## **Technical white paper**

# Field Upgrades for HP Thin Client Operating Systems



Windows 10 IoT Enterprise HP ThinPro

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# **Overview**

The purpose of this whitepaper is to outline the prerequisites and how to purchase, download, and install the field upgrades available for HP thin client operating systems (OS).

HP thin clients include a preinstalled OS. You might decide to upgrade or change to a different OS. To support these options, HP provides field upgrades for HP thin clients.

The following field upgrades are currently available:

- Upgrade to Windows<sup>®</sup> 10 IoT Enterprise (64-bit)
- Upgrade to HP ThinPro

# **Prerequisites**

#### System prerequisites

The following are the minimum and recommended system requirements for each field upgrade.

#### **Windows 10 IoT Enterprise requirements**

#### Note

The OS upgrade to Windows10 IoT Enterprise might require the purchase of additional flash drive storage and RAM. Contact your HP sales representative for more details and to make a purchase.

- Minimum
  - 32 GB flash drive
  - 4 GB memory
- Recommended
  - 64 GB flash drive
  - 8 GB memory

#### **HP** ThinPro requirements

#### Note

If the thin client is configured with an add-on graphics card, installing this upgrade might prevent the graphics card from functioning properly. Verify that the HP ThinPro version is able to support your configuration.

If you need to purchase the necessary components to meet these system prerequisites, contact your HP sales representative.

If the flash or SDRAM memory are not genuine HP parts, HP does not support or warranty issues with the third-party parts.

- ThinPro 7.2 and prior
  - 4 GB flash drive
  - 2 GB memory
- ThinPro 8.0
  - 8 GB flash drive
  - 4 GB memory

# Purchasing a field upgrade

For information on pricing or to make a purchase, contact your HP sales representative.

# Downloading a field upgrade

After purchasing a field upgrade, HP sends you a confirmation email with the information needed to download and install the field upgrade.

#### Note

If you have any questions or concerns with this procedure, contact your HP sales representative.

- 1. Verify that you are connected to the Internet.
- 2. Verify the product information and order details. In the confirmation email, select **Access your products**. The HP website opens in your default browswer.
- 3. Sign in with your HP Passport user ID and password and then select **Sign in**. If you do not have an HP Passport user ID, select **Create an account** and follow the on-screen instructions.
- 4. In the **Confirmation Number** box, enter the confirmation number from your confirmation email.
- 5. Enter the email address where you received the confirmation email.
- 6. Verify the order summary.
- 7. Select Get Software.
- 8. Download the image and note the location where you saved the image.
  - If you are on a thin client running a Windows OS, download and save the IBR file.
  - If you are on a thin client running a Linux<sup>®</sup> OS, download and save the dd.gz file.

# Adding a language pack (optional)

After you have downloaded the Windows 10 IoT Enterprise field upgrade, you might need to add a language pack. HP provides the image only in US English. If you require a different language, use the following procedure. If you do not require a different language or you downloaded the HP ThinPro field upgrade, go to Installing a field upgrade.

#### Note

The HP ThinPro field upgrade is a single image that contains all languages.

To add a language pack to the Windows 10 IoT Enterprise field upgrade:

- 1. Log onto the thin client as Administrator.
- 2. Using HP ThinUpdate or HP Device Manager, install the US English image onto the device. See Installing a field upgrade.

#### Note

You can also use Microsoft® System Center Configuration Manager to install the image.

- 3. Disable Unified Write Filter (UWF).
- 4. Start the Windows Update service:
  - A. Use the Run function from the Start menu to run services.msc.
  - B. Double-click Windows Update.
  - C. Set the startup type to Automatic, and then select Apply.
  - D. Select the Start button within the same dialog box to start the service, and then select OK.
- 5. From the Start menu, select Settings, select Time & Language, select Region & Language, and then select Add a language.
- 6. Under the language, select Language Pack available, and then select Options.
- 7. Download and install the language pack.
- 8. If you want the Adminstrator account in this language, move the language to the top of the language list to make it the default language.
- 9. Log off the administrator account.
- 10. Log onto the user account.
- 11. Repeat steps 5–8 to set the default language for the user account.
- 12. Log off the user account.
- 13. Log on as Administrator and disable the Windows Update service.

- 14. Enable UWF and restart the thin client.
- 15. If you are deploying this image to other devices, capture the image using HP ThinUpdate, HPDM, or Configuration Manager.

# Installing a field upgrade

After you have downloaded the field upgrade, use the following procedure to deploy the image to your devices. This can be done using HP ThinUpdate or HPDM.

## Deploying the image using HP ThinUpdate

#### Note

If you are upgrading to Windows 10 IoT Enterprise, verify that Secure Boot is enabled.

If you are upgrading to HP ThinPro, disable Secure Boot and enable Legacy Boot before completing the following procedure. To disable Secure Boot on a thin client, you must be physically present to enter the random four-character code displayed on the screen.

For more information on using HP ThinUpdate, see the *HP ThinUpdate Administrator Guide*.

- 1. Download and install HP Recovery Image and Software Download Tool (HP ThinUpdate).
  - To download HP ThinUpdate 32-bit, go to <a href="http://ftp.hp.com/pub/tcimages/EasyUpdate/ThinUpdate/Win32/">http://ftp.hp.com/pub/tcimages/EasyUpdate/ThinUpdate/Win32/</a>.
  - To download HP ThinUpdate 64-bit, go to <a href="http://ftp.hp.com/pub/tcimages/EasyUpdate/ThinUpdate/Win64/">http://ftp.hp.com/pub/tcimages/EasyUpdate/ThinUpdate/Win64/</a>.
- 2. Connect a USB flash drive to a computer. There must be enough memory for the OS; HP recommends 32 GB for the Windows OS and 8 GB for the HP ThinPro OS.
- 3. Run HP ThinUpdate, and then select Copy thin client images between local storage and a USB drive.
- 4. On the USB Drive Management screen, select one of the following:
  - Create a Windows bootable USB drive
  - Create a Linux bootable USB drive
- 5. Select +, specify an image file, and then select **Open**.

#### Note

Select either the image file of the field upgrade that you downloaded, or the image file that you modified by adding an optional language pack.

- 6. Select **Apply**, and then follow the on-screen instructions.
- 7. After you have completed the wizard, connect the USB flash drive to a thin client and then start the thin client.
- 8. During the BIOS self-test process, press F9 and then select the USB flash drive from the boot menu
- 9. Follow the on-screen instructions to deploy the image.

### **Deploying an image using HP Device Manager**

1. Disable Secure Boot.

#### Note

To disable Secure Boot on a thin client, you must be physically present to enter the random four-character code displayed on the screen.

- 2. Enable PXE boot. Verify that the HPDM PXE server is running, because it is needed to service the requests.
- 3. Either download or copy the image to a device running HPDM Console.
- 4. Open HPDM Console.
- 5. Select Template Menu, select Import, and then select PXE Deployable Image.
- 6. Save the image and note the file name.
- 7. Verify that the Field Upgrade template has been created.

#### Note

The template is unavailable for use until the image has been uploaded to the HPDM Master Repository.

8. Upload the image to the HPDM Master Repository.

9. When the template is active, either perform a drag-and-drop operation to copy it to a device or devices or you can also right-click a thin client, select Task, and then select the Field Upgrade template.

#### Note

The thin client restarts several times during the upgrade process.

## **Windows activation**

If you are upgrading a thin client to Windows 10 IoT Enterprise, the thin client must be activated. For more information on how to activate your device, see the *Windows 10 IoT Enterprise on HP Thin Clients Administrator Guide*.

### **Support**

HP field upgrades are provided to existing HP Thin Client customers who wish to upgrade their operating systems. HP provides support to customers who are using the official HP thin client field upgrade image; however, these images do not receive ongoing updates or new features.

Contact your HP sales representative if you have any further questions.

# Service considerations

In the event that a thin client is sent to HP for service, remove all aftermarket options (such as flash and memory) from the thin client, because these aftermarket options might not be returned with the thin client. When the thin client is returned, it ships as initially configured in the factory, including the original OS. You can reinstall the aftermarket options and your custom image after the thin client is returned.

# For more information

For more information about HP thin clients, go to the following websites:

- <u>http://www.hp.com/support</u> (Search for your thin client model. For documentation, select **Manuals**.)
- <u>http://www.hp.com/go/thinclient</u>

# Sign up for updates hp.com/go/getupdated

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