



# HP Universal CMDB

Software Version: 10.20

## Release Notes

Document Release Date: October 2015 (5th Edition)  
Software Release Date: January 2015

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#### Document Changes

Version	Changes
10.20 (2nd Edition, June 2015)	Added an known upgrading issue in "UCMDB Upgrade". For details, see <a href="#">QCCR1H100431</a> .
10.20 (3rd Edition, August 2015)	<ul style="list-style-type: none"> <li>• Added an known issue about the UCMDB Integration Service. For details, see <a href="#">UCMDB Integration Service</a>.</li> <li>• Added an known issue about CI types and class models after upgrading UCMDB from a previous CUP to version 10.20. For the workaround, see <a href="#">QCCR1H101236</a>.</li> </ul>
10.20 (4th Edition, August 2015)	<p>Added pre-steps to perform in "HP UCMDB and HP Configuration Manager Deployment" if users upgrade UCMDB Server to version 10.20 from one of the following CUP version:</p> <ul style="list-style-type: none"> <li>• 10.01 CUP12 or a higher CUP</li> <li>• 10.11 CUP6 or a higher CUP</li> </ul>
10.20 (5th Edition, October 2015)	Added a limitation note that Configuration manager is not supported with Windows Internet Explorer 11

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# HP Universal CMDB, HP Universal Discovery, and HP Configuration Manager Release Notes

This document provides information about version 10.20 of the HP Configuration Management System, which consists of HP Universal CMDB 10.20 (UCMDB), HP UCMDB Universal Discovery 10.20 (UD), and HP Configuration Manager 10.20 (CM).

## HP Universal CMDB, UD, CM 10.20 Files/Components

HP UCMDB, UD, and CM 10.20 are provided with the following files/components:

	Included Files
<b>Windows</b>	<ul style="list-style-type: none"> <li>• <b>HPUCMDB_Server_10.20.480.exe.</b> Launches the installation of the version 10.20 HP UCMDB Server for the Windows platform.</li> <li>• <b>HPUCMDB_DataFlowProbe_10.20.480.exe.</b> Launches the installation of the version 10.20 HP Universal Discovery Data Flow Probe for the Windows platform.</li> </ul> <p>This installer can also be used to install the Universal Discovery Inventory Tools in a standalone installation.</p> <ul style="list-style-type: none"> <li>• <b>HPCM_10.20.82.exe.</b> Launches the installation of the version 10.20 HP UCMDB Configuration Manager for the Windows platform.</li> </ul>
<b>Linux</b>	<ul style="list-style-type: none"> <li>• <b>HPUCMDB_Server_10.20.480.bin.</b> Launches the installation of the version 10.20 HP UCMDB Server for the Linux platform.</li> <li>• <b>HPUCMDB_DataFlowProbe_10.20.480.bin.</b> Launches the installation of the version 10.20 HP Universal Discovery Data Flow Probe for the Linux platform (for integrations only).</li> <li>• <b>HPCM_10.20.82.bin.</b> Launches the installation of the version 10.20 HP UCMDB Configuration Manager for the Linux platform.</li> </ul>
<b>Both</b>	<ul style="list-style-type: none"> <li>• <b>Deployment_Guide.</b> Contains the Interactive Deployment Guide files, including launch file. <ul style="list-style-type: none"> <li>◦ <b>Launch_Deployment_Guide.htm</b></li> <li>◦ <b>Hardening Guide</b> (HardeningGuide.pdf)</li> <li>◦ <b>Upgrader Reference</b> (Upgraders.pdf)</li> <li>◦ <b>Database Guide</b> (DatabaseGuide.pdf)</li> </ul> </li> </ul>

	Included Files
	<ul style="list-style-type: none"> <li>• <b>Support Matrix</b> (Support_Matrix.pdf)</li> <li>• <b>Read Me</b> (Read_Me.txt)</li> <li>• <b>What's New</b> (Whats_New.html)</li> </ul>

**Note:** HP UCMDB Universal Discovery Content Pack 15.00 and UCMDB Browser 4.00 are included with UCMDB version 10.20.

## System Requirements

For a list of system requirements, see the *HP Universal CMDB Support Matrix* document available in the root folder of the HP Universal CMDB Installation media.

**Note:** Embedded PostgreSQL is not supported on Enterprise deployments of UCMDB.

**Note:** If you are using an Oracle version that is prior to 10.2.0.5, you must apply the Oracle patch that fixes Oracle defect # 5866410. For details, go to the Oracle website and find the information regarding this defect number.

## HP UCMDB and HP Configuration Manager Deployment

The HP UCMDB installers are available on physical or electronic media.

**Note:** If you upgrade UCMDB Server to version 10.20 from one of the following CUP version:

- 10.01 CUP12 or a higher CUP
- 10.11 CUP6 or a higher CUP

perform the following steps before you proceed:

1. Revert the master key to its default value if you have changed the master key for the cluster.

For detailed instructions, see the *How to Set Master Keys* section in the *HP Universal CMDB Administration Guide*.

2. Manually decrypt the settings by invoking the **markSettingAsNonsensitive** JMX method. Only proceed with the next steps when the result returned by the **listSensitiveSettings** JMX method is empty.

For detailed instructions, see the *How to Mark Sensitive Settings and Enable Storing Encrypted Data in the Database Using JMX* section in the CUP Release Notes document.

3. Stop the UCMDB Server and run the **serverRollback.bat** from **C:\hp\UCMDB\UCMDBServer\tools\dbscripts\uninstall.**

1. For deployment instructions, launch the interactive *HP Universal CMDB Deployment Guide (Deployment\_Guide\Launch\_Deployment\_Guide.htm)*.

**Note:** There is an issue in Google Chrome update Version 30.0.1599.69 that prevents opening the interactive *HP Universal CMDB Deployment Guide*. Use a browser other than Google Chrome (for example, Internet Explorer or Mozilla Firefox) to open the guide.

2. In the interactive document select the relevant product set, and select your deployment options.
3. Click the **View** button to view your customized Deployment Guide, or click the **Print** button to print the customized guide.

**Note:** If you have a PDF print driver installed on your computer, click **Print** to create PDF documents that are customized according to your selections. PDF print drivers are available from several open source and third-party providers.

## Discovery Knowledge Content

Discovery Knowledge content updates are regularly released by Hewlett-Packard and contain Discovery Rules content files and Software Application Index (SAI) content files. All content updates that were included in HP Discovery and Dependency Mapping Inventory content updates are also included in Universal Discovery.

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

SAI files contain information to identify applications on a discovery 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).

**Note:** To import the most recently released SAI files that is released after version 10.20 of HP Universal CMDB into UCMDB, see the *How to Import DDMI SAls to UCMDB* section in the *DDMI to Universal Discovery Migration Walkthrough Guide*.

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

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

## Known Problems, Limitations, and Workarounds

The following problems and limitations are known to exist in CMS 10.21 (or later software, as indicated). The problems are categorized by the affected product area. If a problem has an assigned internal tracking number, that tracking number is provided (in parentheses) at the end of the problem descriptions.

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## UCMDB Installation

- There is an issue in Google Chrome update Version 30.0.1599.69 that prevents opening the interactive *HP Universal CMDB Deployment Guide*. Use a browser other than Google Chrome (for example, Internet Explorer or Mozilla Firefox) to open the guide.
- You cannot change the default password of users during installation (for example, the system administrator or the integration user). Use the JMX console to change the password.
- The “PostgreSQL installation detected in rpm” error appears while installing UCMDB on Red Hat Enterprise Linux version 6.5 with embedded PostgreSQL.

**Workaround:** Simply ignore the warning and click **Next**.

## UCMDB Upgrade

- When upgrading from UCMDB version 10.11 with a CP15 update to UCMDB 10.20, the UCMDB server cannot start after upgrade. This is caused by the fact that the current CP version deployed on top of version 10.11 is higher than the CP version bundled in the 10.20 install media. (QCCR1H100431)

**Workaround:** You can fix this upgrade issue by changing the CP version in the JMX Console manually during the upgrade, and after the upgrade, redeploy the existing CP.

For example, if you are upgrading UCMDB from version 10.11 with CP15 Update 1 to version 10.20, do the following,

a. Perform the minor upgrade from UCMDB 10.11 with CP15.01.142 to UCMDB10.20.

b. Check status and wait for the CP deployment to fail with error in **error.log**:

```
[ErrorCode [105005] Content pack downgrade is not allowed]
```

```
Trying to install CP version [15.00.123] which is older than the one already installed [15.01.143] is not support.
```

c. Log in to the JMX Console and access **UCMDB:service=Settings Services**.

d. Locate the **getInternalSettings** method.

e. Enter customer ID and **cp.version** in the **key** value field, and then click **Invoke**.

The returned value should be **15.01.142**.

- f. Replace the value with **15.00.123** and click **Set**.
- g. After that the CP deployment should finish successfully. You can check the status in **mam.packaging.log**.
- h. Access UCMDB UI and redeploy CP 15.01.142.
- i. Check the CP version from menu **Help > About**. It should be **15.01.142**.

You may also refer to [KM01581489](#) for details.

- **PROBLEM:** After upgrading UCMDB to 10.20, the class model cannot be edited. While opening the CI Type Manager, the "undefined error code" is received. (QCCR1H101236)

**Note:** This problem is only applicable for upgrades in the following situations:

- The Content Pack version changes. For example, during the upgrade from 10.11 CUP5 to 10.20, CP version changes from CP13 to CP15.
- Users have customized CI types, in particular, attribute sizes of CI type.
  - If the CI type customizations do not include the attribute size, most likely the upgrade will be successful, but user changes may be overridden by Content Pack values.
  - If the CI attribute sizes are changed and the database columns cannot be shrunk to the Content Pack attribute size, there will be database failures that will later cause other issues.

**Workaround:** To resolve the CI types and class model upgrade problem,

- a. Back up your class model using the UCMDB Class Model JMX Services by invoking the method **exportClassModelToXml**.
- b. Identify the columns that failed during upgrade in the log files.

**Here is an example:**

In the following log errors, the column **A\_J2EEDEPLOYEDOBJ\_1636218914** from tables **CDM\_WEBMODULE\_1** and **CDM\_EJBMODULE\_1** failed to be updated. The table column size cannot

be shrunk to size 32 (the value in the class model).

```
2015-06-04 19:37:04,464 ERROR [Starter for "content-install" (during
Writer server startup). (customer 1, id name: Default Client)] -
1600505186 704922133 1654133270 1983375944 Can't execute statement [ALTER
TABLE CDM_WEBMODULE_1 ALTER COLUMN A_J2EEDEPLOYEDOBJ_1636218914 varchar
(32)], due to exception: java.sql.SQLException: [mercury][SQLServer
JDBC Driver][SQLServer]String or binary data would be truncated.
```

```
2015-06-04 19:37:05,286 ERROR [Starter for "content-install" (during
Writer server startup). (customer 1, id name: Default Client)] -
1600505186 704922133 1654133270 1983375944 Can't execute statement [ALTER
TABLE CDM_EJBMODULE_1 ALTER COLUMN A_J2EEDEPLOYEDOBJ_1636218914 varchar
(32)], due to exception: java.sql.SQLException: [mercury][SQLServer
JDBC Driver][SQLServer]String or binary data would be truncated.
```

```
2015-06-22 12:40:30,802 ERROR [qtp168260699-352055] Failed to execute
command [AlignCustomerDataModelSchemaCommand] time [134562 ms] customer
ID [1] operation stack [621862392
com.mercury.topaz.cmdb.shared.classmodel.exception.ClassModelException:
[ErrorCode [-2147483648] undefined error code]
```

```
Failed to update columns from table CDM_WEBMODULE_1; columns to update:
[ColumnDescription{name='A_J2EEDEPLOYEDOBJ_1636218914'}]
```

```
Failed to update columns from table CDM_EJBMODULE_1; columns to update:
[ColumnDescription{name='A_J2EEDEPLOYEDOBJ_1636218914'}]
```

- c. For each of the problematic database columns, identify the size of the column (In the above example, the size of Column **A\_J2EEDEPLOYEDOBJ\_1636218914** is **50**, while the attribute size from the UCMDB class model is **32**).
- d. Update the problematic class resources in the URM to reflect the actual attribute size in the database:
  - i. Access the URM Services from the UCMDB JMX Console.
  - ii. Invoke the **listResourceTypes** method and select the **CM\_CLASS** resource type.
  - iii. Identify the needed CI types (in the above example, **TABLE CDM\_EJBMODULE\_1** refers to the ejbmodule CI type that inherits the problematic attributes from J2EE Deployed Object or the **j2eedeployedobject** URM resource).

Depending on whether the attribute size change is made on the generic CI type that defines the problematic attributes or on a subset of its children, the appropriate CI type

needs to be modified.

- iv. Identify the needed attributes and change their attribute size to the actual attribute size in the database (In the above example, this is the attribute named **j2eedeployedobject\_servername** with the problematic size of **32**. This size needs to be changed to the actual attribute size **50**).

In case the attribute name is too long and UCMDB truncates the column name (thus resulting in multiple columns with the same base name and different numeric suffixes), to properly locate the needed attributes, you can do either of the following:

- Use the class model that is backed up at step 1
  - Identify the problematic attribute by finding the attribute with the wrong size that is indicated in the log errors (**32** in the above example).
- v. Change all the attribute sizes that you have identified in the URM resources and save the URM resources .
- e. To trigger all the class model changes in UCMDB, invoke the **rebuildModelDBSchemaAndViews** JMX method from the **UCMDB:service=DAL services**.
  - f. Restart the UCMDB Server.

- In order to find instances of the **Tags** business service attribute when searching, you must change the indexer configuration in the JMX console. In **UCMDB:Service=Topology Search Services**. **Method: editIndexerConfiguration**, for the **business\_element** class, the **Tags** attribute must be lower case in order to be searchable.

- When upgrading both UCMDB and Content Pack from previous versions to the latest versions, from example, upgrade UCMDB from 10.11 to 10.20 and Content Pack from CP14 to CP15, if you have customized any Content Pack files, deployment of some Content Pack class model files may fail during the upgrade.

**Workaround:** Reinstall Content Pack 15 manually after the upgrade.

- If you have created custom class models on UCMDB version 9.05, after upgrading UCMDB from version 9.05 to 10.20, you might find that your custom class models are not available. For example, when you create a new activity for a management zone, you might find that the Protocol pane in the Define Credentials tab page is empty.

**Workaround:** Invoke the JMX method `updateClassModel` to upgrade custom class models. To do so,

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

**`http://<machine name or IP address>.<domain_name>:1977/`**

where **<machine name or IP address>** is the machine on which the Data Flow Probe is installed. You may have to log in with the user name and password.

- b. In the Search field, type **`updateClassModel`** and press **Enter**.
- c. Locate the `updateClassModel` method, in the **Value** field, type **1**, and click **Invoke**.

### updateClassModel

*Updates the class model with the classes, typedefs and valid links in the xml files*

Name	Type	Value	Description
customerID	java.lang.Integer	<input type="text" value="1"/>	Customer ID

**Invoke**

- After upgrading UCMDB to version 10.20, if you encounter any credentials related issue, do the following:
  - **key.bin file.** Check and make sure that the new probe uses the same **key.bin** file as the UCMDB server.
  - **Time.** Check and make sure that the probe time is the same as the UCMDB server time. If the probe time is different, it may cause credentials error.
  - **Credentials fail on the upgraded environment.**

**Workaround:** Install a new probe and copy specified files to override problematic files. To do so,

- i. Install a clean probe on the same machine of UCMDB server, connect it to UCMDB server. Make sure that the new probe can get credentials normally.
- ii. Go to the clean probe, copy the **Cmcache.bin** and **secured\_storage.bin** files from **C:\hp\UCMDB\DataFlowProbe\conf\security** directory.

- iii. Go to the probe that has get credentials errors, override the two files with yours.
- iv. Restart the probe and try to get credentials again.
- o **Export credentials from the upgraded environment and import them to the fresh install environment, the JMX operation fails.** When the exported credential xml file contains customized class models, or the customized class models are not defined on the UCMDB server that you upgraded, you may encounter credentials import issue.

**Workaround:**

- Remove the customized protocol from the exported credential xml file.
- Add the customized class models on the UCMDB server manually via CIT.

**Note:** Make sure that the export CIT or import CIT works well. Otherwise it may cause the workaround not working.

**Note:** To upgrade customized class models, invoke the JMX method **updateClassModel**. For details, see [Invoke JMX Method updateClassModel](#).

- A user with “create user” permissions loses permission after upgrading the UCMDB from version 9.0x.
- The minimum supported Content Pack version for UCMDB 10.20 is Content Pack 15.00, and is automatically installed with UCMDB 10.20 if not installed previously.
- After making changes to a CI type in an older version of UCMDB, when upgrading to version 10.10, some new functionality may be missing from the shortcut menu for CIs of that type or its descendants in IT Universe Manager. In that case, edit the attached menu for that CI type and add the missing functionality.
- When upgrading from a previous version to 10.20, the user preferences of a deleted user are not deleted. Warnings appear in the log and the upgrade completes successfully.
- During upgrade you might get a **UNIQUE\_INDEX** violation exception on the path attribute of discovery modules CIT. In previous versions the column could contain duplications while in the newer version it has a **UNIQUE\_INDEX** qualifier. The message means that there were duplications and that the qualifier is not added.

## Configuration Manager Upgrade

- After upgrading to version 10.20, the CM Policy Adapter is not automatically undeployed. To undeploy the adapter, use the Package Manager in UCMDB. For details, see the *HP Universal CMDB Administration Guide*.
- External policies from Server Automation are not activated after upgrading to version 10.20. To activate the policies, in the JMX console run the **PolicyAnalysis** method and click **refreshExternalPolicies**.
- All customized topology layout definitions (including layer numbering) are reset after upgrading.

## HP UCMDB

- SSLv3 protocol in HTTPS connections is no longer supported.
- The Axis2 management console is no longer accessible.
- No dependencies are calculated when the TQL query that is used by a Pattern Based Model is updated. This is caused by the fact that Package Manager Resource Selector cannot be accessed while creating a new package or opening an existent package. The following error message is displayed in the logs:

```
"Caused by: java.lang.IllegalStateException: EnrichmentBusinessViewDefinition  
ModelName is not synchronized with its pattern. Element number 12 does not exist  
in pattern graph."
```

ModelName and 12 in the error message could be different values.

To workaround this issue, use one of the following two ways:

- Delete the model and then recreate it.
  - i. Log in to UCMDB JMX Console and URM Services.
  - ii. Run method **listResources** for Resources of type: **Topology\_ENRICHMENT\_BUSINESS\_VIEW**.
  - iii. Locate the EnrichmentBusinessView that is mentioned in the error message and delete it. Then the model is deleted.
  - iv. Recreate the model from Modeling Studio using the same TQL.

- Edit the un-synchronized resources of the problematic model manually.
  - i. Log in to UCMDB JMX Console and URM Services.
  - ii. Run method **listResources** for Resources of type: **Topology\_ENRICHMENT\_BUSINESS\_VIEW** and **Topology\_TQL**.
  - iii. Retrieve the xml definition of the **Topology\_ENRICHMENT\_BUSINESS\_VIEW** and **Topology\_TQL** of the problematic model.
  - iv. Open the **EnrichmentBusinessView** and locate the ID that is mentioned in the error message.

```
<CmdbProperty>
  <Key>nodeNumberEnd2</Key>
  <Type>integer</Type>
  <Value>12</Value>
</CmdbProperty>
```

- v. Do one of the following:
  - Change the missing ID in the **EnrichmentBusinessView** with an existing one from the **Topology\_TQL** definition and save the resource.
  - Add the missing ID in the **Topology\_TQL** definition by replacing an existing one and then save the resource.

Here is an example:

```
<tql:node class="node" name="Node" id="19">
  <tql:where>
    <tql:data-stores>
      <tql:data-store>UCMDB</tql:data-store>
    </tql:data-stores>
  </tql:where>
</tql:node>
```

If you do not have id 12 in the tql, you can change it in the following way:

```
<tql:node class="node" name="Node" id="12">
```

**Note:** Pattern-based models must be created or edited only from the model instead of from the TQL. The same TQL cannot be used both by the model and by the view.

- [User Management] When managing a large number of users in the UCMDB Server, the Ascending / Descending icons for alphabetically ordering users for easy search may not show up in some table headers. However, the sorting functionality works.
- Entering and saving Telnet protocol credentials from the UCMDB Browser is not recommended, as the Telnet protocol credentials you entered from the UCMDB Browser may not be saved properly, which may block you from inputting additional credentials.

Always enter and save Telnet protocol credentials from the UCMDB UI. If you already entered and saved a Telnet protocol credential from the UCMDB Browser, make sure you delete it from the **UCMDB UI > Data Flow Probe Setup > Credentials Manager** so that you can enter and save additional credentials. You can always re-enter the deleted Telnet protocol credential from the UCMDB UI and save it.

- When **getIsCached()** is set to **true**, there is a cache issue with the HybridUnifiedResourceDetails resource.
- [UCMDB Configuration Wizard] The **Multi-Tenant** setting is not selected when connecting to an existing database with multi-tenant enabled.
- When invoking the JMX method **RunAgingNow**, it fails with error.

**Workaround:** Use the JMX method **runAgingAtDate** instead, leaving the date field empty. Invoking this method returns the same result.

- When editing and saving the attributes of a Package from UCMDB UI, only the last change is kept in the URM History as revision, all the other changes are removed.
- When running enrichment rule over data consumed by its tenant, nothing happens.
- [Search Engine] When the current month and previous month have different number of days and the current day is not present in the previous month (for example, February does not have 29 days and today is May 29), performing search of CIs changed in a specific time period is not working properly.
- No warning message pops up specifying the impact of the deletion on users when deleting a role with users having that specific role assigned.

- When using the JMX method (**UCMDB:service=Model Services > deleteByClassType**) to remove the populated data, a JMX runtime exception is thrown.
- When upgrading the UCMDB from version 9.05, an error might appear on Customer Settings Resources due to invalid entries in the URM\_Resources table.

**Workaround:** Set the **Resource\_Id** column in the URM\_Resources database table to **ALLOW NULLS**.

- [JMX - Search] When searching for Categories Services, duplicated entries appear in the JMX search results.
- The **error.log** file contains too many warning messages.
- The new buttons (**Create Person CI from selected user** and **Create Person CIs from all users**) are enabled if a user is created but not saved.

**Workaround:** Click the **Save** button to save the newly created user before clicking these new buttons.

- After moving a sub-folder to the Root folder using drag and drop in the Modeling Studio folder tree, you may find that adding a resource into the newly moved folder is not allowed. Also, the newly moved folder is not displayed in the Folder tree when you click **Save** to save a newly created resource.

**Workaround:** Refresh the resource tree manually, then it is possible to add resources into the newly moved folder.

- When you save a view with the **Map Layout** set to **Orthogonal**, and create a Direct Link on the view using the Generate Direct Link Wizard, if you test the link, you may find that the topology of the view in the direct link is displayed twice.

**Workaround:** When you save a view, do not set the Map Layout to Orthogonal.

- Selected columns in an open report are not saved if the archive of the report is open in another tab.
- The ascending/descending sorting icon for alphabetically sorting the table contents is not visible for some table headers. However, the sorting functionality works.
- When creating a CI of the BusinessApplication type from the IT Universe, the app\_id is identical for all CIs created from the same new CI wizard.

**Workaround:** Close the New CI dialog after creating each CI.

- Importing CI types into previous versions of UCMDB is not supported.
- Normally you can always use the Merge CIs option to perform manual merging of CIs. However, in some cases, the Merge CIs option may become disabled, for example, if you deployed UCMDB onto another product (for example, OMi). To enable the disabled Merge CIs option, you can use the **Enable Manual Reconciliation** setting (in **Infrastructure Settings Manager > General Settings**) to enable manual merging of CIs. The default value for the Enable Manual Reconciliation setting is False.
- On the General Actions tab in the Roles Manager, you must use the Resource Creation Action called Dynamic Widget to control which users may create new dynamic widgets in the Modeling Studio (for use in the UCMDB Browser).
- When working in a High Availability environment, if there is a failover to the other UCMDB Cluster, you must first clear the data of the HP Integration Service before running it. To clear the data, run **..\UCMDB\UCMDBServer\integrations\tools\clearProbeData.bat**.
- In a high availability environment, when communication between the UCMDB application and the UCMDB server is encrypted, if a failover occurs, re-login is required from the UCMDB application. To avoid this situation, use the JMX setting **mam.common.secure.communication** to turn encryption off for communication between the UCMDB application and UCMDB server.
- When using UCMDB installed with Microsoft SQL Server, the collation is taken from the database default value and not from the UCMDB configuration. You must ensure that the collation setting on the database matches the collation defined in UCMDB.
- When a non-admin user in a multi-tenancy environment creates a Compare Snapshots report, the **Size** column displays an incorrect value.
- In Enrichment Manager, Impact Analysis Manager, and CIT Manager, when you select several CITs and their connecting relationships and select Export Map to Image with the Selected Object Only option, the resulting image does not display the relationship names.
- It is possible to edit CITs even if they are assigned the READ\_ONLY\_CLASS qualifier.
- The Screen Capture tool cannot capture a screen shot when the UCMDB browser is running in a multi-display environment.
- The **Clear Filter** button in the Job List dialog box (for scheduled reports and scheduled snapshots) does not work properly.

- When creating a new Impact rule in the Impact Analysis Manager, the created Impact rule can be run within the IT Universe Manager even if the UCMDB check box on the Impact Rule Groups page of the wizard is not selected.
- If you encounter either a **Couldn't connect to database** or **Error getting connection from pool** error message in the UCMDB **error.log** file (located in the **C:\hp\UCMDB\UCMDBServer\runtime\log\** directory), do the following:
  - a. Open the **connection\_pool.conf** file (located in the **C:\hp\UCMDB\UCMDBServer\conf\** directory).
  - b. Add or unmark the following parameter:

**maxPoolSize=100**

The **connection\_pool.conf** file configures properties related to the database connection pool. Its default content is:

```
# DB Connection pool defaults.
#maxPoolSize=100
#minPoolSize=2
#maxWaitForConnectionSec=10
# 0=FAIL, 1=BLOCK, 2=GROW
#whenExhaustedAction=1
```

You can configure:

- minimum and maximum number of connections in the pool.
- **whenExhaustedAction** - what to do when requesting a new connection and there are no free connections in the pool. Valid values are fail, wait (BLOCK), or add new connection to pool (GROW).
- **maxWaitForConnectionSec** - the maximum time to wait, when **whenExhaustedAction=BLOCK**.
- When running UCMDB with Oracle database, if the log displays a **ORA-00942: table or view does not exist error**, it indicates that the database prepared statement cache is corrupted. To clean the prepared statement cache, log in as an Oracle administrator and run the following SQL command: **alter system flush shared\_pool**
- When working in a multi-customer environment, for example, SaaS, multi-tenancy is not supported.

- If the **sendServerVersion** setting in the **<UCMDB home>\conf\jetty.xml** file is set to **false**, the jetty version is not displayed in the HTTP response header.

## Automated Service Modeling

- **Automated Service Modeling (ASM) Resource Locations**

Resource Type	Resource Location in Package	Resource Location Displayed on UI	How to Create the Resource from UI
Adapters	\discoveryPatterns	Adapters ( <b>Adapter Management</b> )	<b>Adapter Management &gt; Create New Resource &gt; New Adapter</b>
Jobs	\discoveryJobs	Jobs (in <b>Universal Discovery</b> )	<b>Universal Discovery &gt; Discovery Modules/Jobs &gt; Create New Job Or Module &gt; Create New Job</b>
Dependency signature	\discoveryConfigFiles\dependencies	Configuration Files ( <b>Adapter Management</b> )	<b>Adapter Management &gt; Create New Resource &gt; New Configuration File</b>  <div style="background-color: #f0f0f0; padding: 5px;"> <b>Note:</b> The file name should start with “dependencies\”.                 </div>
Activity type	\serviceDiscoveryActivity Type	Service Discovery Activity Type ( <b>Adapter Management</b> )	Creating the resource from UI is not allowed.
Activity template	\serviceDiscoveryActivity Template	Service Discovery Activity Type Template ( <b>Adapter Management</b> )	<b>Service Discovery &gt; View/Edit Service Discovery Activity Templates &gt; New Service Discovery Activity Template</b>

**Note:** The resource location path in package is case sensitive.

- This following checklist provides supplementary information for the *Complete Example* section of *Chapter 4. Mapping Consumer-Provider Dependencies* in the *HP Universal CMDB Developer Reference Guide*.

**The checklist of all the components that are needed to have a consumer / provider delivered** (files/adapters, and so on)

- Add a new dependency signature in an existing dependency signature file or create a new dependency signature file.
- Create an adapter for the new dependency job if necessary.
- Add definitions of related discovery jobs (if necessary) and dependency jobs (if you created new adapters) in the Service Discovery Activity Type definition.
- Create a new template to set job parameters which are different from default values if necessary.

- **ASM Content Support Matrix**

Consumer CI Type	Provider CI Type	Notes
J2eeApplication	Oracle	<ul style="list-style-type: none"> <li>○ Supports both Oracle single instance and RAC</li> <li>○ Supports both type 2 (thick) and type 4 (thin) driver</li> </ul>
J2eeApplication	Oracle Schema	
J2eeApplication	DB2Database	DB2 cluster and mainframe are NOT supported
J2eeApplication	MSSQL Database	Supports SQL Server single instance and cluster
J2eeApplication	IBM MQ Queue	
J2eeApplication	JMS Destination	<ul style="list-style-type: none"> <li>○ JMS Destination can be either Queue or Topic</li> <li>○ Supports WebSphere default messaging provider</li> <li>○ Supports WebSphere MQ JMS provider</li> </ul>
J2eeApplication	J2eeApplication	<ul style="list-style-type: none"> <li>○ EJB 3.x annotation NOT supported</li> </ul>

Consumer CI Type	Provider CI Type	Notes
		<ul style="list-style-type: none"> <li>Supports both EJB and WebService invocation</li> <li>Supports two J2EE Applications running in one WebSphere cell</li> <li>Supports two J2EE Applications running in different WebSphere cells</li> </ul>
HTTP Context	J2eeApplication	<ul style="list-style-type: none"> <li>Supports Apache ProxyPass and ProxyPassReverse</li> <li>Supports WebSphere plug-in for Apache, IIS, and IBM HTTP Server</li> </ul>
BusinessElement	J2eeApplication	
BusinessElement	HTTP Context	
BusinessElement	ClusterResourceGroup	Supports load balancers, for example, F5 and Cisco CSS
BusinessElement	ISAMJunction	Supports WebSEAL

**Note:**

- Supports both WebSphere standalone and cluster. WebSphere can be discovered by either shell or JMX.
- Supports JBOSS standalone. Need to have both shell credentials and JMX credentials.
- EJB 3.x dependencies NOT supported. EJB 3.x is invoked via annotation (in source code), so the EJB reference is not available in the config docs.

- Memory Allocation.** UCMDB is installed with a default Java heap space of 4GB. This setting is sufficient for a small to medium sized deployment (~1 million CIs and relationships).

When the amount of data in your system exceeds this size, HP recommends you to increase the Java heap space by editing the `..\UCMDB\UCMDBServer\bin\wrapper-platform.conf` file and setting the `wrapper.java.maxmemory` property value to **16394**.

- JMX Setting for ASM.** To achieve better performance for ASM, HP recommends you to change the `cmdb.search.result.repository.decay.time.sec` property value from 60 to **300**. (In the JMX console, invoke the `setSettingValue` method to change the setting value.)

## Configuration Manager

- The password for the integration user for the Configuration Manager installer needs to match all four criteria of the password policy below:
  - Digits
  - Upper case letters
  - Lower case letters
  - At least one special character from the following: ,\:/. \_?&%=#+-[]{}|
- Configuration Manager is not supported with Windows Internet Explorer 11.
- If you deploy a policy in UCMDB and assign a new category, the category is not added to Configuration Manager when you reimport the policy.
- The Most Searched and Most Visited tabs in the UCMDB Browser are not available when using the Browser that is embedded in Configuration Manager.
- When working in a reverse proxy configuration and using the Firefox or Google Chrome browsers, the JMX console opens as HTML code. In order to view the JMX console correctly, use Internet Explorer.
- External policies from Server Automation will not be activated after upgrading to version 10.10. To activate the policies, in the JMX console run the **PolicyAnalysis** method and click **refreshExternalPolicies**.
- When adding a new view, if you set the Refresh Rate to **When view is updated**, it is automatically saved as **Once per day**. Set the Refresh Rate to a different value, and save again.
- If the name of the logged-in user does not appear on the Home page, ensure that a locale has been defined in UCMDB for the user, then log out of Configuration Manager and log in again.
- You cannot use the Policy Category attribute to filter Policy CITs.
- Configuration Manager does not support integration with SiteMinder in cases where the SiteMinder Web Agent is configured to work with an IIS Web Server.
- If you are using SiteMinder authentication, you cannot assign a policy to a specific view in Configuration Manager.

- Only files that were exported using the command line exportCS utility can be imported using the command line importCS utility.
- The time settings on the UCMDB and Configuration Manager servers must be synchronized, down to the seconds.
- The time zone and time format on the UCMDB and Service Manager servers must be synchronized.
- An invalid or expired SSL certificate on the HP Operations Orchestration side may prevent flows from being displayed in the Flow Tree of the Automation Management module.
- If a specific CI has more than one Composition relationship, and you try to authorize one of the composition CIs, you may be required to authorize all other composition CIs that contain the specific CI.
- When you export a View Summary report in the PDF format in a non-Latin language, words in the table's heading may get cut off.
- The HP Operations Orchestration and UCMDB integration passwords are now encrypted in the database. When exporting the configuration set from one machine and importing it into a different machine, make sure that same encryption key is used on both machines. Copy the following information from the source installation to the target installation:
  - the **encryption.properties** file (located in the **<Configuration\_Manager\_installation\_directory>/conf** folder).
  - the contents of the security directory (located in the **<Configuration\_Manager\_installation\_directory>/security** folder).

Use the encrypt-password utility to encrypt the db.password key in the **database.properties** file. In the Settings module in Configuration Manager, re-enter passwords for the old configuration set, then save and activate the configuration set.

If the keys are not identical on both machines, after importing the configuration set, you must enter the Settings module in Configuration Manager and re-enter passwords for the imported configuration set, then save and activate the configuration set.

- When you use flows from HP Operations Orchestration version 7.51 that you added into Configuration Manager, the following issues occur:
  - When you configure an automation, you cannot add a flow to the automation list if the flow includes the **Single Value - Selection Lists** or **List of Values – Selection List** parameter types.

- When you attempt to execute an automation, when the parameter type is **List of Values**, the execution fails.
- Generating segments in the Environment Segmentation Analysis module might fail, if the Analysis Scope contains too many component CIs that are similar (according to the similarity level that you set). To solve this problem, do one of the following:
  - Remove CIs from the scope
  - Raise the similarity level
- Changes that occurred to CIs in UCMDB may not be reflected in Configuration Manager. If you see the following message in the UCMDB error log, this means that you have reached the limit of initialized patterns. The message is: **The limit [3000] of maximum initialized patterns has been exceeded!!!!**
- In the **System > Settings** module, under [Topology Layout](#), only managed attributes can be entered for layout exceptions.
- When a link has been authorized and the authorization operation was successful, in some rare cases, the link may be displayed as unauthorized and if you attempt to re-authorize the CI, the authorization preview dialog may display without any content.

**Workaround:** Use the JMX as follows:

- To analyze the views and check the validity of the composite link history:
  - Access the JMX: **OfflineAnalysisJMX**
  - Invoke the operation: **checkViolatingLinks**
- To analyze all views and fix any incorrect composite links:
  - Access the JMX: **OfflineAnalysisJMX**
  - Invoke the operation: **fixViolatingLinks**.

For details on accessing the JMX, refer to the *HP Universal CMDB Deployment Guide*.

## Modeling

- If a flow is mapped for IpAddress in a mapping with two contact nodes IpAddress and another one, then the IpAddress flow is not visible in the UCMDB Browser when focusing on it.
- The **Must and Weight** fields appear in the New CI and Insert Relationship dialog boxes in IT Universe Manager in the UCMDB standalone, but they are only relevant for HP Business Service Management. Ignore the descriptions for these fields in the documentation.
- Deprecated CI types do not appear in strike through font if the font size is less than 14 points.
- In the Routing tab in the Layout Properties dialog box, (accessed by selecting Layout > Layout Properties), all the options seem to be available, but only some of them are actually used in the layout of the map.
- When exporting CI instances found for a selected TQL, you can now manually enter up to 150,000 CIs per page
- In the Modeling Studio, no informative error message is displayed when you import an invalid XML file for views or queries.
- In the Impact Analysis manager, when you try to save an Impact rule for which you defined a sub-graph, a generic error message appears without giving detailed information regarding the problem.
- Printing semi-transparent graphics using the **Run Screen Capture Tool** produces poor quality results.
- In the Hierarchical tab in the Layout Properties dialog box, (accessed by selecting **Layout > Layout Properties**), the **Minimum Backward Edges** and **Optimize For Feedback Flow** options do not work properly.
- The new viewing system currently does not support displaying view results via the IT Universe Manager that were based on a rule-based template.
- When displaying CIT instances with the network port number property, the network port number is displayed with a comma even though the comma is irrelevant.
- When a calculated relationship is selected in Enrichment Manager or Impact Analysis Manager, the Qualifier tab in the Relationship Properties dialog box is not functional (the qualifiers selected are not applied to the selected relationship).

- When creating a view based on a new TQL query in Modeling Studio, if you add a condition to one of the query nodes and save the view, and then modify the view topology without closing the window, an error is generated. To avoid the error, close the window after adding the condition and saving the view, and then open the view again and make the topology changes.
- The Show Element Instances dialog box does not display the External icon for federated CIs.
- The Hierarchy Pane of the Pattern View Editor in Modeling Studio does not display the External icon for federated CITs in the TQL query.
- When editing an out-of-the-box attribute of type byte, an error is generated. For example, when editing the **AttachementContent** attribute of an **Attachment** CI, an error occurs. User-created attributes can be edited safely.
- You can set the starting date and time and repeat interval for pattern-based model updates using the Pattern Based Model Scheduler dialog box in the Modeling Studio. Select Daily Pattern Based Model Scheduler Updates to set the repeat interval in hours. Select Advanced Pattern Based Model Scheduler Updates to set the repeat interval using a Cron expression.
- The Zoom Out functionality in the topology map is not disabled when the entire map is visible.
- Adding too many hierarchy layers to a topology report may cause an error when exporting the report to PDF.

## Universal Discovery

- The size of a MySQL database on a Data Flow Probe (version 9.05 with 9.05 CUP13) may fill up, causing the Probe to crash.

Follow the storage requirements below for the storage deployed for the Data Flow Probes:

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

- Benchmark your disk I/O performance prior to installing a Data Flow Probe for management of any large environment.

For a medium to large Data Flow Probe server deployment, the minimum recommended throughput (as benchmarked on an idle system when the Data Flow Probe server is not running) is 70 MB/sec for read accesses and 40 MB/sec for write accesses.

Your disk space requirements may differ depending on how you are using the Data Flow Probe .

**Note:** For performance reasons, the disk where data for the Data Flow Probe is stored should have at least 4K clusters.

- After deleting some customized protocols, you may find 'Can not find class protocol' error in the error log when you edit or add credentials or ranges.

**Workaround:**

- a. Re-add the deleted protocol first.
  - b. Go to **Data Flow Management > Data Flow Probe Setup**, in the Domains and Probes navigation pane, locate the protocol that you just re-added.
  - c. Remove all credentials under the protocol, and click **OK** to save the change.
  - d. Delete the customized protocol again.
- In older versions of Universal Discovery Agent, in some cases the agent continuously sends callhome events, for example, restart machine, unstable network connection. Consequently, lots of callhome tasks are stored in the unsent queue and impacts the performance of both Data Flow Probe and UCMDB server.

If you still have older versions of the agent (with this problem) deployed in the environment, you may need to apply the following workaround to resolve this problem.

To do so, you can open the **GlobalSettings.xml** file and configure the **allowCallhomeInterval** parameter to avoid performance problems.

The **allowCallhomeInterval** parameter means callhome event from the same node with same IP address will be ignored within a configurable period. By default its value is 24 (hours). Allowable values are any integer greater than 0.

- Documentation for Inventory Tools (packaged with Data Flow Probes, and the path is **C:\hp\UCMDB\DataFlowProbe\tools\InventoryTools**) is improved to provide a better overview and a better procedure for using Application Rules and using File Rules to teach applications. Specifically, the following topics have been added:
  - Using Rules to Teach Applications
  - Teaching Using Files
  - How to Teach Using File-based Information
- When the **appilog.collectors.storeDomainScopeDocument** property in the **DataFlowProbe.properties** file is set to **false**, some jobs which run in the remote process mode may fail, because the process cannot get the **domainScopeDocument** file from the memory, as the Probe Gateway and Probe Manager serverData folders no longer contain the **domainScopeDocument** file. When the setting is false, the file is only stored in the memory.

**Workaround:** Always set the **appilog.collectors.storeDomainScopeDocument** property value to **true**.

- Consider the following scenario (QCCR1H96212):
  - You are running DDMI and Universal Discovery environments in parallel.
  - The agents that are running on remote machines are running in interoperability mode.
  - The agents are running on separate schedules.
  - The option on the DDMI Server **Download current scan file before running scanner:** is configured to **Yes**.

In this scenario, the DDMI Server retrieves the scan file. However, this file may have been previously created by the Universal Discovery Agent. As a result, an error occurs in the **scan/failed/error** directory as follows:

```
"Internal error: gtid error "invalid ScannerType value: 18 "
```

This problem occurs because scan files that were created by Universal Discovery Agent were produced by a 64-bit Windows scanner.

To workaround this issue, see the following solutions:

- The error can be ignored. The DDMI scanner will eventually run and upload to the server.
- Disable the following option on the DDMI Server: **Download current scan file before running scanner**
- When the agent is started using the root account, and sudo is configured in the Universal Discovery protocol credential, the discovery job will report a "getSudoPassword failed - cannot get connected\_os\_credentials\_id" warning message. You can safely ignore the message as this does not affect the discovery result.
- (Windows Server 2012 and Windows Server 2012 R2 only) When you add SAI files to the client tools Viewer or save the changes you made in the Viewer without using the administrator privilege, you get the "Unable to write to C:\hp\UCMDB\DataFlowProbe\tools\InventoryTools\..\..\conf\Viewer.ini" error.

**Workaround:** Grant full control permission to the user role you use for the **C:\hp\UCMDB\DataFlowProbe\conf\Viewer.ini** file.

- a. Right-click the **Viewer.ini** file and select **Properties**.
  - b. In the Viewer Properties window, go to the **Security** tab.
  - c. Click **Edit**, grant the Users group full control permission or add the user role you are using and grant full control permission.
  - d. Click **OK**.
- Custom normalization rules do not work on parent classes for connected CIs.

**Workaround:** When creating a normalization rule which has connected-ci, specify the exact node type on the end type, instead of using the parent type. For example, if the node type is **nt**, specify the connected-ci's end type as **nt**, rather than **node**.

- If more than one activities which are of the same type, for example, infrastructure, are configured in the same management zone, job dispatching does not work well.

**Workaround:** Do not create more than one activity of the same type in the same management zone.

- The Jython scripts used in workflow steps are executed unexpectedly if they are included as library scripts.

**Workaround:** When you create your own workflow discovery adapter, do not put the Jython script used in a workflow step into the **libraryScripts** section of the adapter XML.

- After right-clicking a CI and selecting the **Debug > Rerun Discovery > Enable Communication Log and Record Results** option, no results are recorded when running workflow jobs.

**Workaround:** Select the **Yes** option for the **Include results in communication log** setting on the Adapter Configuration tab for your adapter.

- Selecting **NotAllowOverlap** in the JMX method **ImportCredentialsAndRangesInformation** overwrites the existing range.
- DDMI/UD partial recognition now only considers the main file name to decide whether the application is recognized or not, which causes lots of wrong identification of installed software.
- When performing XML schema validation on an XML file in the Adapter Management module, the system seems ignoring the referenced XSD file and not using it for validation.

**Workaround:** Restart the UCMDB service.

- The infrastructure parameter **Enable periodic update of data flow tasks** seems to work only after restarting the UCMDB server and not immediately as it states.

**Workaround:** Restart the UCMDB service.

- The folder icon is not shown properly after comparing two scan files in the Viewer.
- Manual scanner deployment in Management Zones failed with error "cannot invoke trigger".

**Workaround:** Add an IP range into the probe, then the manual scanner deployment will work properly.

- The **Auto Delete** setting of the Host Connection by Shell job is not working.

**Workaround:** You can go to the UCMDB to manually delete the CIs.

- The attribute **ScannerConfigurationFile** is not correct in **No module** after performing DDMI migration.
- Service discovery is not stopping at the external link because the TQL query calculation is based on the outdated TQL cache.
- When trying to connect the Data Flow Probe, the `NullPointerException` (Error 302) exception might

be thrown. There are many issues that can cause this exception. First ensure that the Data Flow Probe configuration contains the **root\_context**. If you still get this exception, contact HP Support.

- When installing a Universal Discovery agent on a Solaris platform using a non-root user, if your installation fails, then a possible reason may be because the path contained in the HOME field of the **/etc/passwd** file does not exist for that non-root user.

**Workaround:** Perform one of the following steps:

- In the **/etc/passwd** file, enter a new path in the HOME field.
- Create a directory that matches the value in the HOME field.
- When working in the multi-tenancy mode, the best practice is for all Data Flow Probes in a probe cluster to have the same default tenant defined for them. If Data Flow Probes have different default tenants and a re-distribution of the ranges occurs, the tenant of the already discovered CIs is not changed.
- The following limitations exist if you are in an IPv6-only networking environment:
  - WMI cannot connect to IPv6-enabled devices that are running Windows 2003 due to a known Microsoft limitation.
  - NTCMD cannot connect to IPv6-enabled devices that are running Windows XP due to a known Microsoft limitation.
  - NTCMD cannot connect to IPv6-enabled devices that are running Windows 2003 due to a known Microsoft limitation.

For the workaround, see <http://support.microsoft.com/kb/281308>.

- Consider the following scenario:
  - a. Scanner Scheduler is installed.
  - b. A 64-bit version of the Scanner (Windows) is configured to save scan files to a remote server via HTTPS.
  - c. Scanner Scheduler runs the scanner.

In this scenario, the scan file is not uploaded successfully. The workaround for this is to use the 32-bit version of the Scanner, or copy scan files to the Data Flow Probe server manually.

- CHM documents that contained help documentation for the Inventory Tools are no longer available. However, the PDF is still available and installed together with the Inventory Tools.

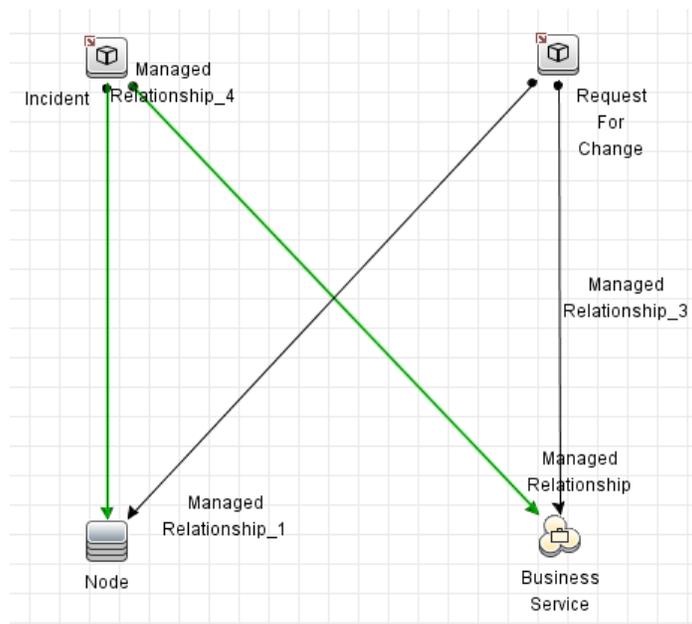
**Note:** Previously, this PDF document was called *Scan Data Analysis*.

## Integrations

- The UCMDB Integration Service cannot be started due to connection failure to the database if users change the master key on UCMDB server side.
- When BDNA Normalize integration is enabled, the BDNA components such as BDNA Windows services, the database server are installed on the server running the Data Flow Probe. Make sure that the server running the Data Flow Probe meets the combined set of hardware requirements for both the Data Flow Probe and BDNA Normalize.

For details about the Data Flow Probe hardware requirements, see the *HP Universal CMDB Support Matrix* document. For details about the BDNA Normalize hardware requirements, refer to BDNA Normalize documentation.

- UCMDB cannot get the results for a federation TQL query on two UCMDB CI types when each of the CI types has a relationship with two or more external CI types (such as Incident and RequestForChange). See the following figure for an example.



- Comments in an existing mapping file will be purged after opening it in the new mapping tool.
- Infrastructure Service - Containment > [Application Service, Business Service] relationships cannot be correctly synchronized to UCMDB through population.
- NodeRole values are not merged when merging CIs during population.
- When two computers share the same value for the DiskDevice, FileSystem, Interface, or CPU attribute, after running a computer population job, one child CI is created and shared by the two computers. The expected behavior is that two separate child CIs are created for the two computers.
- Cannot disable a field that does not have a mapping entry configured in the federation configuration file **smFedConf.xml**.
- Structure fields are not supported for pushing CIs from UCMDB to Service Manager.
- The **Ignore on null** option is not supported for data push from UCMDB to Service Manager.
- 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:

- CLIP Downtime Population mapping script
- Relationship push and population mapping scripts
- Federation mapping scripts
- 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.

**Workaround:** Configure the mapping for the fields directly in the XML editor. Or, alternatively, split the query into multiple ones and then use the Visual Mapping tool.

- CI relationship deletions cannot be populated to UCMDB.
- Federation does not work on the Search CIs pane when the CI is related to Incident and Problem.
- The out-of-the-box federation TQL queries provided in the Service Manager Enhanced Generic Adapter do not cover some out-of-the-box data. For example, no TQL query is provided for

federation of Service Manager Incidents that affect child CI types of RunningSoftware.

**Workaround:** Manually extend the out-of-the-box TQL queries to support more federation use cases. For detailed instructions, see the *HP UCMDB Discovery and Integrations Content Guide - HP Integrations* document.

- DiskDevice, FileSystem, Interface, and CPU are shared if two or more computers have the same value for the sub-CIs.
- There are exceptions in the UCMDB server's **error.log** file about the property validation.

**Workaround:** The property validation exception occurs randomly. You can ignore the exception safely. It has no impact on the functionality.

- Deletion of sub-CIs from HP Service Manager is not synchronized to UCMDB through population.
- When populating CPUs, if there are two reconciliations in the mapping, the system will check rules for both, which may cause the "Result constrain ignored CIs.For detail please check cmdb.reconciliation.log" error.
- When the host IP is incorrect, the error message that pops out upon clicking **Test Connection** is not clear enough to show where the issue is.
- It is not supported to populate an attribute of the Enum type using the Enhanced Generic Adapter.
- [Generic Adapter] The link created via manual population for two CIs will have history containing information from both CIs.
- [Generic Adapter] No information is displayed in the adapter log when the received attribute Type is different from the one that is declared in the mapping file.
- The Generic Adapter mapping file scanner used for validation uses a broken findNode method.
- Long TQL query elements names are not fully displayed in the Visual Mapping pane.
- More than one Service Manager CI types can be added into the Visual Mapping pane.
- No validation is performed on the latest updates when clicking the **Save** button on the new mapping tool UI.
- There is no validation on the existence of SM and UCMDB fields in the mapping file for data push and population scenarios.

- Generic Adapter log information is not complete regarding the mapping of the External Id to Global Id in **fcmdb.push.all.log** and **WrapperProbeGw.log**.
- If a population job fails during Service Manager integration and you receive the following error in UCMDB probe logs: “sm\_id is mapped to an empty value”, do the following:
  - a. Remove any of the following characters in CI names on SM: quote (“), less sign (<), greater sign (>), ampersand (&)
  - b. Try to populate again.
- If full population returns an error on RunningSoftware CIs during Service Manager integration and you perform **Run Job - Synchronize Changes**, this job following the full population also fails. It is recommended that you ensure the integrity of the RunningSoftware CIs and their relationships prior to running the population job. Perform the following steps to check the CIs:
  - a. In Service Manager, go to **Tailoring -> Script Library** and add a new script.
  - b. Paste the JavaScript code below in the new script and click **Execute**.
  - c. The message that opens indicates the failed RunningSoftware CIs. Fix the data for the CIs.
  - d. In UCMDB, run the full population job again.

#### JavaScript code

```
printInvaildRunningSoftware();
/**this simple script is used to detect the invaild running software
*record. Only the runningsoftware composition to a node is supported
*so far OOTB. runningsoftware without relationship will be listed.
*runningsoftware with non-exists device will be listed.
**/
function printInvaildRunningSoftware() {
    var device = new SCFile("device");
    var rc = device.doSelect("type=\"runningsoftware\" and
istatus~=\"retired\"");
    var count=0;
    while (rc == RC_SUCCESS) {
        //select the relationship based on running software name
        var relationship = new SCFile("cirelationship1to1");
        var crcc = relationship.doSelect("downstreamci.logical.name = \"\" +
device.logical_name + \"\" and upstreamci.type=\"computer\" and
downstreamci.type=\"runningsoftware\" and
relationship.subtype=\"Composition\" and status~=\"Removed\"");
        //found the first upstream CI of the runningsoftware
```

```

    if (crrc == RC_SUCCESS) {
        var nodeFound = false;
        while (crrc == RC_SUCCESS) {
            //select the computer exists
            var nodeDevice = new SCFile("device");
            var noderc = nodeDevice.doSelect("logical.name =\"" +
relationship.upstreamci_logical_name + "\"" and istatus~=\"retired\");
            if (noderc == RC_SUCCESS) {
                nodeFound = true;
                break;
            }
            crrc=nodeDevice.getNext();
        }
        if (nodeFound) {
            //print("qualified " + device.logical_name + " with CI " +
nodeDevice.logical_name);
        }
        else {
            count++;
            print("Error:missing exist upstream CI: " +
relationship.upstreamci_logical_name + " for runningsoftware:
"+device.logical_name);
        }
    }
    else {
        count++;
        print("Error:no qualified relationship for runningsoftware: " +
device.logical_name);
    }
    rc = device.getNext();
}
print("Done: "+count+" errors found");
}

```

## Federation

- Problem cannot be queried if it is related with both Node and Running Software.

**Workaround:** If you encounter the following error message during a federation request, update the adapter federation supported reconciliation classes configuration, so that the reconciliation classes supports either ID reconciliation or global ID reconciliation.

...fillConcreteReconciliationTypesAccordingToAdapterClasses is not supported for adapters that do not use ID reconciliation nor globalId reconciliation

To perform this configuration in a declarative manner, by using the adapter XML configuration file,

- use the **is-id-reconciliation-supported** attribute on the reconciliation supported class, like the following:

```
<supported-class is-derived="true" all-attributes-supported="true"
name="business_element" is-reconciliation-supported="true" is-id-
reconciliation-supported="true" />
```

- use global ID reconciliation by declaring only one supported attribute for the reconciliation class as below:

```
<supported-class is-derived="true" all-attributes-supported="false"
name="business_element" is-reconciliation-supported="true" >
  <supported-attributes>
    <attribute>
      <name>global_id</name>
      <type>string</type>
    </attribute>
  </supported-attributes>
</supported-class>
```

Note that the above configurations can also be done in a programmatic manner, using the integration APIs.

- If you set a property condition on a query node that may bring data from external data sources (federation) and the condition is not supported by one of the data sources, the TQL query calculation will fail.
- Federated nodes may display incorrect 'suggested values' from the local CMDB, even when their only data sources are external.
- If an integration point that supports a CIT that is being queried by the CI Selector in the IT Universe Manager, and this integration point does not support conditions on the display label, no results are shown.
- In the case of federated TQLs, federated link (the link between a local TQL element and a remote TQL element) properties cannot be retrieved.
- The Generic Adapter Framework does not support federation TQLs that contain a link between two remote TQL elements.

## Lightweight Single Sign-On

For details on security when working with LW-SSO, see the Lightweight Single Sign-On (LW-SSO) Authentication General Reference in the *HP Universal CMDB and Configuration Manager Hardening Guide*.

## LDAP

- When using Webservices with LDAP enabled, by default Webservices go first through the LDAP authorization flow and performance may be affected.

## Multilingual Support

- The XML UI window does not support displaying the localized strings.
- The column titles of the Node Summary Report (**Modeling > Reports > Custom Reports > Inventory > Node Summary Report**) are displayed as localized when the locale is set to English.
- For reasons of compatibility, Integration Point names and Data Flow Management job names can include only English letters, numbers, and the underscore character (\_).
- Because the maximum string length for many UCMDB parameters is defined and documented in bytes, the real acceptable value length is shorter when multi-byte or language-specific characters are used.
- In Enrichment Manager, required attributes in the **Node Definition** dialog box are not marked in bold for the Japanese, Chinese, and Korean versions.
- Non-English characters should not be used in the UCMDB installation path or in paths to different properties or adapter files.
- Multi-byte characters should not be used in user passwords.
- The action names in scheduled jobs are stored with localized names (according to the locale being used), but those names are displayed with no dependence on locale. Those action names may be user-modified and therefore will be user-specific.
- You can now configure email settings using multi-byte characters. These settings were moved to the Infrastructure Settings Manager.
- HP Universal CMDB does not fully support surrogate pairs and combining characters.

- There is no language pack installation. All translated languages included with the initial release are integrated into the HP Universal CMDB Multi-lingual User Interface (MLU).
- Data remains in the language it is entered in, even if the language of the Web browser changes. Changing the language of the Web browser on your local machine does not change the language of the data input definitions and configurations.
- You cannot create a new user in Users and Roles if the name of the new user contains more than 20 East Asian characters. For details, see the section describing users and roles in the *HP Universal CMDB Administration Guide*.
- The following pages appear only in English. They are not translated into any other language:
  - HP Universal CMDB server status HTML page
  - JMX Console page
  - API Connect Test page
- If you select languages on the client machine that are not supported by UCMDB MLU, HP Universal CMDB is displayed in English.
- When using multi-byte characters in fields such as **Name**, **Display Name** and **Description**, make sure that the number of characters conforms to the byte limit of the field. For example, if a field has a limit of 100 single-byte characters, up to 33 multi-byte characters of 3 bytes each can be used.
- The Inventory Tools, including SAI Editor, Viewer and Analysis Workbench, are available only in English.

## Enhancements Requests

The following table lists the enhancement requests that were implemented in HP UCMDB, UD, and CM 10.20.

Global ID	Description
QCCR1H29864	Two checkboxes ( <b>CI changes</b> and <b>Relationship changes</b> ) were added to allow the user to select the type of changes that will be included in the CI Change Report output.
QCCR1H70376	UCMDB Reports now retain the report layout for the <b>Display Label</b> column.
QCCR1H76240	Custom columns are now saved for custom reports that first open with chart views. Reports with different tabs, now save the column layouts independently.
QCCR1H87607	Added a new checkbox to allow the user to select the default value of <b>NO</b> .
QCCR1H87641	LW-SSO: Domain extension length is now configurable, which resolves the login issue with long domain extensions.
QCCR1H64132	Two checkboxes ( <b>CI changes</b> and <b>Relationship changes</b> ) were added to allow the user to select the type of changes that will be included in the CI Change Report and View Change Report.
QCCR1H75857	Added support for enabling delete action when multiple items are selected.  For deleting the archives, the system loops through the selected items and removes each one.
QCCR1H76453	If a logged user has an email address defined, it is automatically added in the <b>Report &gt;send by mail &gt; *From Field</b> when the user sends a report by email.
QCCR1H78603	Audit logs are now available.
QCCR1H83181	Enabling two-way SSL certificate authentication using certificate chain is possible now. For more information, see the <i>HP Universal CMDB Hardening Guide</i> .
QCCR1H85577	Updated the Web Services API examples.
QCCR1H86054	Added the capability to browse views and return their results in the CMDB Browser.
QCCR1H89170	[Users Management] Added capability to sort the LDAP user in the UCMDB UI so as to handle a large number of users.
QCCR1H89388	Created a new infrastructure setting named <b>Logout forward URL</b> (defaults to <b>/login_page.jsp</b> ), so that when a user logs out, the user will be redirected to the address that is configured in the above setting.

Global ID	Description
QCCR1H90235	An exported report now reflects changes made online.
QCCR1H90626	Added a new checkbox to support updating the agent configuration in the infrastructure discovery activity without upgrading the agent itself.
QCCR1H90806	UCMDB Browser initial login now takes the user to a page explaining that it will take time and linking to the Browser documentation.
QCCR1H93835	The Perspectives folder in UCMDB Browser is now empty as in the UCMDB Reports module.
QCCR1H93953	Enhanced the <b>UcmdbService calculateImpact()</b> method to handle both CI CMDB IDs and CI global IDs.
QCCR1H95021	Other file types are now allowed and will be delivered together with the <b>prescan.cmd</b> and <b>postscan.cmd</b> processing scripts. This allows one to deliver a VBS script file and have it executed from the <b>prescan.cmd</b> script.
QCCR1H96636	Added support for Oracle12c database.
QCCR1H26918	Implemented the visual mapping tool to facilitate editing of XML/XSLT files for integration with HP Service Manager.
QCCR1H85804	The UCMDB Browser now notifies the user, upon successful logon (access), of the date and time of the last logon (access).
QCCR1H85805	Added new security setting <b>Maximum number of sessions allowed per user</b> (in <b>Administration &gt; Infrastructure Settings &gt; Security Settings</b> ) to allow concurrent session control. Default value: 0 (meaning there is no session limit.)

## Fixed Defects for UCMDB, UD, and CM 10.20

The following table lists the defects that were fixed in HP UCMDB, UD, and CM 10.20.

CR Global ID	Description
QCCR1H91517	Fixed an issue that occurred when WebSEAL passed the PD session cookie to the backend during a WebSEAL integration. A new setting <b>mam.web.should.read.web.browser.cookies</b> is added, which (when true) will cause the browser cookies to be read at applet start time. This will enable WebSEAL integration to work without WebSEAL passing the PD session cookie to the backend.
QCCR1H97020	Added the <b>deactivateAllEnrichments</b> Enrichment service to the JMX console, which enables the deactivation of all enrichments in UCMDB at once.
QCCR1H90240	Enhanced the <b>reconciliation</b> service by adding functionality to the current JMX method ( <b>JMX &gt; Reconciliation Services &gt; cleanMergedCisTable</b> ) in order to clean rows from the MERGED_CIS table where ID=MERGED_TO.
QCCR1H94660	If adapter returns null on the getSupportedPopulationQueries call, all TQLs in the system are available for selection.
QCCR1E117592	(Generic Push Adapter) Increased the heap memory size to 2GB, and there is no more push job failure with "OutOfMemoryError" error if more than 40k computers are pushed.
QCCR1H94951	Fixed the issue that occurred when trigger CIs for jobs in a management zone are in continuous "Progress" status.
QCCR1H65581	Added documentation about How to integrate RTSM to CMS sync over SSL.
QCCR1H89315	Improved the performance for TQL calculation that is triggered by the TQL scheduler.
QCCR1H89728	Improved the reconciliation priority behavior for updating empty attributes.
QCCR1H90300	Fixed the issue that Confidential Manager is not getting credentials when UCMDB server resides behind proxy.
QCCR1H90327	Fixed the issue of the new queue size of the Redispatch Trigger CIs dramatically increasing.
QCCR1H90859	Fixed the method of username extraction from the certificate's Subject Alternative Name (SAN) field.
QCCR1H91767	Improved the way the JoinF SQLs are created for basic JoinF relations.
QCCR1H92944	Fixed the issue that the Touch Process failed to send updates because the touch service cannot rerun after the touch thread was interrupted.

<b>CR Global ID</b>	<b>Description</b>
QCCR1H94309	Fixed the issue of unexpected probe PostgreSQL DB growth caused by the low PostgreSQL DB buffer size.
QCCR1H75734	Fixed the issue that an imported view cannot be opened in Modeling Studio after restarting the UCMDB server.
QCCR1H80842	Fixed the issue that icons for CI types that have BODY_ICON as factory attribute and also as an overriding attribute are not updated accordingly.
QCCR1H85619	Fixed the issue that the Configuration Manager cannot be accessed from the UCMDB landing page.
QCCR1H87007	Fixed issue where compare snapshots for perspective based views returned incorrect results.
QCCR1H88206	Added documentation on how to configure the root context in Configuration Manager 10.x.
QCCR1H88471	Fixed the issue that occurred with active TQL calculation, which is canceled on timeout because the result is greater than supported.
QCCR1H88630	When the properties form dialog box is in editable-mode, the correct user permissions are applied.
QCCR1H88717	Fixed the issue with the Application Breakdown Report, which shows a different count of IIS Web Servers in the report than the total number of IIS Web server CIs in the CI Type Manager.
QCCR1H88731 QCCR1H89784	Fixed an issue that occurred when the search engine returned incorrect results when processing queries for CIs using the "without" keyword.
QCCR1H88734	Fixed an issue that occurred when the Data Flow Probe tried to fetch data from the SCCM view and timed-out.
QCCR1H88736	Fixed the issue with the Quartz scheduler which attempts to check for newer versions during Data Flow Probe startup.
QCCR1H88759	Fixed the issue of an unexpected response when using the Web Service API, due to chunking.
QCCR1H88790	Fixed the format issue with the date values of the CI Change Report that occurred when exporting the report to an Excel file.
QCCR1H88798	Fixed the reconciliation issue that occurred when the UCMDB server is configured as non-global-id-generator, the global_id property is not pushed to source UCMDB.
QCCR1H89070	Fixed the issue of missing action buttons for activating / deactivating enrichment rule for a resource on the GUI.
QCCR1H89421	Fixed an issue with the Unified Resource Manager (URM) which failed to handle resources that cannot be loaded into memory correctly.

CR Global ID	Description
QCCR1H89507	Fixed the validation issue with the Unified Resource Manager (URM), that is to say, URM must validate that the name of an added resource does not exceed the database limit.
QCCR1H89529	Improved the performance of the identification flow.
QCCR1H89553	Changed the maximum size of URM resource names to 900 characters.
QCCR1H89625	Added the <b>replication.preserve.identification.integrity</b> adapter setting to enable/disable the use of data integrity rules for data push in the "non-instance based" mode.
QCCR1H89644	Fixed the case-sensitive issue with login password for the UCMDB Configuration Manager.
QCCR1H89652	Fixed the issue when attributes that were added to application signatures were not saved.
QCCR1H89732	Fixed the issue where the context menu did not open after right-clicking a CI.
QCCR1H89793	Fixed an issue that occurred when handling multiple lists of strings of the same size caused performance issues.
QCCR1H89901	Added setting <b>view.fuse.maximum.models.in.result</b> to limit the default number of models.
QCCR1H89971	Fixed the issue that occurred when federation is enabled in UCMDB, the UCMDB API TopologyUpdateFactoryImpl does not check if the ID it is converting from string to an UcmdbId is external, which results in the integrated product (for example, Release Control) not processing changes.
QCCR1H89984	Fixed the null pointer exception to allow deleting duplicate triplets of the Class Model.
QCCR1H90089	Improved the performance when editing a package in Package Manager.
QCCR1H90114	
QCCR1H90128	Fixed an issue that occurred when Delete requests for CIs were not deleted. This occurred when the Service Manager push integration failed.
QCCR1H90148	Enumerated lists can now be edited.
QCCR1H90269	Created JMX method to clean-up obsolete rows corresponding to deleted CIs in the MERGED_CIS table.
QCCR1H90376	Fixed an issue that occurred when purging did not delete URM resources of missing history tables.
QCCR1H90546	Manually assigned roles to LDAP users are no longer removed after CUP upgrade.
QCCR1H90649	Mapped the <b>ping</b> component to HTTPS with mutual authentication.

CR Global ID	Description
QCCR1H90698	Fixed an issue that occurred when TQL structure optimizer created a very large property condition.
QCCR1H90786	Added documentation on configuring mutual SSL setup between probe and server when using a chain of certificate authorities.
QCCR1H90793	Fixed the issue of closing the CI properties form hides related CIs.
QCCR1H91020	Fixed the issue of the wrapper jar file for XML Enricher using an old version.
QCCR1H91077	Fixed the issue with the inconsistent recognition of the Apache Ant installed software using scanner-based inventory.
QCCR1H91378	Fixed the issue where JMX invocation did not complete successfully when LW-SSO was enabled.
QCCR1H91491	Fixed an issue that occurred while setting up a filter with multiple conditions in the "Show Element Instances" option of the "SM Computer Push" TQL query.
QCCR1H91496	Two settings are added for limiting the number of CIs and the number of levels when loading a model.
QCCR1H91560	Fixed the issue where deleting a custom attribute from a class in CI Type Manager causes undesired result.
QCCR1H91644	Fixed an issue where AbstractDispatchActionFlow.getProbeFromHost() takes the ipprobename attribute from an IP address without checking if this IP is configured in the management zone range or not.
QCCR1H91787	Improved the performance when retrieving results from saved search from all groups.
QCCR1H91853	Fixed an issue where special characters in scripts get corrupted by the Package Manager.
QCCR1H92156	Fixed an issue where the scan viewer shows the Microsoft SQL server application, but UCMDB does not create the required CI.
QCCR1H92157	Fixed an issue where XML Enricher Service stopped after creating the auto.zsai SAI file.
QCCR1H92727	Fixed an issue where Web Services <b>UcmdbService.getChangedCIs</b> crashes with error "[200007]. Permission check is not allowed". This occurs when there is no logged-in user.
QCCR1H92793	Fixed an issue where logging in takes a long time.
QCCR1H92925	Fixed the issue that occurred with generating the ChangeReport if users select <b>LastMonth</b> option as the parameter.
QCCR1H93152	Fixed the issue that occurred when re-running jobs with probe-limit <b>Disabled</b> get all the triggers to run.

CR Global ID	Description
QCCR1H93171	Fixed an issue that occurred when the CI Resolver only resolved nodes on BSM 9.22.
QCCR1H93238	Fixed the issue that occurred when IP addresses discovered from Cluster cannot be dispatched on host connection jobs.
QCCR1H93356	Fixed several issues in the UI while operating Show Impact functionality, which result in users unable to correctly confirm the extent of the impact.
QCCR1H93361	Fixed the issue that the Jetty embedded UCMDB Browser does not work with HTTPS.
QCCR1H93396	Fixed an issue where the UCMDB 9.x integration adapter did not transfer the CIs from some Container types. To apply the fix, manually redeploy the Cmdb9xAdapter package.
QCCR1H93507	Fixed an issue that occurred when cmdb-mgmt-api called getCmdbDatabase().
QCCR1H93529	Fixed the issue with the Configuration Manager server Automatic State Transition not working automatically.
QCCR1H94312	Fixed the issue that occurred when SQL error messages were returned in the Data Flow Probe: "ddm_gw_task_results_pkey index violation".
QCCR1H94335	Fixed the issue that occurred when the SCCM adapter was configured to use the temp table.
QCCR1H94858	Fixed the issue that occurred when discovery jobs stopped triggering all available CIs after the upgrade from 10.10 to 10.11.
QCCR1H94957	Fixed the issue occurred with the Probe Service not restarting from system restart.
QCCR1H95017	Fixed the issue that occurred when the Inventory Discovery by Scanner job did not display the correct trigger count.
QCCR1H95047	Fixed the issue that occurred when the upgrade from 9.05 to 10.10 failed because of the missing of the server_side attribute for the adapter_config class.
QCCR1H95064	Fixed the issue that occurred when the <b>Layer2 Topology Import</b> job from NNMI failed with the following error "ORA-12899: value too large for column "UCMDB10"."DDM_TEMP_MAPPINGS"."TEMPID" (actual: 53, maximum: 43)".
QCCR1H95123	Fixed an issue where newly created classes containing attribute qualifiers on root_ iconproperties caused problems.
QCCR1H95202	Fixed the issue that occurred when the custom adapter and script were deleted from <b>Adapter Management &gt; Resources &gt; Packages &gt; &lt;&lt;No Package&gt;&gt;</b> .
QCCR1H95274	Fixed the issue that occurred when a newly-installed probe or the UCMDB Integration Service could not connect the UCMDB server with basic authentication enabled.
QCCR1H95285	Fixed the issue that occurred when the following warning message in the <b>WrapperProbeGw.log</b> file was returned while running the <b>Inventory Discovery by</b>

CR Global ID	Description
	<b>Scanner job:</b> "Can not execute the script. The reason is forceDontExecute=false or the script file contains mainfunction=false".
QCCR1H95439	Fixed the issue that occurred when searching in UCMDB Browser froze the server.
QCCR1H95471	Fixed the issue that occurred when the <b>Push IDs into NNMI</b> adapter produced the following errors in RemoteProcesses.log: "The ucmdb_wrapper.jar module, which is not valid, caused null" and "java.lang.ExceptionInInitializerError".
QCCR1H95546	Fixed the issue that occurred when a Data Flow Probe randomly-stopped discovering and sending results to the server.
QCCR1H95600	Fixed the issue that occurred when the external policies results were invisible in Configuration Manager.
QCCR1H95916	Fixed the issue where Unix nodes with same IPs get merged incorrectly.
QCCR1H95996	Fixed the issue where the Configuration Manager matching rule compares wrong CI to baseline.
QCCR1H96218	Fixed the issue where the UCMDB Server throwing Out Of Memory Error in Java heap space during processing discovery results.
QCCR1H96325	Fixed the issue where the discovery status of management zones are not updated timely by decreasing the batch size of SQLs to execute when inserting destinations into the ccm_discovery_dests table.
QCCR1H96357	Fixed the issue where not all Trigger CIs got dispatched to the probes.
QCCR1H96529	Fixed the issue that occurred when new packages were not created.
QCCR1H96934	Fixed the issue that occurred when <b>Class B/C IPs by ICMP</b> jobs failed with error "java.lang.NumberFormatException: For input string..".
QCCR1H96935	Fixed the issue that occurred when a trigger was dispatched to the wrong Data Flow Probe.
QCCR1H96936	Fixed the issue that occurred when SQL error messages were returned in the Data Flow Probe: "ddm_gw_task_results_pkey index violation".
QCCR1H96940	Fixed an issue that occurred when trying to populate some links from Service Manager to UCMDB and errors were returned.
QCCR1H96943	Fixed an issue where the aging mechanism failed with an error while deleting objects.
QCCR1H96947	Fixed an issue where a policy in Configuration Manager does not show the expected results, because parents of the selected types in the hierarchy were also included.
QCCR1H96948	Fixed an issue where the upgrade procedure failed on the

CR Global ID	Description
	packageAndResourceUpgrader step while attempting to write log messages.
QCCR1H96949	Fixed an license count issue where more licenses are being used than the actual number of licenses available. Now it is also possible for user organization to view which CI is consuming a license and how it is computed.
QCCR1H96950	Fixed issues where error occurs if the imported Domain Scope Document contains overlapping ranges when importing via JMX - no meaningful log is available for debugging purpose. The issue was fixed by adding details about overlapping ranges in the log and allowing users to import overlapping ranges into UCMDB via JMX.
QCCR1H96951	Fixed the issue that occurred when PostgreSQL that is served as UCMDB database server caused errors while pushing data to AM.
QCCR1H96952	Fixed the issue that occurred when errors were returned while refreshing the Data Flow Probe status.
QCCR1H97002	Fixed the issue that occurred when software that is registered by Package Rules could not be identified in UCMDB.
QCCR1H97396	Fixed the issue that occurred when Viewer did not work and errors were returned on the Data Flow Probe running on Windows Server 2012.
QCCR1H22344	The date fields in reports and property "show instances" boxes are now in a sortable format.
QCCR1H72687	Java API getDiscoveryConfigurationXML() no longer returns exception.
QCCR1H77771	Fixed the issue where Configuration Manager 10.00 cannot display Russian Cyrillic letters correctly.
QCCR1H83085	Fixed the issue where the CIT icon does not change when triggered by an attribute value change.
QCCR1H84387	Fixed the issue where editing hidden queries in Package Manager caused an error.
QCCR1H84954	Improved support for getting progress data for a large number of jobs simultaneously.
QCCR1H85042	Fixed the issue where you cannot manually send a view change report as an email from the Custom Reports tab.
QCCR1H85840	The Disaster Recovery Guide has been replaced by the Backup and Recovery Guide.
QCCR1H87897	Fixed the issue where the direct link to a Topology Report does not work when the link is generated from the report itself.
QCCR1H88104	Fixed the issue of Get Related CIs from the Context menu does not displaying the related CIs randomly.
QCCR1H88628	Fixed the issue in the Get CI instances panel where selected data does not change and the previous selection is displayed instead after applying a filter.

<b>CR Global ID</b>	<b>Description</b>
QCCR1H88784	Added an option to change the logout page named Logout forward URL.
QCCR1H88839	Fixed an issue that occurred with the Fixed DirectLink URL. This issue occurred when querying related CIs in view context.
QCCR1H88882	Fixed the issue where the Applet logs appear directly under the root directory.
QCCR1H89025	Fixed the issue with the findUnboundHistoryTables method.
QCCR1H89032	Fixed the issue when Xen/KVM jobs did not run Triggered CIs in the Activity jobs of Zone-Based Discovery.
QCCR1H89412	Fixed an issue that occurred when the actual number of trigger CIs and the number of trigger CIs shown by the Total field were different.
QCCR1H89486	Increased the timeout for aging to 5 hours.
QCCR1H89497	Added a validation check for parameters of an adapter.
QCCR1H89500	Fixed an issue that occurred when non ANSI characters (such as Japanese and Russian) were displayed incorrectly in the Host Resources by WMI job results.
QCCR1H89785	The Modeling Guide has been updated to document the following limitation of the Cron Expression: You cannot specify both Day of Month and Day of Week; you must use the ? character in one or both of these fields.
QCCR1H89865	Fixed an issue that occurred when modifications on pattern-based models caused duplicates.
QCCR1H90136	Fixed the issue where the generated Direct Link to a topology view does not work.
QCCR1H90272	Map layouts can be specified in Modeling Studio. Changes are visible in Show View Topology direct link.
QCCR1H90289	Fixed an issue that occurred when additional Compound Relations could not be added to existing queries.
QCCR1H90422	Fixed an issue that occurred when the "Error getting ci node type by name from" error message was received.
QCCR1H90538	Fixed an issue that occurred when an error message was displayed editing IP range within Integration Point.
QCCR1H90706	Fixed an issue where changes in Configuration Manager are not seen automatically.
QCCR1H90857	Fixed the GDBA issue when the annotations for ids were overwritten by annotations for discriminator.
QCCR1H90906	Fixed the issues that occurred while creating a Recognized Application Report with a Korean language interface.
QCCR1H91667	Fixed an issue that occurred when the VMware Virtual Center Custom report

CR Global ID	Description
	displayed incorrect results.
QCCR1H91723	Importing CI types into previous versions of UCMDB is not supported.
QCCR1H91811	Fixed the issue where new jars are not fetched for 10.01 after changing DNS from 9.05 to 10.01.
QCCR1H91922	Fixed the issue where the saiPacker.cmd file is missing in UCMDB 10.10.
QCCR1H91974	In order to find instances of the <b>Tags</b> business service attribute when searching, you must change the indexer configuration in the JMX console. In <b>UCMDB:Service=Topology Search Services. Method: editIndexerConfiguration</b> , for the <b>business_element class</b> , the <b>Tags</b> attribute must be lower case in order to be searchable.
QCCR1H92742	Fixed the issue where the AM Push Adapter inserts relations into AM using previous IDs, which no longer exist.
QCCR1H92858	Fixed the issue where there are no suggestions for attribute values when using filtering.
QCCR1H92931	The ITU_HIDDEN_CLASS qualifier is no longer presented as default in UCMDB 10.10.
QCCR1H93162	Fixed the issue where you cannot view CI Properties in UCMDB Browser 3.2 by using Internet Explorer 8.
QCCR1H93263	Fixed the issue where per user software utilization statistics are captured in the scanner but are not populated in the CMDB database.
QCCR1H93456	Fixed the issue where the upgrade of DDMI agent to UD fails on the target system.
QCCR1H93559	Fixed the issue where the behavior of the hyperlinks in CIs in UCMDB Browser is inconsequent.
QCCR1H93723	Fixed the issue where some reports failed to execute in UCMDB Browser 3.2.
QCCR1H93755	Fixed the issue where the export search result function does not work for the current page.
QCCR1H93991	Fixed the issue where the link to UCMDB Browser does not work if the UCMDB server is behind a proxy.
QCCR1H94053	Fixed the issue where pattern-based Models with ENUM attribute revert values back to the default values.
QCCR1H94055	You are unable to install UCMDB Browser 3.21 on UCMDB 9.05. As a workaround, you can install a standalone Browser on the same machine.
QCCR1H94101	Fixed the problem that occurs when executing UCMDB API Web Service "updateProbeScope".
QCCR1H94111	The following note is added in the <i>Administration Guide &gt; Configure Enriching</i>

CR Global ID	Description
	<p><i>Capability:</i>  <b>Note:</b> Changing the cmdb.search.enriching.depth parameter value to a higher value can introduce performance issues due to generating a large search result.</p>
QCCR1H94163	Fixed the issue where the "Rerun discovery" button does not rerun discovery when the maximum number of expressions in a list is 1000.
QCCR1H94194	Fixed the issue of incomplete GUI information in Configuration Manager when the language is set to German.
QCCR1H94264	Fixed the issue where UCDB Browser 3.2 runs into a loop.
QCCR1H94488	Fixed the issue where the CIT icons are not displayed in the UCDB Browser when UCDB Server is configured to run on port 443.
QCCR1H94685	Fixed the issue where the Host Applications by Shell job report node CI without any properties only related to one IP.
QCCR1H94799	You can now create a Direct Link to a Report and open the link without authentication.
QCCR1H94800	The format of timestamp no longer changes in Excel export.
QCCR1H94816	Fixed the issue where the XML Enricher Service does not start on any probes that are set to the GMT +9:30 time zone due to incorrect WrapperEnricherLicense.conf.
QCCR1H95197	Fixed the issue where a Package Manager resource selection takes a long time to populate the UI.
QCCR1H95266	Added Application Name to Manifest of GUI Jars.
QCCR1H95324	Data is now displayed in CI Type Manager if two attributes have the same name.
QCCR1H95502	Error no longer occurs when modifying the output node for a pattern-based model.
QCCR1H95753	You can now modify CIT attribute size on UCDB that uses PostgreSQL.
QCCR1H95851	Fixed the issue where you cannot delete only a relationship from IT Universe.
QCCR1H95854	The undesired "Cannot invoke trigger" errors no longer appear.
QCCR1H95883	Fixed the issue where empty values inside policy String comparison are handled incorrectly.
QCCR1H96052	Added null value condition in the <b>compare</b> function from the <b>ViewLayerCalculatorUtils</b> class, so empty values in custom attributes are treated properly.
QCCR1H96398	Added a check box on the <b>Scanner Generator (Manual Deployment Mode) &gt; Scanner Options &gt; Miscellaneous</b> tab to allow users to enable/disable pfiles command on Solaris and HP-UX.

CR Global ID	Description
QCCR1H96544	Added documentation regarding monitoring database table index fragmentation.
QCCR1H96702	Fixed the issue where CIs created with the <b>Import from Excel</b> adapter are created with the <b>Enable aging</b> set to <b>true</b> .
QCCR1H96760	Fixed the issue where the scanner crashes on "saving directory Data" and returns error.
QCCR1H96895	Fixed the issue where UCMDB to UCMDB push adapter returns an error message.
QCCR1H96927	Fixed the issue where the <b>Host Applications by Shell</b> discovery results fail during processing on UCMDB Server with NullPointerException.
QCCR1H96933	Fixed the issue that occurred when some scan files are moved to the <b>scans\Failed\error</b> folder with error:String index out of range: -1.
QCCR1H97014	Fixed the issue that occurred when a misleading message indicating that all the CIs were touched in the case where the touch is only partially complete.
QCCR1H97087	Fixed an issue where UCMDB has incorrectly assigned UD Full licenses to incomplete Node CIs with no Operating System which are not in probe scope.
QCCR1H87835	Corrected the typo in the ImportMigrationDatafromDDMI MBean, which should be "infrastructure" instead of "infrastructue".
QCCR1H90286	Fixed an issue where the German locale does not apply to scheduled reports.
QCCR1H90503	Updated the documentation and the explanation about upgraders will appear in the 10.20 interactive deployment guide.
QCCR1H91547	Fixed an issue that occurred when non-English characters were displayed incorrectly in the display label for a class.
QCCR1H91657	Fixed the issue by adding the following note to the document: UCMDB can be configured to work with every LDAP server which implements the standard LDAP protocol.
QCCR1H91813	Log for stack trace is now available when applet jar download fails.
QCCR1H92512	Fixed an issue that occurred when uninstalling a CUP on Linux.
QCCR1H92616	Fixed the issue where uploading a content pack does not work when UCMDB server runs on Linux.
QCCR1H93919	Modified the Stakeholder Widget TQL so that each type of CIs (Party, Person, and Organization) has their corresponding attributes.
QCCR1H95159	Fixed the issue that occurred when the disconnected 9.05 probes from UCMDB could not be removed.
QCCR1H95440	Removed the notification settings for users who no long exist in UCMDB.
QCCR1H96937	Windows Server 2012 is supported for Data Flow Probe and Universal Discovery.

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