



Universal CMDB

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Release Notes

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HPE Universal CMDB Content Pack Release Notes

This document provides information about HPE Universal CMDB (UCMDB) and Universal Discovery (UD) Content Pack 21.

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 21 is compatible with UCMDB versions 10.30, 10.22, and 10.11.
- Content Packs will be Forward Compatible with the next minor-minor or minor/major release. For example, Content Pack 21 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 available on the HPE Live Network website (<https://hpln.hpe.com/>).

On behalf of HPE CMS Product Management, R&D, and Support, we sincerely appreciate you as a CMS customer and value your feedback. We are 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 HPE Configuration Management System (CMS) Team

What's New in Content Pack 21

This section provides information about new features and enhancements to Content Pack 21.

Discovered Applications

Added support for discovering the following applications:

- Citrix XenServer 7.0
- Microsoft Internet Information Services (IIS) 10

Discovered Operating Systems

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

- Red Hat Enterprise Linux 7.2

New Discoveries

Added support for the following discoveries:

- Event based discoveries
 - Docker Swarm Event Discovery
 - OpenStack Event Discovery
 - VMware vCloud Event Discovery

Event based discoveries are based on the event that is sent out from Cloud providers in real time. The event based discoveries use a framework called Event Hub to capture such events and report them into UCMDB. Thus, the topology in UCMDB can reflect the actual environment as much as possible.

Note: Event based discoveries require UCMDB 10.22 or later.

- IBM SAN Volume Controller (SVC) Discovery

Added support for the new namespace IBM **root/ibm** under the SMI-S discovery jobs.

- NetApp Cluster Discovery in the NetApp Filer Discovery
- Microsoft SQL Server Always On Failover Cluster Instances Discovery in the MS-SQL Discovery

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

Integrations

- Added support for integrating the following applications:
 - HPE Network Automation (NA) 10.20
 - HPE NNMi 10.20
 - HPE OneView 2.x
- Added UI support for three more protocols for the CyberArk integration: SAP JMX protocol, SAP protocol, and VMware VIM protocol.
- Added NetApp OnCommand Insight (OCI) Pull Integration. This integration is to populate data from NetApp OCI to UCMDB.

For details, see the *HPE UCMDB Discovery and Integrations Content Guide - Third Party Integrations*.

- Added UCMDB-ServiceNow integration using the enhanced generic adapter. This integration supports Data Push into ServiceNow and Population from ServiceNow.

For details, see the *HPE UCMDB Discovery and Integrations Content Guide - Third Party Integrations*.

Others

- Added a new parameter **fs_discovery_method** to the **globalSettings.xml** file. This parameter indicates the file system discovery method. Valid values are **perl** and **lsawk**.
 - **perl** (default). Run Perl scripts to discover file systems. If Perl is not installed on the target host, the **lsawk** discovery method is used as a fallback mechanism.
 - **lsawk**. Run **ls + awk** commands to discover file systems.

- Added a new parameter **reportNonGlobalZoneWarning** to the **Solaris Zones by TTY** job. This parameter determines whether to report the warning if the destination is not a global zone. **Default:** true.
- Added a new protocol: AMQP Protocol. For details, see the *HPE UCMDB Discovery and Integrations Content Guide - Supported Content*.

Note: This protocol requires UCMDB 10.22 or later.

- Added support for the AWS GovCloud discovery in the Amazon Web Services Discovery.
Added the following three parameters to allow you to configure AWS endpoints in the AWS Protocol: **EC2Endpoint**, **IAMEndpoint**, and **RDSEndpoint**. These endpoints need to be configured to the endpoints used by the GovCloud.
These new parameters can be used to restrict the discovery to a specific region only. In such a case, you must specify the endpoints for a particular region in these parameters instead.
- Added support for the discovery of **SWIDTAG** files in the ISO/IEC 2009 and 2015 standards to the **Inventory Discovery by Scanner** job.
- Added a new topic *Event Based Discovery* in the *HPE UCMDB Discovery and Integrations Content Guide - General Reference*.
- Added two new topics *Layer2 Discovery Flow* and *Layer2 Discovery Troubleshooting* in the *HPE UCMDB Discovery and Integrations Content Guide - Discovery Modules*.
- Added the following two parameters to the **F5 BIG-IP LTM by Shell** job:
 - **f5CommandTimeout**. The command timeout value for Traffic Management Shell (tmsh).
Default: 5000.
 - **useServicesFile**. Indicates whether to use the customer-provided services file **f5_services.conf** or UCMDB **portNumberToPortName.xml**.
false (default). Uses the **portNumberToPortName.xml** file in UCMDB.
true. Uses the customer-provided services file **f5_services.conf** that is packaged under the **<DataFlowProbe_Home>\runtime\probeManager\discoveryResources** folder.
- Enhanced the **Host Resources by SNMP** job to support the discovery of the details of the Dell server via its iDRAC management card, including CPUs, disks, and interfaces.

Note: You need to set the **discoverModules** parameter of the **Host Resources by SNMP** job to **true**.

- Now the Universal Discovery agent installation will choose systemd first to manage UD agent service only if the Linux operating system supports it.
- Oracle Standby Databases can be discovered without using SYSDBA.

Enhanced the **Host Applications by Shell** plug-in to report Oracle Service Name CI.

Added Oracle Service Name CI to the reconciliation rule of Oracle CI.

- Scanner version: 10.30.000.122
- Universal Discovery Agent version: 10.30.000.122

System Requirements

- CP21 can be installed on:
 - UCMDB 10.11 CUP6 (or a later CUP)
 - UCMDB 10.22 (or with a CUP on top of 10.22)
 - UCMDB 10.30
- You must install UCMDB 10.11 CUP6 (or a later CUP), 10.22 (or with a CUP on top of 10.22), or UCMDB 10.30 before installing CP21.

Important Note:

- Before you deploy CP21 on top of version 10.30, you must install version 10.30 on the UCMDB, UD, and (optionally) CM servers, and deploy version 10.30 Data Flow Probes. Do not deploy CP21 while you are still updating the Data Flow Probes.
- Before you deploy CP21 on top of version 10.22, you must install version 10.22 on the UCMDB, UD, and (optionally) CM servers, and deploy version 10.22 Data Flow Probes. Do not deploy CP21 while you are still updating the Data Flow Probes.
- Before you deploy CP21 on top of version 10.11, you must install 10.11 CUP6 (or a later CUP) on the UCMDB, UD, and (optionally) CM servers, and deploy version 10.11 Data Flow Probes. Do not deploy CP21 while you are still updating the Data Flow Probes.

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 **HPE Live Network**.

Content Pack Installation

The following procedure explains how to install Content Pack 21.00 for 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 21.00 ZIP file

The name of the installation file is **CP21_installation.zip**. This file is located on the HPE Live Network website (<https://hpln.hpe.com/>).

The ZIP file contains the following resources:

- Packages (**CP21.zip**)
- Online help
- The *HPE UCMDB Discovery and Integrations Content Guide* PDF files.
- Permissions.pdf

3. Extract packages from the Content Pack 21.00 ZIP file

Unpack the contents of the **CP21_installation.zip** file to **<UCMDB_Server_Home>**.

4. Back up existing packages

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

`https://localhost:8443/jmx-console`

Log in using the JMX console authentication credentials.

Note: Starting with UCMDB version 10.30, by default the HTTPS protocol is enabled for

UCMDB server, with the HTTP protocol being disabled.

If necessary, you can enable HTTP communication for UCMDB Server. For instructions, see "How to Enable HTTP Communication for UCMDB Server" in the *HPE Universal CMDB Administration Guide*.

- b. Click the **UCMDB:service=Packaging Services** link.
- c. On the JMX MBEAN View page, locate the following JMX function: **exportPackages ()**.

Note: The JMX function **exportPackages ()** exports packages that contain OOTB Jython scripts customized by the UCMDB administrator. The customizations will be lost after the CP21 deployment.

- 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, **<UCMDB_Server_Home>\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 **<UCMDB_Server_Home>\runtime\log**.
5. Install Content Pack 21.00

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

From Universal CMDB:

- a. Stop UCMDB.
- b. Make sure that **CP21.zip** is in the following directory:
<UCMDB_Server_Home>\content\content_packs
- c. Start UCMDB server.
- d. Log in to the UCMDB.
- e. Access the **Package Manager (Administration > Package Manager)**.

- f. On the toolbar, click the **Install Content Pack** button.
- g. In the Install Content Pack dialog box that opens, select the CP21 version of the Content Pack and click **Install**.

Using the UCMDB JMX Console:

- a. Log in to the UCMDB JMX-Console (<https://localhost:8443/jmx-console>).
 - b. Open **UCMDB > Content Pack Services**.
 - c. Invoke **displayAvailableContentPackVersions** to see available versions of the Content Pack.
 - d. Enter the CP21 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 **<UCMDB_Server_Home>\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: **<UCMDB_Server_Home>\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/product/universal-discovery/content>) website on the HPE 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) 21, 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 CP21.
-

PROBLEM: If you deploy CP21 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.

Workaround: To resolve this issue, follow these steps:

1. Extract the **ASM_Enhanced.zip** package from the CP21 package.
2. Log in to UCMDB, and then go to **Administration > Package Manager**.

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

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_Home>\content\lib** directory.

PROBLEM: After you upgrade from UCMDB 10.20 to 10.21, 10.22, or 10.30, 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 not used any longer.

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

Universal Discovery - General

LIMITATION: CP21 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

IMITATION: When running the Microsoft SQL Server Always On Failover Cluster Instances discovery on both real IP addresses and Cluster IP addresses, duplicate Microsoft SQL instances are reported.

Workaround: Exclude the cluster IP addresses of Microsoft SQL AlwaysOn Cluster from the discovery range.

IMITATION: ASM does not support discovering the running software and its related ConsumerProvider relationships on a Solaris Local zone.

Workaround: None.

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.

HPE Integrations

PROBLEM: On the first synchronization from Service Anywhere to UCMDB, you may see an error message displayed similar to the following:

```
Integration Point doesn't exist. No adapter for given target.
```

Workaround: To remedy this, do the following:

1. Log in to the UCMDB instance.
2. Go to **Data Flow Management > Integration Studio**.

3. Right-click the integration point: **<endpoint name>_<tenant id>**, and click **Edit**. The Edit Integration Point dialog box is displayed.
 4. Deselect **Is Integration Activated**.
 5. Click **OK**.
 6. Reselect **Is Integration Activated**.
 7. Click **OK**.
 8. Go to the job in UCMDB and run a full synchronization.
-

Third Party 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


Global ID	Description	Workaround
QCCR1E119141	The 'Ignore on null' option is not supported for data push from UCMDB to Service Manager.	None
QCCR1E117760	<p>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.</p> <p>Such out-of-the-box mapping scripts include:</p> <ul style="list-style-type: none">• CLIP Downtime Population mapping script• Relationship push and population mapping scripts• Federation mapping scripts	None
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
QCCR1H95635	The JEE WebSphere by Shell job requires Perl for executing small piece of script. This is problematic to maintain Perl packages on all WebSphere servers, because AIX Admins keep the packages at a minimum level only for OS to run and Application teams do not require Perl for their application. Some applications require Perl, but they keep their version closely connected together with the exact Perl version. Perl is not easy to maintain on all machines.	<p>Added a new parameter fs_discovery_method to the globalSettings.xml file. This parameter indicates the file system discovery method. Valid values are perl and lsawk.</p> <ul style="list-style-type: none"> • perl (default). Run Perl scripts to discover file systems. If Perl is not installed on the target host, the lsawk discovery method is used as a fallback mechanism. • lsawk. Run ls + awk commands to discover file systems.
QCCR1H98678	Request to discover IBM Storage devices using the Storage Devices Connection by CIM job.	Added support for the IBM SAN Volume Controller (SVC) discovery by adding a new namespace IBM root/ibm under the SMI-S discovery jobs.
QCCR1H99512	NetApp cluster discovery is not supported.	Added support for the NetApp cluster discovery in the NetApp Filer Discovery.

Global ID	Problem	Solution
QCCR1H104328	<p>After upgrading UCMDB to version 10.21 CUP1 + CP17, NetApp discovery fails with an exception stating that SSLv3 protocol version is not enabled or not supported by the client.</p>	<p>Updated a new NetApp driver.</p>
QCCR1H105096	<p>The Amazon Web Services (AWS) discovery has region endpoints hard coded and does not appear to expose the ability to create custom endpoints.</p> <p>The AWS discovery cannot discover AWS GovCloud or any other AWS private clouds.</p> <p>Request for the AWS discovery to allow to input custom endpoints, such as the endpoints found in AWS GovCloud or any endpoint.</p>	<p>Added support for the AWS GovCloud discovery.</p> <p>Added the following three parameters to allow you to configure AWS endpoints in the AWS Protocol: EC2Endpoint, IAMEndpoint, and RDSEndpoint.</p> <p>For details about these parameters, see the <i>HPE UCMDB Discovery and Integrations Content Guide - Supported Content</i>.</p>
QCCR1H107429	<p>Lack of Layer2 discovery flow and troubleshooting docs.</p>	<p>Added two new topics <i>Layer2 Discovery Flow</i> and <i>Layer2 Discovery Troubleshooting</i> in the <i>HPE UCMDB Discovery and Integrations Content Guide - Discovery Modules</i>.</p>

Global ID	Problem	Solution
QCCR1H107525	Request to collect the Comment information for applications from Add or Remove Programs (older Windows versions) or Programs and Feature (newer Windows) Control Panel applet.	<p>The Host Resources by PowerShell/Shell/WMI and Inventory Discovery by Scanner jobs can collect the Comments information for the installed software.</p> <p>The information can be viewed through Viewer > Hardware and Configuration tab > Operating System Data > OS Installed Applications > OS Installed Application Comments in the scan file. And it is mapped to the Comments attribute in Installed Software CI (Only for the Raw OS Installed Software).</p> <p>Note:</p> <ul style="list-style-type: none"> • For the Inventory Discovery by Scanner job, you need to select and configure Raw OS Installed Software as follows: <ol style="list-style-type: none"> a. Go to the MappingConfiguration parameter of the Inventory Discovery by Scanner job. b. Select this parameter and then click  in the Value column. c. In the Edit Mapping Configurations dialog box, select Raw OS Installed Software and fill the Include or Exclude fields with the following format: <pre>name=[Regex];discovered_vendor=[Regex];version=[Regex];description=[Regex]</pre> <p>Regex is a Regular Expression.</p> <p>For example:</p> <pre>name=[MySoftware];version=[1\.\d]</pre> <p>By default, all raw installed software are excluded.</p> <p>You can also select and configure Raw OS Installed Software from the Inventory Discovery activity through the Preferences page > Mapping Options.</p> <p>For more details about Raw OS Installed Software, see the section <i>Inventory Discovery Activity > Preferences Page</i> in the <i>HPE UCMBD Discovery and</i></p>

Global ID	Problem	Solution
		<p><i>Integrations Content Guide - Discovery Activities.</i></p> <ul style="list-style-type: none"> For the Host Resources by WMI job, you need to set the discoverInstalledSoftwareByOldMechanism parameter to true.
QCCR1H107681	SMI-S Discovery does not discover all connected nodes. This is because a wrong class is used to discover connections for HPE 3PAR .	Chose the right class to discover connections.
QCCR1H108644	Some customized Apache configuration cannot be supported.	<ul style="list-style-type: none"> ASM can get the specified configuration file from Apache command line. ASM can find the corresponding WebSphere servers for a particular Apache.
QCCR1H108875	ThinkPad T540p is not recognized in the normalization rules.	Added a rule 616893 lenovo_thinkpad_t540p to the normalization rules.
QCCR1H108903	The ServiceNow push adapter is not always updating the existing records but creating new records. For example, when you populate sys_id from node1 in the pull adapter and then push the updates to the ServiceNow side, the existing server record is not updated but a new server record is created.	<p>Added the following solution to the ServiceNow Integration section:</p> <p>Problem:</p> <p>When you populate data from ServiceNow to UCMDB and then push data back to ServiceNow, duplicated records are created on the ServiceNow side.</p> <p>Workaround:</p> <p>The mapping file of the ServiceNow push integration should include the mapping <code>data_externalid > sys_id</code>. For example:</p> <pre><source_ci_type_tree name="nt"> <target_ci_type name="cmdb_ci_computer"> <target_attribute name="sys_id" datatype="String" > <map type="direct" source_attribute="data_externalid" /> </target_attribute></pre>

Global ID	Problem	Solution
QCCR1H108957	ASM should support the discovery of the Tomcat plug-in worker.properties in Apache.	<ul style="list-style-type: none"> Updated the ASM discovery about Apache to support checking the mod_jk module. Updated the ASM discovery about Apache to support parsing the Tomcat worker configuration file worker.properties.
QCCR1H108989	Request for the Host Resources by SNMP job to discover the details of the Dell server via its iDRAC management card. Need to support iDRAC specific MIBS, such as IDRAC-MIB-SMIv2.	<p>Enhanced the Host Resources by SNMP job to support the discovery of the details of the Dell server via its iDRAC management card, including CPUs, disks, and interfaces.</p> <p>Note: You need to set the discoverModules parameter of the Host Resources by SNMP job to true.</p>
QCCR1H109022	The customer cannot use SYSDBA to discover Oracle Standby instances.	<p>Oracle Standby Databases can be discovered without using SYSDBA.</p> <p>Enhanced the Host Applications by Shell plug-in to report Oracle Service Name CI.</p> <p>Added Oracle Service Name CI to the reconciliation rule of Oracle CI.</p>
QCCR1H109072	The Oracle Topology by SQL job should be able to enable or disable reporting links to remote Oracle database. At this moment, this feature is always on because it is hard coded.	Added a new parameter discoverDBLinks to the Oracle Topology by SQL job. This parameter indicates whether to discover DB links. The default value is true .
QCCR1H109459	The Solaris Zones by TTY job shows a warning message "UDA: Zones discovery requires a global zone connection".	<p>Added a new parameter reportNonGlobalZoneWarning to the Solaris Zones by TTY job.</p> <p>This parameter determines whether to report the warning if the destination is not a global zone.</p> <p>Default: true</p>

Global ID	Problem	Solution
QCCR1H109919	The ASM job Host Discovery by Shell cannot filter some dynamic port numbers, such as "5XX04" and "6XX01".	The ASM job Host Discovery by Shell can now filter some dynamic port numbers, such as "5XX04" and "6XX01".
QCCR1H109935	The Universal Discovery (UD) agent is not installed using systemd for startup.	Most Linux distributions support systemd to manage services. Now the UD agent installation will choose systemd first to manage UD agent service only if the Linux operating system supports it.
QCCR1H110116	For the ASM discovery, the customer cannot disable the related application to find next hop using the TCP connection.	To disable the related application to find next hop using the TCP connection, you can add the related application CI type to the disableTcp_application_list.xml file.
QCCR1H110185	F5 Traffic Management Shell (tmsh) based discovery is not supported.	<ul style="list-style-type: none"> • Added a new Shell tmsh support for the F5 BIG-IP LTM by Shell job. • Added the following two parameters to the F5 BIG-IP LTM by Shell job: <ul style="list-style-type: none"> ◦ f5CommandTimeout. The command timeout value for Traffic Management Shell (tmsh). Default: 5000. ◦ useServicesFile. Indicates whether to use the customer-provided services file f5_services.conf or UCMDB portNumberToPortName.xml. false (default). Uses the portNumberToPortName.xml file in UCMDB. true. Uses the customer-provided services file f5_services.conf that is packaged under the <DataFlowProbe_Home>\runtime\probeManager\discoveryResources folder.
QCCR1H110482	For the ASM discovery, the listening port cannot be found from the configuration file.	The listening port can be found from the configuration file in the following applications: JBoss, WebSphere, WebLogic, Apache Tomcat, Apache Web Server, and IIS.

Fixed Defects

The following table lists the defects that were fixed in HPE UCMDB Content Pack 21.

Global ID	Problem	Solution
QCCR1H100508	When discovering HP-UX servers, the Host Resources by Shell and Inventory Discovery by Scanner jobs populate some attributes with different values, which causes the values of these attributes to change all the time.	Fixed all the attribute value flipping issues between Host Resources by Shell and Inventory Discovery by Scanner .
QCCR1H102957	The Inventory Discovery by Scanner job returns the wrong CPU name, but the Host Resources by Shell job returns the correct CPU name. This is because the CPU frequency reported by some CPUs as part of the name can differ. In the Host Resources by Shell job, WMIC is used to get the CPU name, but in the Inventory Discovery by Scanner job, CPUID is used to get the CPU name.	Now in the Inventory Discovery by Scanner job, WMIC is used to get the CPU name firstly. If the CPU name cannot be retrieved, then CPUID is used to get it.
QCCR1H105566	NetApp SANscreen Integration job fails with the unauthorized error when calling the closeSession API. It means the NetApp side decides that the session is invalid after the whole workflow is finished.	As confirmed by NetApp, the closeSession should be closed automatically when it is finished. Fixed the issue by removing closeSession from the Python script.
QCCR1H106615	The Host Connection by Shell job fails to populate the DefaultGatewayIpAddress attribute. In the communication log, the following error message occurs when using the netstat -r -n command: "Failed getting default gateway from netstat. Failed parsing default gateway from netstat output".	Fixed the issue by adding another DefaultGatewayIpAddress parsing rule to the netstat command.
QCCR1H107678	Integrating UCMDB 10.20 with Microsoft SCCM and HP SIM creates duplicate CIs for Blade G8 servers.	Fixed the issue by changing the field mapping in HP SIM adapter.

Global ID	Problem	Solution
QCCR1H108079	While running the Range IPs by ICMP job, the Data Flow Probe JVM restarts multiple times. Whenever Data Flow Probe tries to execute ICMP by Ping for the x.x.x.x/22 subnet, it crashes and restarts.	Fixed the issue by changing the code so that the JVM will not crash.
QCCR1H108089	The Host Resources by Shell job cannot provide the version and model information for Hitachi HBA on SUSE Linux.	The Host Resources by Shell job can now provide the version and model information for Hitachi HBA on SUSE Linux.
QCCR1H108366	The bios_version attribute size in the CI type Node is too short.	Fixed the issue by increasing the bios_version attribute size to 200 .
QCCR1H108577	One HP-UX is not recognized in the normalization rules.	Fixed the issue by adding the rule 616892 server hp_9000rp4440 .
QCCR1H108582	Users run a Network Automation (NA) integration using the Pull Topology from HP Network Automation adapter. When testing the UCMDDB-NA integration, nothing appears in the NA log, but UCMDDB logs contain errors.	Added the following to the <i>HPE UCMDDB Discovery and Integrations Content Guide - HPE Integrations</i> : The ports 1098, 1099, and 4446 should be open for Data Flow Probe to communicate with the NA server.
QCCR1H108610	The Host Resources/Applications by Shell job fails to run commands when there is a white space in the command line.	A white space in the command line will not prevent the command from being executed by the script.
QCCR1H108611	When the Host Resources/Applications by Shell job discovers OM agents, if the command <code>opcagt -version</code> returns code 1, it is considered successful. <code>opcagt -version</code> should allow only 0 as a return code.	Only 0 is allowed as a return code for <code>opcagt -version</code> .
QCCR1H108746	When discovering the PostgreSQL database, the PostgreSQL Connection by SQL job does not work correctly.	The PostgreSQL Connection by SQL job can now discover the PostgreSQL instance properly.

Global ID	Problem	Solution
QCCR1H108827	The scanner fails to retrieve the hwMemSwapFileSize attribute on Windows Server 2003.	The scanner can now discover the swap files properly in Windows Server 2003 and later versions.
QCCR1H108879	The Host Connection by Shell job and Inventory Discovery by Scanner job report different domain names.	Fixed the issue by retrieving the actual domain name using the WMI method as the Host Connection by Shell job does. This will make sure there will be no flipping issue anymore.
QCCR1H108951	The following issues occur in the Amazon Web Services (AWS) Discovery: <ul style="list-style-type: none"> • "ValueError: Public address is not specified". User does not use public IP addresses. • "Connection timed out: connect" from one region. Then the EC2 discovery terminates. 	Fixed these issues as follows: <ul style="list-style-type: none"> • Changed the code to use the private IP addresses if the public IP address is not specified. • Changed the code to prevent the EC2 discovery from terminating when the AWS Discovery fails to discover instances from one region.
QCCR1H108955	When running the VMware vCenter Topology by VIM job to discover ESX servers, the DiscoveredOSVendor attribute is not populated.	VMware related jobs can now report the DiscoveredOSVendor attribute properly.
QCCR1H108984	Duplicate Oracle CIs occur due to improper results in the Oracle Topology by SQL job.	Fixed the issue by changing the regular expression properly. Now the Oracle Topology by SQL job reports the correct Oracle instance name.
QCCR1H109155	Activating Software Utilization for Universal Discovery does not update the plugin.ini file properly on 64-bit Windows systems.	Now the plugin.ini file is updated properly on 64-bit Windows systems.

Global ID	Problem	Solution
QCCR1H109162	When running the Host Connection by Shell job on Solaris 11 and the SPARC architecture, the BIOS (openprom) information cannot be discovered and the following error message occurs in probe-error.log : "Failed to discover manufacturer on Sun OS host".	Fixed the issue by using <code>prtpicl -v -c chassis</code> to get the related information.
QCCR1H109234	The HP nPartitions by Shell adapter does not populate all the attributes of the CI type Fibre Channel HBA.	The HP nPartitions by Shell adapter can now populate the Driver, Firmware, and Model versions for HP Fibre Channel Tachyon TL/TS/XL2.
QCCR1H109257	A lot of performance issues occur while running and updating the discovery job status. This is because UCMDB is busy validating Candidates for Deletion CIs, during which no job updates are pushed to the UCMDB Server.	Fixed the issue by removing the "candidate for deletion" records for the automatic deletion of the Host Applications by Shell job.
QCCR1H109290	The following error message is returned by the JEE Weblogic by Shell job: "Content type for file tnsnames.ora was not resolved".	Now the JEE Weblogic by Shell job works properly.
QCCR1H109336	UD Scanner discovers the hwBiosVersion value with repetitions.	The hwBiosVersion value can now be discovered correctly by scanners.
QCCR1H109424	The Citrix Xen Topology job fails with the "unicodeEncodeError".	Fixed the issue by encoding the content in UTF-8.
QCCR1H109453	The JEE Weblogic by Shell job ends with an error and does not work as expected.	The JEE Weblogic by Shell job now works properly.
QCCR1H109472	The SCCM adapter retrieves the wrong CPU information.	The SCCM adapter now retrieves the correct CPU information.
QCCR1H109475	Not all the SAP Systems are discovered by the SAP Solution Manager Topology by SAP JCO job.	Now SAP Systems are discovered by the SAP Solution Manager Topology by SAP JCO job properly.
QCCR1H109609	The following error message is returned by the MSSQL Topology by SQL job: "Error: java.lang.NullPointerException".	Now the MSSQL Topology by SQL job works properly.

Global ID	Problem	Solution
QCCR1H109644	Required Permissions under the Oracle Database Connection by SQL and Oracle Topology by SQL jobs are missing.	Updated the Adapter Definition > Required Permissions section of the Oracle Database Connection by SQL and Oracle Topology by SQL jobs to include the information.
QCCR1H109674	When pushing CIs from NNMI to UD, hardware_board CIs are merged when they differ only in hardware_board_index .	Fixed the issue by changing the reconciliation rule for the hardware_board CI type.
QCCR1H109767	For the CI type JBOSS AS, the JEE JBoss by Shell job discovers the instance name attribute j2eeserver_servername incorrectly. Instead of the instance name, the attribute is populated with the server name which is incorrect.	The JEE JBoss by Shell job now discovers the JBOSS AS instance name attribute j2eeserver_servername correctly.
QCCR1H109803	The JEE Weblogic by Shell job does not use sudo. The zonename command works but the command list says null.	The sudo will be enabled to find command if it is included in the sudo command list.
QCCR1H109908	The Host Applications by Shell job does not detect SQL properly due to incorrect relationships.	The Host Applications by Shell job now detects SQL properly.
QCCR1H109909	The following error message is returned by the IBM Virtualization by Shell job: "Error processing results, for more details please check UCMDB server log files".	Fixed the reconciliation issue by adding the serial number to the population data.
QCCR1H110132	The following error message is returned by the Host Connection by Shell job: "expected str or unicode but got <type 'NoneType'>".	The Host Connection by Shell job now works properly.
QCCR1H110133	The following error message is returned by the Host Resources by Shell job: "ValueError: u'xxx.xxx.xx.xx':" does not appear to be an IPv4 or IPv6 address".	The Host Resources by Shell job now works properly.
QCCR1H110216	UCMDB shows relationships between node and Oracle RAC server where Oracle database is not running. UCMDB should show only active node relationship on Oracle RAC database.	UCMDB now shows only active node relationship on Oracle RAC database.

Global ID	Problem	Solution
QCCR1H110236	After installing CP20, during the Host Connection by Shell discovery, normalization rules do not apply anymore to Linux servers.	Fixed the issue by changing the discovered_os_name attribute format to Red Hat (Linux) .
QCCR1H110255	VMware discovery throws an exception due to an incorrect test for a null value in the iSCSI section.	VMware discovery will not throw exceptions.
QCCR1H110390	During the HBA Brocade (Linux) discovery, firmware and model are missing.	Altered the discovery logic to collect model , firmware_version , and serial_number from the Linux file systems that are specific to Brocade HBA.
QCCR1H110791	Some normalization rules are missing for Cisco devices.	Fixed the issue by adding new normalization rules for Cisco devices.

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