Release Notes

HP Device Manager 5.0 Release (5.0.12.41002)

Build Date: January 08, 2024

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Overview

This document describes the release of HP Device Manager 5.0.12.

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 the following major components:

- **HPDM Server**—The central management service, which monitors all state and controls all device management activities.
- **HPDM Gateway**—The software component that links the HPDM Server and HPDM Agents on each thin client.
- **HPDM Master Repository Controller**—The software component that manages the software payloads and package content in the Master Repository and synchronizes that content to other child repositories as requested by the HPDM Server.
- **HPDM HTTPS Repository**—The software component that provides the ability to set up an HPDM repository using the HTTPS protocol.
- **HPDM Console**—The software component that is the primary GUI for administrators, allowing the inventory and management of devices and other administrative activities.
- **HPDM Console Web Bridge**—The component that provides access to HPDM Console content through a web browser.
- **HPDM Configuration Center**—The graphical application used to configure settings of various HPDM components.
- **HPDM Agent**—The software component installed on each device to enable device management capabilities.

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 5.0.11, build revision 5.0.11.40681):

Component	Version
HPDM Installer	5.0.12.41002*
HPDM Server Installer	5.0.3620.40912*
HPDM Gateway for Windows® Installer	5.0.3630.40848 *
HPDM Master Repository Controller Installer	5.0.3680.40900*
HPDM HTTPS Repository Installer	5.0.3690.40963*
HPDM Console Installer	5.0.3610.40912*
HPDM Console Web Bridge Installer	5.0.3700.40949*
HPDM Configuration Center Installer	5.0.3710.40900*
HPDM Agent	
• Windows 10 IoT Enterprise (64-bit)[1]	5.0.3669.40871*
• HP PC Converter for Windows (64-bit)	5.0.3673.40871*
• HP ThinPro 8.1	5.0.3677.40871*
• HP ThinPro 8	5.0.3676.40871*
• HP ThinPro 7.2	5.0.3675.40871*

[1] Only Windows 10 IoT Enterprise 2019 and 2021 are tested and supported. Windows 10 IoT Enterprise 2015 and 2016 are not tested.

Third-party software version information

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

Component	Version
Apache HTTP Server	2.4.58
PHP	8.2.14
OpenSSL	3.0.12
OpenJDK	11.0.21
PostgreSQL JDBC Driver	42.4.3
PostgreSQL	16.1
MS JDBC Driver	9.4.1
Hibernate	5.4.33
Apache Commons Compress	1.21
Log4j	2.17.1
Apathche Tomcat	9.0.84
Webswing	23.2.2

New features in HPDM 5.0.12

- Adds Console Web Bridge component
  - Adds the Console Web Bridge installer
  - Adds a Console Web Bridge page to HPDM Configuration center.
- Adds an option in Console (Administration -> Configuration System -> Task parameters -> Valid Time and Timeout) to enable automatic task cancellation when the task reaches the Execution timeout limit
- Upgrades the hash algorithm to SHA256 for file integrity check on desc files in repositories
- Adds new connection types to Pull Connection template:
  - ThinPro 8.0 & 8.1: HP Anywhere, AVD, RDP 2.0 and AWS connections
- Adds configurations to console and server confs to enable performance improvements on startup report handling
- Enhances HPDM securities by fixing or mitigating the below issues:
  - Fixing security flaws and vulnerabilities scanned by Veracode
  - Replacing MD5 with SHA256
  - Updating some open source libraries used in HPDM
- Updates Profile Editor in HPDM to version 8.1.0.12
- Updates PostgreSQL to 16.1
- Updates JRE, OpenSSL, Apache, and PHP in HPDM to the latest versions to help prevent the occurrence of vulnerabilities

Issues fixed in HPDM 5.0.12

Severity*	Impact	Trigger	Constraints/Conditions
3	Sync status will not be updated automatically when syncing repositories	Sync repository immediately after click "Sync" button	
3	Network checking is ignored when performing ThinPro 7.2 imaging	Send the Deploy Image template to ThinPro 7.2 devices	ThinPro 7.2 Deploy Image

* Severity is ranked from 1 to 5. 1 is critical, could lead to data loss or a non-functioning device. 5 is minor cosmetic or other issue that does not affect the operation of HPDM or manageability of devices, such as overlapped icons or text.

CVE fixed in HPDM 5.0.12

HPDM 5.0.12 includes fixes for the CVEs related to 3rd party software:

3rd Party Software	3rd Party Software CVE
PHP (8.2.10 to 8.2.14)	N.A.
OpenSSL (3.0.11 to 3.0.12)	CVE-2023-5363
OpenJDK (11.0.20 to 11.0.21)	CVE-2023-22081
Apache (2.4.57 to 2.4.58)	CVE-2023-45802 CVE-2023-43622 CVE-2023-31122
Apache commons compress (1.1 -> 1.21)	CVE-2021-36090
	CVE-2012-2098
PostgreSQL JDBC Driver (42.3.3 -> 42.4.3)	CVE-2022-31197
	CVE-2022-41946
PostgresSQL (12.5 -> 16.1)	CVE-2021-3393

	CVE-2021-3677
	CVE-2021-23214
	CVE-2021-23222
	CVE-2021-32027
	CVE-2021-32028
	CVE-2021-32029
	CVE-2022-1552
	CVE-2022-2625
	CVE-2022-41862
	CVE-2023-2454
	CVE-2023-2455
	CVE-2023-5868
	CVE-2023-5869
	CVE-2023-5870
	CVE-2023-39417
Hibernate (5.3.20 -> 5.4.33)	CVE-2020-25638

Known issues

- After upgrading to version 5.0.12, the dm_postgres account used by customers to access the database will be lost. Reconfiguration of this account is required through the Configuration Center.
- Device tasks are lost after migrate DB from MSSQL (DB in Chinese OS) to MSSQL(DB in English OS. Please reinstall sql server services and select aligned collation policy.
- For Windows 10 IoT 21H2 or new images, some customized settings cannot be preserved after capturing or deploying image.
- Failed to update the HPDM Gateway and HPDM Agent(Windows) via HTTPS protocol from 5.0.9 or prior versions. Please use other protocols(FTP/SFTP/SMB) to update them. Another approach is to install a child repository using the HPDM 5.0.10 HTTPS Server, map the Gateway and Agents to the child repository, update them to the latest version, and then re-map them to the normal repositories.
- For HPDM 5.0.10 or prior versions, the HPDM Master Repository Service and HPDM HTTPS Repository Service cannot be started after updating the latest security updates via HPDM Configuration Center. We have fixed this issue on HPDM 5.0.11, so please upgrade the HTTPS Repository Service with the installer.
- “Failed to login the HTTPS Server” error happened after upgrading from HPDM 5.0.10 or prior. Please reset the password of the HTTPS Server admin via HPDM Configuration Center, and re-configure the Repository Configuration via HPDM Console.
- “-5001 error” or "Error reading setup initialization file" error pop up when installing HPDM 5.0.10 or newer or upgrading from previous version occasionally on Windows Server 2019 system. Please reboot the system and install it again.
- The Automated Device Importer cannot recognize existing devices when importing, hence no rename task can be sent. The workaround is to use the Import Devices dialog from Console.
- Sometimes devices disappear from console. The workaround is to refresh the Device View (highlight any device from the table and press F5).
- Password of the account "postgres" is randomized during upgrading HPDM to V5.0.6 from previous version. If you want to set this password manually, run HPDM Server Backup and Restore Tool to backup database first, and run HPDM Database Setup in the HPDM Configuration Center, to select "Create New Database", then you can enter a new password. At last, run the HPDM Server Backup and Restore Tool to restore database.
- In HPDM Configuration Center, some components show old version as they are not changed since last release.
- 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.
- PXE imaging can fail when BIOS option "Host Based MAC Address" is not set to "Disabled". This has been observed on mt46 and mt32. To resolve this, set the BIOS option "Host Based MAC Address" to "Disabled".
- If you apply region settings with an unsupported value, the task will not fail, but the region list will be empty at device side (on Windows RS5), or it will choose the first one in the region list (on Windows RS1). Clone region settings will return the unsupported value. Re-applying region settings with a supported value can fix the problem.
- If a task requires payload is running via the batch control, devices of later batches may execute new incoming immediate tasks before the currently waiting task. In the case that tasks are independent of each other, the execution results are not affected. For tasks with dependencies, use a Template Sequence to ensure the order.
- The UTF-8 characters returned by scripts of PowerShell version 5.0 or below in task logs or device properties dialog cannot be displayed correctly.
- The image file cannot be imported successfully by HTTPS protocol when the file size is greater than the free space size of the volume that HPDM HTTPS Repository is installed on and the repository is located on another volume that has enough free space.
- Capture Image does not support resume upload. Capture Image might fail due to customer network stability issues and because the FTPS agent transfer protocol does not support TLS session resumption on data connections. If you are using FTP servers that does support this, disable this option. For example, on a FileZilla Server, select **General settings**, select **FTP over TLS settings**, and then be sure the **Require TLS session resumption on data connection when using PROT P** checkbox is cleared.
- Enabling the Universal Write Filter (UWF) task returns a false success when the UWF module is not installed on the device side. If the original write filter status is disabled, the HP Write Filter is enabled. If the original write filter status is set to HP Write Filter enabled, this task does not change the write filter status.
- Remotely installing Windows Security Updates can fail without logging the reason because Microsoft did not include all explanations for silent installation failure in a standard output form.
- If an HPDM repository is configured to use HTTPS only, and an Update Agent task or Deploy Files subtask (in a File and Registry task) using 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 uses HTTPS.
- The content of customized File and Registry templates is removed from repositories if the Deploy Files subtask is removed from the customized template while sending a task that relies on the customized template. This issue can be avoided by not modifying template content while sending tasks.
- Devices might 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 then reverting to the original view.
- The Deploy Profile task does not finish when the profile has a large file attached.
- Some FTP servers do not support Unicode. In this case, you must set the proper system language settings for all components to ensure file names on these FTP servers readable.
- If a localized character other than UTF-Latin-1(Western Europe) is used in DHCP tags, such as grouping information, the information is shown as unrecognizable characters in HPDM.
- If a localized character set other than UTF-Latin-1(Western Europe) is used in LDAP, the information is shown as unrecognizable characters in HPDM.
- On HP ThinPro devices, network 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.

System requirements

From HPDM 5.0.10, Windows Server 2022 and Windows 11 are added as the new supported operating systems for HPDM. Meanwhile, Windows Server 2012 R2 is no longer to be the supported operating system for HPDM. The first available and end of support of Windows Server 2012 R2 by Microsoft are from November 2013 to October 2018.

HPDM Server requirements

Component	Requirements
Operating system	Windows Server 2016 Windows Server 2019 Windows Server 2022 Windows 10 Windows 11
Prerequisite	.NET Framework 4.5.2 or higher
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 4 GB RAM 2 GB free disk space

HPDM Gateway requirements

Component	Requirements
Operating system	Windows Server 2016 Windows Server 2019 Windows Server 2022 Windows 10 Windows 11
Prerequisite	.NET Framework 4.5.2 or higher
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 4 GB RAM 2 GB free disk space

HPDM Master Repository Controller requirements

Component	Requirements
Operating system	Windows Server 2016 Windows Server 2019 Windows Server 2022 Windows 10 Windows 11
Prerequisite	.NET Framework 4.5.2 or higher
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 4GB 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) freeSSHd

HPDM HTTPS Repository requirements

Component	Requirements
Operating system	Windows Server 2016 Windows Server 2019 Windows Server 2022 Windows 10 Windows 11
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 4 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 additional free disk space.
Protocol	HTTPS

HPDM Console requirements

Component	Requirements
Operating system	Windows Server 2016 Windows Server 2019 Windows Server 2022 Windows 10 Windows 11
Prerequisite	.NET Framework 4.5.2 or higher
Third-party software	OpenJDK (bundled with installer)
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 4 GB RAM 1 GB free disk space

HPDM Console Web Bridge requirements

Component	Requirements
Operating system	Windows Server 2016 Windows Server 2019 Windows Server 2022 Windows 10 Windows 11

Prerequisite	.NET Framework 4.5.2 or higher, HPDM Console
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 5 GB RAM (For 1 Console instance and Console Web Bridge server. Add 1 GB for each additional Console) 2 GB free disk space

HPDM Configuration Center requirements

Component	Requirements
Operating system	Windows Server 2016 Windows Server 2019 Windows Server 2022 Windows 10 Windows 11
Prerequisite	.NET Framework 4.5.2 or higher
Hardware	Intel® compatible 64-bit processor supporting 2 or more CPU cores 4 GB RAM1 GB free disk space

HPDM Agent requirements

Note: Several operating systems have been End of Support for at least a year and, as of Service Pack 5.0.12, they were no longer fully manageable from HP Device Manager. Devices running an End-of-Support OS will automatically move to the 'Unidentified' tab where only the Wake-on-LAN task is available. Unsupported operating systems: ThinPro 5, ThinPro 6, ThinPro 7.0, ThinPro 7.1, WES7P, WES7E, any Windows 32-bit version.

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.

In the following matrix, full support (F) indicates that all existing and new features in HPDM 5.0 are supported. Partial support (P) indicates that not all task templates are available for a given device platform and operating system.

Thin client model	Windows 10 IoT Enterprise LTSC (64-bit)	HP ThinPro 8.1	HP ThinPro 8	HP ThinPro 7.2
HP t755 Thin Client	F	F		
HP t740 Thin Client	F	F	F	F
HP t730 Thin Client	F	F	F	F
HP Elite t655 Thin Client	F	F	F	
HP t640 Thin Client	F	F	F	F
HP t638 Thin Client	F		F	F
HP t630 Thin Client	F	F	F	F
HP t628 Thin Client	F			F
HP Pro t550 Thin Client	F	F	F	
HP t540 Thin Client	F	F	F	F
HP t530 Thin Client	F	F	F	F
HP t430 Thin Client	F		F	F
HP t420 Thin Client				F
HP t240 Thin Client				F

HP Elite mt645 G7 Mobile Thin Client	F	F	F	
HP Pro mt440 G3 Mobile Thin Client	F	F	F	
HP mt46 Mobile Thin Client	F	F	F	F
HP mt45 Mobile Thin Client	F	F	F	F
HP mt44 Mobile Thin Client	F			
HP mt43 Mobile Thin Client	F			
HP mt32 Mobile Thin Client	F	F	F	F
HP mt31 Mobile Thin Client	F			
HP mt22 Mobile Thin Client	F	F	F	F
HP mt21 Mobile Thin Client	F	F	F	F
HP mt20 Mobile Thin Client	F			
HP ThinPro PC Converter		P	P	P
Windows PC Converter	P			

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

Each HPDM minor release is cumulative and includes the latest updates, as well as all updates from any earlier minor releases. For example, you only need to install HPDM 5.0.3 to get the full functions of HPDM 5.0, and all updates of 5.0 SP1 and 5.0 SP2.

The HPDM 5.0 minor release installer supports direct installation. You do not have to first install the base version of HPDM 5.0.

The HPDM 5.0 minor release installer can upgrade HPDM 4.7 or an HPDM 4.7 service pack.

To install HPDM, double-click the setup file and follow the on-screen instructions. See the *HP Device Manager Administrator Guide* for more details about the installation and upgrade.

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.

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.

Sign up for updates

hp.com/go/getupdated