Release Notes

HP Device Manager 4.7 Release (4.7.13.38737)

Build Date: October 20, 2020

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Overview

This document describes the release of HP Device Manager 4.7 Service Pack 13.

HP Device Manager (HPDM) is an enterprise-class application for managing and administrating thin client devices on large- and small-scale networks. The system consists of five major components:

- **HPDM Console**—The graphical application used by administrators to access the management system.
- **HPDM Server**—The central server which consolidates and controls all management activities.
- **HPDM Gateway**—The gateway that serves as the link between HPDM Agent on each thin client and HPDM Server.
- **HPDM Agent**—Client-side software required for managing devices.
- **HPDM Master Repository Controller**—The component that manages the content in the Master Repository and synchronizes that content to other repositories as requested by HPDM Server.
- **HPDM Embedded HTTPS Server**—The component that provides the ability to set up an HPDM repository using the HTTPS protocol.

For more detailed instructions on how to use HP Device Manager, see the _HP Device Manager Administrator Guide_.

Component version information

This release provides the following versions of these components (* are new versions since HPDM 4.7 Service Pack 12, build revision 4.7.12.36474):

Component	Version
HPDM installer	4.7.13.38737*
HPDM Console and HPDM Server	4.7.3610.38730*
HPDM Gateway for Windows®	4.7.3630.38553*
HPDM Master Repository Controller	4.7.3680.38550*
HPDM Embedded HTTPS Server	4.7.3690.38722*
HPDM Agent • Windows 10 IoT Enterprise (64-bit) • Windows Embedded 8.1 Industry Pro (64-bit) • Windows Embedded 8 Standard (64-bit) • Windows Embedded Standard 7P (64-bit) • Windows Embedded Standard 7P (32-bit) • Windows Embedded Standard 7E (32-bit) • Windows Embedded Standard 2009 • Windows XP Embedded • HP PC Converter for Windows (64-bit) • HP PC Converter for Windows (32-bit) • HP ThinPro 7 • HP ThinPro 6 • HP ThinPro 5 • HP ThinPro 4 • HP Smart Zero Core	 4.7.3669.38734* 4.7.3669.38734* 4.7.3669.38734* 4.7.3669.38734* 4.7.3660.38734* 4.7.3660.38734* 4.7.3660.38734* 4.7.3660.38734* 4.7.3673.38734* 4.7.3672.38734* 4.7.3674.38734* 4.7.3671.38734* 4.7.3670.38734* 4.7.3668.26470 4.7.3667.26470

Third-party software version information

This release includes the following versions of third-party software:

Component	Version
Apache HTTP Server	2.4.46
PHP	7.3.23
OpenSSL	1.1.1h
OpenJDK	1.8.0_262
PostgreSQL	9.4.5

New features in HPDM 4.7 Service Pack 13

- Adds support for HP mt22 mobile thin client
- Adds support for HP mt46 mobile thin client
- Adds support for the Spring Refresh 2020
- Updates Profile Editor on HPDM Console
- Adds MD5 check for deploying cached image to enhance the robustness of cached imaging task
- Address the following security vulnerabilities as identified by HP Security Bulletin HPSBHF03689:
  - CVE-2020-6925 Weak Cipher
  - CVE-2020-6926 Remote Method Invocation
  - CVE-2020-6927 Elevation of Privilege
- Replacement of legacy encryption schemes (DES) from HPDM Agent with AES256
- Updates JRE, OpenSSL, Apache, and PHP in HPDM to the latest versions to help prevent the occurrence of vulnerabilities

Issues fixed in HPDM 4.7 Service Pack 13

- Fixed an issue where HPDM Agent might crash when handling Configuring Agent task
- Fixed an issue where a newly installed HPDM Gateway would crash when its first task is a PXE task
- Fixed an issue where HPDM Gateway would get stuck while discovering a range of IPs if some IPs are assigned to routers or printers
- Fixed an issue where migrating database from PostgreSQL to Microsoft SQL would fail with massive data
- Fixed an issue where generating a template from HP Update Center for Windows Updates with URL starting with http://dl.delivery.mp.microsoft.com would fail
- Fixed an issue in which HPDM Console was delayed in reading device IP changes
- Fixed an issue where the default gateway value would be changed to 0.0.0.0 after capturing image when the Windows 10 IoT device has a static IP with empty default gateway value

Known issues

- After upgrading the HPDM Console on HP Device Manager server, the HPDM Console will fail to launch with and error "Failed to create/update rmiclient.jks. Please use "Run as Administrator" to start the HPDM Console. To rectify this issue, Right Click on the "HP Device Manager Console" desktop shortcut and select "Run as Administrator". This operation is required only once. This issue will be rectified in a future release.
- After upgrading the HPDM Console on a remote workstation, the console connection will fail with a "Certificate Error". To rectify the issue, copy the file "rmiclient.jks" from "..\HP\HP Device Manager\Server\bin" folder on the HPDM Server to the to the folder "..\HP\HP Device Manager\Console\lib" on the console workstation. This issue will be rectified in a future release.
- Tasks can continue waiting for devices queued to 30 minutes or later via the batch control. To work around the issue, cancel the task and resend it to all failed devices, or restart the server service.
- If the name of a rule is the same as a template, their payload will be placed in the same folder in the repository. Any change in the payload of this rule or template will affect the operation of the other. This issue can be avoided by naming rules and templates with different patterns.
- Failure to capture or deploy files via the HTTPS protocol on ThinPro 5.x. Due to security concerns, HP Device Manager will automatically disable support for TLSv1.0 and TLSv1.1 connections to the HPDM HTTPS repository. In order to capture or deploy files over HTTPS on ThinPro 5.x, please modify the configuration of HPDM HTTPS repository to enable TLSv1.0 support.
- The image file cannot be imported successfully by HTTPS protocol when the file size is greater than free space size of the volume that HPDM Embedded HTTPS Server installed and the repository locates on another volume that has enough free space.
- Capture Image does not support resume upload. Capture Image may fail due to customer network stability issues FTPS transfer does not support TLS session resumption on data connection. If you are using FTP servers which support it, please disable this option. For example, FileZilla Server -> General settings -> FTP over TLS settings -> "Require TLS session resumption on data connection when using PROT …" SHOULD NOT be checked.
- The task of enabling UWF returns a fake success when UWF module isn't installed on device side. If the original WF status is disabled, the HPWF will be enabled. If the original WF status is HPWF enabled, this task won't change the WF status.

- Remotely installing Windows Security Update can fail without logging the reason because Microsoft did not include all explanations for silent installation failure in a standard output form.
- Using HTTPS to deploy an HP ThinPro 5.2 image is not supported, although using HTTPS to capture an HP ThinPro 5.2 image is supported.
- When capturing or deploying images on the HP mt42, sometimes a BSOD occurs after the imaging process. The BSOD does not impact or damage anything, and the system restarts automatically, clearing the BSOD.
- If an HPDM repository is configured to use HTTPS only, and if an Update Agent task or Deploy Files subtask (in a File and Registry task) utilizing that repository is sent to a device that has HPDM Agent version 4.7 SP2 or older, the task is falsely reported as successful. The workaround is to update the device's HPDM Agent using a different protocol before sending it any tasks that utilize HTTPS.
- Cached image-capturing is not supported for HP ThinPro 5.2 or HP ThinPro 6 (you must use a wired connection to prepare and capture the image).
- When capturing a Windows 10 IoT Enterprise image from the HP ElitePad 1000 G2, sometimes the device displays a `Boot Device Not Found` error, and the Capture Image task does not complete. Restarting the device manually should resolve the problem.
- During an installation of HPDM 4.7 SP1, the database upgrade process might fail for PostgreSQL due to the unstable behavior of the PostgreSQL 8.3 service on some newer versions of Windows Server, such as Windows Server 2012 R2. To resolve this, restart the server and run the installer again without uninstalling anything. The installation should work after one or two retries. If it keeps failing when using a local account, try running the installer using a domain account that has local administrator privileges.
- The payload of customized File and Registry templates are removed from repositories if the Deploy Files subtask is removed while sending a task with the customized template. This issue can be avoided by not modifying template content while sending tasks.
- Sometimes devices disappear from the device table during task execution. The devices can be displayed again by refreshing the device table or switching to another device folder and switching back.
- The PXE Deploy imaging task fails for Windows Embedded Standard 2009 and Windows XP Embedded.
- The Deploy Profile task does not finish when the profile has a large file attached.
- The privileges of an image's Administrator account change to the same privileges of the User account after capturing an image if the Administrator account has never been logged on to and the Administrator password has been remotely changed via HPDM.
- Windows Embedded CE 6.0 might intermittently freeze after a restart during the task processing for several tasks types. This issue can occur with operating system versions 6.02.625 and 6.05.655, but it has not been found to occur with version 6.00.612.10. The probability of this issue occurring has been greatly reduced by the postponement of the startup of HPDM Agent by 30 seconds and the disablement of the HP Easy Tools OBL (OnBootLogic) and Deploy Service, but the issue might still occur.
- Some FTP servers do not support Unicode. In this case, you must set the proper system language settings for all components to make file names on these FTP servers readable.
- Sometimes IIS uses the dynamic port "4XXXX" instead of the default FTP ports 20 and 21. When this happens, it cannot pass the Sygate firewall included on older Windows Embedded images.
- If a localized character set other than English is used in DHCP tags, such as grouping information, the information is shown as unrecognizable codes in HPDM.
- If a localized character set other than English is used in LDAP, the information is shown as unrecognizable codes in HPDM.
- On HP ThinPro platforms, settings can be set only for network card eth0. If eth0 is disabled or does not exist, the task to apply network settings (such as changing the hostname and other network information) fails.
- When deploying device settings and configurations captured using HP Easy Tools, the target devices must have EWF disabled and be signed in as Administrator. This is because HPDM calls HP Easy Tools to apply the changes (a requirement of HP Easy Tools).

System requirements

HPDM Server requirements

Component	Requirements
Operating system	Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019
Third-party software	OpenJDK (bundled with installer) One of the following database management systems (DBMS): Microsoft® SQL Server 2016 or later PostgreSQL (bundled with installer)
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 1 GB RAM 2 GB free disk space

HPDM Gateway requirements

Component	Requirements
Operating system	Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 1 GB RAM 2 GB free disk space

HPDM Master Repository Controller requirements

Component	Requirements
Operating system	Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 1GB RAM 4 GB free disk space **NOTE:** The above hardware is the minimum required for the Master Repository. If there will be a large number of imaging or file-copying operations, then HP recommends using a more powerful system with additional free disk space.
Protocol	HTTPS, FTP, FTPS, SFTP, or SMB
Recommended third-party FTP servers	Apache HTTP Server (An embedded version of Apache HTTP Server is bundled with the installer.) FileZilla Microsoft Internet Information Server (IIS) 6.0 or later freeSSHd

HPDM Embedded HTTPS Server requirements

Component	Requirements
Operating system	Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019
Hardware	Intel Core 2 or AMD Athlon 64 2 GHz or greater 2 GB RAM 2 GB free disk space 7200 RPM disk **NOTE:** The above hardware is the minimum required for HPDM Embedded HTTPS Server. If there will be a large number of imaging or file transfer-operations, then HP recommends using a more powerful system with more free disk space.
Protocol	HTTPS

HPDM Console requirements

Component	Requirements
Operating system	Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019 Windows 10 Windows 7
Third-party software	OpenJDK (bundled with installer)
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 1 GB RAM 1 GB free disk space

HPDM Agent requirements

HPDM provides full support for all HP thin clients within EOL (end-of-life) + 3 years and partial support for all HP thin clients within EOL + 5 years. Each thin client should have a minimum of 10 MB of free disk space.

Due to deprecation of legacy security algorithms, HPDM 4.6 Agents cannot negotiate connections with HPDM 4.7 Gateways. Please upgrade HPDM Agents to 4.7 before sending any task.

See the following matrix. Full support (F) means that all existing and new features in HPDM 4.7 are supported.
Partial support (P) depends on the operating system:
• For Windows Embedded Standard 2009, all existing and new features except settings and connections are supported.

Thin client model	Windows 10 IoT Enterprise (64-bit)	Windows Embedded 8.1 Industry Pro (64-bit)	Windows Embedded 8 Standard (64-bit)	Windows Embedded Standard 7P (64-bit)	Windows Embedded Standard 7E (32-bit)	Windows Embedded Standard 2009	HP ThinPro 7	HP ThinPro 6	HP ThinPro 5	HP ThinPro 4	HP Smart Zero Core	Teradici
t820			F	F	F							
t740	F						F					
t730	F			F			F	F	F			
t640	F						F					
t630	F				F		F	F				
t628	F				F		F	F				
t620/t620 PLUS	F		F	F	F		F	F	F	F	F	
t610/t610 PLUS			F	F	F	F			F	F	F	
t530	F				F		F	F				
t520	F		F	F	F		F	F	F			
t510					F	F			F	F	F	
t505					F	F			F	F		
t430	F						F	F				
t420					F		F	F	F			
t410/t410 AiO											F	
t310/t310 AiO												F
t240							F					
mt46	F						F					
mt45	F						F					
mt44	F											
mt43	F											
mt42	F				F							
mt22	F						F					
mt21	F						F	F				
mt20	F						F	F				
mt245			F									
mt41				F								
mt40				F								
6360t				F	F							
EliteBook 745 G2				F								
ElitePad 1000 G2	F	F										
t5745										F		
t5740e				F								
t5740					F							
t5570e				F								
t5570					F							
t5565z											F	
t5565										F		
t5400					F							
t5335z											F	

Network requirements

Component	Requirements
Network	HPDM supports only IPv4 networks. HPDM can image thin clients using either PXE or non-PXE (preferred) methods. If PXE imaging is desired, make sure that there are no other PXE services running on the network. If you are using an ISC DHCP server, it must be running at least version 3.0.

Port requirements

See the *HP Device Manager Administrator Guide – Port Usage* section for a list of standard and custom ports required.

Installation procedure

An HPDM Service Pack is cumulative. Each Service Pack includes the latest updates, as well as all the updates from any earlier Service Packs. For example, with a base HPDM 4.7 installation, you only need to apply SP2 to get both the SP1 and SP2 updates.

An HPDM 4.7 Service Pack can only be installed onto a system that has an HPDM 4.7 base installation or a previous version of an HPDM 4.7 Service Pack. If there is only one component (for example, HPDM Console) of HPDM installed on a system, then an HPDM 4.7 Service Pack will only update the installed component.

To install an HPDM Service Pack, double-click on the setup file and follow the on-screen instructions.

After a successful installation of an HPDM Service Pack, the product name will update in the **Programs and Features** list in the **Control Panel** to reflect the new Service Pack version.

Installation language

By default, the installer is launched in the target system's language. If you want to launch the installer in a different language, you can specify a language identifier when launching the installer as shown below:

```
setup.exe –l<Language ID>
```

For example, to launch the installer in German:

```
setup.exe –l0x0407
```

The following table lists the available language IDs:

Language ID	Language name
0x0804	Chinese (Simplified)
0x0404	Chinese (Traditional)
0x0409	English (United States)
0x040c	French (France)
0x0407	German (Germany)
0x0411	Japanese (Japan)
0x0412	Korean (Korea)
0x040a	Spanish (International)

Note
In the Installation Configuration Wizard, you can specify the UI language for HPDM, which is different from the UI language for the installer. For example, if you launch the installer in German, you can still specify Simplified Chinese as the UI language for HPDM.

Silent installation

Silently install an HPDM Service Pack with the command-line option --silent. This command line option can be specified when running the installer with the following format:

```
HP_Device_Manager-4.7SPx.exe /Z--silent
```

A result log file "C:\HP Device Manager 4.7 Service Pack x-install.log" will be generated after a silent installation, and you can check the log file if the installation is failed.

HPDM Agent

HP thin clients will ship with an HPDM Agent preinstalled. To update HPDM Agent, from HPDM Console, send an **Update Agent** task to all thin clients.

HPDM Embedded HTTPS Server

To install an HPDM Embedded HTTPS Server, double-click the setup file and follow the on-screen instructions.

After an installation, the results log file C:\HP Device Manager Embedded HTTPS Server-install.log is generated. Use the log file to verify whether the installation succeeded.

After a successful installation of an HPDM Embedded HTTPS Server, the product name is updated in the **Programs and Features** list in the **Control Panel**.

Imaging notes

Imaging support matrix

The following matrix shows which operating systems and HP thin clients are supported for each imaging method.

Operating system and thin client models	File-based capture	Disk-based capture	File-based deployment	Disk-based deployment	PXE deployment
Windows*	√		√		√
HP ThinPro		√		√	√

* Drivers will be missing when deploying a Windows image captured from a different HP thin client.

Preserved settings during imaging

Source device—The device from which the image will be captured.

Target device—The device to which the captured image will be deployed.

_Capture Image

Operating system	Preserved settings
Windows	All settings from the source device are preserved on both the source device and the captured image except hostname, network settings, domain settings, and Write Filter status.
HP ThinPro	All settings in ThinPro profile (so for 7.1 no display settings) from the source device are preserved on both the source device and the captured image, except hostname and network settings.

Note: For Windows operating systems, if the source thin client was joined to a domain prior to a **_Capture Image** task, then domain membership will be lost after cloning the image. It is recommended to remove the source device from any domain prior to this task. There is also a known issue where the group policy that controls the domain password complexity will affect local user accounts, resulting in the user requirement to change the password to meet more strict criteria.

_Deploy Image

Operating system	Preserved settings
Windows	• Write filter status • Hostname • Network settings • Terminal Service license • Windows activation license (select operating systems only)
HP ThinPro	• Hostname • Network settings

Checks before imaging

The following matrix describes which items are checked before imaging.

Operating system type	BIOS family	Flash size	Hardware architecture
Windows	√	√	
HP ThinPro		√	√

License

All the license information of open source software used in HPDM can be found in the HPDM installation directory at `Doc\licenses`.

Portions of HPDM are licensed under the terms of the GNU Public License version 2 or the GNU Lesser Public License version 2.1.

Source code for these components may be found at ftp.hp.com/pub/device_manager or by contacting HP support.

For more information

To read more about HP Device Manager, go to http://www.hp.com/go/hpdm.