is found. A screen with the message Waiting for connectivity is displayed while the internet connection is searched for. NOTE: You can set this setting only if Auto-launch and Wait for network are set to On .

Adding an internet, network, or Citrix Web Interface site

This section outlines how to configure and add internet, network and Citrix Web Interface settings.

1. In the **Websites** panel, select the **Website** tile.

2. Configure settings in the website editor as necessary.

 **NOTE:** See the following table for a list of settings.

3. Select **OK** to finish adding the website.
4. Select **Apply** to save your changes.

You can set a website as the home site (the default site, which is automatically launched when the program starts). You can also edit or delete selecting the corresponding button on that website tile.

The following table describes the settings available in the website editor.

 **NOTE:** Single sign-on is not supported for Citrix Web Interface connections.

Table 2-6 Citrix Web Interface settings

Setting	Description
Name	Specifies a custom name to be displayed on the tile for the connection.
Address	Specifies the website address.
Use Internet Explorer	When enabled, the website is opened in Internet Explorer. Otherwise, the website is opened within the Easy Shell interface. IMPORTANT: This setting must be enabled for a Citrix Web Interface connection.
Full-screen Internet Explorer	When enabled, Internet Explorer opens in full screen, which makes the Internet Explorer address bar and navigation buttons inaccessible. If Embed Internet Explorer is disabled, this also hides the entire HP Easy Shell user interface, except for the task switcher. NOTE: This setting can be enabled only if Use Internet Explorer is enabled.
Embed Internet Explorer	When enabled, the full-screen Internet Explorer is embedded in the HP Easy Shell user interface. The controls at the top of the interface can be accessed in this configuration, but the Internet Explorer address bar and navigation buttons are still inaccessible. NOTE: This setting can be enabled only if Full-screen Internet Explorer is enabled.
Allow closing embedded Internet Explorer	When enabled, the embedded Internet Explorer can be closed.
Wait for network	When enabled, the web browser does not auto-launch until a network connection is found. A screen with the message Waiting for connectivity is displayed while the network connection is searched for. NOTE: This setting affects only the home site.
Wait for Internet	When enabled, the web browser does not auto-launch until an internet connection is found. A screen with the message Waiting for connectivity is displayed while the internet connection is searched for. NOTE: This setting can be set only if Wait for network is set to On and affects only the home site.
Custom icon	Allows you to set a custom icon (.exe, .png, .jpg, .bmp, or .ico) for the application.

Adding a custom Easy Shell profile

Follow the instructions outlined here to add a custom Easy Shell profile.

In most deployments, using only the default Easy Shell profile will suffice. However, you can create custom Easy Shell profiles, if you need to assign different settings to different users and domains. The default profile is used for any users or domains not specifically assigned to a custom Easy Shell profile.

To add a custom Easy Shell profile:

1. In the **Settings** panel, select the profile tile under **Global Settings**.
2. Type a name for the profile, and then select **Add**.
3. Choose to add either a user or a domain by selecting the corresponding option.



NOTE: User accounts cannot be added to the default profile. That profile is used automatically for all user accounts not assigned to a custom profile.

4. Type the user name or domain name, and then select **Add**.
5. Optionally, add additional users and domains.
6. Select **Done**.
7. Select **Apply** to save your changes.

You can rename or delete an Easy Shell profile by selecting the corresponding button on the profile tile.

3 Deployment

This chapter discusses the various methods that can deploy HP Easy Shell to multiple thin clients. The best method depends on your use case and environment.



NOTE: All of the following methods discuss using HPDM and HPCEM for deployment. For more specifics about HPDM, see the *HP Device Manager Administrator Guide*. For more information about HPCEM, see [HP Cloud Endpoint Manager](#).

Deploying a preconfigured thin client image

You can deploy HP Easy Shell by configuring it on a thin client image that will be captured and deployed to other thin clients. The most efficient way to deploy an image to multiple thin clients is to use HPDM or HPCEM, which have preset templates for capturing and deploying an image.

Deploying HP Easy Shell to existing thin client images

Follow the instructions outlined here to deploy HP Easy Shell to existing thin client images.

1. Configure HP Easy Shell on a single system, and then export the configuration as a registry file, as described in [Exporting and deploying an HP Easy Shell configuration on page 14](#).
2. Copy the registry file to the system running the HPDM Console.



NOTE: If the system is running HPCEM console, see [HP Cloud Endpoint Manager](#) for more information.

3. Use the HP FTP Software Component Browser to locate the HP Easy Shell package on the HP FTP site, and then generate a **_File and Registry** template for the package.
4. Add a subtask to the template and import the registry file containing the exported configuration.
5. Deploy the template to the target thin clients.

Exporting and deploying an HP Easy Shell configuration

This section outlines how to export an HP Easy Shell configuration to a registry file.

You can export an HP Easy Shell configuration as a Windows registry file so that it can easily be deployed to other thin clients.



NOTE: Be sure that HP Easy Shell is being deployed simultaneously or is already installed on each thin client.

1. Click the **Export** button in the lower-left corner of the HP Easy Shell Configuration utility.
2. Select the destination folder, and then enter a name for the configuration.
3. Click **Save**.



NOTE: An HP Easy Shell configuration can also be exported to a registry file by entering the following in an administrator command prompt (be sure to include the double quotes around the file path if it contains spaces):

```
hpeasyshell.exe /export "<registry file>.reg"
```

You can import the registry file into a **_File and Registry** template in HPDM. The template can then be used to deploy the configuration to the target thin clients.

You can also deploy the exported registry file to other thin clients in either of the following ways:

- Copy the registry file to another thin client, and then double-click the registry file to apply the settings.
- Use Group Policy to propagate the registry settings to certain domain users.

4 Tips and best practices

Consider the information outlined here when using HP Easy Shell.

- Some applications might require a launch delay to function properly.
- When setting Internet Explorer as an auto-started application, be sure to launch the version that best matches the operating system (32-bit or 64-bit); otherwise, the end-of-session action might not be triggered.
- HP Easy Shell does not filter the built-in web browser content. Keep this in mind when selecting the websites. The web browser can be further locked down using the following:
 - Group Policy
 - Internet Explorer registry restrictions (see [Internet Explorer registry restrictions on page 18](#) for more information)

If the web browser is intended to be used for intranet only, it is best to disable the address bar and add links to the Sites menu.

- The desktop resolution settings available in the ICA and RDP connection editors are not indicative of the target monitor. It is best to use the default setting (full-screen).
- For RDP connections, HP recommends that you disable the **RDP connection bar** setting in the **Display** panel of the connection editor when deploying in kiosk mode. This setting is enabled by default, and the connection bar could be used by users to access the local desktop.
- To use USB redirection with an RDP connection when the VMware Horizon View client is installed, you must first disable the VMware Horizon View USB service before connecting to an RDP session.
- If you log on to an administrator account while User Account Control is enabled (in Windows) and kiosk mode is enabled (in HP Easy Shell), you will be presented with a User Account Control dialog asking for permission to make changes to the computer. If you select **No**, Windows will not allow HP Easy Shell to become a shell replacement and will be stuck at the logon process. Use **ctrl+alt+del** to log off the account if this happens. You must select **Yes** at the User Account Control dialog to successfully complete the logon process.

A Customizing through the registry

You can further customize the behavior and settings of HP Easy Shell through the registry.

Display user name

Follow the instructions outlined here to display the user name of the user.

To display the user name of the user:

- In the registry, create the following string key-value:

```
HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell\UI.  
DisplayUsername=True
```

Customizing title category names

Categories can be renamed through the registry. You must create a string key-value `DisplayName`.

To change category names, modify the following registry keys:

- [HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell\Apps]
 `DisplayName=Applications`
- [HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell\Connections]
 `DisplayName=Connections`
- [HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell\StoreFront]
 `DisplayName=StoreFront`
- [HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell\Sites]
 `DisplayName=Websites`

Delay Easy Shell start up

You can create a string key-value to delay the start up of HP Easy Shell. HP recommends a delay of 5 seconds to resolve errors that might occur when some apps start in kiosk mode.

```
[HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell]  
DelayStart=5
```

Virtual keyboard style

Virtual keyboard style can be changed through the registry by creating a string key-value.

```
[HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell]  
VirtualKeyboardStyle=1
```

Accepted values are 0 or 1.

Delay browser embed

If the embedded browser window does not resize properly, create the following string key-value to delay the browser window embedding.

```
[HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell\Sites]
```

```
EmbedDelay=2
```

Accepted value: 2 or higher.

By default, the value is 2. Increase the value to delay the embedding.

Creating custom connection error messages

Follow the instructions outlined here to create custom connection error messages.

Administrators can create custom error messages for when a connection fails.

- The registry key `HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell\protocols` contains subkeys for the default connection protocols: CitrixICA, RDP, and VMware. With the subkey specified, create a string key-value with the name `ErrorMessage`. For the data, enter the text you want to display.

For example, to create a custom error message for RDP:

```
HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Easy Shell\protocols\RDP
```

```
ErrorMessage=Please contact your administrator.
```

Internet Explorer registry restrictions

Modify the following registry key to restrict the built-in web browser and the full Internet Explorer browser.

```
HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Microsoft\Internet Explorer\Restrictions
```

The following table describes the registry settings that apply to HP Easy Shell:

Table A-1 Registry settings

Registry entry	Description
NoSelectDownloadDir	Disables the Save command in the File Download dialog box.
NoBrowserContextMenu	Disables the right-click context menu in the browser.
NoViewSource	Disables the View Source command in the right-click context menu.
NoOpeninNewWnd	Disables the Open in New Window command in the right-click context menu. IMPORTANT: Links that are coded to open a new window will still do so.
NoPrinting	Disables the Print command.