HP Discovery and Dependency Mapping Inventory

For the Windows® operating system

Software Version: 7.70

Release Notes

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HP Discovery and Dependency Mapping Inventory

Release Notes

Software version: 7.70 / June 2010

This document provides an overview of the changes made to Discovery and Dependency Mapping Inventory (DDM Inventory) for version 7.70. It contains important information not included in the manuals or in the online help.

Conventions Used in this Document

By default, when you install the DDM Inventory Server software, all the components will be in one of the locations specified in the following table. The placeholders are used to represent the DDM Inventory program and data folders referenced in this document:

Folder	Placeholder	Platform	Default Location
Program Files	`<InstallDir>`	Windows Server 2008 x64	`C:\Program Files (x86)\Hewlett-Packard\DDMI\7.70`
		All others	`C:\Program Files\Hewlett-Packard\DDMI\7.70`
Data Files	`<DataDir>`	Windows Server 2008	`C:\ProgramData\Hewlett-Packard\DDMI`
		Windows Server 2003	`C:\Documents and Settings\All Users\Application Data\Hewlett-Packard\DDMI`

You can customize both of these locations when you install the DDM Inventory Server.

In This Version

Introduction

These release notes are for DDM Inventory 7.70. This new version of the product is the upgrade path for users of DDM Inventory 7.5x and 7.6x.

If you want to see what features have been introduced in previous versions of DDM Inventory (formerly called Enterprise Discovery), you can read the *Release Notes* for those versions available on your installation CD under `bin\documentation`.

License Schema

Each DDM Inventory server can collect data from a maximum of 50,000 inventoried devices and 60,000 discovered devices in total. The port limit is 150,000 ports (whichever comes first). A DDM Inventory Aggregator can support 50 servers and up to 500,000 devices.

Updated Third-Party Components

- Apache 2.2.15
- MySQL 5.1.42
- Java Runtime Environment (JRE) 1.6.0_18

New Features

DDM Inventory 7.70 provides several new features to extend existing functionality and provide users with new capabilities. Besides general product enhancements, this release offers significant additional capabilities in the areas of scanning, reporting, and VMware hosts support. The following sections describe these features.

Scanner Enhancements

Support for execution of pre-scan and post-scan scripts

In this release, DDM Inventory introduces new pre-scan and post-scan scripting capability. This feature allows administrators to create and execute scripts on scanned devices as part of the standard DDM Inventory scanning process. It expands the capabilities of standard scanner detection by capturing custom data on specific hardware, settings, or applications that the scanner does not currently collect in its inventory data. External scripts can be run as part of the scanner operation to capture this additional inventory information.

> By default, the Scanners will not run the pre-scan and post-scan scripts until you enable this option in the scanner profile. For detailed information, refer to "Configuration Profiles" in the "Discovery Configuration Overview" section in the *Installation and Initial Setup Guide*.

You can create the pre-scan and post-scan script files based on your own requirements. But you must save the files with the designated file names and store them in the designated directories. For more detailed information, refer to the "Pre-Scan and Post-Scan Scripts for Collecting Custom Hardware Data" section in the *Configuration and Customization Guide*.

iLO support

DDM Inventory 7.70 provides the ability to identify and associate Remote Management Interface Cards (iLO) with the servers they manage. In this release, DDM Inventory can perform the following actions:

- Associating an iLO card with the DDM Inventory server and displaying the iLO information (such as the iLO icon , the iLO IP address, and the port information) in the Device Manager.

- Using the other IP address assigned to the iLO card for the Simple Network Management Protocol (SNMP), agent, or virtualization unless it is the last possible solution for SNMP management.

- Added a report for the iLO card vendor and the iLO card type (such as HP iLO, HP iLO 2, or LO100). To view the iLO card report, go to **Server** > **Reports** > **Remote Management Cards**.

System serial number collection improvements

DDM Inventory has improved capability for collecting hardware serial numbers. This includes enhancements for collecting the serial numbers for Solaris and HP-UX systems.

Scanner data collection improvements

DDM Inventory 7.70 has an updated Intel CPU count detection algorithm for the Windows, Linux, and Solaris operating systems. As a result, DDM Inventory can get more accurate CPU count results, including the core number, the physical number, and the logical processor number for the latest Intel CPU models.

Manual scanner execution control

This release adds more manual scanner execution controls on the scanner commands through the following three new parameters:

- `-v`: Specify that the scanner should not make the local scan file read-only or hidden.

- `-t`: Override the default path for storing temporary files.

- `-l`: Override the default file name of the local scan file, `local$.xsf`. If the path is specified in the file name, then the default path for storing the local scan file is also overridden.

Software Recognition

Partial software recognition

Prior to DDM Inventory 7.70, partial recognition data was only available in the Analysis Workbench (entries marked as "check ver"). Now the Viewer, the Scan Data Viewer, and the application reports also include the partially recognized applications together with the fully recognized applications. For the partially recognized applications, only a partial match is found in the library, indicating that a different version of the application might be installed. The version shown is the closest one found in the SAI.

Partial software recognition provides a more complete view of the software installed on a target device. It provides a degree of resiliency to software updates. Partial recognition results should be reviewed to ensure accuracy and may in some cases result in customers deciding to add new entries in their SAI.

- Changes in the Viewer:

  — Summary tab: This tab now displays fully recognized applications numbers and partially recognized applications numbers.

  — Software Applications tab and Software Utilization tab:

    1. Added a new **Recognition** column in these two tabs. For SAI-based recognition, this column displays **Full** for fully recognized applications or **Partial** for partially recognized applications. For Installed applications, this column displays **Installed Applications**.

    2. (Only for the SAI-based recognition) Added a new menu item in the right-click menu on the **Recognition** column: **Show applications** > **Fully recognized**, **Partially recognized**, or **Both**.

- Changes in the Scan Data Viewer: The same changes as in the Viewer (above).

  — In the Software Applications tab and Software Utilization tab, DDM Inventory has made the following changes:

    1. Added a new **Recognition** column in these two tabs. For SAI-based recognition, this column displays **Full** for fully recognized applications or **Partial** for partially recognized applications. For Installed applications, this column displays **Installed Applications**.

    2. (Only for the SAI-based recognition) Added a new menu item in the right-click menu on the **Recognition** column: **Show applications** > **Fully recognized**, **Partially recognized**, or **Both**.

- In the application reports, added the following three navigation links to view application data:

  — Full: Default mode. Shows only fully recognized applications.

  — Partial: Shows only partially recognized applications.

  — Both: Shows both fully and partially recognized applications. You can refer to the **Recognition** column to differentiate between the partially and fully recognized applications.

Virtualization

VMware hosts: Remote inventory of ESX and ESXi

DDM Inventory 7.70 delivers a new remote inventory capability that collects inventories for VMware ESX and ESXi hypervisors. This new capability enables DDM Inventory to collect host inventory information without the need to install agent/scanner on VMware ESX and ESXi hosts.

DDM Inventory provides two methods for collecting the inventory of VMware hosts:

- Using DDM Inventory server, with the **Inventory VMware hosts** function enabled

  You can select the **Inventory VMware hosts** checkbox from **Server** > **Admin** > **Discovery Configuration** > **Configuration Profiles**. DDM Inventory will then collect inventory information for VMware hosts when running the discovery process on the VMware hosts themselves, or the VirtualCenter that manages these hosts.

  You can view the status of the Inventory VMware hosts from the Discovery Configuration table in the Diagnosis panel.

- Using the Standalone VMware Remote Scanner

  The Standalone VMware Remote Scanner is a command line utility used to remotely scan a VMware server or VirtualCenter. With this scanner, the DDM Inventory server does not need to connect to the VMware servers or VirtualCenters directly. Instead, the Standalone VMware Remote Scanner can run on any server that can connect to the VMware ESX or ESXi host or VirtualCenter. This feature adds flexibility in complex installations. It enables VMware hosts to be inventoried in situations where they are not directly visible to the DDM Inventory server (such as when they are separated by firewalls or in different network segments). This function is provided for ad hoc inventory scanning, or to assist with troubleshooting and should not be used for ongoing VMware host inventory data collection. For detailed information, refer to the "Standalone VMware Remote Scanner" section in the *Reference Guide*.

Hyper-V: Guest Identification

In this release the scanners can identify Microsoft Hyper-V guest machines. You can choose to terminate the scanner running inside these machines under the environment as shown below under **Scanner Generator** > **Scanner Options** > **Miscellaneous**.

- Hyper-V (Only for Windows, Linux, and Solaris x86 scanners)

Scanner Supportability

Improved logging for scanner execution

DDM Inventory 7.70 introduces logging for scanner execution status in the Device Manager. It enables you to diagnose a failed scanner workflow or to examine logs or error messages written by the scanners.

In the Device Manager, the scanning workflow status is shown when DDM Inventory executes the following actions from the Update Model drop-down list:

— Upgrade Agent

— Run Scanner

— Retrieve Scan File

— Run Agentless Scanner

Agent/scanner deployment error reporting

DDM Inventory 7.70 introduces scanner status reporting. The new reporting can help in troubleshooting scanner deployment and execution issues. DDM Inventory 7.70 provides a unified view of the workflow status with the new status report: Scanner execution details. To access this report, go to **Server** > **Status** > **Devices Status** > **Scanner Execution Details**.

For the scanners that the DDM Inventory server automatically executed with or without an agent, you can view the following details on scanner execution progress:

— The current execution status of the scanners

— The scan start time and duration

— The scanner process completion code if it is finished

— The scanner process ID

— The scanning stage

Changes in DDM Inventory Licensing Mechanism

With this release of DDM Inventory, the backend licensing mechanism was changed from using legacy Peregrine license files to an HP standard "Autopass" system. Autopass is a separate tool that can be accessed from **Start** > **Programs** > **Hewlett-Packard** > **DDM Inventory 7.70** > **Autopass** after you successfully install the DDM Inventory server. Autopass provides a self-service portal to obtain licenses for DDM Inventory by providing the "Order Numbers". The DDM Inventory license is "node-locked". One license is tied to a DDM Inventory server. The client tools no longer require a license.

New Device Types

DDM Inventory can now successfully identify one new device type. The following table shows the new device and the icon that represent it:

Icon	Device
	Management Processor (MP) for HP Integrity and HP9000 servers

For a comprehensive list of device types, refer to **Help** > **Classifications** > **Device Types** in the DDM Inventory Web UI.

Compatibility Notes

Reports Database Changes

Additions

- Added table `Aggregate.hwsmbiosOnboardDevicesExtendedInformation`.

- Added table `Aggregate.hwAssetCustomData`.

- Added table `Aggregate.SWSubComponentPartial`.

- Added table `Aggregate.PortRMCType`.

- Added column `Device_PreferredAgentAddress` to table `Aggregate.Device`.

- Added column `hwNICIPAddressFlags` to table `Aggregate.hwNICIPAddresses`.

- Added columns `hwsmbiosSystemBIOSRelease` and `hwsmbiosEmbeddedControllerFirmwareRelease` to table `Aggregate.hwsmbiosBIOSInformation`.

- Added columns `hwsmbiosSystemSKUNumber` and `hwsmbiosSystemFamily` to table `Aggregate.hwsmbiosSystemInformation`.

- Added columns `hwsmbiosProcessorCoreCount`, `hwsmbiosProcessorCoreEnabled`, `hwsmbiosProcessorThreadCount`, and `hwsmbiosProcessorCharacteristics` to table `Aggregate.hwsmbiosProcessorInformation`.

- Added columns `hwsmbiosSlotSegmentGroupNumber`, `hwsmbiosSlotBusNumber`, `hwsmbiosSlotDeviceNumber`, and `hwsmbiosSlotFunctionNumber` to table `Aggregate.hwsmbiosSystemSlots`.

- Added column `hwsmbiosMemoryArrayRank` to table `Aggregate.hwsmbiosMemoryDevice`.

- Added column `hwNICIPAddressDNSNames` to table `Aggregate.hwNICIPAddresses`.

- Added column `PortRMCtype_ID` to table `Aggregate.Port`.

- Added column `hwRecognitionMethod` to table `Aggregate.hwRecognitionInfo`.

Scanner Support Information

All Scanners and Agents supported in the 7.6x releases of this product are supported in the 7.70 release. Refer to the Compatibility Matrix for the 7.70 release of interest for the list of all supported platforms.

> When an install is upgraded from a previous release, it is possible to use the Scanners and Agents from previous releases if you explicitly specify the Scanner and Agent versions using the configuration options on the following pages:
>
> **Administration** > **System Configuration** > **Scanner deployment**
>
> **Administration** > **System Configuration** > **Agent communication**

Obsolete Features

SAI Update Wizard

The SAI Update Wizard component was removed from DDM Inventory 7.70.

Documentation Updates

The first page of this release notes document contains the following identifying information:

- Version number, which indicates the software version.

- Publish date, which changes each time the document is updated.

To check for recent updates or to verify that you are using the most recent edition, visit the following URL:

http://h20230.www2.hp.com/selfsolve/manuals

This site requires that you register for an HP Passport and sign-in. To register for an HP Passport ID, go to:

http://h20229.www2.hp.com/passport-registration.html

Or click the **New users - please register** link on the HP Passport login page.

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NOTE: To view files in PDF format (`*.pdf`), Adobe Acrobat Reader must be installed on your system. To download Adobe Acrobat Reader, go to the following web site:
http://www.adobe.com/

The following PDF documents are available in the DDM Inventory Web UI:

- *Planning Guide*

- *Installation and Initial Setup Guide*

- *Configuration and Customization Guide*

- *Network Data Analysis Guide*

- *Scan Data Analysis Guide*

- *Reference Guide*

Installation Notes

Instructions for installing DDM Inventory are documented in the *Installation and Initial Setup Guide* provided in Adobe Acrobat (`.pdf`) format.

> ▶ Perl, MySQL, Tomcat and Apache are standard parts of the DDM Inventory, included with each server installation. If you have these components installed already, make sure to remove them before installing DDM Inventory. You may NOT substitute any other technologies in place of the standard installation.

Software and Hardware Requirements

The following sections detail the requirements for the DDM Inventory server and client components, respectively.

Client Requirements

The DDM Inventory client components (Analysis Workbench, SAI Editor, System Panel, and Viewer) have the following requirements:

Resource	Requirement
Operating System	Windows XP/Vista, Windows Server 2003/2008, Windows 7
CPU	Pentium® III, 500 MHz
RAM	500 MB (1-3 GB if you will be analyzing a large number of scan files)
Disk	100MB required (2GB recommended)
Java™ Runtime Environment	See **Help** > **Compatibility Matrix** in the DDM Inventory GUI for versioning information

Server Requirements

The DDM Inventory Server can be installed on 32-bit versions of Windows Server 2003 (SP1, SP2), Windows 2003 R2, or Windows Server 2008 (SP1), and the 64-bit version of Windows Server 2008 (SP1 or SP2), or Windows 2008 R2. For information about all supported platforms, refer to the *Compatibility Matrix*.

Recommended Server Platforms

For large servers (up to 50,000 devices), the following is recommended:

- HP Proliant Model: DL380 G6
- CPU: 8 Core (Intel® Xeon® 5500 series)
- Memory: 8 GB
- Disk: See the Storage Requirements section below.

For medium servers (up to 15,000 devices), the following is recommended:

- HP Proliant Model: DL380 G6

- CPU: 4 Core(Intel® Xeon® 5500 series)
- Memory: 6 GB
- Disk: See the Storage Requirements section below.

Sample Server Scenarios

The following table details a variety of scenarios that can help you estimate your server hardware requirements. The Disk value is for your data directory. You will require at least 6GB for the DDM Inventory installation.

The information presented below is for illustrative purposes only. Proper sizing of the DDM Inventory server(s) may require assistance from a qualified architect. HP recommends utilizing experienced resources to assist in architecture and the initial deployment of DDM Inventory. Among the factors that need to be considered and which will impact the infrastructure architecture are the following:

- Number of and distribution of devices (such as if slow WAN links exist between large population groups)
- Type of and amount of information collected (examples below demonstrate the impact software utilization will have on overall system capacity)
- Frequency of scans (the example below assumes a bi-weekly scan interval, more frequent scanning may require additional server capacity)
- Amount of data collected (the examples below assume an average scan file size of ~250KB, which is representative of an average PC (large servers may generate considerably more data and therefore require additional capacity to process the data)
- Environmental factors, such as integrations with other products, network characteristics, and operational requirements may impact the architecture of the DDM Inventory solution
- The number of XML Enrichers that are running on the server
- The settings in the virus checker installed on the server. Virus checking can add significant overhead.

Table 1 – Suggested Hardware Requirements

Discovered Devices	Inventoried Devices	Ports	Aggregation	Automated Inventory	Topology*	Memory (GB)	CPU**	Disk (GB)
6,000	5,000	36,000		x		1.5	1 CPU 2.4 GHz	25
6,000	5,000	36,000		x	x	3***	1 CPU 2.8 GHz	40
18,000	15,000	108,000		x		2	2 CPUs or cores 3.0 GHz	70
18,000	15,000	108,000		x	x	5	2 CPUs or cores 3.0 GHz	105
60,000	50,000	150,000		x		4	2+ CPUs or cores 3.6 GHz	200
60,000	50,000	150,000		x	x	7	2+ CPUs or cores	260

Discovered Devices	Inventoried Devices	Ports	Aggregation	Automated Inventory	Topology*	Memory (GB)	CPU**	Disk (GB)
							3.6 GHz	
50,000	50,000	n/a	x	n/a	n/a	2	2 CPUs or cores 3.0 GHz	10
500,000	500,000	n/a	x	n/a	n/a	3	2 CPUs or cores 3.6 GHz	50

* DDMI Topology is a network management component of DDM Inventory. It is no longer available for sale to new customers, but still available to existing Topology customers.

** CPU processor speeds are approximate guidelines. Newer CPUs may have lower frequencies but higher performance than those shown in the table. HP DDM Inventory consists of multiple processes, many of which are also multi-threaded. As a result, it benefits from Simultaneous Multi-Threading (SMT) technologies such as Intel® Hyper-Threading and Multi-core.

*** This is for 5 map sessions. If you want to use more than 5 map sessions, you will require more memory.

These calculations have been tested as scenarios for maximum disk size on the server.

For the Inventory license, this includes:

- "Backup Scan Files" is enabled (on average, each scan file is 250KB)
- "Delta scanning" is enabled
- Space required for two backups (one stored backup, and one "in process" backup)

For the Network Topology license, this includes:

- "Statistic Export" is enabled (CSV files)
- 200 users, with each user account saving 10 map configurations files
- Space required for two backups (one stored backup, and one "in process" backup)

Storage Requirements

DDM Inventory is a highly I/O intensive application. High I/O performance of the disks where the data resides is *crucial* to the correct operation of DDM Inventory. Disks need to reside local to the DDM Inventory server or on a high performance SAN. Network drives and clusters are not supported. Some customers have reported problems with SAN environments so they are not recommended.

Benchmark your disk I/O performance prior to installing DDM Inventory for management of any large environment. For a medium to large DDM Inventory server deployment, minimum recommended throughput (as benchmarked on an idle system when the DDM Inventory server is not running) is 70 MB/sec for read accesses and 40MB/sec for write accesses.

Your disk space requirements may differ depending on how you are using DDM Inventory.

> For performance reasons, the disk where DDM Inventory data is stored should have at least 4K clusters.

For the average size of scan files, refer to the "Disk Space Considerations" chapter in *Installation and Initial Setup Guide*. The inventory data collected in the scan file is stored in compressed format. For processing, the

data is extracted and populated into the database. In addition, if delta scanning is enabled, DDM Inventory keeps a copy of the original scan file as well as the enriched copy. Because of these extra disk space requirements, we recommend that you budget at least 5 times as much disk space for each device being scanned.

> If your average scan file size is large, adjust your disk space requirements accordingly.

Recommended Fault Tolerance Configurations

The recommended fault tolerance configurations are the following:

- Raid 1
- Raid 1+0

DDM Inventory must be installed on a local disk. It cannot be installed on network drives, SAN drives, or clustered devices. DDM Inventory has been tested and can be successfully installed in a RAID (redundant array of independent drives) level 0 and level 1 environment.

RAID level 0 uses a striped disk array strategy that does not provide fault tolerance. Data striping spreads out blocks of each file across multiple disk drives. In our test environment we use 2 drives. This configuration does not provide for redundancy. It improves performance but does not deliver fault tolerance. If one drive fails then all data in the array is lost.

RAID level 1 uses a mirrored set strategy that provides fault tolerance from disk errors and single disk failure. It results in increased read performance with very small performance degradation when writing. The array continues to operate as long as at least one drive is functioning.

Because it offers the best tradeoff of performance and reliability, level 1 is the recommended RAID platform for DDM Inventory. For large networks, level 0 can also be used if performance is more important than fault tolerance. RAID level 5 is not supported.

Upgrading from Earlier Releases

For information about upgrading from earlier releases of DDM Inventory refer to the "Upgrade and Migration Scenarios" chapter in the *Installation and Initial Setup Guide*.

Enhancements and Fixes

The following items were added or fixed in the current software release. Table 2 lists enhancements to existing features or behavior. Table 3 lists problems that were fixed (identified by error tracking number).

Table 2 – Enhancements

Number	Location	Description
	Scanners	For each detected IP address, the scanner can detect DNS names separated by spaces in the `hwNICIPAddressDNSNames` field.
	XML Enricher	DDM Inventory introduced a new hardware-related field `hwRecognitionMethod` to specify what recognition method is used by the XML Enricher to conduct application recognition.
	Server	Trimmed database logs for the VMware discovery command to 10K as the content could exceed several megabytes in some cases.
QCRQ1C17706	Scanners	The Scanner can report LPAR, vPar, and nPartition flags and you can view them from Viewer > Hardware Data > Operating System Data > Virtual Machine Data > Virtual Machine Type.
QCRQ1C17707	Scanner Generator	Four new checkboxes have been added to Scanner Generator > Scanner Options > Miscellaneous. With these checkboxes, you can terminate the Scanner running in the Hyper-V, LPAR, vPar, or nPartition environments.
QCCR1C19107	Viewer	The Windows Viewer can show executable and archive type differences when comparing scan files.
QCCR1C20104	Solaris Scanner	The Scanner has been improved to correctly collect system serial numbers entered using the SNEEP utility.
QCCR1C20206	AIX Scanner	The Scanner has been improved to correctly collect AIX BIOS serial numbers.
QCCR1C20250	HP-UX Scanner	The Scanner has been improved to correctly retrieve serial numbers on some old HP-UX platforms.
QCCR1C29395	Reports > Network Documentation	DDM Inventory improved the CSV export performance in the reports: Device Inventory by UNSPSC, Device Inventory Summary, Device Inventory By Category, Device Inventory By Virtual LAN, and Port Inventory By Virtual LAN.
QCCR1C29621	Server > Device Manager > Diagnosis > Traceroute	The traceroute diagnosis now works correctly on non-English operating systems.

Number	Location	Description
QCCR1C29672	SAI Editor	The SAI Editor allows you to multi-select and multi-update the "relationship to application" when teaching unknown files.
QCCR1C31578	Server	The XML Enricher memory limit has been increased from 384MB to 512MB. This should prevent the XML Enricher from running out of memory when large SAI files are used.

Table 3 - Problems Fixed

Number	Location	Description
QCCR1C19089	Server	The schedule name correctly supports 255 characters.
QCCR1C19165	Server	Deleted devices no longer appear in the modeling queue.
QCCR1C19242	Server	Fixed premature log rolling (before the 20MB threshold) for the `discovery.log`.
QCCR1C19310	Server	The DDM Inventory server can correctly display the percentage sign (%) and slash (/) in VMware system names.
QCCR1C19588	Server	The device reconciliation logic can correctly handle all cases where VMware and scanner reported information needs to be merged into one device model.
QCCR1C29277	Server	The Discovery Engine will now filter out incoming VMware host models if all of the IP addresses listed in the model are outside of the configured IP ranges.
QCCR1C29328	Server	VMware discovery scheduling has been improved to avoid request collision.
QCCR1C29369	Applets	DDM Inventory will now show an error message, "Express teaching has not been configured", if you try to teach an application and the Express Teaching applet option is disabled.
QCCR1C29427	Server	When performing a level 3 data delete, the System Panel will now correctly close the status window that appears while the data is being deleted.
QCCR1C29606	Server	Isolated database corruption no longer occurs during product upgrade.
QCCR1C29884 QCCR1C30526	Scanners	The Scanner can scan directories that start with the tilde "~" character.
QCCR1C30280	SAI Editor	The SAI Editor can remember the size and location of the "Importing from Scanfile Comparison" window.
QCCR1C30299	Scanners	The Scanner can handle very long directory names.
QCCR1C30318	AIX Scanner	MAC Address detection has been improved to collect information when cards are disabled or not connected.

Number	Location	Description
QCCR1C30324	SAI Editor	The directory names will not be mixed up when teaching from scan file comparison.
QCCR1C30550	Server	DDM Inventory server no longer has problems importing events. The server used to run out of disk space due to such errors.
QCCR1C30596	Applets	The Find tool can find all devices if an IP address is associated with multiple devices.
QCCR1C30654	Documentation	The document now correctly states the most recent ODBC version.
QCCR1C30703	Server	DDM Inventory server can correctly monitor the Scheduler status.
QCCR1C30805	Server > Administration > Data Management > Agent download	The agents can be downloaded from the Web UI properly.
QCCR1C30865	Agent	The Windows Agent will properly run without memory or file handle leaks on Windows 2000 Advanced Server, Windows 2000 Server, and Windows 2000 Professional.
QCCR1C30886	Solaris Scanner	The Scanner can detect all of the package files.
QCCR1C30939	Server	Very low bandwidth settings no longer cause failures during file transfer in Agentless mode.
QCCR1C30954	HP-UX Scanner	The HP-UX Scanner will not hang if the `lanadmin` command hangs.
QCCR1C30956	Agentless	The custom location of the scanner is now correctly used when an Agentless scanning workflow runs on Windows.
QCCR1C30965	Windows Scanner	During the targeted directory scanning, if a shortcut points to an executable on the root of the C: drive, the Scanner can scan the entire C: drive.
QCCR1C30968	SPARC Solaris Scanner	The Scanner can detect the service level on Solaris 8 machines.
QCCR1C30970	Server > Administration > Data Management > Import device and port data	If you enter an invalid file name from Server > Administration > Data Management > Import device and port data, an error message shows "Invalid or non-existent filename entered". The "Browse" button becomes disabled.
QCCR1C30976	Web UI	The page navigation correctly appears on the Firefox 3.x.
QCCR1C31019	Solaris Scanner	The Scanner reports Solaris zone states correctly with Solaris 10 Update 7 or later.
QCCR1C31023	Server	After performing a level 1 delete, it is no longer necessary to restart the System Monitor before using the Express Teacher applet in the DDM Inventory interface.
QCCR1C31037	Server	Agentless scanning over SSH no longer fails if the SSH session does not start in `$HOME` as its current directory.

Number	Location	Description
QCCR1C31052	Scanners	Scanners on some platforms, such as HP-UX (ia64) and Solaris (SPARC), no longer crash when scanning some executable files.
QCCR1C31060	SAI Editor	The same font is used for the Installed Package and Version Data tree view headers.
QCCR1C31082	Windows Scanner	Windows scanners can detect the Itanium 2 CPU properly.
QCCR1C31119	Server	The device reconciliation mechanism has been improved to correctly handle Solaris zones models with multiple IP addresses.
QCCR1C31218	Server	When running VMware discovery on a VMware host or VirtualCenter, the network adapter information is processed properly. The VMware host is no longer deleted from the database mistakenly.
QCCR1C31221	Server	The XML Enricher no longer hangs when processing some scan files that have large sections of the `override.ini` data specified in the scanner parameters.
QCCR1C31223	HP-UX HPPA Scanner	Error code 6 no longer appears when saving offsite scan files to HTTP URL on HP-UX 11.11.
QCCR1C31302	AIX Scanner	The Scanner can detect multiple IP addresses on the same network card.
QCCR1C31499	Server > Administration > Discovery Configuration > Device Groups	When creating new device groups, the configuration UI will no longer display the values of previously edited profiles.
QCCR1C31581	Server	The incoming Call Home request does not cause fatal error any more if the scanning workflow is already in progress for the device.
QCCR1C31597	Linux Scanner	The Scanner can show the SCSI device labels correctly on computers with more than 26 devices.
QCCR1C31760	Server	The SNMPv3 protocol implementation has been made more robust against agents that can change their security parameters (`engineBoots` and `engineTime`) in an unexpected way (decrease engine boot count and/or engine time). This can also happen if several devices share the same `securityEngineID` for SNMPv3 agent implementation.
QCCR1C31849	Server	The Discovery Engine will suppress the generation of the error "No session available to talk to ACS".
QCCR1C31874	Windows Scanner	The `hwCPUSpeedRated` field is no longer populated when the scanner is running inside a Hyper-V virtual machine because the data in SMBIOS is not correct.

Number	Location	Description
QCCR1C31879	Agent	The agents can retrieve scan files from Czech Windows or other platforms using non-ASCII characters in the directory name. Non-ASCII characters are now handled properly by the agents.
QCCR1C31901	HP-UX Scanner	The scanner now populates the `hwOSServiceLevel` field with the service pack information.
QCCR1C31958	Server	The Discovery Engine will now use DNS names returned by VMware host modeling process. The name is used in the device title (default configuration).
QCCR1C31991	Server > Reports > Applications > By Application> Application Details	When you go to "Server > Reports > Applications > By Application" and click any application, the navigation link path correctly shows as "Server > Reports > Applications > By Application > Application Details".
QCCR1C32086	Server	If the incoming VMware host model cannot be reliably merged to any of the existing nodes, the Discovery Engine will now try to merge the new VMware host model into an IP-only node rather than creating a new node.
QCCR1C32125	Installer	Changed "Enterprise Discovery" to "DDM Inventory" in one of the installer screens.
QCCR1C32210	Hardware Definitions	The caption for the `hwsmbiosProcessorCharacteristics` hardware field has been corrected.
QCCR1C32322	Server	The Discovery Engine runs properly when the following two actions occur simultaneously: the scanner deployment workflow is running; and a new device is discovered with an IP address that already has been used as a preferred IP for another device in the database.
QCCR1C32377	Server	When running the VMware discovery process on a VirtualCenter that manages a large number of hosts, the Discovery Engine would close the VMware discovery session after 3 minutes if there was no response from the VirtualCenter. The timeout has now been increased to 15 minutes. This enables the VMware discovery process to complete in environments with a large number of VMware hosts.
QCCR1C32378	UNIX Scanner	The Scanner no longer hangs when scanning circular symbolic links.
QCCR1C32421	XML Enricher Analysis Tools	The XML Enricher and Analysis Tools no longer crash when processing some scan files containing version data rules.
QCCR1C32529	Viewer	Removing an application with rules no longer causes crashes in the SAI Editor when the rules tab is selected.
QCCR1C32614	Windows Scanner	The Scanner no longer leaves hidden, system, or read-only files in the TEMP directory when the local scan file saving is disabled and the off-site destination points to an FTP or HTTP server.

Number	Location	Description
QCCR1C32655	SAI Editor	The SAI Editor no longer hangs when creating a new release in an application that has both version data and installed package rules

Known Problems, Limitations, and Workarounds

Agents

- When the Agent is installed on Windows Vista machines using an account other than the "Administrator" account, the firewall exception is not added into the exceptions list (QCCR1C382).

- On Mac OS X 10.4.10 and above, there may be a problem with contacting the Agent because it can be blocked by a firewall. The Agent port needs to be enabled manually either via **System Preferences** > **Sharing** > **Firewall** or via the XServe administration tool in case of centralized administration (QCCR1C674).

Scanners

- In the Scanner Generator if a previously generated file is used to populate the Scanner Generator options and software scanning is disabled, the Scanner will still attempt to store any previously configured custom stored files (QCCR1C19042).

- Scanners may fail if the scanner log file is extremely large in size (QCCR1C20445).

- In some cases the `hwMonitorSerialNumber` collected by the Windows scanner may differ between previous versions of DDM Inventory and DDM Inventory 7.6x. (QCCR1C30340).

- If a domain controller is scanned and has an extremely large number of user profiles, the XML Enricher may take a long time to process the scan file (QCCR1C30571).

- In some cases the wrong registry key may be read when running the Scanner on a Windows XP 64-bit machine (QCCR1C30657).

- In some cases, the Scanner may not properly detect the number of cores on an Intel E5520 CPU (QCCR1C30814).

- The monitor serial number collected from some brands of monitors may not be correct (QCCR1C31570).

- In some cases an unmanaged device with more than one network card may fail to run the Scanner because of an upload error (QCCR1C32128).

- If the Solaris scanner runs inside a Solaris Local Zone, the CPU information for the Logical, Physical or Cores counts may not be correct (QCCR1C32454).

- The DNS field in the scan file that contains the DNS entry for the primary IP may not be detected on some UNIX machines if a DNS server is not configured (QCCR1C32533).

- The Linux scanner may fail and exit when run on SUSE Enterprise Desktop 9 update 4 (QCCR1C32691).

Analysis Workbench

- In **File > Load Options > Asset Fields > Add > Text File Extract > Options**, whenever the "Treat field as a File Name" option is selected, the "Replace invalid characters with" field must be populated as well, even if the "Delete invalid characters" option is selected instead. Otherwise, the "The file 'Replace invalid characters with' may not be empty" error dialog appears (QCCR1C1275).

- For files in the root directory, the leading slash is missing from the beginning of the UNIX directory structure in AW (QCCR1C1480).

- The Analysis Workbench sample script does not run on Windows 2008 because the default directories are not set correctly. The script works properly on all other supported platforms (QCCR1C19475).

Server Installation

- After uninstalling, the branding registry keys are left over (QCCR1C1434).

- Non-ASCII characters used in data directory path name can cause problems during the installation (QCCR1C16520 and QCCR1C1472).

- When uninstalling DDM Inventory on a small server, the uninstaller may not be able to stop the database. It may take several tries to uninstall the software (QCCR1C2405).

- DDM Inventory with a Network Topology license should not be installed on VMware (QCCR1C5271).

- The SNMP extension registry key may not be removed on some Windows 2008 server installations (QCCR1C29306).

- After a new installation, opening the SAI Editor for the first time may show a warning message (QCCR1C32445).

- If DDM Inventory is upgraded from a previous version, the certificate date may not be updated (QCCR1C32481).

Server

- In some cases, the ID assigned to the `auto.zsai` and the `user.zsai` files may be the same. This results in the inability to load both files into the client tools at the same time (QCCR1C4448).

- Older OpenSSL DLLs in the system PATH can affect the DDM Inventory Apache server and Perl engines (QCCR1C5447).

- If your server has another service using port 80, the HP Discovery Apache service will not run properly. As a workaround, you can comment out the "Listen 80" directive in the `httpdf.conf` file (QCCR1C6670).

- If there is a MySQL query that takes too long, DDM Inventory will not function properly and you may need to restart System Monitor to recover (QCCR1C7409).

- VMware discovery may, in some cases, use an incorrect IP address if the VMware image has been recently powered off (QCCR1C19379).

- Sometimes when logging into the DDM Inventory server, a pop-up window opens with the message "Jscript compilation error: Expected '}'". This problem occurs as a result of calling Java Applets from Internet Explorer (this issue does not seem to occur with Firefox). The problem is not specific to DDM Inventory and can be seen on various Web pages where Applets are present. Note that the pop-up window opens with this message only if the "Disable script debugging" option is enabled. Otherwise, if this option is enabled, only a warning icon (yellow triangle containing an exclamation mark) will appear on the left-side of the Internet Explorer taskbar when this problem occurs. This problem has occurred on both Internet Explorer version 6 and version 7 (QCCR1C19591).

- If a non administrative user logs into the Windows server, an error indicating that the `syspanel.log` file cannot be created may occur (QCCR1C20437).

- If agent and agentless scanning is enabled for a property group, in some cases installing and then uninstalling an agent may result in DDM Inventory not recognizing that a device has an agent on it (QCCR1C29364).

System Panel

- When there are multiple instances of the DDM Inventory System Panel running on the Server, only one of the System Panel instances will display Port Usage information (QCCR1C20409).

Web User Interface

- After an agentless scan (using SSH) has successfully been run, the account used for this connection cannot be changed unless the account from the DDM Inventory UI is deleted (QCCR1C19398).

Applets

- When upgrading, the applet may not recognize a new license until the server has been restarted (QCCR1C32483).

Administration

- Depending on the licenses, the "Resource/ Environment manage" option in Discovery Configuration may not have any effect (QCCR1C7034).

- In the Service Analyzer, device breaks may show up in the filter list for line breaks (QCCR1C18988).

- If the recognition type is set to Installed Applications, the `auto.zsai` file will not be created automatically (QCCR1C30353).

Web Asset Questionnaire

- In Internet Explorer, when connecting to the main page through a proxy server, the "You are connecting from" IP address reported will be the IP address of the proxy server not that of the remote computer address (QCCR1C764).

- The UI may show non-printable characters in text fields (QCCR1C2408).

Reports

- The **+** symbol in the Navigation Tree next to reports is missing. This does not affect functionality (QCCR1C18894).

- When using HP Client Automation Enterprise Reporting Server, some new CPU type may not be displayed correctly (QCCR1C19380).

- The Alarm summary of Collisions, Frame Relay FECN/BECN, DE Inventory reports and Device Load Average may report N\A instead of the correct values (QCCR1C29312).

Licensing

Alarms License

- Alarm-related items are not always hidden (QCCR1C5673).

Internationalization

- Various UI screens (reports, status reports, Device Manager, and so on) format the "day of the month" part of the date as Arabic numerals instead of using the language option configured by the operating system (QCCR1C416).

- When non-ASCII characters are used to define Schedules in the Discovery Configuration, the **Status** > **Current Settings** > **Discovery Configuration** may display errors when listing the Configuration Profile information (QCCR1C490).

- There are several problems with the SAI Editor accepting characters in the Korean code page (QCCR1C507, QCCR1C508).

- The statistics graphs do not use the language options configured in the operation system and will always format the dates in English (QCCR1C2043).

- SAI files with non-English names may appear incorrect when viewing them with the DDM Inventory web user interface (QCCR1C19372).

- If the name of a User zSAI file contains non-English characters, the XML Enricher may not be able to load that zSAI file (QCCR1C19402).

- Recognition rules written in non-English characters may not recognize all versions (QCCR1C19610).

- Some non-English locales may not report the total disk space correctly in some cases (QCCR1C19614).

- Virtual Machine names with non-English characters appear as invalid characters. (QCCR1C29618).