



Administrator Guide

HP Easy Shell

© Copyright 2014–2018 HP Development Company, L.P.

Citrix, ICA, and Storefront are trademarks of Citrix Systems, Inc. and/or one more of its subsidiaries, and may be registered in the United States Patent and Trademark Office and in other countries. Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. VMware and Horizon View are registered trademarks or trademarks of VMware, Inc. in the United States and/or other jurisdictions.

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Ninth Edition: November 2018

First Edition: March 2014

Document Part Number: 767345-009

User input syntax key

Text that you must enter into a user interface is indicated by `fixed-width font`.

Item	Description
Text without brackets or braces	Items you must type exactly as shown
<Text inside angle brackets>	A placeholder for a value you must provide; omit the brackets
[Text inside square brackets]	Optional items; omit the brackets
{Text inside braces}	A set of items from which you must choose only one; omit the braces
	A separator for items from which you must choose only one; omit the vertical bar
...	Items that can or must repeat; omit the ellipsis

Table of contents

1 Getting started	1
Supported operating systems, connection types, and applications	1
Obtaining and opening HP Easy Shell	2
Using HP Easy Shell	2
2 Configuration	4
Creating an HP Easy Shell configuration	4
Customizing the user interface	5
Adding an application	7
Adding a Citrix ICA, RDP, or VMware connection	8
Common connection settings	8
Creating custom connection error messages	9
Display username	9
RDP file customization	9
Adding custom values	9
Using a custom RDP file	9
Adding a Citrix StoreFront connection	9
Adding an Internet, network, or Citrix Web Interface site	11
Adding a custom Easy Shell profile	12
3 Deployment	13
Deploying a preconfigured thin client image	13
Deploying HP Easy Shell to existing thin client images	13
Exporting and deploying an HP Easy Shell configuration	13
4 Tips and best practices	15
Appendix A Internet Explorer registry restrictions	16

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).

 **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.

Item	Description
Operating systems	Windows 10 IoT Enterprise Windows Embedded 8.1 Industry Pro Windows Embedded 8 Standard Windows Embedded Standard 7
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, a web browser connection can be configured to use the full Internet Explorer browser, if additional functionality is needed.

** Citrix® ICA™, StoreFront, and Web Interface connections are created using different methods. See [Creating an HP Easy Shell configuration on page 4](#) for information on 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 used by the administrator to configure the experience for standard users.

To open HP Easy Shell:

- ▲ Windows Embedded Standard 7—Select **Start**, select **All Programs**, select **HP**, and then select **HP Easy Shell**.

Windows Embedded 8 Standard and Windows Embedded 8.1 Industry Pro—Select **HP Easy Shell** at the Start screen.

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

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.

Additionally, an administrator can open HP Easy Shell Configuration from within HP Easy Shell to make configuration changes without having to log off of the standard user account. Follow this process:

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 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.
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. Make 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 13](#) for more information).

2 Configuration

- [Creating an HP Easy Shell configuration](#)
- [Customizing the user interface](#)
- [Adding an application](#)
- [Adding a Citrix ICA, RDP, or VMware connection](#)
- [Adding a Citrix StoreFront connection](#)
- [Adding an Internet, network, or Citrix Web Interface site](#)
- [Adding a custom Easy Shell profile](#)

Creating an HP Easy Shell configuration

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

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 is a global setting that 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 5 for more information)
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 9)
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.

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 will not be able to 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.
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.

Setting	Description
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.
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.
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 (Media Access Control) 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 HPWFTray.exe from startup programs.</p> <p>▲ The HP Write Manager app can be deleted from startup programs from the registry at: <code>HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run</code>.</p> <p>- or -</p> <p>Instead of the deleting the entry, the file can also be renamed into a nonexistent file name. For example, <code>hpwfttray.exe</code> can be changed to <code>hpwfttray123.exe</code>. This will have the same effect as deleting the entry.</p>
Permanent	If set to On , the task switcher is always displayed and is not hidden automatically.
Display battery icon	<p>If set to On, the battery icon is displayed on the task switcher.</p> <p>NOTE: This 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 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 , the system volume can be adjusted 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 , Wi-Fi settings can be accessed via the Wi-Fi icon on the task switcher.
Enable network status notification	If set to On , notifications about network and/or 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.
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 13](#).

Adding 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.

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).
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 set only if Exit action is set to None .
Admin only	When enabled, the application is available only for administrators.
Hide missing app	When enabled, if HP Easy Shell cannot find the executable 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 set 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 set only if Auto-launch and Wait for network are set to On .

Adding a Citrix ICA, RDP, or VMware connection

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

 **NOTE:** See [Common connection settings on page 8](#) 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.

You can edit or delete a connection by selecting the corresponding button on that connection tile.

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.

Setting	Description
Connection name	Specifies a custom name to be displayed on the tile for the connection.
Hostname	Specifies the hostname 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 set 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 set 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 set only if Auto-launch and Wait for network are set to On .

Creating 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, input 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.
```

Display username

To display the username of the user instead of **Admin**:

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

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

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

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

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

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. A full path should be entered in a format similar to the following: <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.

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.

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.
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 only available 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 up on the logon window for StoreFront.
StoreFront	Auto-launch	When enabled, the connection launches automatically when the user logs on to Windows.
Options	Connection timeout	Specifies the amount of time in seconds that HP Easy Shell waits for an unresponsive StoreFront before ending the connection.
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.

Panel	Setting	Description
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: This setting can be set 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: This setting can be set only if Auto-launch and Wait for network are set to On .

Adding an Internet, network, or Citrix Web Interface site

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.

A website can be set as the home site (the default site, which is automatically launched when the program starts), edited, or deleted by 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.

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.

Setting	Description
Wait for network	<p>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.</p> <p>NOTE: This setting affects only the home site.</p>
Wait for Internet	<p>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.</p> <p>NOTE: This setting can be set only if Wait for network is set to On and affects only the home site.</p>

Adding 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.

An Easy Shell profile can be renamed or deleted 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 for deployment. For more specifics on HPDM, see the *HP Device Manager Administrator Guide*.

Deploying a preconfigured thin client image

HP Easy Shell can be deployed 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 via HPDM, which has preset templates for capturing and deploying an image.

Deploying 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 13](#).
2. Copy the registry file to the system running the HPDM Console.
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

An HP Easy Shell configuration can be exported 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.

To export an HP Easy Shell configuration to a registry file:

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 (make sure to include the double quotes around the file path if it contains spaces):

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

The registry file can be imported 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 following information 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 16](#) 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, it is best to 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 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 are applicable to HP Easy Shell:

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.