

HP Medical Archive solution

Software version: 8.1.1

software release notes

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Software release notes

Release: 8.1.1

Introduction

These release notes are intended to provide important details related to late changes and known issues that were not captured in product documentation.

Please read these notes carefully and keep on hand when installing, updating or maintaining the HP Medical Archive solution software.

This release introduces the HP Medical Archive solution version 4.1 (software version 8.1.1) with the following interconnected components and nodes:

- AW516A HP MAS V4.1 Virtual Gateway Node
- AW517A HP MAS V4.1 Virtual Gateway Node Upgrade kit
- AW518A HP MAS V4.1 SAN Storage Node
- AW519A HP MAS V4.1 SAN Ctrl Stor or Tape Node

Software Upgrade Path

There are two upgrade paths:

- From release 8.0.5 to release 8.1.1
- From release 7.5 to release 8.1.1

Customer sites running previous releases of 7.5 and 8.0 can be updated to the 8.1.1 release. Contact HP Support for update assistance.

SLES 10 Service Pack 2 Support

The HP Proliant DL380G6 server requires the installation of SLES10 SP2. This revision is supported in the DL380G6 and DL180G6 server platforms only.

Known Limitations

Foundation Node AP740A Expansion

At the current release, the expansion of the Foundation Nodes (AP740A) have known limitations which are subject to change at any point in the future. For current expansion options and limitations, please contact your HP MAS sales representative.

New Features for Release 8.1

- [High Capacity Admin Cluster](#) (page 4)
- [Metadata Replication](#) (page 4)
- [File Share Usage](#) (page 5)
- [Apply New ILM Policy to Existing Content](#) (page 5)
- [Configurable LDR and FSG Health Check Timeouts](#) (page 5)
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- [Support for IPv6](#) (page 6)
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High Capacity Admin Cluster

The number of services supported by a grid can be increased by installing a High Capacity Admin Cluster (HCAC) or by converting an existing Admin Node to an HCAC. An HCAC divides Admin Node processing between a reporting Admin Node and a processing Admin Node.

Metadata Replication

You can convert eligible existing grids to use metadata replication after the grid is updated to Release 8.1. Previously, only new grids could be configured to use metadata replication.

Metadata replication can now be used in grids that serve DICOM clients. Grids that use deduplication (and/or GE Optimized Store) require the use of metadata synchronization: they are not compatible with the use of metadata replication.

In a grid using metadata replication, a read-only CMS is now automatically read-write if 20% or more of its database space is freed. This may occur if database space is freed due to object purging, or during the conversion to metadata replication when all metadata locations in the grid are re-evaluated and redundant locations are purged.

File Share Usage

File System Gateway (FSG) file share usage information is available to monitor the amount of data being saved to FSG shares. This information is useful in determining storage utilization by each grid client. Quotas can be set to monitor the amount of data being saved.

Apply New ILM Policy to Existing Content

When updating the Information Lifecycle Management (ILM) policy for the grid, you can now select an option to apply the new ILM policy to all existing content in the grid as well as to all new content. You can track the progress of the resulting ILM re-evaluation in the NMS MI.

Configurable LDR and FSG Health Check Timeouts

It is now possible to configure Local Distribution Router (LDR) and File System Gateway (FSG) health check timeouts via the NMS MI. This permits you to adjust these parameters to prevent grid alarms due to a slow response from underlying storage hardware during normal maintenance activities on that hardware.

Incremental Service Packs

HP MAS service packs are now incremental: service pack CDs now include only the code for the service pack. When installing a service pack, only the changed software packages are updated.

Grid Deployment Utility

The Grid Deployment Utility (GDU) replaces the installation utility CIS (Centralized Installation Service). GDU offers the improvements over CIS since it can be used to:

- install the primary Admin Node during the initial installation of the grid
- reinstall grid hardware during the recovery of a grid node after failure
- install grid software for grid expansions

The installation scripts `glsetup.sh` and `postinstall.rb` are no longer required when installing the HP MAS software.

Support for IPv6

IPv6 is supported for external interfaces such as the Network Management System (NMS) Management Interface (MI), the HTTP API, and the external NTP sources. An IPv6 grid must use IPv6 for all external interfaces. For instance, you cannot use IPv6 for the IP address of the NMS MI and IPv4 for the NTP sources.

NOTE IPv6 support is only available for new installations. Existing grids updated to Release 8.1 cannot use IPv6.

CHRI Deprecated

The CHRI (Content Handle Release Inhibit) data protection setting is deprecated as of Release 8.1 and may be removed from a future release of the product. Do not create new FSG profiles that use the CHRI setting; instead design an ILM policy that purges content from the grid after it has been deleted by the FSG.

Data Migration Guidelines

Contact HP support for guidance on performing a migration of legacy data into the grid.

Improved Features for Release 8.1

This release includes the following improvements to existing features.


- [Security Partitioning](#) (page 7)
- [Custom Alarm Improvements](#) (page 7)
- [Gateway Node Startup and Failover Improvements](#) (page 8)
- [FSG Caching Priorities](#) (page 8)
- [Gateway Node File Shares Can Now Be Deleted](#) (page 8)
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Security Partitioning

HTTPS API clients can be now configured so that HTTPS API read-write access is limited to only content that the client has ingested into the grid. Previously content restrictions were limited to applications accessing the grid via Gateway Nodes. Audit messages have been updated to track client interactions using security partitions better.

Custom Alarm Improvements

The following improvements have been made to make it easier to manage custom alarms:

- Access information about current alarm levels while creating or updating a custom alarm. After adding a line in the custom alarm table for an attribute, you can click the **info**  button to display the help for that attribute.

- Find the disabled default alarms for the grid at Grid Management > NMS Management > Alarms > Custom. You can now use a filter to find them.

Gateway Node Startup and Failover Improvements

It is no longer necessary to shut down and start up the Gateway Nodes in a replication group in a particular order. Contact HP Support for information on manually reconciling session inconsistencies when necessary.

When a primary Gateway Node automatically fails over to a standby Gateway Node (in a High Availability Gateway Cluster) or is manually failed over from a primary Gateway Node to a secondary Gateway Node, a counter in the NMS management interface is now incremented. An alarm is no longer triggered on a cluster status of “failover”.

The primary Gateway Nodes in a High Availability Gateway Cluster can now be configured with zero or several heartbeat ping nodes on the customer network (instead of always having one ping node). When more than one ping node is configured, the active primary Gateway Node does not fail over unless it loses contact with all ping nodes. When zero ping nodes are configured, ping node functionality is disabled.

FSG Caching Priorities

It is now possible to create an File System Gateway (FSG) profile that has a caching priority of zero. Files that match the profile are swapped out of the FSG cache immediately, even if sufficient space remains in the cache. This setting can be useful for files that will not be retrieved immediately and for testing purposes.

Gateway Node File Shares Can Now Be Deleted

It is now possible to delete Network File System (NFS) or Common Internet File System (CIFS) file shares you created to permit clients to read or write files on a Gateway Node. Only empty file shares can be deleted.

Support for NTFS ACLs

Samba userspace NTFS ACLs are now supported for CIFS file shares on Gateway Nodes. contact HP Support for details.

Disable FSG Preloading

By default, preloading of cached objects to a secondary or supplementary FSG is disabled if that File System Gateway (FSG) is the one designated to perform backups. If you enable preloading for an FSG that performs backups, preloading is still automatically disabled while that FSG performs the backup.

You can also disallow preloading on specific FSGs via an option on the FSG > Storage > Configuration page. You should disable preloading on FSGs that are not used for data retrieval to reduce the load on the grid. In particular, it is mandatory to disable preloading on virtualized secondary FSGs.

Admin Node Recovery

For grids with more than one Admin Node, the recovery procedure for a failed Admin Node now includes steps to preserve historical data.

Improved CMN Attribute

The Configuration Management Node (CMN) now has an attribute (CMN > Identifiers > Status (BASS)) that indicates whether the CMN can currently issue object identifiers, and displays an alarm when the CMN cannot because it cannot contact a quorum of Administrative Domain Controllers (ADCs).

Improved LDR Attributes

The following improvements have been made to LDR attributes:

- It is now possible to individually disable replication of content to a specific LDR (Inbound Replication) and from a specific LDR (Outbound Replication). This can be useful during troubleshooting or maintenance.
- When an LDR becomes read-only, this state no longer triggers a replication status alarm. (Alarms remain on attributes related to the amount of storage available to an LDR to alert you to the need to purchase and install more storage.) Contact HP Support for instructions on removing alarms on a full LDR: after you are first notified of a full LDR, these alarms are no longer necessary. Operating with full LDRs is a normal condition for the grid.
- Storage capacity attribute Total Free Space (SUSA) on LDR > Storage has been added. It is the sum of the free space on the LDR's object stores.

Improved FSG Attributes

The following attributes have been added for the FSG:

- File Store Sessions (FSSE) and File Retrieve Sessions (FRSE) on FSG > Storage.
- These attributes help identify when the FSG is unable to create an HTTP connection to an LDR, for example because no suitable LDRs are online or because there is a network connectivity or configuration issue.
- Cache Status (FSCS) on FSG > Storage

- This attribute reports when the total available space on the FSG cache drops below the “Swapout No Create Watermark” (as defined under FSG Management > Settings) and the FSG disallows the creation of new files until enough files are swapped out for the free space to go back above the “Swapout Free Space Watermark”.
- Inodes Available (FSIA) and Percentage Inodes Available (FSIP) on FSG > Storage
- These attributes report the remaining object capacity on the FSG managed file system (where objects includes both files and directories). They can be used as an indication of when an FSG replication group is nearing capacity and a new FSG replication group should be added to the grid.
- Files Pending for Replication (FRPP) on FSG > Replication
- Reports the number of files on a secondary File System Gateway (FSG) that are not fully replicated, typically because the files are still pending for ingest on the active primary FSG. This attribute can be used to help identify when you must perform the FSG reconciliation maintenance procedure after the unplanned failover of an active primary FSG.

Audit Messages

By default all categories of Audit messages are captured at the “Normal” level of severity, to permit better tracking of system events via the audit logs.

Changes to HTTP API Integration

The CA certificate of the grid is now available from the NMS MI to help facilitate development of an HTTP API client application.

The HTTP API now supports the use of an X-Hash header which a client application can use to verify the integrity of stored data.

Updated Process for Changing IP Addresses

The procedure for changing the IP addresses of a server in the grid has been updated.

“Object Safety” Settings Enabled by Default

The following grid settings are now enabled by default:

- Dual Commit
- Dual Metadata Commit

These features create more than one copy of data and metadata at ingest. This protects data from loss in event of a failure before the grid has completed the full replication of data and metadata within the grid according to ILM rules.

Enhancements to Object Lookup

The object lookup feature (available in the NMS at CMN > Object Lookup) has been updated to return the name and location of the service (LDR or ARC) that includes an object location to make it easier to identify the object location. Previously locations were listed only by their node ID.

Removed Default Alarms

The following attributes no longer have default alarms:

- Incoming Sessions - Failed (HEIS)
- Inbound GETs - Failed (HEIG)
- Inbound HEADs - Failed (HEIH)
- Inbound POSTs - Failed (HEIT)
- Inbound PUTS - Failed (HEIP)
- Inbound DELETES - Failed (HEID)
- Inbound OPTIONS - Failed (HEIO)
- Incoming Sessions - Failed (CISF)
- Write Cache (VMWC)

Field experience has shown that these attributes seldom indicate a real problem with the grid so alarms on these attributes have been eliminated to reduce “nuisance” alarms.

Enabling HTTP API or DICOM Connections

When enabling a connection to the grid by an HTTP API client or a DICOM device, you now map clients to grid nodes in a particular link cost group within the grid. (Previously you configured the grid to accept connections from clients in a particular IP address range.)

NMS MI Improvements

The following improvements were made to the NMS management interface in Release 8.1:

- [Charting for Attributes in Tables](#) (page 12)
- [Charting for Grid Task Progress](#) (page 12)
- [Alarms for Attributes in Tables on System Status](#) (page 13)
- [Storage Watermarks](#) (page 13)
- [Monitoring Custom syslog Events](#) (page 13)
- [Monitoring NMS E-mail Notification Queues](#) (page 13)
- [Display Operating System Version](#) (page 13)[Display Service Status Messages](#) (page 13)
- [Display I/O Information About Disk Devices](#) (page 13)
- [Display Ports for Grid Access](#) (page 13)
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- [Names Are Now Linked](#) (page 14)
- [Ctrl-Click to Open Entire Grid Topology Tree](#) (page 14)
- [Updates to Text Reports](#) (page 14)

Charting for Attributes in Tables

It is now possible to chart selected attributes that appear in tables. These attributes are indicated by a chart button adjacent to the attribute value, as shown in [Figure 1](#).

Volumes









































Mount Point	Device	Status	Size	Space Available	Total Entries	Entries Available	Write Cache
/	sda1	Online  	5.29 GB	3.05 GB  	656,000	583,933  	Enabled  
/fsg	fsgvg-fsglv	Online  	22.5 GB	22.5 GB  	21,959,620	21,959,614  	Unknown  
/var/local	sda3	Online  	13.7 GB	12 GB  	1,703,936	1,701,570  	Enabled  
/var/local/mysql_ibdata	sdb1	Online  	19.9 GB	1.47 GB  	614,400	614,388  	Enabled  
/var/local/rangedb/0	sdb3	Online  	19.3 GB	19.2 GB  	593,920	593,357  	Enabled  

Figure 1 Chartable Attributes in a Table in the NMS MI

Charting for Grid Task Progress

It is now possible to chart the progress of a grid task to help estimate how long it will take to complete.

Alarms for Attributes in Tables on System Status

The System Status page of the NMS MI now displays an individual alarm for each attribute in a table row. Previously, the alarm shown on this page would be generic to the column heading. For example, if there is an alarm on the space available on a storage volume (see Figure1 above) the alarm on the System Status page will now be specific to the volume that is short on space.

Storage Watermarks

It is now possible to view and set storage watermarks using the NMS MI at Grid Management > Grid Configuration > Storage.

Monitoring Custom syslog Events

It is now possible to monitor particular syslog events in the NMS MI by creating a custom event to record each occurrence of the custom string that you configure using Grid Management > Grid Configuration > Events > Configuration.

Monitoring NMS E-mail Notification Queues

It is now possible to use the NMS MI to monitor whether e-mail notifications generated by the grid are reaching the e-mail server that you have configured to send them. See NMS > Interface Engine in the NMS MI.

Display Operating System Version

The NMS MI now displays the version of the operating system running on the server at SSM > Services.

Display Service Status Messages

The NMS MI now includes a listing of all low-level services running on each server on the SSM > Services > Overview page. This listing also includes information on their status and their load, thread allocation and memory allocation that can be valuable for troubleshooting purposes.

Display I/O Information About Disk Devices

The SSM > Resources > Overview page now lists a table of disk I/O information for all devices on a server, similar to the information provided by the `iostat` utility.

Display Ports for Grid Access

The port numbers configured for DICOM or HTTP access to the grid are now listed in the NMS MI at Grid Management > Grid Configuration > Storage page.

Test Notification E-mails

When you send a test notification e-mail from the NMS MI, it now identifies the NMS sending the e-mail, which is particularly useful in diagnosing issues in grids with more than one Admin Node or HCAC.

Names Are Now Linked

Within the NMS MI, when an attribute displays the name of a particular service (for example, the name and path to a particular FSG), the underlined name is a hyperlink to the Overview page for that service.

Ctrl-Click to Open Entire Grid Topology Tree

You can now use <Ctrl> click at any level of the grid topology tree to open or close all levels of the tree below the current level.

Updates to Text Reports

The following changes have been made to text reports:

- Text reports now include both the time that the attribute value last changed (Sample Time or Aggregate Time), and the time that the NMS last received a report of the value of the attribute (Time Received) to help clarify why you may see multiple entries in a report with the same values.
- You can now export text reports as a CSV file, using the Export button.

User Identified in NMS MI

The NMS MI now displays the name and user group of the user that is currently logged in at the top left of the screen.

Customize Admin Node Name

You can now customize the name of each Admin Node or High Capacity Admin Node Cluster (HCAC) as it appears in the NMS MI. In a grid with more than one Admin Node this makes it easier to identify which one is responsible for notifications.

Known Issues in 8.1.1

The following issues exist in all versions of 8.1 software release. Please review this list before reporting a new issue.

0020318: Storage Node Restore Procedure May Fail if System Drives and Some Object Stores are Corrupt

Description: There is an issue with the procedure to restore a Storage Node that has corrupt system drives and some corrupt object stores. This issue only occurs when the object stores that fail are the first object stores, or are in the “middle” of the list of object stores. For example, on a Storage Node with 6 object stores numbered from 0 to 5, the issue occurs if object stores 0 and 1 fail, or if object store 4 fails, but it does not occur if object stores 3,4, and 5 fail. In these cases, when you follow the documented recovery procedure you receive the “No rangedb directories exist” error message during the reinstallation of grid software on the failed Storage Node.

Workaround: See Engineering Advisory 196-0005 Storage Node Recovery.

0020312: Script load_cds.py Fails if ISO Files Exist in /var/local/install

Description: If the source ISO file already exists in /var/local/install, the load_cds.py script may attempt to copy a file where the source and destination have the same path. The source ISO file should be placed in /var/local/tmp.

Workaround: Place the source ISO file in /var/local/tmp.

0020296: Share Quotas Do Not Work on Upgraded System

Description: Share Quotas are not functional on a system that was upgraded from HP MAS 8.0 or 7.5.

Workaround: Importing an empty FSHR bundle will correct the problem.

0020294: Node in the NMS Appears Blue After a Failed Session Destroy Request

Description: Attribute source stayed disconnected from the relay after a failed session destroy request. This prevents the attribute source from connecting to any other relay.

Workaround: Restart the source or the relay to clear stale handles.

0020250: Provisioning Allows Removal of Revision 1 on Admin Node

Description: Removal of revision 1 should never be allowed because this will remove the CA certificate for the grid and invalidate any servers already installed. In addition there are configuration changes applied to the Admin Node when revision 1 is created the first time that are not properly re-applied (or removed) if revision 1 is removed and re-created.

Workaround: Reinstall the entire grid from the beginning of the installation process starting with the SLES 10 installation of the Admin Node.

0020218: Manual scp of ISO Files May Not Be Complete

Description: The documentation does not have a procedure to verify the integrity of ISO files that are manually SCP'd to another server.

Workaround: The operator should run `md5sum` on both servers to verify the integrity of the transfer.

0020195: The load-provisioning-software Script Undocumented Feature For Remote Upgrades

Description: The load-provisioning-software script requires the operator to insert a USB key at the appropriate time when the script executes the 'provision' script. This restricts the use of the script for remotely upgrading grids.

Workaround: The script has an undocumented option to specify a directory that should be passed to the 'provision' script. The `--alternate-usb-dir="directory"` option may be used to specify a directory that contains the contents of the provisioning USB. Using this option there is no prompt to insert a USB key.

0020129: Spurious Network Errors Reported

Description: The SLES10sp1 Broadcom driver may generate network errors. This may result in spurious network error alarms reported in the NMS.

Workaround: The NRER alarm may be turned off.

0020059: GDU Interface May Stop Updating Status

Description: On a large grid the server status display in GDU may stop updating.

Workaround: Execute the GDU task "Update Status" on the server that is stuck.

0019978: Names of Storage Grade Displayed Incorrectly in ILM Editor

Description: Storage grade names starting with 'group' are displayed incorrectly in the ILM editor.

0019976: IE6 Browser May Reset Connection When NMS Tree is Expanded

Description: On a very large grid the IE6 browser may reset the connection to the NMS when trying to fully expand the NMS tree.

Workaround: Upgrade to the IE7 web browser or only expand portions of the tree.

0019974: Script install-load-cd Reports 'HDIO_SET_DMA failed: Operation not permitted' error

Description: With certain hardware, the script `install-load-cd` may report a 'HDIO_SET_DMA failed: Operation not permitted' error. This error message can be ignored. Installation will proceed normally.

0019948: Add/Delete Buttons Do Not Work While Adding Second Global Custom Alarm

Description: When adding two global custom alarms to an empty global alarm list, the Add and Delete buttons are disabled on the second new row.

Workaround: Save the new alarms before trying to edit them, or add only one global custom alarm at a time.

0019864: Manual Installation Repeats the Prompt to Reboot

Description: During a manual installation, the `glsetup.sh` script may repeat the reboot prompt twice. Installation will proceed normally if you repeat the "y" answer.

Workaround: Re-enter **y**.

0019726: Text Reports Not Displayed if NMS Tree Has Not Been Selected

Description: Creating a text report of a summary attribute without first selecting the root of the NMS tree generates a report with no results. This only occurs immediately after login before any entity in the NMS tree has been selected.

0019689: Initial Execution of install-server-config Script Fails on Permission Denied Error

Description: The `install-server-config` script pushes a configuration file to all servers in the grid as part of the upgrade from 8.0 or 7.5. Sometimes this script will fail with permission denied errors.

Workaround: The script will succeed if it is run a second time.

0019665: Node Fails to Start Due To Thread Deadlock if Audit Disk Queue is Too Large

Description: If audit messages cannot be immediately forwarded to an audit relay or repository, the messages are stored in a disk queue. In rare cases, the disk queue may be large enough to cause a thread deadlock when the node starts.

Workaround: Contact Support for assistance.

0019608: Restarting a Failed Upgrade on the Admin Node may Fail

Description: If the upgrade of an Admin Node fails after some packages have been successfully installed, it may not be possible to re-run the upgrade script.

Workaround: Contact Support for assistance.

0019604: Public IP Address May Not Fail Back to DFSG After Recovery

Description: When a Gateway Node fails in a DFSG cluster, CTDB will transfer its public IP address to another Gateway Node in the cluster. When the original Gateway Node is restored, CTDB may not move the public IP back to the original Gateway Node as it should.

Workaround: To restore the public IP address back to the recovered Gateway Node, restart CTDB on the Gateway Node with multiple IP addresses.

0019593: Decommissioned Servers Host Keys and Hostnames

Description: The decommissioning procedures do not include steps to remove the host keys and hostname of the decommissioned server from the `ssh_known_hosts` and `hosts` on the primary Admin Node. If the IP address of the decommissioned server is re-used at a later date there will be a conflict.

Workaround: After the server has been removed from grid, edit the `/etc/ssh/ssh_known_hosts` file and remove the host key for the decommissioned server. Edit the `/etc/hosts` file and remove the host IP address and hostname of the decommissioned server.

0019587: GDU Does Not Indicate when a Remote Server Hangs

Description: If a remote server hangs while executing a task there is no indication of this in the GDU interface. GDU will not quit gracefully when in this state and must be forced to quit: press **CTRL-Z** and then enter **killall gdu-console**.

0019505: Multiple Scripts May Access GPT Repository Simultaneously

Description: The scripts that access the GPT repository on the primary Admin Node do not prevent multiple accesses. The following commands should not be run concurrently:

- `provision remove-revision`
- `backup-to-usb-key`
- `restore-from-usb-key`
- `upgrade-provision`
- `copy-grid-spec`
- `get-server-config`
- `change-repository-password`
- `convert-https-to-http`
- `convert-http-to-https import-gptb-bundle`

0019471: Force Partitioning Option in `glsetup.sh` Does Nothing

Description: The `glsetup.sh` script help lists a `--force-partitioning` option for use with the `mpio` driver. The functionality for this option was removed from the script but the option was not removed from the help list. This option is not required in any documented procedures.

Workaround: Ignore the `--force-partitioning` option.

0019246: The Object Lookup Tool Rejects Identifiers with White Space

Description: When entering an object identifier at `CMN > Object Lookup > Configuration` in the NMS MI, remove all leading and trailing white space. If you do not, the object lookup fails as the identifier does not pass NMS input validation.

Workaround: Do not enter extra spaces before or after object identifiers.

0018992: Heartbeat May Get Stuck in Endless Election until Restarted

Description: On a Gateway where there are hardware failures heartbeat may get stuck in an endless election. On the gateway nodes that did not fail heartbeat will use all available CPU and fill the `ha.log` file with `do_election_check` messages.

Workaround: Restart the Cluster.

0018981: After Installation Alarms May Appear at Service Level Instead of Component Level

Description: The very first time a node is started its possible that alarms will be associated with the service level if the alarm occurs on an attribute that does not exist in the default components. When service registers the correct model for the component level attributes the alarm may remain at the service level rather than appear at the component level.

Workaround: Restarting the affected node will correct the alarms.

0018975: IPv4 Addresses Must Be Proper Form Without Leading '0' Digits

Description: Specifying an IP address with a leading '0' digit in any of the octets is not a valid form. The `config_nfs.rb` script does not validate or strip out leading '0' digits so an invalid form may be accepted although the configuration will not be functional.

Workaround: Re-enter the IP address with the correct form, for instance entering 172.19.113.54 instead of 172.19.113.054 will correct the problem.

0018893: Storage Pool Changes Take Affect Only After New ILM is Applied

Description: Storage pools in the ILM editor are not versioned the way ILM rules are versioned. As with changes to ILM rules, changes to a storage pool require the ILM to be applied for the changes to take affect. Because there are no version numbers on storage pools it is not clear when a storage pool change has been made but not applied.

0018852: SLES May Add Extra Persistent Naming Rules

Description: On rare occasions the SLES installer may create an extra persistent naming rule for a network interface card in `/etc/udev/rules.d/30-net_persistent_names.rules`.

Workaround: The `nic_reorder.py` tool can be used to reset the persistent naming configuration.

0018790: Replication Outbound Attribute Not Incremented on Retrieval from Archive

Description: When restoring a failed Storage Node from locations on an Archive Node, the Outbound Replication attributes on the Archive Node are not updated.

0018652: Duplicate Extension OIDs in Certificates May Violate X509 Standard

Description: The HP MAS node certificates have multiple extensions (for the node ID, IP address, etc.) all with the same OID, 1.2.62.79.63. This may be interpreted as a violation of the X509v3 standard according to RFC 3280. It is possible that some third party libraries may reject node certificates when interfacing with the HP MAS HTTP API.

0018462: High Availability Gateway Node Failover

Description: A cluster may not fail over to the Standby Gateway Node if the system drive fails on the Active Gateway Node, as the heartbeat service may not detect the failure.

Workaround: Contact HP Support for assistance.

0018454: Rows May Not Be Saved in Correct Order

Description: Always check the final result after you change the position of rows in a table, particularly when you change the order of rows back and forth before selecting Apply Changes. In some cases, what is saved may not be the final configuration of rows.

0018453: Browser Back Button Displays Wrong Content

Description: If you press the Back button while editing a page under the Grid Management menu (such as Account Management), the wrong content may be displayed. Use the controls in the NMS MI to navigate.

0018451: FSG Groups Not Updated in NMS Tree After Expansion

Description: After an expansion, the new FSG replication groups are not updated in the NMS tree.

Workaround: To display the groups properly perform the following options:

- Refresh the tree region or the page.
- or —
- Log out of the NMS and log in again.

0018445: SSM Updates Write Cache Status Only on Start

Description: The Write Cache status shown in the Volumes table of the NMS MI at SSM > Resources > Overview is only updated when the SSM is started or restarted; it is not dynamically updated when the status of the Write Cache changes.

0018438: Gateway returns no space error when attempting to store a large file

Description: A gateway may return a no-space error (ENOSPC) to the client if a very large file is stored when there are many small files in the gateway cache.

Workaround: Adjust the watermarks on ingest profile for large files.

0018381: DICOM Profiles Validate Only Against Existing Entries

Description: When entering new entries in the DICOM Profiles page, the input validation will only validate uniqueness against existing entries. Two identical entries can be entered at the same time without being flagged as invalid.

Workaround: It is recommended that profiles be added one at a time.

0018380: Secondary Gateway Nodes May Reference Deleted Content

Description: When a file is deleted on a primary gateway, the object may be removed from the grid before the reference to the object is removed from the secondary gateways.

0018379: Global Custom Alarm Add (+) Button is Disabled

Description: If the global custom alarm list is empty, the add (+) button is disabled but is not grayed out. Click the Edit button to add the first global custom alarm.

HP MAS Software Version 8.1.1 Interoperability Matrix

For the latest Interoperability matrix go to <http://h20272.www2.hp.com/>

HP MEDICAL ARCHIVE SOLUTION (HPMAS) CONNECTIVITY
HPMAS 4.1 (SW 8.1.1) – Last Updated: 110609
Platform Support

HP Proliant 32 bit – Intel based Processors

DL180 G6 (Admin/Gateway Node, Gateway Node, Control Node, Storage Node, Control/Storage Node, Foundation Node)
DL380 G6 (SAN Node, SAN Combo Node, Tape Node, Virtual Secondary Gateway Node)

Drivers		Firmware				
QLogic	8.01.07.25.02	NC382T	2.2.1	DL180 G6 BIOS	2009.07.28	
bnx2	1.7.6b-1	E200	1.98	DL180 G6 Bkpln	2.06	
cciss	3.6.20-22	P212/P410	1.66	DL320s	8.4	
e1000	0.4.1.12-3	P400	6.86	DL320s Bkpln	1.24	
igb	1.3.23-4	P6400	2.84	DL380 G4	P51	
netxtreme2	4.8.22-2	P6i	2.84	DL380 G5	P56	
tg3	3.98e-3	MSA20	2.08	DL360 G5	P58	
		MSA60	2.18	DL360 G5	P58	
		df0146B8052	HPD5 Seagate	DF146BABCFF	HPD6	Seagate
		df0450B8054	HPD5 Seagate	GB1000EAFJL	HPGA	Seagate
		df0300B8053	HPD5 Seagate	df0450BAERH	HPD3	Seagate
		GB0500EAFYL	HPG1 Wstrn Digtl	DB1000BABFF	HPD5	Seagate
		GB1000EAMYC	HPG2 Wstrn Digtl			

Operating System / File System Support

SuSE Linux

SLES 10 Service Pack 1 (Supported on HP MAS Virtual GN and all HP MAS 3.5 nodes or earlier)

SLES 10 Service Pack 2 (Supported on DL180 G6 & DL380 G6 servers ONLY)

Note: SP1 to SP2 Upgrade is NOT supported on existing servers in a running grid

File System Access (Windows and Linux only)

Windows 2000/2003/2008

Remote access to HPMAS partition via
CIFS (Windows shares)

*Note: Windows 2008 is only supported with SAMBA version
3.0.32-0.2.133.PTF.414800.0 (NOT required for HP MAS 4.1)*

Linux

Remote access to HPMAS partition via
NFS and CIFS

Supported Disk Storage / Enclosures

- The D1010 Tape Storage Node for HP MAS is a HP HBA agnostic solution which uses the NC382T for network connectivity
- Verify proper HP HBA by using the HP STREAMS documents for HP Storage or HP Server recommendations

DISK

Internal MDL SAS (1TB)
Internal SAS (72GB, 146GB, 300GB, 450GB)

DISK ENCLOSURE

MSA 60
EVA 3000/5000, 4000/6000/8000, 4100/6100/8100
XP 1024/128, 12000/10000, 24000/20000

Multipathing / SAN Connect (EVA, XP series)

Applications

HP System Insight Manager 5.03.01
 HP ProLiant Support Pack 8.25
 HP Network Node Manager 7.53
 VMware ESXi 3.5 Update 1 (NOT Supported on the DL380 G6)
 VMware ESXi 3.5 Update 4 (ONLY Supported on the DL380 G6)
 IBM TSM Server 5.3 to 5.5
 IBM TSM Client 5.5 to 6.1 (6.1 requires TSM Server 5.5)
 Windows 2003 / 2008 Active Directory
 NFS v2, v3
 Adapter for Siemens *syngo* PACS (1.4.0 for *syngo* VB35 / 1.3.0 for *syngo* VB25 to VB30)

HP MAS software version 8.1.1 Service Version Numbers

Table 1 HP MAS software version 8.1.1 Service Version Numbers

Service	HPMAS 8.1.0	HPMAS 8.1.1
Management Interface	5.0.0	5.0.0
SSM	4.14.0	4.14.1
Admin Node		
NMS	4.14.0	4.14.1
AMS	4.14.0	4.14.1
CMN	4.14.0	4.14.1
Storage Node		
LDR	4.14.0	4.14.1
Archive Node		
ARC	4.14.0	4.14.1
Control Node		
ADC	4.14.0	4.14.1
CMS	1.18.0	1.18.1
Gateway Node		
CLB	4.14.0	4.14.1
FSG	4.14.0	4.14.1

