HP Universal CMDB

Software Version: Content Pack 17.00 (CP17)

Release Notes for HP UCMDB/Universal Discovery Content Pack 17

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Document Changes

Version	Changes
CP17 (2nd Edition, October 15, 2015)	- Added QCCR1H102182 to the *Enhancement Requests* section - Added a doc errata entry about the incorrect version number displayed on the cover page of PDF manuals included in the CP17 help set - Added a documentation errata entry about the Generic Database Adapter not supporting DB2

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Contents

HP UCMDB Content Pack Release Notes

This document provides information about HP Universal CMDB (UCMDB) and Universal Discovery (UD) Content Pack 17.

Important Notes – CMS Content Pack Release Strategy Change

Dear Valued CMS Customer,

Starting with the release of UCMDB/UD Content Pack 17, we are making changes to our CMS content pack release strategy:

- CMS Content Packs will be moving to quarterly release schedule going forward to allow a more agile delivery mechanism for addressing customer needs and adding new functionality.

- Content Packs will be Backward Compatible with the latest minor-minor releases of the immediately preceding last three major/minor releases after UCMDB version 10.11. For example, Content Pack 17 is compatible with UCMDB versions 10.21 and 10.11.

- Content Packs will be Forward Compatible with the next minor-minor or minor/major release. For example, CP17 will be compatible with the next available minor-minor release of UCMDB.

- Content Packs Updates will be issued only for critical issues.

- Discovery Knowledge Packs containing the Normalization Rules and Software Application Index (SAI) SAI Libraries will continue with the existing monthly release schedule.

On behalf of HP CMS Product Management, R&D, and Support, we sincerely appreciate you as a CMS customer and value your feedback. We're excited to implement this new format aimed at helping our customers to stay current with the latest content more easily.

Thank you very much,

The HP Configuration Management System (CMS) Team

What's New in Content Pack 17

This section provides information about new features and enhancements to Content Pack 17.

Discovered Operating Systems

Added support for discovery and inventory (including agent support) for the following operating system:

- Microsoft Windows 10

> **Note:** Support for Microsoft Windows 10 requires UCMDB 10.21 CUP1.

Discovered Applications

Added support for discovering the following applications:

- Microsoft Active Directory 2012 and 2012 R2

- Microsoft Exchange Server 2013

- Microsoft Network Load Balancer 2012 and 2012 R2

- Microsoft SharePoint 2013

- Oracle WebLogic 12c

- SAP Sybase 16

Virtualization Discovery

Added support for VMware ESXi 6.0 and VMware vCenter 6.0.

New Discovery

- Added support for the Citrix NetScaler discovery.

- Added support for discovering the IBM PureFlex Systems using the Flex System Manager (FSM).

Service Manager Adapters in This Release

The following Service Manager adapters are available with Content Pack 17 for the supported product versions as listed in the table below.

UCMDB	SC6.2	SM7.1x	SM9.2x	SM9.3x	SM9.40	SM9.41
10.1x	ServiceManager Adapter-install.zip			Service Manager Adapter 9-x.zip	ServiceManager Adapter9-x.zip	ServiceManager Adapter9-41.zip
10.21					- ServiceManager Adapter9-x.zip - ServiceManager Enhancement-x.zip	- ServiceManager Adapter9-41.zip - ServiceManager EnhancedAdapter 9-41.zip

Automated Service Modeling (ASM) Support for Service Manager 9.41

ASM support is available for Service Manager 9.41 only. Each Service Manager 9.41 adapter in CP 17 provides an ASM TQL query, which enables the UCMDB-SM integration to push ASM discovered consumer-provider relationships from UCMDB to Service Manager. Be aware that only consumer-provider relationships that directly point from a Business Element CI to a Running Software CI can be pushed; the adapters currently do not support ASM discovered consumer-provider relationships between a Business Element CI and a Cluster CI.

Additionally, you can tailor Service Manager 9.41 so that Service Manager users can launch the Service Modeling module and the Risk Simulation widget of the UCMDB Browser, in the context of a Business Service and an affected CI, respectively. Such tailoring enables Service Manager users to view the UCMDB Browser discovered tree structure of a business service and the risk analysis results for different severity levels of a CI. This can facilitate service modeling and risk analysis in Service Manager.

For more information about the integration with Service Manager, see the Universal CMDB integration guides for Service Manager 9.41. You can download the guides from the following HP Software Support Online (SSO) page: Service Manager 9.3x and 9.4x Document Matrix

For more information about ASM, see ASM Documents.

Other

- The **NetApp Filer by WebServices** and **Storage Devices Topology by CIM** jobs now support the discovery of iSCSI Adapter, Fibre Channel HBA, Fibre Channel Port, Disk CIs and relationships.

- Enhanced the MS Cluster plug-in (for both the **Host Applications by Shell** job and the **Host Applications by PowerShell** job) and the **MS Cluster by NTCMD or UDA** job to support the MS Cluster discovery on Windows Server 2012 and 2012 R2.

- Enhanced the **VMware vCenter Topology by VIM** and **VMware ESX Topology by VIM** jobs to create the Layer2Connection relationship between VMware virtual switches and the remote physical Net Device.

- The **VMware vCenter Topology by VIM** job can now discover Disk Devices and report the dependency relationship to LogicalVolume.

System Requirements

- CP 17 can be installed on:

  - UCMDB 10.11 CUP4 (or a later CUP)

  - UCMDB 10.21 (or with a CUP on top of 10.21)

- You must install UCMDB 10.11 CUP4 (or a later CUP), or 10.21 (or with a CUP on top of 10.21) before installing CP 17.

Important Note:

- Before you deploy CP 17.00 on top of version 10.21, you must install version 10.21 on the UCMDB, UD, and CM servers, and deploy version 10.21 Data Flow Probes. Do not deploy Content Pack 17.00 while you are still updating the Data Flow Probes.

- Before you deploy CP 17.00 on top of version 10.11, you must install 10.11 CUP 4 (or a later CUP) on the UCMDB, UD, and CM servers, and deploy version 10.11 Data Flow Probes. Do not deploy Content Pack 17.00 while you are still updating the Data Flow Probes.

For a complete list of system requirements, see the *HP Universal CMDB Support Matrix* document available from the UCMDB Online Help home page.

Content Pack Installation

The following procedure explains how to install Content Pack 17.00 for HP Universal CMDB.

> **Note:** Rolling back the installation is not supported as it can lead to system inconsistencies. If you are upgrading from earlier versions of the content pack, it is strongly recommended to ensure that you have backed up your database.

1. **Prerequisites**

   ○ The UCMDB Server must be running when you install the Content Pack.

   ○ During installation, Setup may restart the Probe to load the new content jar file.

   ○ Back up your database.

   > **Note:** If you have deployed the **ASM_Enhanced.zip** package, delete all Service Connection Point CIs and undeploy the package before you proceed with the installation.

2. **Retrieve the Content Pack 17.00 ZIP file**

   The name of the installation file is **CP17_installation.zip**. This file is located on the HP Live Network Web site (https://hpln.hp.com/).

   The ZIP file contains the following resources:

   ○ Packages

   ○ Online help

   ○ The *HP Universal CMDB Discovery and Integration Content Guide* PDF files.

   ○ Permissions.pdf

3. **Extract packages from the Content Pack 17.00 ZIP file**

   Unpack the contents of the ZIP file to **C:\hp\UCMDB\UCMDBServer**.

4. **Back up existing packages**

    a. Launch a Web browser and enter the following address:

       http://<FQDN or IP address>:8080/jmx-console

       where **<FQDN or IP address>** is the machine on which UCMDB is installed. Log in using the JMX console authentication credentials.

    b. Click the **UCMDB:service=Packaging Services** link.

    c. In the JMX MBEAN View page, locate the following JMX function: **exportPackages ()**.

       - In the **customerID** field, enter **1**.

       - In the **packagesNames** field, leave this field empty to export all packages.

       - In the **outputDir** field, enter the full path to a directory where UCMDB should place the backed-up packages, for example, **C:\hp\UCMDB\UCMDBServer\content\my_packages_backup**. The directory is created automatically.

       - In the **userOnly** field, select **False** to export all packages (and not only the user-created packages).

    d. Click **Invoke**.

    e. Verify that all relevant packages have been backed up to the folder mentioned in the previous step, and that there are no errors in the **mam.packaging.log** file, located in **hp\UCMDB\UCMDBServer\runtime\log**.

5. Install Content Pack 17.00

    You can install the Content Pack from the HP Universal CMDB user interface or using the JMX Console.

    From HP Universal CMDB:

    a. Log in to the UCMDB.

    b. Access the **Package Manager (Administration > Package Manager).**

    c. On the toolbar, click the **Install Content Pack** button.

    d. In the Install Content Pack dialog box that opens, select the required version of the Content Pack and click **Install**.

Using the UCMDB JMX Console:

    a. Log in to the UCMDB JMX-Console (**<ucmdb-server>:8080/jmx-console**).

    b. Open **UCMDB > Content Pack Services.**

    c. Invoke **displayAvailableContentPackVersions** to see available versions of the Content Pack.

    d. Enter the required version in the version field, and invoke **installContentPack**.

6. **Verify installation**

    Verify that there are no errors in the **mam.packaging.log** file, located in **hp\UCMDB\UCMDBServer\runtime\log**.

7. If you are installing the Content Pack on a High Availability system, copy all files from the following folder on the active UCMDB server to the same folder on the passive UCMDB server: **C:\hp\UCMDB\UCMDBServer\runtime\fcmdb\CodeBase**.

Discovery Knowledge Content

Starting from April 2015 to ensure more regular updates to the Normalization Rules and Software Application Index (SAI), the new Inventory Discovery Knowledge Packs are introduced on a monthly schedule.

Normalization Rules contain information to identify hardware devices in your environment. Normalization Rules determine the device's operating system, application, device family, and model. Then, the Normalization Rules Engine assigns a device type to your device model.

SAI files contain information to identify applications on a discovered node. Universal Discovery employs a number of installed software application recognition techniques, including file-based recognition, version data, and installed package rule-based recognition. The data that is required for this recognition to work is stored in the application library files (SAI).

For details about Normalization Rules and SAI Updates, see *HP UCMDB Inventory Discovery Knowledge Pack Release Notes* available at https://hpln.hp.com/node/11274/contentfiles/?dir=24326.

Recently released content that is currently included in this version of Universal Discovery can be found on the Universal Discovery Community (https://hpln.hp.com//group/universal-discovery/) website on the HP Live Network.

> **Note:** You need an HP Passport user name and password to log in to this site.

Accessing Content Pack Documentation

To read the latest versions of the relevant documents, access the following URLs:

- **<http://SERVER_NAME:PORT/ucmdb-ui>/docs/DDMContent.jsp** – Discovery and Integration Content Guide

- **<http://SERVER_NAME:PORT/ucmdb-ui>/docs/permissions.jsp** – the Permissions document

Known Issues, Limitations, and Workarounds

Content Pack Installation

PROBLEM: If you have deployed the **ASM_Enhanced.zip** package before installing Content Pack (CP) 17, you may see the following error message in the Status Report: "`ASM_Enhanced.zip: Package operation has failed`".

Workaround: To avoid this error message, do the following:

1. Delete all CIs of the Service Connection Point CI type.

2. Undeploy the **ASM_Enhanced.zip** package.

3. Install CP 17.

Content Pack Upgrade

PROBLEM: When upgrading the Content Pack (CP), if the old CIM driver is not removed, the new CIM driver that is introduced in the new CP will not take effect, causing the Storage Management Initiative Specification (SMI-S) discovery jobs that need the new driver to fail.

Workaround: Manually remove the **sblim-cim-client.jar** file from the **<DataFlowProbe installation folder>\content\lib** directory.

Universal Discovery - General

LIMITATION: CP 17 does not contain the latest MindTerm jar file (**mindterm-4.1.5.jar**), which is provided by UCMDB 10.20 and later versions.

Workaround: If you are using UCMDB 10.11 and want to upgrade your MindTerm from version 4.0beta6 to 4.1.5, go to the following location and download the hotfix: https://patch-hub.corp.hp.com/crypt-web/protected/viewContent.do?patchId=QCCR1H90627.

Universal Discovery - Content

PROBLEM: (**db2_ipse_only** trigger query only) The **DB2 Universal Database Connection by SQL** job returns "No credentials defined for the triggered IP" error. The triggered CIs that are triggered by the **db2_ipse_only** trigger query have no associated database instance, which is required to establish a connection. Then the job will get a database name from the DB2 credential. When no database name is defined in the DB2 credential, the job returns the error. (QCCR1H99802)

Workaround: When using the **db2_ipse_only** trigger query, it requires a database name in the DB2 credential. Make sure you define a database name in the DB2 credential.

PROBLEM: When running the **Mainframe topology by SNMP** job and the Mainframe by EView discovery jobs, the zOS and Mainframe Logical Partition CI types that are discovered get merged. (QCCR1H97603)

Workaround: Do not use the **Mainframe topology by SNMP** job when you run the Mainframe by EView discovery jobs. If you have run the Mainframe topology by SNMP discovery before installing the EView mainframe agent, HP recommends you to deactivate this discovery and delete any CIs that are created by this discovery.

LIMITATION: Child CIs are no longer included in reconciliation rules when considering identification for Business Applications. An optional identifier based on the ID (App_ID) can be used to uniquely identify each Business Application CI. Business Applications that are synced from external sources must have a unique name or ID in order to be included during data synchronization. Note that multiple Business Applications with the same name and no ID will not be synchronized.

Additional CI types for which child CIs are no longer included in reconciliation rules are Business Process, Business Service, CI Collection, Business Transaction Flow, and Dynamic Node Group. No optional identifier can be specified for these CI types.

Workaround: None.

LIMITATION: Data population into UCMDB using ServiceNow integration jobs fail because a package called "suds" is missing.

Workaround: To fix this issue, download and install a patch on the Data Flow Probe to supply the missing package as follows:

1. Download the **ServiceNow_pull_integration_patch.zip** file from the **<UCMDB_installation_ folder>\DataFlowProbe\runtime\probeManager\discoveryResources\ Service-Now-Pull** folder.

2. Extract the patch archive into the Data Flow Probe's installation folder. As a result, the **<Probe_ installation_folder>/jython/suds** folder is created, and two files (**<Probe_installation_ folder>/jython/httplib.py** and **<Probe_installation_folder>/jython/ urllib2.py** are updated. You do not need to restart the Data Flow Probe.

LIMITATION: The **vCloud Director by vCloud API** and **vCloud Director URL by vCloud API** jobs do not automatically discover VMware vCloud, because the **httpcore.jar** and **httpclient.jar** files no longer exist in the **<Probe>/content/lib** folder.

Workaround: To fix this issue, copy the **httpcore.jar** and **httpclient.jar** files from the **<Probe>/discoveryResources/http** folder to the **<Probe>/content/lib** folder.

FIPS Mode

LIMITATION: In FIPS mode, the **Host Connection by Shell** job does not work on the Red Hat Enterprise Linux 3 platform. (QCCR1H100743)

Workaround: None.

LIMITATION: When the FIPS mode is on, the Universal Discovery Agent cannot start on the non-FIPS compliant HP-UX HPPA platform. Therefore, the FIPS mode for the Universal Discovery Agent is turned off in order to run the Universal Discovery Agent on the HP-UX HPPA platform. (QCCR1H100684)

Workaround: None.

Inventory Discovery

PROBLEM: When setting the **enableSSHSharedHomeDir** parameter to **true**, running the agentless **Inventory Discovery by Scanner** job fails on Linux platforms. (QCCR1H100769)

Workaround: To run the agentless **Inventory Discovery by Scanner** job successfully on Linux platforms,

1. On your Linux instance, locate and open the **/etc/exports** file.

2. Add the **no_root_squash** parameter to the shared directory information.

   For example, if you have the following line in the file:

   ```
   /home  *(rw)
   ```
   where /home is shared directory, * means that everyone has access to it.

   Then, add **no_root_squash** into the line as follows:

   ```
   /home  *(rw,no_root_squash)
   ```

3. Save the change.

Service Manager Integration Known Issues and Limitations

Global ID	Description	Workaround
QCCR1E118141	Cannot disable a field that does not have a mapping entry configured in the federation configuration file (smFedConf.xml).	None
QCCR1E119726	Structure fields are not supported for pushing CIs from UCMDB to Service Manager.	None
QCCR1E119141	The 'Ignore on null' option is not supported for data push from UCMDB to Service Manager.	None
QCCR1E117760	The Visual Mapping tool is not disabled for some out-of-the-box XML mapping scripts in which the external class cannot be displayed in the External Class Model pane. Such out-of-the-box mapping scripts include:	None

Global ID	Description	Workaround
	• CLIP Downtime Population mapping script • Relationship push and population mapping scripts • Federation mapping scripts	
QCCR1E118871	If a TQL query has different exposed fields for the child CI types of the root, the Visual Mapping tool cannot display all of the exposed fields. As a result, you cannot configure mapping for fields that are not displayed by using a drag and drop in the Visual Mapping interface.	Configure mapping for the fields directly in the XML editor. Alternatively, split the query into multiple ones and then use the Visual Mapping tool.
QCCR1E119548	CI relationship deletions cannot be synchronized to UCMDB through population.	

Enhancement Requests

This release includes the following enhancement type fixes.

Global ID	Problem	Solution
QCCR1H69493	This is a request to add the Citrix NetScaler discovery.	Added support for the Citrix NetScaler discovery.
QCCR1H87593	This is a request to create a Relationship CI type between File Systems and Storage Arrays (or logical volumes).	The **NetApp Filer by WebServices** and **Storage Devices Topology by CIM** jobs now support the discovery of iSCSI Adapter, Fibre Channel HBA, Fibre Channel Port, Disk CIs and relationships.
QCCR1H87717	Slaves switches in a Cisco 3750 stacked switch setup do not show up in UCMDB when the master switch is discovered by SNMP.	Added support for stacked switches reporting.
QCCR1H87867	This is a request for the **MS Cluster by NTCMD or UDA** job to support for Windows Server 2012 and 2012 R2.	Enhanced the MS Cluster plug-in (for both the **Host Applications by Shell** job and the **Host Applications by PowerShell** job) and the **MS Cluster by NTCMD or UDA** job to support the MS Cluster discovery on Windows Server 2012 and 2012 R2.
QCCR1H91536	This is a request to add the IBM Flex System Manager (FSM) discovery.	Added support for discovering the IBM PureFlex Systems using the Flex System Manager (FSM).

Global ID	Problem	Solution
QCCR1H95477	This is a request to discover the **logical_cpu_count** attribute using VMware Discovery for ESX hosts.	The **logical_cpu_count** attribute can be discovered by the **VMware vCenter Topology by VIM** and **VMware ESX Topology by VIM** jobs for ESX hosts.
QCCR1H96194	This is a request for the VMware vCenter discovery to provide information on the hyperthreading and logical CPU count.	Logical CPU count can now be discovered by the VMware vCenter discovery. If the logical CPU count and the CPU core count are not equal, it means that the hyperthreading is enabled.
QCCR1H96852	The **IP MAC Harvesting by SNMP** job runs on all CIs that use SNMP. For example, this job runs on such devices as Thin Clients and Net Printer that do not provide any new IP addresses. Instead, this job should only run on the Router or Switch CI type, because it makes sense that only these node types read the ARP cache to create IP addresses.	Added a parameter **RunOnSwitchRouterOnly** for the **IP MAC Harvesting by SNMP** job. The default value of the parameter is **false**. When the parameter is overridden with **true**, the CI type of the trigger node will be verified. If the CI type is Switch, Router or the subtype of Switch, the job continues discovering; otherwise, the job will be aborted.
QCCR1H98441	This is a request for adding an attribute to report the logical processor count into the Hyper-V Partition Config CI type.	Added an attribute **logical_processor_number** to report the logical processor count into the Hyper-V Partition Config CI type.
QCCR1H98924	The Fibre Channel HBA Firmware Version and Port Speed are not discovered by the **Host Applications by Shell** and **Host Resources by Shell** jobs.	Enhanced the logic of the **Host Applications by Shell** and **Host Resources by Shell** jobs to retrieve the Fibre Channel HBA Firmware Version and Port Speed on all platforms.
QCCR1H99009	The **VLANs by SNMP** job cannot discover the VLANs for the Cisco switches when using SNMPv3.	Now the **VLANs by SNMP** job can discover the VLANs for the Cisco switches when using SNMPv3.
QCCR1H99503	This is a request for the VMware discovery to support VMware vCenter version 6.	Added support for VMware vCenter version 6.
QCCR1H99544	This is a request for adding support for discovery of WebLogic version 12c.	Added support for discovery of WebLogic version 12c.
QCCR1H99851	This is a request to change Display Name for the Sybase related CITs to reflect the new SAP re-branding as follows:	Updated the Display Name for the sybasedb and sybase CITs as requested.

Global ID	Problem			Solution

	CIT Name	Old Display Name	New Display Name	
	sybasedb	Sybase DB	SAP ASE Database	
	sybase	Sybase	SAP ASE Server	

Global ID	Problem	Solution
QCCR1H100202	This is a request for the **VMware vCenter Topology by VIM** job to create the Layer2Connection relationship between VMware virtual switches and the remote physical Net Device.	Enhanced the **VMware vCenter Topology by VIM** and **VMware ESX Topology by VIM** jobs to create the Layer2Connection relationship between VMware virtual switches and the remote physical Net Device.
QCCR1H100228	The VMware Discovery does not relate Physical Disk to VMware.	The **VMware vCenter Topology by VIM** job can now discover Disk Devices and report the dependency relationship to LogicalVolume.
QCCR1H100374	This is a request to report SAP-related databases by the **Host Applications by Shell** job (instead of dedicated SAP jobs only).	Added a new parameter **reportSapAppServerDatabase** to the **globalSettings.xml** file. This parameter indicates whether to report SAP Application Server databases based on the configuration file content. The default value of this parameter is **false**. This parameter only affects the **Host Applications by Shell**, and **SAP ABAP Topology by SAP JCO** jobs.
QCCR1H100557	The SAP ASE Server CIs cannot be reported by the **Host Applications by Shell** job while running this job on SAP Sybase 15 and Sybase 16.	Stopped reporting the name attribute on SAP Sybase in the **Host Applications by Shell** job, because the parsing rule does not work on SAP Sybase 16 and different names that are reported by the **Host Applications by Shell** job and **Sybase Database Connection by SQL** jobs may cause duplicate SAP ASE Server CIs.
QCCR1H100594	WebSeal Discovery tries to resolve the results of pdadmin against DNS. This is not possible because the results do not	Added additional sources of the IP address retrieval and different wrappers in case the IP address is not detected

Global ID	Problem	Solution
	necessarily have to be resolvable.	but some topology pieces may still be reported in order to return as much data as possible.
QCCR1H101070	The **Microsoft Exchange Connection by NTCMD or UDA** job reports Microsoft Exchange Server 2010 as the version of Microsoft Exchange Server 2013.	The **Microsoft Exchange Connection by NTCMD or UDA** job now reports the correct version of Microsoft Exchange Server 2013.
QCCR1H101512	This is a request for adding an option to prevent the **VMware ESX Topology by VIM** and **VMware vCenter Topology by VIM** jobs from creating computer CIs if the IP addresses that are related to those computer CIs do not fall within the probe ranges.	Added a job parameter **discoverUnknownIPs** to filter the VM or Host CIs whose IP addresses are not in the probe ranges.
QCCR1H101981	Between the NetApp Filer itself and the volumes are multiple logical layers: aggregates, volumes, LUNs, and so on. This is request for the **NetApp Filer by WebServices** job to discover the aggregates.	The **NetApp Filer by WebServices** job now supports the discovery of iSCSI Adapter, Fibre Channel HBA, Fibre Channel Port, LUNs, and aggregates.
QCCR1H102182	This is a request for adding support for Microsoft Windows 10.	Added support for discovery and inventory (including agent support) for Microsoft Windows 10.
QCCR1H102661	The **last_discovered_time** attribute cannot be pushed to ServiceNow.	The datetime type attribute (such as **last_discovered_time**) can now be pushed to ServiceNow.

Fixed Defects

The following table lists the defects that were fixed in HP UCMDB Content Pack 17.

Global ID	Problem	Solution
QCCR1H97436	The **IIS Applications by NTCMD or UDA** job does not create connections to DB sources defined in **web.config**.	Altered the parsing to support new connection information patterns. Added the default ports mechanism for DB reporting. This mechanism is used in case no explicit port is mentioned in the connection information in **web.xml**.
QCCR1H98964	There is no option of using MSSQL_NTLMv2 in HP SIM Protocol when configuring the HP SIM integration.	Fixed the issue by applying a code change to add an option for MSSQL_ NTLMv2 in the HP SIM Protocol list. **Note:** This fix depends on the UI changes implemented for fixing QCCR1H99244 in the UCMDB CUPs.
QCCR1H98979	The NNMi–RTSM integration with NNMi 10 Patch 1 and BSM 9.24.121 does not show all the SNMP nodes expected at the BSM side.	Fixed the issue by creating an identification rule (**physical_ port.xml**) for the Physical Port CI.
QCCR1H99146	The **TIBCO EMS by Shell** job fails if the EMS Administration tool path that is generated from the process is a relative path.	Added a new parameter **emsadmin_ tool_absolute_paths** in the **TIBCO EMS by Shell** job to set absolute paths of the EMS Administration tool. The absolute paths are separated by commas.
QCCR1H100072	The Normalization Rule output conflicts for the CI type Normalization Rules. UCMDB cannot decide the priority between competing Rules (ID 10523049 and 10523226) for the same output attribute.	Fixed the issue by changing the rule to skip multiple matches.
QCCR1H100098	The **Host Resources by SNMP** job does not work with SNMPv1 or collect the printer details such as trays.	Added support for SNMPv1 for the **Host Resources by SNMP** job.
QCCR1H100158	The scanner-based inventory discovery	The **OS Architecture** attribute is now

Global ID	Problem	Solution
	does not fill in the **OS Architecture** attribute value for the Windows CI on the 32-bit Windows systems.	reported correctly.
QCCR1H100135	The **JEE Weblogic by Shell** job ends with the following error message because a NoneType check is missing in the code: "Failed to process config.xml".	Added the needed additional check for NoneType to the code.
QCCR1H100504	The reconciliation error is returned when running the Troux population integration which is preventing relationship from being added. This issue occurs in the UCMDB 10.11 instance but not in the UCMDB 9.05 instance. This is because the containment relationship between the running software CI and business application CI is not created.	Now the containment relationship between the running software CI and business application CI is created successfully.
QCCR1H100533	The **discovered_model** attribute is not found in Solaris Non-Global Zones because the **Host Connection by Shell** and **Inventory Discovery by Scanner** jobs use different commands to discover.	The **Host Connection by Shell** job now populates the **discovered_ model** attribute as the **Inventory Discovery by Scanner** job does in Solaris Non-Global Zones.
QCCR1H100545	When running the Generic DB Adapter based integration to an SQL database after upgrading to UCMDB 10.20 CP 15, the following error message occurs: "SQL: Internal error. Details: Server has no instance named Y".	Fixed the issue by adding logic for setting the Instance Name.
QCCR1H100736	The **MemorySize** attribute of printers are not populated by the **Host Resources by SNMP** job.	Fixed the issue by adding logic to discover the **MemorySize** for the printers by the **Host Resources by SNMP** job.
QCCR1H100759	The **Host Applications by Shell** job results in the following warning message: "Exception during processing of plug-in". This is because the db2level output is not properly parsed.	Fixed the issue by adding an extra regex to properly parse the db2level output.
QCCR1H100842	SUSE Linux Enterprise version 10 is not included in the CP 15 documentation.	Added discovery support for SUSE Linux Enterprise version 10 in the *HP UCMDB Discovery and Integrations Content Guide - Supported Content.*
QCCR1H100886	The **Host Connection by SNMP** and **VMware vCenter Topology by VIM** jobs return	The **Host Connection by SNMP** and **VMware vCenter Topology by VIM**

Global ID	Problem	Solution
	different values for the **Vendor** attribute.	jobs now return the same value for the **Vendor** attribute.
QCCR1H101000	Some rules are missing in the Rulebase package.	Added new normalization rules for KONICA MINOLTA bizhub 4050, PRIMERGY RX200 S7, and PRIMERGY RX200 S8.
QCCR1H101004	The discovery jobs that uses the NTCMD protocol fails with the following error message although everything is correctly prepared: "NTCMD: Internal error. Details: The system cannot find the file specified".	The discovery now works successfully without any errors.
QCCR1H101068	The **Storage Devices Topology by CIM** job fails with the following error message : " [ErrorCode [63001] Reconciliation DataIn - Not enough reconciliation data, need to supply {(fcport_wwn)}]".	The **Storage Devices Topology by CIM** job can now finish the discovery and return proper storage devices.
QCCR1H101072	Two different SAP System CIs are present in UCMDB, but the SAP System CIs are linked to two different SAP ABAP Application Server CIs running on the same node.	Fixed the issue by changing the reconciliation rule of the SAP System CI. Now only one SAP System CI that is linked to a single node but different SAP ABAP Application Server CIs is present in UCMDB.
QCCR1H101082	The printer driver information is not mapped from the scan file. (This is a DDMI regression.)	Fixed the issue by adding a new CI type printerDriver to store the information that is required.
QCCR1H101123	The **Node_isVirtual**, **Discovered Model**, **Discovered Vendor**, and **Serial Number** attributes are not discovered by the **Oracle VM Server for SPARC Technology by Shell** job.	The **Node_isVirtual**, **Discovered Model**, **Discovered Vendor**, and **Serial Number** attributes can now be discovered by the **Oracle VM Server for SPARC Technology by Shell** job.
QCCR1H101274	The **Host Applications by Shell** job discovers too many CIs with wrong names whose types are SAP ABAP Central Services, SAP J2EE Application Server, and SAP ABAP Application Server.	The **Host Applications by Shell** job can discover full names for the SAP ABAP Central Services, SAP J2EE Application Server, and SAP ABAP Application Server CI types.
QCCR1H101292	The Sun Cluster discovery creates relationships between Shared Zones and Cluster Software CIs. This is technically wrong, because the Cluster Software CI needs to be always connected to the Global	The Solaris networking discovery now works properly. In addition, some changes are made in order to discover Interfaces and IpAddresses more accurately.

Global ID	Problem	Solution
	Zone. There is no way to configure a cluster on a Shared Zone.	
QCCR1H101347	The EMC Control Center (ECC) Integration job fails with the following error message: "TypeError: Invalid 'wwn_in_str' <type 'NoneType'>. Valid type: <type 'basestring'>".	The ECC Integration job now works properly.
QCCR1H101376	After upgrading UCMDB from 10.01 to 10.20, many attribute values, such as **Discovered Model**, **Discovered Vendor**, and **Node Operating System Release**, switch between the **Host Connection by Shell** job and the **Inventory Discovery by Scanner** job. This is because the OS version is not correctly parsed.	The attribute values are now set correctly.
QCCR1H101403	The CPU and Disk information of Printers are incorrect.	Fixed the issue by adding logic to discover the CPU CI for Printers by the **Host Resources by SNMP** job and to report the File System Size (**disk_size**) properly for the FileSystem CI of Printers.
QCCR1H101405	The SMBIOS information cannot be collected by the **Inventory Discovery by Scanner** job on Linux UEFI-based systems.	The SMBIOS information can now be discovered by the **Inventory Discovery by Scanner** job.
QCCR1H101411	When integrating HP Operations Manager i (OMi) with NNMi, the integration fails because the netmask gets the value **0.0.0.0**.	The OMi-NNMi integration now runs properly without errors.
QCCR1H101426	The Step 3 **Prerequisites - Driver setup** in the *How to Discover EC2 and RDS Services* section is outdated because Amazon Web Services (AWS) has changed the third-party library JAR files.	Changed the documentation and the job adapter to support new AWS JAR files.
QCCR1H101432	When using the ServiceNow push integration, if there are more than 4000 CIs in the TQL query, the Zero length BigInteger exception occurs and causes the "Could not get SN sys_ids for parent or child of this relationship...skipping!" issue.	Fixed the Zero length BigInteger exception issue so that more than 4000 CIs can be pushed into a TQL query.
QCCR1H101492	When processing results of the **Host**	Fixed the issue by changing the class

Global ID	Problem	Solution
	Connection by Shell job, the "ErrorCode [119] update the attribute which has ID_ATTRIBUTE qualifier" error is reported in the **error.log** on the UCMDB server for DisplayMonitor CIs.	model definition for the DisplayMonitor CI type as follows: • Added the **RANDOM_ GENERATED_ID_CLASS** in Class-Qualifiers. • Removed the **ID_ATTRIBUTE** qualifier for the name and **root_ container** attributes.
QCCR1H101510	There is no attribute **display_label** for the CI type Organization.	Added the **display_label** attribute to the Organization CI type.
QCCR1H101529	The **F5 BIG-IP LTM by Shell** job does not complete successfully.	The **F5 BIG-IP LTM by Shell** job now works successfully.
QCCR1H101555	Some new commands are not mentioned in the **Oracle VM Server for SPARC Technology by Shell** job permissions' list.	Added the missing commands to this job permissions' list.
QCCR1H101617	When running the **Apache Tomcat by Shell** job, some Tomcat instances are not discovered with the following error message returned: " Failed to find appropriate parser for the URL". The root cause is that there are variables predefined in the **catalina.properties** file which should be parsed to get the actual value for those variables.	Fixed the issue by parsing the **catalina.properties** file and loading all properties which are defined there.
QCCR1H101630	When trying to import an Excel file with Russian (Cyrillic) file names (content in Latin characters), the **Import from Excel Workbook** job fails with the Python Exception error. This is because this job only supports Latin characters in the file name.	The file name should be converted to UTF-8 to avoid the "UnicodeEncodeError".
QCCR1H101694	Microsoft SharePoint servers that have the special character "&" in the DB name cannot be discovered by the **Microsoft SharePoint Topology** job.	Fixed the issue by adding support for this character in the Microsoft SharePoint script.
QCCR1H101728	Windows hypervisors are automatically renamed as **hyperv_core_os** after upgrading to UCMDB 10.20. This is because the following code exists in the **hyperv.py** script.	Fixed the issue by removing this code from the **hyperv.py** script.

Global ID	Problem	Solution
	```#for testing purposes managementPartitionOsh. setStringAttribute ('name', 'hyperv_core_os') managementPartitionOsh. setBoolAttribute ("host_iscomplete", 1) #end for testing purposes```	
QCCR1H101742	In the **IBM Virtualization by Shell** job, the IBM Default Processor Pool CI, which is used to contain the number of cores that was assigned to it, now is blank (with the ID 0), while all other pools have core numbers detected.	The number of cores in the IBM Default Processor Pool CI can now be detected by the **IBM Virtualization by Shell** job.
QCCR1H101791	This is a request for the Inventory Discovery code to include a fix for the Primary MAC Address as follows: • Create the **primary_mac_address** attribute in the Node CI • Add the following code in the **primary_ mac_address** attribute to patch the **ParseEnrichedScanFile.py** script to discover the Primary MAC Address of the Node. ```flag = getNodeValues ("hwNICIPAddressFlags", ipAddress)[0] if flag == PRIMARY_IP_ ADDRESS_FLAG and len(mac): hostOsh.setStringAttribute ("primary_mac_address", mac)```	Added the **primary_mac_address** attribute for the Node CI and added the code as requested.
QCCR1H101810	The **Oracle VM Server for SPARC Technology by Shell** job cannot run commands for Solaris 11 on Solaris 10.	Fixed the issue by not running commands for Solaris 11 on Solaris 10.
QCCR1H101811	No normalization rule for HP5900AF-48XG-4QSFP+.	Added a new normalization rule for HP5900AF-48XG-4QSFP+.
QCCR1H101839	The DNS CI type can be created by using the **Host Connection by Shell** job but not by the **Host Connection by WMI** job.	The **Host Connection by WMI** job can now discover DNS servers and create the DNS CI type.
QCCR1H101868	The **Import Data from Atrium** job cannot be	Added two new parameters, **MaxCIs**

Global ID	Problem	Solution

	run when there are too many CIs to be processed.	and **DryRunMode**, to the **Import Data from Atrium** job.
		
		• The **MaxCIs** parameter allows you to set the maximum CI number to be processed.
		
		  The default value of this parameter is **100000**.
		
		• The **DryRunMode** parameter allows you to specify whether you want to run the integration in the dry run mode. In the dry run mode, the integration does not query any data from Atrium.
		
		  The default value of this parameter is **false**.

QCCR1H101893	The **Host Applications by Shell** job discovers too many Oracle DBs because of the usage of the **tnsnames.ora** file.	Fixed the issue by using the listener status output to identify local Oracle instances with IP Service Endpoints. The **tnsnames.ora** file is not used any more.
QCCR1H101894	The **Inventory Discover by Scanner** job fails to discover UserSoftwareUtilization CIs.	Fixed the issue by changing the identification rule for UserSoftwareUtilization CIs.
QCCR1H101940	Data Flow Probe crashes when running the **Microsoft Windows Domains Topology** job and the **ds_main_name** is null.	Fixed the issue by introducing special handling for the case when **ds_main_name** is null.
QCCR1H101945	The **IIS Applications by NTCMD** job fails with the following error message: "TypeError: 'NoneType' object is not callable".	The **IIS Applications by NTCMD** job runs successfully without such an issue.
QCCR1H101950	The physical node is discovered as the virtual node by the **Inventory Discovery by Scanner** job.	The physical node is discovered properly by the **Inventory Discovery by Scanner** job.
QCCR1H101953	Asset data from the scanner is not populated on the CI type attribute correctly. When adding Asset data through the Scanner Configuration Generator dialog box (**Scanner Configuration Generator** wizard **> Asset Data** page **> Asset Data** tab **>** select	Fixed the issue by replacing the NULL characters with white space so that the REG_MULTI_SZ strings can be taken as a whole string.

Global ID	Problem	Solution
	an asset field in the list **>** click the **Edit Field** button), the Asset data of the **Registry Extract** type is truncated. This is because for registry items with REG_ MULTI_SZ strings, the value is separated by NULL characters and therefore the Universal Discovery scanner can only get the first string.	**Note:** The maximum length of the supported Asset data value is 4096. If the length of the value is greater than 4096, the data will be truncated.
QCCR1H101994	The **JEE WebSphere by Shell** job fails with the following error message: "AttributeError: 'NoneType' object has no attribute 'rfind'". This is because the **ps** command output is truncated.	The **JEE WebSphere by Shell** job works properly.
QCCR1H102023	The SE-UCMDB Integration fails with the following error message: "Please use the SE database with SID 'REPORT' or 'APPIQ' for this integration". However, since version 9.70, SE can be installed on external Oracle databases whose SID does not have to be "REPORT" or "APPIQ".	The SE-UCMDB Integration now works properly without this issue.
QCCR1H102043	After upgrading UCMDB to 10.21, the agent communication does not work. This is because running UNIX commands on Windows causes problems.	Fixed the issue by not running UNIX commands on Windows.
QCCR1H102066	After upgrading to CP15, the **Host Applications by WMI** job can discover Windows Patches or Hotfixes. This is a request for the **Host Applications by Shell and Host Applications by PowerShell** jobs to have the same functions.	The **Host Applications by Shell and Host Applications by PowerShell** jobs can now discover Windows Patches or Hotfixes.
QCCR1H102161	The **JEE JBoss by Shell** job is activated and discovers the JBoss topology in place. The problem is that the JDBC Datasources are discovered, but some Datasources have no further relationships to any Database or Database Schema. The root cause is that the method **parseHostBasedUrl** has limited capability to parse the DB URL.	Fixed the issue by using the method **parseHostBasedDatabaseUrl** to parse DB URL.
QCCR1H102212	There is lack of information on Windows Server 2012 R2 for the *Chapter 4: How to Run HPCmd from Windows 2008 and Windows Server 2008 R2 Machines* of the *HP*	Added Windows Server 2012 and 2012 R2 to this chapter.

Global ID	Problem	Solution
	UCMDB Discovery and Integrations Content Guide - General Reference, because Windows Server 2012 R2 appears as supported on the Support Matrix.	
QCCR1H102278	The **hwMountPointVolumeDevice** field is not properly mapped from the scan file to the FileSystem CI by the **Inventory Discovery by Scanner** job. The root cause is that the **mount_point** attribute is overwritten by the **data_name** attribute in the **modeling.createDiskOsh** method.	Fixed the issue by creating a new attribute **mount_device** for the FileSystem CI and not filling the **mount_point** attribute any more.
QCCR1H102279	There is no information of the supported operation systems discovered by the **Inventory Discover by Scanner** job for the Installed Software CI.	Fixed the issue by creating a new attribute **supported_operation_systems** for the Installed Software CI.
QCCR1H102418	The documentation does not show that VMware vCenter version 5.5 is supported but this version has been supported since CP14.	Added support for VMware vCenter Server 5.5 in the documentation.
QCCR1H102433	The **Host Applications by Shell** job fails with a warning message: "Failed getting contents of file".	Fixed the issue by applying a code change. The **Host Applications by Shell** job now works properly.
QCCR1H102501	The **Host Connection by SNMP** job runs for over 90 minutes on one single Switch. This is because all the ARP cache is read out and the **get-next** SNMP method takes too much time.	Fixed the issue by using the **get-next** method to first get a single leaf of the sub-tree instead of walking the whole branch.
QCCR1H102502	Duplicate FileSystemExport CIs are created because the **NetApp Filer by WebServices** job fills the attribute **FileSystemPath** differently than the **Host Applications by Shell** job does.	Fixed the issue by adjusting the **NetApp Filer by WebServices** job to fill the correct value for the attribute **FileSystemPath**.
QCCR1H102577	The **Host Resources by SNMP** job with **discoverModules** enabled cannot report the serial number for the Cisco CAP541 devices because these devices only contain the module MIB results (no chassis).	The serial number for Cisco CAP541 devices can now be discovered by the **Host Resources by SNMP** job.
QCCR1H102692	After applying CP16, the HP SIM integration fails because received objects of the class **logical_volume** have no required attribute name.	Fixed the issue by applying the following code changes: • Improved the **Retry** mechanism to handle the expired token

Global ID	Problem	Solution
		condition.
		• Do not report an object whose key attribute contains an invalid (empty) value.
		• Improved the Integration performance.
QCCR1H102726	The **Service Guard Cluster Topology by TTY** job fails with the follow error message "Failed getting cmview output". This is because the function "_shrinkConfigFile" is missing in the class **ServiceGuardClusterDiscoverer**.	Fixed the issue by adding the missing function in the code.
QCCR1H102781	The following limitation in the *HP UCMDB Discovery and Integrations Content Guide - Discovery Modules* is incorrect and should be removed: "The NetApp Filer by WebServices job does not identify vFilers. All of the vFilers resources are connected to the 'root' NetApp Filer."	Removed this limitation.
Asset Manager (AM) Integration Fixed Defects		
QCCR1E124759	In Asset Manager (AM), there are Computer, InstalledSoftware, and UserSoftwareUtilization data imported from DDMI through Connect-It. When pushing data from Universal Discovery to AM, some of the InstalledSoftware and UserSoftwareUtilization records are not being correctly set to **Missing**.	A new tag **action-on-update** is introduced in the **am-push-mapping.xml** file. After a CI is updated in the AM database by a data push job, the action specified in the **action-on-update** is executed against the AM database. To resolve the issue using the new tag, manually add the following lines to the **amComputer** mapping in the **am-push-mapping.xml** file. `<action-on-update>` `<set-attribute-value name= "bMissing" datatype="INTEGER" value="1" target-ci-name= "amSoftInstall" target-ci-foreign-key= "ParentPortfolio.Computer.`

Global ID	Problem	Solution
		``` lComputerId" /> </action-on-update> ```
QCCR1E125723	The logic for **lUseCount** in the AM Push Adapter is incorrect. The correct logic for **lUseCount** is as follows: • lUseCount = 1 if the software is not part of a suite AND the record is an InstalledSoftware CI. • lUseCount = 0 if the software is part of a suite OR the record is a UserSoftwareUtilization CI.	The **lUseCount** attribute needs not to be pushed from UCMDB to AM because Software Asset Management (SAM) calculates the value of **lUseCount** automatically. Therefore, the mappings for this attribute are removed from the AM push adapters.
QCCR1H95636	When pushing AM Computer through the AM Generic Adapter, the value of **Hardware_Board.type** in UCMDB is translated to AM as numbers. The following AM fields are affected: • **amExtensionCard.Type** • **amNetworkCard.Type** • **amPhysicalDrive.Description**	The string value of **Hardware_Board.type** in UCMDB is translated to AM.
QCCR1H100400	When pushing a node with one Monitor CI to AM, there are two Monitor records created with different serial numbers in AM.	After removing an unnecessary reconciliation key, there are no duplicate Monitor records created.
QCCR1H102527	In order for the Software Asset Management module to calculate the Oracle license correctly, the CPU Core Number of Virtual Machine CIs should be pushed to Asset Manager.	The CPU Core Number of Virtual Machine CIs is pushed to Asset Manager.

Documentation Errata

The following items are listed incorrectly in the documentation.

Version number incorrect on the cover page of CP17 manuals, and the user guides for the Service Manager adapters not packaged into CP17

Error: The version number still displays as Content Pack 16.00 (CP16) on the cover page of all PDF manuals included in the CP17 help set, and the user guides for the Service Manager adapters are also not packaged into CP17.

Correction: The version number should be Content Pack 17.00 (CP17).

To obtain the integration guides for the Service Manager adapters, click HPUD_CP17_DiscIntegContent_HP_Integrations.zip.

Apart from the *HP UCMDB Discovery and Integrations Content Guide - HP Integrations* document, the content of all other PDF manuals are up-to-date. However, you may also obtain the updated PDF files with the correct version number from the HP Software Manuals site.

HP UCMDB Discovery and Integrations Content Guide - Third Party Integrations

DB2 is not supported by the Generic Database Adapter, but the document says supported

Location: *HP UCMDB Discovery and Integrations Content Guide - Third Party Integrations*, CP16 and CP17, page 93

Error: DB2 is not supported by the Generic Database Adapter, but the document says the follows:

The following databases are supported: Oracle, Microsoft SQL Server, MySQL, and DB2.

Correction: DB2 shall be removed from the document.

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If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

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We appreciate your feedback!