# Universal CMDB

Software Version: Content Pack 19.00 (CP19)

Release Notes for Universal CMDB/Universal Discovery Content Pack 19

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**Hewlett Packard Enterprise**

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# Contents

# Universal CMDB Content Pack Release Notes

This document provides information about Universal CMDB (UCMDB) and Universal Discovery (UD) Content Pack 19.

**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 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 Configuration Management System (CMS) Team

# What's New in Content Pack 19

This section provides information about new features and enhancements to Content Pack 19.

## Discovered Applications

Added support for discovering the following applications:

- Apache Tomcat 9.0

- IBM WebSphere Liberty Core Server 8.x

- JBoss Application Server 8.x, 9.x, 10.x

  > **Note:** (Only for JBoss 7.x versions) Due to different management modes, you need to add two folders **7.0** and **7.1** under the following directory:
  >
  > ```
  > C:\hp\UCMDB\DataFlowProbe\runtime\probeManager
  > \discoveryResources\j2ee\jboss
  > ```
  >
  > After upgrading CP version to CP 19, replace the folder **7.x** with the real JBoss version. For example, if you have **7.0.x** JBoss Application Server in your environment, change the folder name **7.x** to **7.0**. If you have both **7.0.x** and **7.1.x** in your environment, make sure that there are two folders **7.0** and **7.1** in the preceding directory.

- Microsoft Exchange Server 2016

## New Discoveries and Jobs

Added support for the following discoveries and jobs:

- Brocade Storage Switch discovery

  Added support for the new namespace **root/brocade1** under the SMI-S discovery jobs, which is for the Brocade optical switches. The SMI-S discovery jobs can discover the model including the Storage Fabric, Switch, Host, FC Port CI types and their relationships.

- SAP HanaDB by SQL discovery

  Added the **HanaDb Connection by SQL** job to connect to the SAP HANA Database.

Added the **HanaDb Topology by SQL** job to discover the topology of the SAP HANA Database using the SQL protocol.

- SAP MaxDB by SQL discovery

Added the **MaxDb Connection by SQL** job to connect to the SAP MaxDB database.

Added the **MaxDb Topology by SQL** job to discover the topology of the SAP MaxDB database using the SQL protocol.

- Oracle Connection by Shell discovery

Oracle instances running in the standby mode cannot be connected with the SQL credentials. This means the Oracle CI can be discovered by the **Host Applications by Shell** job; however, the **Oracle Database Connection by SQL** job fails to connect to the instances with all available protocols. Therefore, the auditing data are missing in their Oracle LMS report. To fix this issue, the **Oracle Connection by Shell** job is added to discover all Oracle database servers using the Shell protocol.

> **Note:**
>
> ○ Oracle Connection by Shell discovery requires UCMDB 10.22 CUP1 or later.
>
> ○ The account using to connect to Oracle should have the privilege to run SQL*Plus as SYSDBA.

- WebSphere Liberty Core Server discovery

Added the **JEE WebSphere Liberty Core by Shell** job to discover the full topology of WebSphere Liberty Core.

- Added the **NetApp Filer Connection by WebServices** job to connect to NetApp Filers.

If you want to discover the newly provisioned NetApp devices, enable the **NetApp Filer Connection by WebServices** job. An IP address can no longer trigger the **NetApp Filer by WebServices** job; thus this job cannot discover newly added NetApp devices.

For more details, see the *UCMDB Discovery and Integrations Content Guide - Discovery Modules*.

# Integrations

- Added support for integrating the following applications:

  - BMC Atrium CMDB (Atrium) 9.x

    > **Note:** Support for Atrium 9.x requires UCMDB 10.22 or later.

  - HPE SIM 7.5

- Added the multi-process parallel push mode in the AM Push Adapter and AM Generic Adapter.

- The HPE NA integration adapter can report Power Supplies, Fans, and other device modules as Hardware Boards.

  Added a new parameter **reportDeviceModules** for the **Pull Topology from HP NA** adapter to report device modules. The default value of this parameter is **false**.

- Added a new parameter **Fail Bulk** for the **Service-Now Push** adapter to control whether to discard the whole bulk when there is inconsistent data. The default value of this parameter is **true**.

# Others

- Universal Discovery agent no longer requires the reference to the SSH credential to be available in the UDA CI when sudo is configured with NOPASSWD.

- The **Host Resources by PowerShell/Shell/WMI** and **Host Applications by PowerShell/Shell/WMI** jobs can discover Disk Device CIs with their serial numbers.

- The **Host Resources by PowerShell/Shell/WMI** and **Host Applications by PowerShell/Shell/WMI** jobs can report Windows device drivers.

  Added a new parameter **discoverDrivers** for the **Host Resources by PowerShell/Shell/WMI** and **Host Applications by PowerShell/Shell/WMI** jobs to discover Windows device drivers. The default value of this parameter is **false**.

  The **Inventory Discovery by Scanner** job can also report Windows device drivers. However, this feature is disabled by default. The discovery of the Windows device drivers needs to be enabled in the scanner configuration. For details, see How to Discover Windows Device Drivers using the Inventory Discovery by Scanner Job.

- The Windows storage topology can be discovered by the **Inventory Discovery by Scanner**, **Host**

**Resources by PowerShell/Shell/WMI**, and **Host Applications by PowerShell/Shell/WMI** jobs.

The **Inventory Discovery by Scanner** job reports the storage topology automatically if it exists.

Added a new parameter **discoveriSCSIInfo** for the **Host Resources by PowerShell/Shell/WMI** and **Host Applications by PowerShell/Shell/WMI** jobs to discover the iSCSI information, including iSCSI adapters (initiators, targets) and related disks. The default value of this parameter is **false**.

> **Note:**
>
> o The discovery of iSCSI adapters using the **Inventory Discovery by Scanner** job requires UCMDB 10.22 CUP1 or later.
>
> o Only Windows servers (2008 and later versions) support this feature.
>
> o If the namespace **root\microsoft\winodows\storage** does not exist on devices, this feature cannot work.

- Added a new PowerCmd protocol for Windows.

  The PowerCmd protocol provides a shell protocol based on the **cmd.exe** shell (similarly to NTCMD and UDA), only this protocol works via the PowerShell remoting capabilities of Windows. It allows the jobs designed to run under NTCMD or UDA to work via the PowerShell remoting Windows feature (also used by the PowerShell protocol).

  For more details, see the *UCMDB Discovery and Integrations Content Guide - Supported Content*.

- Added support for Oracle certificate-based authentication.

  Added the following settings in the SQL protocol:

  - **Key Store File**

  - **Key Store Format Type**

  - **Key Store Password**

  - **Oracle Authentication Services**

  - **Trust Store Format Type**

  For more details, see the *UCMDB Discovery and Integrations Content Guide - Supported Content*.

- Scanner version: 10.22.000.219

- Universal Discovery Agent version: 10.22.000.219

# System Requirements

- CP19 can be installed on:

    - UCMDB 10.11 CUP4 (or a later CUP)

    - UCMDB 10.22 (or with a CUP on top of 10.22)

- You must install UCMDB 10.11 CUP4 (or a later CUP), or 10.22 (or with a CUP on top of 10.22) before installing CP19.

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**Important Note:**

- Before you deploy CP19 on top of version 10.22, you must install version 10.22 on the UCMDB, UD, and CM servers, and deploy version 10.22 Data Flow Probes. Do not deploy CP19 while you are still updating the Data Flow Probes.

- Before you deploy CP19 on top of version 10.11, you must install 10.11 CUP4 (or a later CUP) on the UCMDB, UD, and CM servers, and deploy version 10.11 Data Flow Probes. Do not deploy CP19 while you are still updating the Data Flow Probes.

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

For more details, see the *Discovery and Integrations Content Guide - Support Matrix* on the **HP Live Network**.

# Content Pack Installation

The following procedure explains how to install Content Pack 19.00 for Universal CMDB.

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**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.

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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 19.00 ZIP file**

   The name of the installation file is **CP19_installation.zip**. This file is located on the HP Live Network Web site (https://hpln.hpe.com/).

   The ZIP file contains the following resources:

   ○ Packages

   ○ Online help

   ○ The *Univeral CMDB Discovery and Integrations Content Guide* PDF files.

   ○ Permissions.pdf

3. **Extract packages from the Content Pack 19.00 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 19.00

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

 **From 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 *Universal CMDB Inventory Discovery Knowledge Pack Release Notes* available at https://hpln.hpe.com/contentoffering/inventory-discovery-knowledge-pack.

Recently released content that is currently included in this version of Universal Discovery can be found on the Universal Discovery Community (https://hpln.hpe.com/contentoffering/community-content-ud) 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 Integrations 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) 19, 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 CP19.

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**PROBLEM:** If you deploy CP19 on UCMDB before you upgrade UCMDB to 10.22 (or later), the parent of the ConsumerProvider relationship does not change to Usage but remains as Dependency.

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**Workaround:** To resolve this issue, follow these steps:

1. Extract the **ASM_Enhanced.zip** package from the CP19 package.

2. Log in to UCMDB, and then go to **Administration > Package Manager**.

3. Deploy the **ASM_Enhanced.zip** package that you just extracted.

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## Content Pack Upgrade

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**PROBLEM:** CP19 documentation fails to upgrade to the latest version March 2016.

**Workaround:** Do the following to manually upgrade CP19 documentation:

1. Stop the UCMDB server.

2. Extract the **CP19.zip** package.

3. Copy all files from the **docs** folder to the **<UCMDB_Server_Home>\deploy\cp-docs\docs\eng\pdfs** folder to replace the existing files.

4. Copy all files from the **onlinehelp** folder to the **<UCMDB_Server_Home>\deploy\cp-docs\docs\eng\doc_lib** folder to replace the existing files.

5. Start the UCMDB server.

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**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_ Home>\content\lib** directory.

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**PROBLEM:** After you upgrade from UCMDB 10.20 to 10.21 or 10.22, the following jobs are moved to the **<<No module>>** group in the **Discovery Modules** tree.

- DB2 Dependencies

- F5 BIG0IP LTM Tunnel Job

- IIS Application dependencies via URL

- IIS Application dependencies via WebService

- J2EE Application Dependencies via Context Root

- J2EE Application Dependencies via JNDI

- J2EE Application Dependencies via WebService

- JEE WebSphere Connections by JMX for Top-down

- JMS Destination Dependencies via JNDI

- MessageQueue Dependencies via JNDI

- Next-Hop Provider for Running Software

- Next-Hop Provider

- Oracle Access Management Dependencies

- Oracle Dependencies

- Oracle Schema Dependencies

- Running Software Dependencies via TCP Connection

- Running Software Dependencies via URL

- SQL Server Dependencies

- Tomcat Application dependencies via URL

- URL Resolver

- Web Server Dependencies via URL

These jobs are no longer useful for any task.

**Workaround:** You can either delete them manually or leave them in the **Discovery Modules** tree.

## Universal Discovery - General

**LIMITATION:** CP19 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, contact HPE support and refer to the hotfix for 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, HPE 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:** 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.

## Integrations

**PROBLEM:** In UCMDB 10.22 (or later), after deploying the **ServiceNow_pull_integration_patch.zip** patch, the ServiceNow integration does not work anymore.

**Workaround:** When deploying the **ServiceNow_pull_integration_patch.zip** patch on UCMDB 10.22 (or later), do not overwrite the existing files **httplib.py** and **urllib2.py** in the **<DataFlowProbe_Home>/jython/lib** directory. This is because Jython is upgraded to version 2.7 in UCMDB version 10.22.

**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_Server_Home>\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 **<DataFlowProbe_Home>/jython/suds** folder is created, and two files (**<DataFlowProbe_Home>/jython/httplib.py** and **<DataFlowProbe_Home>/jython/urllib2.py**) are updated. You do not need to restart the Data Flow Probe.

## FIPS Mode

**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<br><br>• Relationship push and population mapping scripts<br><br>• 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 |
|---|---|---|
| QCCR1H38741 | This is a request to support the Brocade optical switches discovery. | Added support for the new namespace **root/brocade1** under the SMI-S discovery job, which is for the Brocade optical switches. The SMI-S discovery can discover the model including the Storage Fabric, Switch, Host, FC Port CI types and their relationships. |
| QCCR1H80453 | The current discovery of HanaDB or MaxDB is done in two steps:<br><br>1. The **Host Applications by Shell** job to identify processes and DB CIs<br><br>2. The **HanaDB by Shell** or **MaxDB by Shell** job to make deep dive discovery<br><br>Both steps are performed with the same OS discovery user. So users have to take care of the DB discovery rights for the OS user account used in the discovery. | HanaDB and MaxDB can now also be discovered via the SQL protocol. |

| Global ID | Problem | Solution |
|---|---|---|
| QCCR1H100016 | WebSphere 8 should be fully supported. | Added a new job **JEE WebSphere Liberty Core by Shell** to support WebSphere Liberty Core Edition. |
| QCCR1H101028 | Users cannot use certificates for authentication in the Oracle database connection jobs. | Added the following settings in the SQL protocol:<br><br>● **Key Store File**<br>● **Key Store Format Type**<br>● **Key Store Password**<br>● **Oracle Authentication Services**<br>● **Trust Store Format Type**<br><br>For more details, see the *UCMDB Discovery and Integrations Content Guide - Supported Content*. |
| QCCR1H101437 | Jobs fail while attempting to run commands that should use sudo on AIX systems where the Universal Discovery agent is running under a non-root account with configured sudo permissions and sudoers is configured with the NOPASSWD option. | Universal Discovery agent tries sudo commands without the password when the password cannot be retrieved. |
| QCCR1H101908 | Windows device drivers cannot be discovered. | The **Host Resources by PowerShell/Shell/WMI** and **Host Applications by PowerShell/Shell/WMI** jobs can now report Windows device drivers.<br><br>Added a new parameter **discoverDrivers** for the **Host Resources by PowerShell/Shell/WMI** and **Host Applications by PowerShell/Shell/WMI** jobs to discover Windows device drivers. The default value of this parameter is **false**.<br><br>The **Inventory Discovery by Scanner** job can also report Windows device drivers. However, this feature is disabled by default. The discovery of the Windows device drivers needs to be enabled in the scanner configuration. For details, see How to Discover |

| Global ID | Problem | Solution |
|---|---|---|
| | | Windows Device Drivers using the Inventory Discovery by Scanner Job. |
| QCCR1H101982 | The discovery of Diskless Blade Server's File System does not work correctly. | Now the Windows storage topology can be discovered by the **Inventory Discovery by Scanner**, **Host Resources by PowerShell/Shell/WMI**, and **Host Applications by PowerShell/Shell/WMI** jobs.<br><br>The **Inventory Discovery by Scanner** job reports the storage topology automatically if it exists.<br><br>Added a new parameter **discoveriSCSIInfo** for the **Host Resources by PowerShell/Shell/WMI** and **Host Applications by PowerShell/Shell/WMI** jobs to discover the iSCSI information, including iSCSI adapters (initiators, targets) and related disks. The default value of this parameter is **false**.<br><br>**Note:**<br><br>• The discovery of iSCSI adapters using the **Inventory Discovery by Scanner** job requires UCMDB 10.22 CUP1 or later.<br><br>• Only Windows servers (2008 and later versions) support this feature.<br><br>• If the namespace **root\microsoft\winodows\storage** does not exist on devices, this feature cannot work. |
| QCCR1H102010 | The **Web Server by Shell** job cannot discover all nested configuration files inside the top one. | The **Web Server by Shell** job now discovers nested configuration files recursively. |
| QCCR1H102191 | The **Host Applications by Shell** job fails to discover DB2 instances because the profile path of the DB2 | The **Host Applications by Shell** job now discovers DB2 instances properly. |

| Global ID | Problem | Solution |
|---|---|---|
| | instance is not set correctly. | |
| QCCR1H102690 | Universal Discovery should support the discovery of serial numbers of disk devices. | The **Host Resources by PowerShell/Shell/WMI** and **Host Applications by PowerShell/Shell/WMI** jobs can now discover Disk Device CIs with their serial numbers. |
| QCCR1H103338 | The **Microsoft Windows Domains** job returns improper results. The Data Flow Probe that is assigned to the discovered domains keeps changing with each run of the **Microsoft Windows Domains** job (because it depends on the Domain Controller that replies to the discovery requests first). Moreover, because not all Data Flow Probes have access to all the Domains, the **Microsoft Windows Domains Topology** job fails on a regular basis. | The **Microsoft Windows Domains** job now checks the authority to the domain before assigning it to a Data Flow Probe. |
| QCCR1H104286 | UCMDB does not support integration for BMC Remedy/Atrium version 9. | Added support for BMC Atrium CMDB (Atrium) 9.x.<br><br>**Note:** Support for Atrium 9.x requires UCMDB 10.22 or later. |
| QCCR1H104719 | The **Oracle Database Connection by SQL** job cannot connect to STANDBY Oracle instances. | Added a new job **Oracle Connection by Shell** to connect to STANDBY Oracle instances with the Shell protocol and access Oracle database data via SQL*Plus. |
| QCCR1H104879 | The HPE Network Automation (NA) integration brings in the switch or router nodes and some sub-components like the interfaces, hardware cards, IP addresses and subnets, but the integration cannot bring in power supplies and fans that are listed in HPE NA. | The HPE NA integration adapter can now report Power Supplies, Fans, and other device modules as Hardware Boards.<br><br>Added a new parameter **reportDeviceModules** for the **Pull Topology from HP NA** adapter to report device modules. The default value of this parameter is **false**. |
| QCCR1H105018 | The **NetApp Filer by WebServices** job should have a simpler TQL so that | Added a new job **NetApp Filer Connection by WebServices** to |

| Global ID | Problem | Solution |
|---|---|---|
| | it runs only on Main IP addresses of NetApp. | connect to NetApp Filers. Now the **NetApp Filer by WebServices** job is only triggered by those targets which can be connected by the **NetApp Filer Connection by WebServices** job. |
| **Asset Manager (AM) Integration Enhancement Requests** | | |
| QCCR1E127936 | This is a request to keep Virtual Machines attributes in different set of fields in Asset Manager from Physical Machines. | Added the following mappings in Computer Push:<br><br>```<br><target_mapping<br>datatype="FLOAT"<br>name="fEntitledCapacity" is-<br>valid="AMPush.isMatchVersion<br>('9.60', '9.5.12.2')"<br>value="Root.Virtual_Host_<br>Resource[0]['entitled_<br>capacity']"/><br><target_mapping<br>datatype="FLOAT"<br>name="fOnlineVirtualCpu" is-<br>valid="AMPush.isMatchVersion<br>('9.60', '9.5.12.2')"<br>value="Root.Virtual_Host_<br>Resource[0]['online_virtual_<br>cpu']"/><br>``` |
| QCCR1H103544 | Currently, it takes days even weeks to push a large volume of CIs to Asset Manager through the AM Push Adapter. The parallel push based on multi-threading can speed up the data push; however, it is unstable. Users request for the multi-process capability in the AM Push Adapter similar to the AM Connector in Connect-It to improve the performance. | Implemented the multi-processing to increase the AM Push Adapter performance. According to the performance test in a lab environment, the multi-processing parallel push is three times faster than the non-parallel push. |
| QCCR1H105141 | This is a request to push Oracle Data Guard CIs and the related information to Asset Manager. | AM Push Adapter and AM Generic Adapter now push the new Oracle Data Guard CI as **amCluster** and push Oracle Primary and Standby relationship as **amClusterComponent**. Primary is saved as Owner. Standby is saved as Standby. The related information is pushed to the **amMonitoredApp** table. |

| Global ID | Problem | Solution |
|---|---|---|
| QCCR1H105150 | In the Data Flow Probe log files, the thread names of each job are all set to `AMPushConnectorThread-1~8`. Therefore, it is hard to distinguish which job is running in a thread. | The identifier of push adapter threads follows the following syntax: `AMPushThreadPool-<id of data chunk>-<id of thread to handle a subset of a chunk>` For example, `AMPushThreadPool-2-1`, `AMPushThreadPool-3-7`. |
| QCCR1H105628 | When users get a new Push Adapter package with changes only on mapping files, the Package ID in the **Readme.txt** file shows 0010, but the log file shows the old package ID, such as 0009. | A new file **package.info** is added in the **AMPushAdapter\adapterCode\ AMPushAdapter** directory. The correct package ID is shown in the log file. |

## Fixed Defects

The following table lists the defects that were fixed in UCMDB Content Pack 19.

| Global ID | Problem | Solution |
|---|---|---|
| QCCR1H101216 | The FileSystem CI attribute **storageType** is not populated consistently. | The storage type will be always populated as the destination storage type **FixedDisk** and there will be no flipping issues. |
| QCCR1H101291 | Universal Discovery (UD) agent fails to start on machines where IPv6 is fully disabled. | Fixed the issue by enhancing the code to support this scenario properly. |
| QCCR1H101596 | The **Call Home Request Frequency** setting in the Infrastructure Discovery Activity does not work. This is because on the Windows platform UD agent checks the network availability every minute. | Fixed the issue by disabling UD agent to check the network availability. Now the Call Home request only occurs when **CallHomeTimeout** reaches or OS reboots. |
| QCCR1H102047 | The **Host Resources by WMI** and **Host Applications by WMI** jobs update the wrong CPU clock speed. | Fixed the issue by parsing the correct CPU default clock speed from **Win32_ Processor.name**. This fix only works for Intel CPUs where the CPU speed is available in the description. |
| QCCR1H102222 | While running a discovery, some error messages about the truncated usage | Such information now is returned as "Info" instead of "Error" in |

| Global ID | Problem | Solution |
|---|---|---|
| | time are returned in **discusge.log**. | **discusge.log**. |
| QCCR1H102775 | During the Windows server discovery, Scanner Based Inventory Discovery gets the wrong CPU information. The traditional approach may not detect the correct total CPU number due to the 32-bit API limitation. | Fixed the issue by enhancing the code to detect the correct number of CPUs when it is greater than 32. |
| QCCR1H102813 | The following error message is returned by the **Inventory Discovery by Manual Scanner Deployment** job: "XML Enricher failed to parse scanning file integer division or modulo by zero." | The **Inventory Discovery by Manual Scanner Deployment** job now works properly without such errors. |
| QCCR1H102988 | On some triggers the **Service Guard Cluster Topology by TTY** job fails because of the wrong **cmclconfig_ path**.<br><br>The **cmclconfig_path** is hard-coded to **/etc/cmcluster/**; however, this path can be different, for example, **/usr/local/cmcluster/**. It can be dynamically identified during the discovery from **/etc/cmcluster.conf**. | Fixed the issue by adding the function to retrieve information from multiple paths. |
| QCCR1H103025 | UD agents continuously create the following error messages in the **discagnt.log** file:<br><br>`Error: Failed to update UD call home configuration.Error: Inconsistent call home configuration, timeout set with no valid URL0 givenError: Disabling call home configuration.`<br><br>Users' final purpose is to switch off the Call Home request in UD agents. | If you set the **Call Home Request Frequency** as 999 days, UD agents will not execute any retries about the Call Home request. |
| QCCR1H103056 | When running the **Inventory Discovery by Scanner** job, the data returned to UCMDB is different from the data returned by the **Host Connection by Shell** job. | Fixed the issue by adding such filters to the **Inventory Discovery by Scanner** job. |

| Global ID | Problem | Solution |
|---|---|---|
| | The **Host Connection by Shell** job returns the filtered data for the host model, host serial number, and host manufacturer; however, the **Inventory Discovery by Scanner** job does not have such filters. | |
| QCCR1H103522 | Occasionally the **application_ip** attribute for all subclasses of SAP Application Server CIs is incorrectly set by the **Host Applications by Shell** job. | The **application_ip** attribute for SAP Application Server CIs can now be set properly by the **Host Applications by Shell** job. |
| QCCR1H103613 | The Application Server and the Central Services cannot be reported by the **Host Applications by Shell** job on the proper host. | The Application Server and the Central Services can now be reported by the **Host Applications by Shell** job on the proper host. |
| QCCR1H103773 | On many client machines (Windows and Solaris), the **Inventory Discovery by Scanner** job fails with the following error message returned "`Scanner can't be executed`". | Fixed the issue by conducting file size check while uploading files for Inventory Discovery. |
| QCCR1H103785 | Push to ServiceNow does not push all CIs. Many CIs are skipped. | Fixed the issue by changing the **pushToServiceNow.py** script to get the SN ID from the external mapped ID. |
| QCCR1H104240 | The **MS Cluster by NTCMD or UDA** job fails with the following error message "`NTCMD: Connection failed`". | The **MS Cluster by NTCMD or UDA** job works in both 32-bit and 64-bit machines. |
| QCCR1H104273 | The `flow.collector.V5.enabled` should be **true** in the logs if it is configured to **true** in Adapter Management. | Fixed the log print issue. The `flow.collector.V5.enabled` will be **true** in the logs if it is configured to **true** in Adapter Management. |
| QCCR1H104493 | The following error message is returned in the communication log for the **Apache Tomcat by Shell** job.<br><br>`Failed to load xml file server.xml FileNotFoundExeception: java.io.FileNotFoundException: <DataFlowProbe_Home>\bin\protocol-secure.xml` | The **Apache Tomcat by Shell** job can now discover the Tomcat instances properly. |

| Global ID | Problem | Solution |
|---|---|---|
| | `(The system cannot find the file specified)`<br><br>This prevents the topology mapping for a large number of Tomcat instances. | |
| QCCR1H104521 | The **VMware vCenter Topology by VIM** job does not discover **os_family** for some hosts, which causes wrong merges for Node CIs. | The **VMware vCenter Topology by VIM** job now reports **os_family** properly by checking the host class. |
| QCCR1H104545 | The **IIS Applications by NTCMD or UDA** job does not create connections to DB sources. This happens due to the fact that the data source description string matches the named data source pattern but some of the vital data for UCMDB is missing. | Fixed the issue by adding a new fallback for the DB data source creation. |
| QCCR1H104597 | The **Host Connection by Shell** and **Inventory Discovery by Scanner** jobs return different values of **OS Type**, **OS Description**, and **OS Vendor**. | The **Host Connection by Shell** and **Inventory Discovery by Scanner** jobs return the same value of **OS Type**, **OS Description**, and **OS Vendor**. |
| QCCR1H104693 | The **Oracle Database Connection by SQL** job discovers Oracle CI's Application IP addresses correctly, but when Host Resources or Host Applications jobs run again, the IP addresses are overwritten with the incorrect ones from the linked SSH CI. | Oracle Application IP addresses may be different from the ones from the linked SSH CI, so you should only trust the IP addresses retrieved from the listener status. |
| QCCR1H104694 | The **Host Applications by Shell** job can discover all the processes but the following error message is returned while doing the parsing:<br><br>`Failed to parse out cell name and server name from command line`<br>`Instance of application 'WebSphere on Unix' is ignored, reason: WebSphere details cannot be acquired, ignoring the application` | The **Host Applications by Shell** job works properly without such errors. |
| QCCR1H104696 | The process **repserver** should not be | Fixed the issue by removing the |

| Global ID | Problem | Solution |
|---|---|---|
| | one of the processes in the default **applicationsSignature.xml** for Sybase. | process **repserver** in **applicationsSignature.xml**. |
| QCCR1H104788 | The total CPU count is mismatched between the scan file and the CPU CI created from the enrichment result. | Now the CPU count is calculated properly for HP-UX. |
| QCCR1H104789 | After changing the **agent-install-data-folder** parameter value in the **AgentConfigurationbyPlatform.xml** file, the **Install UD Agent** job fails with the "wrong parameter" error. | Now the **Install UD Agent** job with the root account runs successfully after changing the **agent-install-data-folder** parameter value in the **AgentConfigurationbyPlatform.xml** file. <br><br> **Note:** It is not recommended to customize the home folder path for non-root accounts. |
| QCCR1H104838 | The **Service-Now Push** integration job ignores the whole chunk if it finds that one of the CIs is a faulty one. | Added a new parameter **Fail Bulk** for the **Service-Now Push** adapter to control whether to discard the whole bulk when there is inconsistent data. The default value of this parameter is **true**. |
| QCCR1H104880 | When importing data from Atrium into UCMDB, the user defined a query attribute on the **<link>** element in the **mapping xml** file. However, this query attribute does not work. | Fixed the issue by supporting query filter on the **<link>** element and supporting namespace on the **<object>** and **<link>** element. |
| QCCR1H104888 | The Import from CSV File Integration does not work on UCMDB 10.21. The issue is caused by the Data Flow Probe JRE upgrade. It is a known Java 8 defect related to the new interface default method feature. | Fixed the issue by removing the method **remove()** from **class __ FileIterator** defined in **cvsParse.py** of the **Import from CSV File** adapter in Adapter Management. |
| QCCR1H104914 | NetApp discovery reports a `NoneType` exception when discovering the iSCSI adapter IP addresses. | Fixed the issue by adding the NoneType check. |
| QCCR1H105014 | When running the NetApp Filer discovery with the Transport Layer Security (TLS) protocol other than Secure Sockets Layer (SSL), users find the following error message or | Download the latest NetApp SDK JAR file from NetApp Offical Site and replace the old file with the latest one. |

| Global ID | Problem | Solution |
|---|---|---|
| | similar ones:<br><br>`SSLHandshakeException:`<br>`javax.net.ssl.`<br>`SSLHandshakeException:`<br>`Received fatal alert:`<br>`handshake_failure` | |
| QCCR1H105033 | The **TIBCO EMS by Shell** job finishes successfully but the topology is not discovered. | Fixed the issue by enhancing the code to support this scenario properly. |
| QCCR1H105058 | Clustered SQL Servers CIs are duplicated even after running the **Merge Clustered Software** job. | Fixed the issue by setting **Relationship Restrictions** properly in the Trigger or Input TQL for RunningSoftware > ClusteredRunningSoftware. **Allow Non Self Relationships Only** is set as default. |
| QCCR1H105111 | HPE SIM Integration cannot exclude Rack CIs from being populated into UCMDB from SIM. | Added a new parameter **IgnoredCiTypes** for the HPE SIM Integration adapter to exclude specified CIs. |
| QCCR1H105195 | The **File Monitor by Shell** job fails in discovering all files with an internal error. | Now the **File Monitor by Shell** job discovers all the files as expected. |
| QCCR1H105200 | UD agent only supports TLS1.2 since CP12.16, CP14.06, CP17, and CP18. However, the previous UCMDB versions (before 10.21) are using JRE 1.7 which have TLS1.1 and TLS1.2 disabled by default for client SSL connections.<br><br>This causes that the UD agent cannot be connected when the latest CP is upgraded on the previous UCMDB versions. | Fixed the issue by enabling the support of TLS 1.2 and TLS 1.1 for migration and upgrade. Now the UD agent works properly for CP12, CP14, CP17, CP18 and later versions. |
| QCCR1H105238 | Dummy DB2 Databases are created by **Host Resources by Shell** job. | Fixed the issue by stopping reporting unnamed remote DB2 instances. |
| QCCR1H105298 | The **VMware vCenter Topology by VIM** job does not create the relationship VM -> Interface -> Port Group. | Fixed the issue by creating the Port Group on virtual switches. |

| Global ID | Problem | Solution |
|-----------|---------|----------|
| QCCR1H105364 | NetFlow fails to collect data sent from VMware vSwitch. | NetFlow can now collect data sent from VMware vSwitch. |
| QCCR1H105368 | Virtualization jobs create duplicate nodes. | Fixed the issue by adding the reported Net Device name validation and normalization. |
| QCCR1H105461 | The **Client Connection by SNMP** job does not work due to `IllegalArgumentException`. | Fixed the issue in the script to solve the `IllegalArgumentException` for the **Client Connection by SNMP** job. |
| QCCR1H105537 | Changing the value of the attribute into blank in UCMDB cannot be reflected in CA CMDB properly. | Empty data cannot be reflected in CA CMDB. Empty data should be set with the keyword **EMPTY**. Refer to CA Support Online for details. |
| QCCR1H105599 | The **OS Architecture** attribute is not populated for HP-UX ia64. | Added **ia64** for the **Os Architecture** attribute.<br><br>HP-UX can now retrieve this attribute. |
| QCCR1H105634 | Duplicate Node CIs are created by the **VMware vCenter Topology by VIM** job because Nodes are created with the name in different formats. | Fixed the issue by adding the node name normalization at the script level. |
| QCCR1H105635 | A parsing problem occurs in **netutils.py** when running the **Host Resources by Shell** job. | Fixed the issue by correcting the argument when using **netutils.isValidIp API**. |
| QCCR1H105652 | The **Storage Devices Topology by CIM** job fails during the data fetch from the remote Storage device due to an issue in the third-party **sblim-client.jar**. | Fixed the issue by upgrading the **sblim-client.jar** to the latest version. |
| QCCR1H105690 | Windows installation files are affected and specifically the following **.exe** files are with the wrong version in the **properties > details** tab: **discusge.exe**, **discfcsn.exe**, **discagnt.exe**, **discusgex64.exe**, **discfcsnx64.exe**, and **discagntx64.exe**. | Fixed the issue by applying the correct version information on the agent and scanner executable files. |
| QCCR1H105751 | The serial number of SUSE Linux Enterprise is returned with the value "**.............**". | Fixed the issue by filtering the wrong serial number with the value "**..........**". |
| QCCR1H105814 | The following error message is shown | The **JEE Weblogic by Shell** job now |

| Global ID | Problem | Solution |
|---|---|---|
| | in the communication log for the **JEE Weblogic by Shell** job:<br><br>```<br>Failed to discover server<br>topology<br>Traceback (most recent call<br>last):<br>File "weblogic_by_shell",<br>line 209, in DiscoveryMain<br>File "weblogic_discoverer",<br>line 1935, in<br>createDomainLayout<br>File "entity", line 321, in<br>getAppropriateClass<br>ValueError: Not supported<br>weblogic_discoverer.FsTrait<br>(/u01/app/weblogic/nodemanag<br>er)<br>``` | works properly without such errors. |
| QCCR1H105923 | HP IVM topology discovery fails on HP-UX machines with `UnknownCommandException` returned because hpvmstatus is not found. | HP IVM topology discovery now works properly on HP-UX. |
| QCCR1H105942 | HP OneView Integration pulls the ILO information instead of the Server information. | Fixed the issue by mapping Server-Profile to Node with the attribute **Name** and **Serial Number**. |
| QCCR1H105982 | The following error message is returned by the **Oracle Listeners by Shell** job when the Oracle `srvctl` command is in the different version of Oracle database:"`Command shell has been terminated externally`". | The **Oracle Listeners by Shell** job works properly without such errors. |
| QCCR1H106023 | The **Host Resources by Shell** and **Host Applications by Shell** jobs can only discover one instance of SAP Trex CIs though there are two instances. | Added a main-process qualifier to the Application Signature to support more than one instance of SAP Trex CIs per host . |
| QCCR1H106076 | When attempting to populate Database CI from ServiceNow to UCMDB using the ServiceNow pull adapter, the following error message is returned:<br><br>```<br>Task DS_SNOW_To_uCMDB_Import<br>data from ServiceNow:<br>``` | Added more meaningful logs for the ServiceNow pull job. |

| Global ID | Problem | Solution |
|---|---|---|
| | `received object of class 'database' has no required attribute 'root_container'` | |
| QCCR1H106082 | The **VMware vCenter Connection by VIM** or **Manual VMware VIM Connection** job fails with the following error message: "`java.security.cert.CertificateException: Certificates does not conform to algorithm constraints`". | Fixed the issue by changing the **java.security** setting. For details, see the *VMware Discovery Troubleshooting and Limitations* section of the *UCMDB Discovery and Integrations Content Guide - Discovery Modules*. |
| QCCR1H106102 | There is lack of documentation on how to configure the **Http Proxy** in the *AWS Protocol* section. | Added the **Http Proxy Host** and **Http Proxy Port** parameters to the *AWS Protocol* section of the *UCMDB Discovery and Integrations Content Guide - Supported Content*. |
| QCCR1H106128 | The script **InventoryUtils.py** has two code lines duplicated in the script lines 1185-1187. | Fixed the duplicated line issue in **InventoryUtils.py**. |
| QCCR1H106272 | When running the **Sybase Database Connection by SQL** job, the following error message occurs: "`JZ0S2: Statement object has already been closed`". This is because the job tries to close the connection twice. | The **Sybase Database Connection by SQL** job now tries to close the connection once. |
| **Asset Manager (AM) Integration Fixed Defects** | | |
| QCCR1E130682 | AM Generic Adapter delta synchronization fails with Oracle databases. | Fixed the issue by correcting the format for the date type. Running the delta population does not fail with the error. |
| QCCR1E131296 | According to the latest Oracle LMS report, there are new db options. The Push Adapter needs to support those new db options. This a request to add more database options in adapter mappings for SLO 9.5.12.2 integration based on the latest Oracle LMS report. | Fixed the issue by adding the following three options to the out-of-the-box **LMS_options.properties** file:<br><br>• **IMD=In-Memory Database**<br>• **MT=Multitenant**<br>• **CMP=Cloud Management Pack** |
| QCCR1E131526 | The AM Generic Adapter Population job fails upon encountering an error. | Fixed the issue by adding a new parameter **am.pushbackid.ignore.error** to control how the AM Generic Adapter |

| Global ID | Problem | Solution |
|---|---|---|
| | | proceeds with errors on global ID push back.<br><br>When the parameter is set to **true**, the AM Generic Adapter logs a warning message for the CI whose global ID fails to be pushed back to AM and continues to process the remaining data. |
| QCCR1H104998 | When running a computer push job in the multi-thread mode, it fails with the following error message: "`Invalid reference loop or timeout(stuck for 30 s)`". | AM Push Adapter does not hang when it pushes the failed CI again. |
| QCCR1H105043 | The **dtLastScan** value of some computers that is pushed into AM is not the same as that in UCMDB. | **dtLastScan** is pushed to AM with the same value as it is in UCMDB. |
| QCCR1H105112 | After the operation type of **Complete_amModel** is changed from **insert_else_reference** to **optional_reference**, the running software push leads to unexpected updates to models in AM. | The operation type **optional_reference** does not update the AM data. |
| QCCR1H105116 | The AM Cluster Push fails to run with the following error message:<br><br>```org.codehaus.groovy.control.MultipleCompilation ErrorsException: startup failed: Mapping_d329fd1acb5bfaf 570d0609ea56fd9b8.groovy: 1: unable to resolve class com.hp.amadapter.push .exception.AMPushAdvances ReconciliationException @ line 1, column 64. '${if(globalId==null) { throw new com.hp``` | The AM Cluster Push runs successfully. |
| QCCR1H105139 | When an error that can be retried occurs, it returns the error message and the stack trace for each of retries. In the end, it might be pushed successfully after many rounds of | When an error that can be retried occurs, all of the interim retries return a message (including the information to indicate that a retry will take place) at the warning level without a stack trace. |

| Global ID | Problem | Solution |
|---|---|---|
| | retries. The interim error should be suppressed to avoid returning too many errors to log files. | The stack trace is produced only at the debug level. If it still fails after all retries, an error message is returned with the stack trace. |
| QCCR1H105145 | The option **am.ignore.error** is set to **false** by default; however, this option should be set to **true** in most production environments. | The default value of the option **am.ignore.error** is set to **true**. |

# Appendixes

This appendix includes:

# How to Discover Windows Device Drivers using the Inventory Discovery by Scanner Job

The **Inventory Discovery by Scanner** job can report Windows device drivers. However, this feature is disabled by default. The discovery of the Windows device drivers needs to be enabled in the scanner configuration. To do so,

1. Open the **Scanner Configuration Generator** wizard. For more information about this wizard, see the *Scanner Generator Wizard* section in the *HP Universal CMDB Data Flow Management Guide*.

2. Navigate to the **Scanner Options** tab **> Troubleshooting** tab by clicking the **Next** button of the wizard.

3. Type -incl:904 in the **Additional command line parameters to supply to the scanners** field.

4. Click **Next**.

5. Click **Finish**.

**Note:** The discovery of Windows device drivers using the **Inventory Discovery by Scanner** job requires UCMDB 10.22 CUP1 or later.

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