



# HP Universal CMDB & Configuration Manager

Software Version: 10.01 CUP12

## Release Notes

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# Contents

<b>HP Universal CMDB &amp; Configuration Manager 10.01 CUP12 Release Notes</b> .....	<b>4</b>
What's New in UCMDB 10.01 CUP12 .....	4
HP Universal CMDB and Configuration Manager 10.01 CUP12 Files/Components .....	4
System Requirements .....	5
Install 10.01 CUP12 on the HP Universal CMDB and Configuration Manager Servers .....	5
HP Universal CMDB 10.01 CUP12 Manual Data Flow Probe Installation .....	7
HP Universal CMDB and CM 10.01 CUP12 Uninstall Procedure .....	8
Notes .....	10
Fixed Defects for UCMDB 10.01 CUP12 .....	15
Fixed Defects for UCMDB 10.01 CUP11 .....	16
Fixed Defects for UCMDB 10.01 CUP10 .....	19
Fixed Defects for UCMDB 10.01 CUP9 .....	20
Fixed Defects for UCMDB 10.01 CUP8 .....	22
Fixed Defects for UCMDB 10.01 CUP7 .....	23
Fixed Defects for UCMDB 10.01 CUP6 .....	24
Fixed Defects for UCMDB 10.01 CUP5 .....	26
Fixed Defects for UCMDB 10.01 CUP4 .....	28
Fixed Defects for UCMDB 10.01 CUP3 .....	30
Fixed Defects for UCMDB 10.01 CUP2 .....	30
Fixed Defects for UCMDB 10.01 CUP1 .....	31
<b>Appendixes</b> .....	<b>33</b>
How to Enable Attribute Name Verification during the Matching Phase of Identification .....	33
How to Mark Sensitive Settings and Enable Storing Encrypted Data in the Database Using JMX .....	34
How to Set Shared Key for Encrypting or Decrypting the InfrastructureSettings.xml File Using JMX .....	36
How to Set Master Keys .....	37
How to View Discovery Status and Errors for a Selected CI .....	41
<b>Send Documentation Feedback</b> .....	<b>46</b>

# HP Universal CMDB & Configuration Manager 10.01 CUP12 Release Notes

Keep your system up to date with the most recent cumulative update package (CUP) for UCMDB 10.01. This package contains all of the UCMDB 10.01 hotfixes that have been released since the initial release of UCMDB 10.01.

## What's New in UCMDB 10.01 CUP12

UCMDB 10.01 CUP12 contains the following new features and changes:

- Added a new JMX setting **reconciliation.match.attributes** to verify names of attributes during the matching phase of the identification process. If, compared to the other CI, there is a different value among the CI attribute values defined in this setting, the verification process stops and the match is rejected. For details, see ["How to Enable Attribute Name Verification during the Matching Phase of Identification"](#) on page 33.
- Implemented new discovery troubleshooting capability. With the new **View Discovery Status and Error** permission, you can run the enhanced **Show Discovery Progress** action from IT Universe Manager even without the **Run Discovery and Integrations** permission. This enables you to view discovery progress of your CI in IT Universe Manager, and then you can verify if a CI data error is caused by any discovery issue. For details, see ["How to View Discovery Status and Errors for a Selected CI"](#) on page 41.

## HP Universal CMDB and Configuration Manager 10.01 CUP12 Files/Components

HP UCMDB 10.01 CUP12 is packaged in one .zip file.

The **UCMDB\_00169.zip** (for Windows) includes the following files/components:

- **HPUCMDB\_Server\_10.01.CUP12.exe**. The installation of the version 10.01 CUP12 HP UCMDB Server and Data Flow Probe for Windows.
- **HPCM\_10.01.CUP12.exe**. The installation of version 10.01 CUP12 HP UCMDB Configuration Manager

for Windows.

- **ReleaseNotes.pdf** (this file)

The **UCMDB\_00170.zip** (for Linux) includes the following files/components:

- **HPUCMDB\_Server\_10.01.CUP12.bin**. The installation of the version 10.01 CUP12 HP UCMDB Server and Data Flow Probe for the Linux platform.
- **HPCM\_10.01.CUP12.bin**. The installation of version 10.01 CUP12 HP UCMDB Configuration Manager for the Linux platform.
- **ReleaseNotes.pdf** (this file)

## System Requirements

For a list of system requirements, see the **HP UCMDB Support Matrix** PDF file. Check the most previous Release Notes for any additions or changes to the matrix.

**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.

## Install 10.01 CUP12 on the HP Universal CMDB and Configuration Manager Servers

CUP Installation for both HP Universal CMDB and Configuration Manager is performed through an automated procedure using the installation wizard.

You can still install the Data Flow Probes separately by upgrading the Data Flow Probes using the UCMDB user interface. For details, see "[HP Universal CMDB 10.01 CUP12 Manual Data Flow Probe Installation](#)" on [page 7](#).

When operating the Data Flow Probe Manager and the Data Flow Probe Gateway on separate machines (that is, separate mode), see the Notes section in this document.

**Note:**

- HP UCMDB 10.01 CUP12 can be installed only on top of an HP Universal CMDB version 10.01.
- HP UCMDB CM 10.01 CUP12 can be installed only on top of HP UCMDB CM 10.01.

## Pre-requisites - UCMDB Server and Data Flow Probes

1. Extract **UCMDB\_00169.zip** (for Windows) or **UCMDB\_00170.zip** (for Linux) to a temporary directory.
2. Stop the HP Universal CMDB 10.01 server and the HP Universal CMDB Integration Service (if running) before starting the 10.01 CUP12 installation.

**Note:** If you have a High Availability configuration, the CUP must be installed on all the servers in the cluster, and prior to installation, you must stop all the servers in the cluster.

3. If you have received private patches for the Data Flow Probe, you must delete them before performing the upgrade. These steps for deleting a private patch must be followed whether you are upgrading the probes during the installation wizard, or if you upgrading the probes using the UCMDB user interface after installation is complete.
  - a. Stop the Data Flow Probe.
  - b. Delete all private patches that were installed on the system prior to this CUP by deleting the following directory:  
**\\hp\UCMDB\DataFlowProbe\classes directory**
  - c. Start up the version 10.01 Data Flow Probe.

## CUP Installation

You must first install the UCMDB CUP, start up the server, and then perform the Configuration Manager (CM) CUP installation.

1. For UCMDB: Double-click the file **HPUCMDB\_Server\_10.01.CUP12.exe** (for Windows) or **sh HPUCMDB\_Server\_10.01.CUP12.bin** (for Linux) to open the HP Universal CMDB Server CUP Installation Wizard.

For Configuration Manager: Double click the file **HPCM\_10.01.CUP12.exe** (for Windows) or **sh HPCM\_10.01.CUP12.bin** (for Linux) to open the HP Universal CMDB Configuration Manager CUP Installation Wizard.

2. While running the wizard:

- In the Choose Install Folder screen, select the installation directory in which UCMDB/CM is already installed.
- For UCMDB, in the Install Data Flow Probe CUP screen, select the following option:
  - **Automatically update Data Flow Probe with the new CUP version** to automatically update during this installation all the Data Flow Probes reporting to this UCMDB.
  - **Update the Data Flow Probe manually** to update the Data Flow Probes reporting to this UCMDB using the UCMDB user interface after completing the installation of this CUP on the UCMDB server. For details, see "[HP Universal CMDB 10.01 CUP12 Manual Data Flow Probe Installation](#)" below.
  - In the Required Actions screen, follow the instruction to ensure that the server is down.

3. Once the installation wizard for UCMDB is completed, start up the version 10.01 server per the instructions in the Deployment Guide for version 10.01. Go back to step 1 to install the CM CUP.

Once the CM CUP installation is completed, start up Configuration Manager version 10.01 per the instructions in the Deployment Guide for version 10.01.

## HP Universal CMDB 10.01 CUP12 Manual Data Flow Probe Installation

**Linux:** Always required.

**Windows:** Applicable only when **Update the Data Flow Probes manually** is selected in the CUP installation wizard.

To install the Data Flow Probe CUP upgrade using the UCMDB user interface, follow these steps.

**Note:** All Data Flow Probes that are associated with the UCMDB are upgraded.

1. If you have received private patches for the Data Flow Probe, perform the steps in the section ["Pre-requisites - UCMDB Server and Data Flow Probes"](#) on page 6.
2. In UCMDB, go to **Data Flow Management > Data Flow Probe Setup**, and click **Deploy Probe Upgrade**.
3. In the Deploy Probe Upgrade dialog box, navigate to the **<SERVER\_HOME>\content\probe\_patch\probe-patch-10.01.CUP12-windows/linux.zip** and click **OK**.
4. **Linux only:**
  - a. Stop the Data Flow Probe.
  - b. Extract the upgrade package by running the following file:  

```
/opt/hp/UCMDB/DataFlowProbe/tools/upgrade/extractUpgradePackage.sh
```
  - c. Restart the Data Flow Probe.

## HP Universal CMDB and CM 10.01 CUP12 Uninstall Procedure

When performing the uninstall procedure, this procedure must be performed for both the UCMDB Server and the Data Flow probes, as well as Configuration Manager.

1. Stop the HP Universal CMDB and Configuration Manager servers, and all running Data Flow Probes before uninstalling the version CUP.
2. For UCMDB:
  - **Windows:** Go to **<CMDB installation folder>\UninstallerCup** and double-click **Uninstall HP Universal CMDB Server CUP**. After the CUP is successfully uninstalled, go to **<CMDB installation folder>\runtime** and delete the **jsp** and **jetty-cache** folders.
  - **Linux:** Go to **<CMDB installation folder>/UninstallerCup** and run **Uninstall HP Universal CMDB Server CUP**. After the CUP is successfully uninstalled, go to **<CMDB installation folder>/runtime** and delete the **jsp** and **jetty-cache** folders.

**Note:** The uninstaller verifies the status of the UCMDB settings and if any settings are marked



sensitive and encrypted (as part of the sensitive settings work), it pops out a warning message asking you to follow the instructions in the UCMDB document to roll back all sensitive settings.

If you see such a warning message, manually decrypt those encrypted settings by invoking the **markSettingAsNonsensitive** JMX method before proceeding with the uninstall procedure.

Only proceed with the uninstall procedure when the result returned by the **listSensitiveSettings** JMX method is empty.

For detailed instructions, see ["How to Mark Sensitive Settings and Enable Storing Encrypted Data in the Database Using JMX" on page 34.](#)

Before proceeding with the uninstaller, make sure the master key is restored to default in case you have changed the master key for the cluster. For instructions, see ["How to Set Master Keys" on page 37.](#)

3. For Configuration Manager:
  - **Windows:** Go to **Start** menu > **Programs** > **HP Universal CMDB Configuration Manager 10.01** and double-click **Uninstall HP Universal CMDB Configuration Manager 10.01 CUP12.**
  - **Linux:** Go to **<CM installation folder>/\_sp\_installation/** and run **HPCM\_10.01\_CUP12-Uninstall.**
4. Uninstall all existing Probes as follows:
  - a. **Windows:** **Start** > **All Programs** > **HP UCMDB** > **Uninstall Data Flow Probe.**  
**Linux:** **<Probe\_Home>** > **UninstallerData** > Run the **Uninstall\_Discovery\_Probe** script.
  - b. Start the UCMDB server.
  - c. Undeploy the **probeUpdate** package.
5. Reinstall the Probes with the same configuration, that is, use the same Probe IDs, domain names, and server names as for the previous Probe installations. Remember that the Probe ID is case sensitive.

**Note:** After performing an upgrade and installing the new Data Flow Probe, all the Discovery jobs that were active before the upgrade are automatically run.

## Notes

- HP provides the following recommendations for increasing the security of your overall infrastructure for informational purposes only. These are only recommendations and are not intended to be a guarantee of protection against all potential vulnerabilities and attacks. Please note that some security measures may impact the features and functionality of your overall system; so, it is recommended that every customer become aware of those impacts when implementing any changes to your environment.

Use of this HP Software Product [UCMDB CUP] may require the pre-installation of certain third-party components that are not provided by HP ("Third Party Components"). HP recommends that its customers check frequently for the most current updates to the Third Party Components, which may include fixes or patches for security vulnerabilities.

- 10.01 CUP11 (and later CUPs on top of 10.11) does not contain the latest MindTerm jar file (**mindterm-4.1.5.jar**). If you want to upgrade your MindTerm from version 4.0beta6 to 4.1.5, go to the following location and download the hotfix: <https://patch-hub.corp.hp.com/crypt-web/protected/viewContent.do?patchId=QCCR1H90627>.
- When LW-SSO is configured and the version of the embedded UCMDB Browser is 2.5 or earlier, do not mark the **mam.server.sso.init.string** setting as sensitive. Marking this setting as sensitive may break the embedded UCMDB Browser.

- **PROBLEM:** The UCMDB UI cannot be accessed after uninstalling the CUP.

**WORKAROUND:** After uninstalling the CUP, delete the **<UCMDB\_Server\_Home>\runtime\jsp** folder before starting the UCMDB server.

- **PROBLEM:** Probes may not work in separate mode after applying the UCMDB 10.01 CUP11 package. (QCCR1H98078)

**Workaround:** To fix this issue, perform the following steps:

- a. Back up the 10.01 CUP10 **DataFlowProbe\deploy\cm\WEB-INF\web.xml** file.
- b. After updating to 10.01 CUP11, restore this file.

Applying this workaround will revert the changes made for QCCR1H93859.

- **PROBLEM:** Data Flow Probes cannot be upgraded to the latest CUP successfully on the Linux

platform. (QCCR1H102387)

**Workaround:** To resolve the issue,

- a. Copy **/opt/hp/UCMDB/UCMDBServer/content/probe\_patch/probe-patch-<version>-linux.zip** (for example, **probe-patch-10.11.CUP6-linux.zip**) to the following folder:

**/opt/hp/UCMDB/DataFlowProbe/runtime/upgrade**

- b. Extract the upgrade package by running the following file:

**/opt/hp/UCMDB/DataFlowProbe/tools/upgrade/extractUpgradePackage.sh**

- c. Restart the Data Flow Probe.
- If you installed 10.01 CUP4 (and any subsequent CUPs) on top of 10.01 CUP2 or 10.01 CUP1 and you want to uninstall, you must perform the following steps before uninstalling 10.01 CUP4:
    - a. Open the UCMDB JMX Console.
    - b. Go to **URM Services > listResourceTypes**.
    - c. Delete the following URM resource: **Freemium\_FIRST\_IDS**.
  - License expiration dates are now properly enforced on the UCMDB server and a license expiration alert will be on display in both the UCMDB User Interface and the UCMDB Configuration Manager (but not the UCMDB Browser) during the last 30 days of the license.

When a license expires, users are not able to access any user interface other than the JMX console. An administrator can use the JMX console to update the license. If CUP3 is applied to a UCMDB server where there is no Term or Perpetual license in place, the license mechanism will default to an HP Freemium license for UCMDB (12-month limited use).

- CUP2 includes updated documentation for UCMDB 10.01, including better navigation between topics and to the API documentation, integrated Inventory Discovery content, as well as other improvements.
- Prior to the installation of 10.01 CUP1 (fixed defect #81641), a CIT may have gotten corrupted and no instances of it could be created. This may have been caused by a change in the way the display label is calculated. The corrupted CIT may have been manually edited in the UI, deployed from a customized package, or imported.

After installing this CUP, this no longer happens but if the CIT is corrupted, it must be manually edited in the XML to change the **display\_label** as follows:

- a. In the URM services JMX, select **editResource** with resource id <type of the CIT> and resource type **CM\_CLASS**.
  - b. Edit the xml file to ensure:
    - There is only one **Attribute-Override** tag where the **name** property is **display\_label**.
    - In the tag: **Attribute-Override > Attribute-Qualifiers > Attribute-Qualifier > Data-Items**, there must be only one Data-Item with the name of **FUNCTION** and one Data-Item with the name **PREFIX**.
  - c. Save the resource and restart the server.
- The following new check boxes are available in the Add Attributes dialog box in the CI Type Manager (in the UCMDB Browser Qualifiers tab):
    - **Hide in Modeling.** When **CMS Browser Visible** is selected, select **Hide in Modeling** to prevent the attribute from appearing in the Assisted Modeling feature in the UCMDB Browser.
    - **Hide in Export Search Results.** Select **Hide in Export Search Results** to enable this attribute to be excluded from exported search results in the UCMDB Browser.
  - When upgrading the Data Flow Probe:
    - In a multi-customer environment, if the Data Flow Probe is not automatically upgraded to the latest CUP version, use the manual upgrade procedure to upgrade the Probe manually. For details on the manual upgrade procedure, see "How to a Deploy Data Flow Probe CUP Manually" in the *HP Universal CMDB Data Flow Management Guide*.
    - The automatic upgrade is not available for Data Flow Probes running on Linux. Use the manual upgrade procedure to upgrade the Probe manually.
    - The Data Flow Probe upgrade is only available for upgrades between CUP versions. When performing an upgrade to a major or minor release, you must reinstall the Probe.
    - When operating the Data Flow Probe Manager and the Data Flow Probe Gateway on separate machines (that is, separate mode), use the manual upgrade procedure to upgrade the Probe manually. For details on the manual upgrade procedure, see "How to a Deploy Data Flow Probe CUP Manually" in the *HP Universal CMDB Data Flow Management Guide*.

- If you encounter an error when installing the CUP under Linux on the **/tmp** directory because the **/tmp** directory is configured not to run executables, set the **IATEMPDIR** environment variable to a location with sufficient permissions and disk space. The **IATEMPDIR** variable is recognized by **InstallAnywhere**.
- The UCMDB 9.x and UCMDB 10.x adapters have changed. After installing the CUP, manually redeploy the packages located in the **C:\hp\UCMDB\UCMDBServer\content\adapters** directory.
- The WebSphere to Web Server Dependencies job is causing **OutOfMemoryError** on the probe side.

**Workaround:** The probe requires at least 4G memory to run the WebSphere to Web Server Dependencies job. Therefore, allocate at least 4G memory for the probe.

- 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 remote process cannot read the probe memory, thus having no access to the **domainScopeDocument** file stored in the memory. When the setting is false, the file is only stored in the probe memory.

**Workaround:** If some jobs run in the remote process mode, make sure that you set the value of the **appilog.collectors.storeDomainScopeDocument** property in the **DataFlowProbe.properties** file to **true**.

- A new property **allowCallhomeInterval** is added in the **globalSettings.xml** file as follows: (QCCR1H94134 and QCCR1H94140)

```
<!--Time interval in hours that is allowed between two call home requests
from the same host -->
<property name="allowCallhomeInterval">24</property>
```

- A new attribute **isTopologyRequired** is added in the **<connected-ci-condition>** XML tag of the reconciliation rule of a CI type. Setting the **isTopologyRequired** attribute value to **true** overrides the UNKNOWN result with FALSE for a validation criterion when there are no connected CIs. (QCCR1H96982)

The following example shows the usage of the attribute, which is taken from the identification rule for the **sap\_system** CI type:

```
<validation-criterion priority="2">
  <connected-ci-condition ciType="sap_app_server" linkType="membership"
```

```
isTopologyRequired="true"conditionType="approveAndContradict">  
  <overlap-fixed-operator number-of-matches="1"/>  
  </connected-ci-condition>  
</validation-criterion>
```

## Fixed Defects for UCMDB 10.01 CUP12

Here is a list of the defects fixed in the CUP12 release.

Global ID	Problem	Solution
QCCR1H97904	False restarts of the UCMDB writer server happen occasionally.	<p>Before starting the UCMDB server, open the <b>\\UCMDBServer\bin\wrapper.conf</b> file, locate the following settings and modify their values as indicated below:</p> <pre data-bbox="967 737 1370 1016">                     wrapper.cpu.timeout=60                     wrapper.ping.timeout=320                     wrapper.ping.interval=30                     wrapper.stop.timeout=320                     wrapper.shutdown.timeout=320                     wrapper.jvm_                     exit.timeout=320                 </pre>
QCCR1H98947	The reader server restarts in the High Availability environment because the writer server sends the revisions in an incorrect order. The log shows the following error message: "Server had to be restarted because of a missing revision".	Fixed the issue by creating an ordered queue to place the revisions in the expected order.
QCCR1H102098	Integration service cannot load the updated master key if the server's master key is changed.	Integration service can now load the updated master key.

## Fixed Defects for UCMDB 10.01 CUP11

Here is a list of the defects fixed in the CUP11 release.

Global ID	Summary
QCCR1H88798	Fixed an issue that occurred when global_id was not updated if UCMDB was not configured as a global_id generator.
QCCR1H91604	Fixed an issue that occurred when opening Adapter Management took a long time.
QCCR1H91673	Fixed an issue that occurred when several different CIs that were identified as one single CI in UCMDB reported incorrect topologies.
QCCR1H91923	Fixed an issue that occurred when resources were not updated in UCMDB during the content pack deployment because of double file extensions.
QCCR1H92343	Fixed an issue that occurred when the following error was returned by the <b>Inventory Discovery by Scanner</b> job: "XML Enricher failed to parse scanning file".
QCCR1H92474	Fixed an issue that occurred when an error was returned by the <b>MSSQL Server Connection by SQL</b> job while using the NTLM authentication.
QCCR1H92683	Fixed an issue that occurred when the Oracle LMS discovery failed to discover LMS data with the following error "AttributeError: 'NoneType' object has no attribute 'size'".
QCCR1H92744	Fixed an issue that occurred when an unexpected error exception appeared in the topology reports based on the rule-based view.
QCCR1H92768	Added support for Oracle Database 12c.
QCCR1H92943	Fixed an issue that occurred when many CIs were aged or had been marked for deletion because the touch process did not send updates.
QCCR1H93084	Fixed an issue that occurred when the following error was returned while exporting Oracle LMS data: "Error exporting the external resource".
QCCR1H93168	Fixed an issue that occurred when BSM 9.22 CI Resolver only resolved nodes.
QCCR1H93318	Fixed an issue that occurred when the Discovery Progress pane did not update while a job is deactivated or reactivated after updating UCMDB 10.01 to CUP9.
QCCR1H93478	Fixed an issue that occurred when certain IP addresses or IP address ranges could not be added to the management zone with the following error "Range overlaps with range of probe: <name of probe>".
QCCR1H93859	Fixed an issue that occurred when the probe web server allowed directory listing.
QCCR1H93980	Fixed an issue that occurred when a processing error was returned because of a List System Type definition.



Global ID	Summary
QCCR1H94051	Fixed an issue that occurred when pattern-based models with ENUM attributes reverted values back to default values.
QCCR1H94134	Fixed an issue that occurred when the UI status of the triggered CIs did not update while the triggered CIs for jobs under the management zone were in the status of Progress.
QCCR1H94140	Fixed an issue that occurred when a great many CIs were deleted by the aging mechanism because of the large number of unsent results on probes.
QCCR1H94162	Fixed an issue that occurred when the <b>Rerun Discovery</b> button did not rerun discovery and the following error message was returned: "maximum number of expressions in a list is 1000".
QCCR1H94507	Fixed an issue that occurred when the getProbeFromHost() method did not check whether an IP address was configured in the management zone range before using this IP address's probe name.
QCCR1H94555	Fixed an issue that occurred when multiple Global IDs of CIs were changed in UCMDB.
QCCR1H94615	Fixed an issue that occurred when the <b>Host Applications by Shell</b> job reported Node CI without any properties but one IP address.
QCCR1H94784	Fixed an issue that occurred when the UCMDB server failed with the following error after applying CUP10: "[Oracle]ORA-01439: column to be modified must be empty to change datatype".
QCCR1H95235	Fixed an issue that occurred when SAP Application Server icons could not be changed.
QCCR1H95558	Fixed an issue that occurred when the discovery probes that were in non-union mode could not run discovery jobs after upgrading UCMDB 10.01 from CUP4 to CUP10.
QCCR1H96216	Fixed an issue that occurred when UCMDB Server encountered the OutOfMemoryError in Java heap in processing the discovery results of the <b>Host Resources by Shell</b> and <b>Host Applicationsby Shell</b> jobs.
QCCR1H96688	Fixed an issue that occurred when the <b>Enable aging</b> attribute of CIs that were created by the <b>Import from Excel</b> adapter was true though this attribute was set to false.
QCCR1H96842	Fixed an issue that occurred when the UCMDB to UCMDB push adapter returned an error message.
QCCR1H96982	Fixed an issue that caused an incorrect merging of the <b>sap_system</b> CIs in rare cases when the associated node could not be identified and inserted into UCMDB.
QCCR1H97103	Fixed an issue that occurred when about 1000 CIs that were in the results of the trigger query disappeared in the triggered CIs list.
QCCR1H97168	Fixed an issue that occurred when the following error was returned: "Can't add to DataContainer because its size larger than the fuse 200000 which defined by

Global ID	Summary
	reconciliation.internal.data.container.size.fuse".
QCCR1H97374	Added procedure on how to disable the HTTP TRACE or TRACK methods on the probe.
QCCR1H97566	Fixed an issue that occurred when jobs failed randomly with the Java.lang.NullPointerException error.
QCCR1H97715	Fixed an issue that occurred when probes were backed up from time to time.

## Fixed Defects for UCMDB 10.01 CUP10

Here is a list of the defects fixed in the CUP10 release.

Global ID	Summary
QCCR1H88117	Improved the performance when opening and editing a package from Package Manager.
QCCR1H90392	Improved the way JoinF SQLs are created for basic JoinF relations.
QCCR1H90572	Fixed an issue that occurred when setting up a filter with multiple conditions in the "Show Element Instances" option of the "SM Computer Push" TQL query.
QCCR1H91007	Fixed an issue that occurred when trying to populate some links from Service Manager to UCMDB and errors were returned.
QCCR1H91493	Added two settings that limit the number of CIs and the number of levels when loading a model.
QCCR1H91545	Fixed an issue that occurred when non-English characters were displayed incorrectly in the display label for a class.
QCCR1H91555	Improved the way the saved search from all groups are retrieved.
QCCR1H91665	Fixed an issue that occurred when the VMware Virtual Center Custom report displayed incorrect results.
QCCR1H92224	Fixed an issue that occurred when the input parameters for the content validator of a job was not available.

## Fixed Defects for UCMDB 10.01 CUP9

Here is a list of the defects fixed in the CUP9 release.

Global ID	Summary
QCCR1H90324	Fixed an issue that occurred when attribute reconciliation priority to update empty CI properties did not work as expected.
QCCR1H90300	Improved Confidential Manager client/server communication when UCMDB server sits behind proxy.
QCCR1H89899	Added setting "view.fuse.maximum.models.in.result" to limit the default number of models.
QCCR1H90135	Improved login time for non-admin users.
QCCR1H90371	Fixed an issue that occurred when purging did not delete URM resources of missing history tables.
QCCR1H90647	Mapped the ping component to HTTPS with mutual authentication.
QCCR1H90126	Fixed an issue that occurred when Delete requests for CIs were not deleted. This occurred when the Service Manager push integration failed.
QCCR1H90696	Fixed an issue that occurred when TQL structure optimizer created a very large property condition.
QCCR1H89659	Fixed an issue that occurred when the search engine returned incorrect results when processing queries for CIs using the "without" keyword.
QCCR1H90239	Improved JMX functionality to clean MERGED_CIS table from illegal rows.
QCCR1H90283	Fixed an issue that occurred when additional Compound Relations could not be added to existing queries.
QCCR1H89863	Fixed an issue that occurred when modifications on Pattern-Based models cause duplicates.
QCCR1H90271	Added the ability to specify the map layout in Modeling Studio. Changes are visible in Show View Topology direct link.
QCCR1H83034	Fixed an issue that occurred when icons for integration jobs were not displayed properly in the Japanese locale.
QCCR1H90422	Fixed an issue that occurred when the "Error getting ci node type by name from " error message was received.
QCCR1H89696	Fixed the GDBA issue when the annotations for ids were overwritten by annotations for discriminator

Global ID	Summary
QCCR1H90535	Fixed an issue that occurred when an error message was displayed editing IP range within Integration Point.
QCCR1H89790	Fixed an issue that occurred when handling multiple lists of strings of the same size caused performance issues.

## Fixed Defects for UCMDB 10.01 CUP8

Here is a list of the defects fixed in the CUP8 release.

Global ID	Summary
QCCR1H88843	Fixed the issue when XML Enricher failed to parse scan files.
QCCR1H89725	Fixed the reconciliation priority behavior for updating empty attributes.
QCCR1H89314	Improved the TQL calculation triggered by TQL scheduler.
QCCR1H89234	Improved the filter operation of excluded CIs from the data containers.
QCCR1H88919	Fixed the issue when Data Flow Status failed by increasing the timeout.
QCCR1H89763	Improved the clear cache query speed.
QCCR1H88927	Improved the performance of the Call Home event.
QCCR1H88923	Fixed the issue when two different error messages shared the same error code.
QCCR1H88974	Fixed the issue when job statuses in Data Flow Probe Status failed when a trigger was stuck and the job of the trigger was deleted.
QCCR1H88930	Added logging when a bulk failed import error was reported.
QCCR1H89708	Improved ad-hoc job performance.
QCCR1H88955	Fixed the issue when the right-click menu did not open.
QCCR1H88805	Fixed the issue when operating System Release flips between HSbS and scan file information.
QCCR1H89650	Fixed the issue when attributes that were added to application signatures were not saved.
QCCR1H89448	Fixed the issue when defined client IP ranges were considered as data center type ranges while running jobs in the Management Zone.
QCCR1H89622	Added replication.preserve.identification.integrity adapter setting to enable/disable use of data integrity rules of data push in "non-instance based".
QCCR1H89506	Changed the maximum size of URM resource names to 900 characters.
QCCR1H89584	Fixed the history Changes Retrieval issue.
QCCR1H88423	Fixed the issue when history upgrade did not create URM resources for the table partitions after resuming the upgrade.
QCCR1H89527	Improved the performance of the identification flow.

Global ID	Summary
QCCR1H89020	Debug probe prints were moved to the debug level in order to avoid spamming of the error log.
QCCR1H88648	Fixed the issue with oidToHostClass file deployment.
QCCR1H88515	Added an option to change the logout page named Logout forward URL.
QCCR1H89481	Increased the timeout for aging to 5 hours.
QCCR1H89408	Fixed the issue when the actual number of trigger CIs and the number of trigger CIs shown by the Total field were different.
QCCR1H88676	Fixed the issue when XEN/KVM jobs did not run Triggered CIs in the Activity jobs of Zone-Based Discovery.
QCCR1H88895	Fixed the issue when statistics at the top level for the Management Zones were not displayed.
QCCR1H87740	Fixed the issue when Scheduler for the integration probe did not invoke the jobs in case the Data Flow Probe was restarted (Linux only).
QCCR1H89431	Fixed the issue when running the <b>ClearDataProbe.bat</b> script caused processed scan files to be deleted unexpectedly on the Data Flow Probe.
QCCR1H89599	Fixed the issue when Japanese characters are not shown correctly in the Host Resources by WMI job results.

## Fixed Defects for UCMDB 10.01 CUP7

Here is a list of the defects fixed in the CUP7 release.

Global ID	Summary
QCCR1H84497	Improved searched engine performance by adding multiple connections between UCMDB and Solr engine.
QCCR1H87637	Fixed the issue of the MS SQL Native Client is not being recognized correctly.
QCCR1H87745	Fixed the issue of Get Related CIs from the Context menu does not displaying the related CIs randomly.
QCCR1H87804	Fixed the URL for a direct link to CSV reports.
QCCR1H87848	Fixed the issue of the probe description display being too large and hiding the Ranges section at the bottom in the Domains and Probes tab.
QCCR1H87857	NON_ANSI letters (such as Japanese and Russian) are now displayed correctly in the results of the Host Resources by WMI job.

Global ID	Summary
QCCR1H87887	Data flow probe modules are properly accessed after the upgrade.
QCCR1H88054	The chunking mechanism has been improved to handle highly-connected components efficiently.
QCCR1H88112	Resolved timeout issues when the UCMDB Probe tries to fetch data from the SCCM view.
QCCR1H88422	Fixed the history alignment to handle the case when a CI type does not have a URM resource for the current month partition.
QCCR1H88429	Fixed the issue of the new queue size of the Redispatch Trigger CIs dramatically increasing.
QCCR1H88516	Fixed the history alignment to handle the case when there is a size limit on an attribute of type <code>double</code> .
QCCR1H88526	Manually assigned roles to LDAP users are no longer removed after CUP upgrade.
QCCR1H88537	Fixed the issue of the Packaging Service failing after installing 10.01 CUP.
QCCR1H88572	The Quartz scheduler no longer attempts to "phone home" during DFP startup.
QCCR1H88600	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.
QCCR1H88625	When the properties form dialog box is in editable-mode, the correct user permissions are applied.
QCCR1H88728	The search engine now returns correct results when processing queries for CIs using the <b>without</b> keyword.
QCCR1H88748	Fixed the issue of Package Manager Import/Export failing for the Linux scanner.
QCCR1H88755	Fixed the issue of an unexpected response when using the Webservice API, due to chunking.

## Fixed Defects for UCMDB 10.01 CUP6

Here is a list of the defects fixed in the CUP6 release.

Global ID	Summary
QCCR1H85968	Improved the loading time for perspective-based views.
QCCR1H84468	Application recognition was updated to recognize the application taught.



Global ID	Summary
QCCR1H87566	Fixed issue where changing the users password generated an error due to the default policy password.
QCCR1H86973	Fixed issue where comparing a saved snapshot of a perspective based view to the current view did not work.
QCCR1H87235	Improved the performance of importing IP ranges and updating IP tags in a Data Flow probe.
QCCR1H87564	Fixed issue where an error was generated in the Application License Report when drilling down to view the application instances.
QCCR1H87282	Enrichment rules running on IP Address CIs are not updating existing attributes anymore.
QCCR1H87319	Empty properties of type double are no longer synchronized during integrations.
QCCR1H86248	Fixed issue where the CI Change report failed to load.
QCCR1H86792	Improved the time for opening models in Modeling Studio.
QCCR1H87245	The merge operations fuse(reconciliation.merge.operations.fuse ) was increased to 1500.
QCCR1H86349	The ModelChangesListener Java API now works in a multi-tenant environment.
QCCR1H84154	Optimized the data sent to the TQL statistics log.
QCCR1H86554	Fixed issue where compare snapshots for perspective based views returned incorrect results.
QCCR1H87261	CmdbAdapter time limit of the tql cache result will be taken from the adapter settings.It is done in the adapter's discovery pattern in the setting: "chunk.keeping.period.in.seconds"
QCCR1H86143	Fixed the issue where a TQL with a federated history query node failed to calculate when using the <b>Changed during x hours</b> operator.
QCCR1H86000	Improved the performance of opening TQLs in read mode.
QCCR1H86717	Improved the handling of the database connection by adding a timeout to the query validation.
QCCR1H87406	Fixed LOA mapping to assign a unique column for each attribute.
QCCR1H86081	uCMDB supports LW-SSO login authentication using a fully qualified domain name of up to 8 characters.
QCCR1H87357	Fixed issue where Data Flow probes got stuck when multiple threads tried to update the same resource at once.

Global ID	Summary
QCCR1H87504	Added parallel loading of the security model at login to improve login time.
QCCR1H84879	Changed the child/parent attribute handling so that any link type contributes to the calculations.
QCCR1H87345	Fixed issue where the scheduled Discovery Errors Report did not generate properly.
QCCR1H86774	Fixed issue where a discovery job would get stuck until adding a CI manually.
QCCR1H85589	Fixed issue where changes made to the report scheduler were not saved properly.
QCCR1H87393	Fixed issue where the Display Label attribute was translated into a localized language.
QCCR1H86249	If the UCMDB Server does not have any localized documentation deployed on the system, the English documentation will be loaded by default.
QCCR1H82058	Fixed issue where the Display label was not exported into CSV and XLS reports if another language was used.
QCCR1H87500	Report scheduler jobs are running properly even if the job is run manually by the user between scheduled runs.
QCCR1H87611	The Inventory activity of a Management Zone can now be edited and saved.
QCCR1H87289	Improved performance for updating Enrichment rules.
QCCR1H84953	Improved support for getting progress data for a large number of jobs simultaneously.
QCCR1H86609	Fixed issue where exporting a Sai.zip package produces files with 0 bytes.
<b>Configuration Manager Fixed Defects</b>	
QCCR1H87551	The CI information is loaded from the current data model if the information is missing from the History DB.

## Fixed Defects for UCMDB 10.01 CUP5

Here is a list of the defects fixed in the CUP5 release.

Global ID	Summary
QCCR1H85892	A new setting was introduced: <b>mam.common.map.XLSReportColumnSize</b> , whose value determines the size of the Excel columns.
QCCR1H85392	The <b>Enable links</b> setting in exported reports now works correctly.

Global ID	Summary
QCCR1H85389	Tenant Association rules now run properly on business CIs.
QCCR1H84799	Fixed the LOA mapping to map CI attributes to unique columns in the LOA table.
QCCR1H85292	Added more information in logs reporting on failures connected with calculated attributes.
QCCR1H85075	Modified the Data Container creation during multiple match identification to create all necessary CI types.
QCCR1H85850	A new setting was introduced: <b>cmdb.default.thread.pool.size</b> , whose value is used to increase the size of the thread pool.
QCCR1H85724	Improved Security Model calculation for large query or view trees for users with custom roles.
QCCR1H84878	Added High Availability information to the output of the <b>viewSystemInformation</b> JMX method.
QCCR1H85728	A new setting was introduced: <b>mam.gui.automation.flow.mapping.enabled</b> , whose value determines whether Automation Flow Mappings are enabled.
QCCR1H85725	Faster CRUD (Create/Read/Update/Delete) operations on views and TQLs for non-admin users.
QCCR1H84766	Added functionality to concatenate the root container link ID when it exceeds the maximum column length in the DB.
QCCR1H85528	Fixed issue where an integration job that returned results in chunks deleted some chunks from the probe cache.
QCCR1H85158	Export to Excel now displays the proper date format.
QCCR1H85394	All pending load or open resource requests are canceled when a user navigates to a different module.
QCCR1H84605	The Topology Visualization Grouping functionality in IT Universe Manager now uses the grouping selection from the View Properties whenever the user opens the View Preview.
QCCR1H85885	When installing UCMDDB using Linux, the <b>DDMiMigration.pl</b> script is deployed on the Linux server.
QCCR1H85617	The Ownership Management module now opens without an error caused by Enrichment folders.
QCCR1H84700	Fixed issue where job progress and scheduled jobs were not displayed for any of the probes in the Data Flow Probe Status module.
QCCR1H85665	Fixed issue where Data Flow Probes were incorrectly displayed as disconnected from the UCMDDB server.

## Fixed Defects for UCMDB 10.01 CUP4

Here is a list of the defects fixed in the CUP4 release.

Global ID	Summary
QCCR1H84020	Increased the timeout for the SQL that creates global IDs to 5 hours.
QCCR1H63602	Fixed filtering issue for the results displayed by "Show Element Instances".
QCCR1H82832	Modified the method of reading string values when using the WMI protocol to enable the job to finish successfully.
QCCR1H83756	Handle Remove Pending Events are now run in batch instead of individually.
QCCR1H84078	Added a new log file "cmdb.reconciliation.error.log".
QCCR1H84102	Added a new setting to search the batch size.
QCCR1H83837	CMDB data is no longer overwritten during a multiple match of CIs.
QCCR1H83578	Fixed the SQL typo in the create baseline for list attributes table.
QCCR1H83895	Improved the history baseline operation
QCCR1H83963	Improved the Reconciliation DataIn mechanism to handle the addStrict validation
QCCR1H84062	Enhanced the identification of the <b>process</b> CIT to handle the case efficiently.
QCCR1H64702	Reconciliation priorities which are below the default value (100) are now handled correctly.
QCCR1H84716	The Lists and Enumeration system types are no longer filled with duplicate values when loading the class model.
QCCR1H84739	Modified the identification pattern to include the identification data of the descendant CIs.
QCCR1H84355	When using the JMX console, methods no longer fail when using the JVM Monitor service.
QCCR1H83670	Fixed issue of the Probe status appearing as disconnected in the UI because of an incorrect probe status calculation.
QCCR1H82441	Fixed issue where the CIT icon does not change when triggered by an attribute value change.
QCCR1H83250	Fixed issue where the website failed to open when <b>Relationships</b> was selected for the URL parameter in the attached menu.
QCCR1H83317	Added a setting in the globalSetting.xml file to disable the Call Home feature.

<b>Global ID</b>	<b>Summary</b>
QCCR1H84536	The number of user attempts to log in to UCMDB using LDAP authentication using incorrect credential is now limited to 1.
QCCR1H84009	Fixed issue of users who were unable to edit Users and Groups details.

## Fixed Defects for UCMDB 10.01 CUP3

Here is a list of the defects fixed in the CUP3 release.

Global ID	Summary
QCCR1H83175	Added option to define exclusions per IP range in identification rules. Excluding problematic IP ranges improves discovery job performance.
QCCR1H83074	Added a fuse on the amount of merge operations for a single Data In bulk operation.
QCCR1H83215	Added a scroll bar for Impact Analysis in the Add/Edit Impact rule window.
QCCR1H83182	Improved CI merging mechanism.
QCCR1H83013	Fixed issue of Reconciliation Priorities cleanup upgrader timing out.
QCCR1H82694	Improved timeout to data-in operations.
QCCR1H82563	Fixed issues relating to hierarchy in Perspective-based views.
QCCR1H83069	Improved UI access time when multiple users are accessing UCMDB.
QCCR1H83119	Added option to use the editResource URM service to remove the Attribute-Override tag when the name property is display_label.
QCCR1H79516	Fixed issue where the filter for the Data Flow Probe Status did not work correctly.
<b>Configuration Manager Fixed Defects</b>	
QCCR1H82445	Fixed issue where node authorization did not work correctly.

## Fixed Defects for UCMDB 10.01 CUP2

Here is a list of the defects fixed in the CUP2 release.

Global ID	Summary
QCCR1H81556	UCMDB reports exported to Microsoft Excel format no longer have an alignment problem.
QCCR1H82355	Loading of the folder view tree performance was improved by removing the creation of new enrichment business views from the folder manager to a dedicated utility.
QCCR1H81973	The Reconciliation Priority Manager is now working on both the writer and reader servers of the cluster in a high availability environment.

Global ID	Summary
QCCR1H82358	When marking candidates for deletion, the date on which the CIs would be deleted is no longer postponed.
QCCR1H82060	Fixed the "SAXParser not found" error and Credentials and list of Probe Ranges are now visible in the user interface.
QCCR1H81819	Applications Signature deployment was improved.
QCCR1H82291	Selecting <b>Save as</b> for a Discovery job performs as expected for all jobs.
QCCR1H82120	Added more information to the log files for CUP installations.
QCCR1H81982	Fixed issue caused by refreshing the topology results tree.
QCCR1H82294	Optimized the time required to save changes to the protocols (credentials) used by Discovery when several probes are reporting to the server.
QCCR1H81648	Added more information in the WrapperProbeGateway log to display wrong values used for enumeration type.
QCCR1H82391	Creating and/or editing Probe ranges no longer fails.

## Fixed Defects for UCMDB 10.01 CUP1

Here is a list of the defects fixed in the CUP1 release.

Global ID	Summary
QCCR1H81124	Scanner Generator context-sensitive help links are now linking to the correct pages in the online help.
QCCR1H81097	Management Zone, Client Connection by Shell no longer sees Client IP address as Data Center IP and does not stop discovery.
QCCR1H81076	10.01 Identification rule description from CIT Manager was updated.
QCCR1H75515	It is no longer possible to uninstall a CUP while the UCMDB server is running.
QCCR1H81239	Improved Management Zone imports. Jobs xmls are now created properly.
QCCR1H80856	Fixed Oracle LMS Data collection issue if <b>expiry_date</b> from <b>DBA_USERS</b> is null.
QCCR1H80867	Federation from non multi-tenancy to multi-tenancy environments works also for non-admin users.
QCCR1H81294	Improved the analysis process for adding/removing a large bulk of links.
QCCR1H80789	Added timeout to data-in operations with calculated <b>explicit timeout</b> .

<b>Global ID</b>	<b>Summary</b>
QCCR1H81288	Improved UI error messages from Service Anywhere adapter.
QCCR1H81542	Enhanced Content Pack deployment to run data update.
QCCR1H81160	Improved warning messages logging for reconciliation logs.
QCCR1H81440	Fixed problem of push engine for failed statistics.
QCCR1H80871	In a multi-customer SaaS environment, each customer can now handle its own management zones.
QCCR1H80758	Improved adhoc tasks of the synchronization flow.
QCCR1H81199	System Type Manager list definitions can be deleted and no longer cause unidentified errors.
QCCR1H81255	Any error message coming from the Get All Models flow is displayed in the UI and also in the logs.
QCCR1H81578	Improved Pattern-based models scheduler.
QCCR1H80873	Improved the handling of multiple triggers for a single job at the same time.
QCCR1H81225	Template-based views now get the inter-layer property from the base template and inter-layer links are no longer displayed for the view if the property is disabled.
QCCR1H81641	CI Type default label property is saved properly in the URM.
<b>Configuration Manager Fixed Defects</b>	
QCCR1H81741	Fixed Configuration Manager UI startup issue caused by the UCMDB Browser.
QCCR1H75921	Views with long name are displayed properly in Add Composite CIs dialog box.



## Appendixes

This appendix includes:

How to Enable Attribute Name Verification during the Matching Phase of Identification .....	33
How to Mark Sensitive Settings and Enable Storing Encrypted Data in the Database Using JMX ....	34
How to Set Shared Key for Encrypting or Decrypting the InfrastructureSettings.xml File Using JMX	36
How to Set Master Keys .....	37
How to View Discovery Status and Errors for a Selected CI .....	41

### How to Enable Attribute Name Verification during the Matching Phase of Identification

The **reconciliation.match.attributes** JMX setting verifies names of attributes during the matching phase of the identification process. If, compared to the other CI, there is a different value among the CI attribute values defined in this setting, the verification process stops and the match is rejected.

Only the attributes that are inherited from the Managed Object should be used in this setting (for example, **global\_id** and **name**). Names of the attributes specified in the setting should be separated by comma.

This setting applies only to CIs that are identified based on the Identification Rule.

The following example explains how this setting works:

- If you have two node CIs:
  - Node1 with **global\_id=g1** and **name=n**
  - Node2 with **global\_id=g2** and **name=n**
  - **reconciliation.match.attributes** set to **global\_id**

This scenario will result in the two nodes not matching.

- If Node1 does not have **global\_id** set, the two CIs will match.

To enable this setting, do the following:

1. Go to **JMX Console > UCMDB:service=Settings Services > setSettingValue**.
2. In the **name** field, enter **reconciliation.match.attributes**.
3. In the **value** field, enter names of the CI attributes, separated by comma.

**Note:** To disable this setting, leave the **value** field empty.

4. Click **Invoke**.

## How to Mark Sensitive Settings and Enable Storing Encrypted Data in the Database Using JMX

UCMDB administrators can mark sensitive settings and enabling storing encrypted values for the sensitive settings in the database by using the following JMX methods added in the **UCMDB:service=Settings Services** category:

- **listSensitiveSettings** - Returns the list of settings that are marked as sensitive.
- **markSettingAsSensitive** - Marks a setting as sensitive. Usually sensitive settings contain confidential data. If a setting is marked as sensitive, its data will be encrypted when stored in the database.

**Note:** A setting can be marked as sensitive only when its value has been changed. If a setting does not have a value or if the value is out of the box, then the setting cannot be marked as sensitive.

- **markSettingAsNonsensitive** - Marks a setting as non-sensitive. Non-sensitive settings will have the value stored in plain text in database. This method is also used to decrypt the sensitive settings you encrypted using the **markSettingAsSensitive** method.

### To mark a setting as sensitive,

1. On the UC MDBRTSM server, launch the Web browser and enter the following address:  
**http://localhost:8080/jmx-console**.
2. Click **UCMDB:service=Settings Services** to open the JMX MBEAN View page.

3. Click the **markSettingAsSensitive** method.
4. Enter the name of the setting you would like to mark as sensitive.
5. Click **Invoke**.

#### **To mark a setting as non-sensitive,**

1. On the UC MDBRTSM server, launch the Web browser and enter the following address:  
**http://localhost:8080/jmx-console.**
2. Click **UCMDB:service=Settings Services** to open the JMX MBEAN View page.
3. Click the **markSettingAsNonsensitive** method.
4. Enter the name of the setting you would like to mark as non-sensitive.
5. Click **Invoke**.

#### **To view a list of sensitive settings,**

1. On the UC MDBRTSM server, launch the Web browser and enter the following address:  
**http://localhost:8080/jmx-console.**
2. Click **UCMDB:service=Settings Services** to open the JMX MBEAN View page.
3. Click the **listSensitiveSettings** method.
4. Click **Invoke**.

A list of settings that are marked as sensitive is returned.

**Note:** The following existing settings are already encrypted in the database and cannot be marked as sensitive:

- **ha.cluster.authentication.keystore.password**
- **ha.cluster.authentication.shared.secret**
- **ha.cluster.message.encryption.keystore.password**

- **ssl.server.keystore.password**
- **ssl.server.truststore.password**

After upgrading to version 10.01 CUP12, two new OOTB settings introduced in version 10.01 CUP12 are marked as sensitive by default:

- **java.naming.ldap.search.password**
- **jetty.connections.http.probe.basicAuthentication.defaultPassword**

## How to Set Shared Key for Encrypting or Decrypting the InfrastructureSettings.xml File Using JMX

UCMDB administrators can set a shared key for encrypting or decrypting the **InfrastructureSettings.xml** file on the UCMDB Server side or the Data Flow Probe/Integration Service side by using the **setSharedKey** JMX method.

Once you have set a shared key on the server side, make sure you set the same shared key on the Data Flow Probe/Integration Service side as well. This ensures that the Data Flow Probe/Integration Service can properly decrypt the **InfrastructureSettings.xml** file.

### To set a shared key on the UCMDB Server side,

1. On the UCMDBRTSM server, launch the Web browser and enter the following address:  
**http://localhost:8080/jmx-console.**
2. Click **UCMDB:service=Discovery Manager** to open the JMX MBEAN View page.
3. Click the **setSharedKey** method.
4. Enter a new value in the **Value** field for the shared key.
5. Click **Invoke**.

### To set a shared key on the Data Flow Probe/Integration Service side,

1. Access the Data Flow Probe/Integration Service JMX console: Launch a Web browser and enter the

following address: **http://<Probe or integration service machine name or IP address>:1977**. If you are running the Data Flow Probe/Integration Service locally, enter **http://localhost:1977**.

You may have to log in with a user name and password.

2. Locate the **Probe\_<Probe Name> type=MainProbe** service and click the link to open the JMX MBEAN View page.
3. Click the **setSharedKey** method.
4. In the **Value** field, enter the same value you provided on the UCMDB Server side for the shared key.
5. Click **Invoke**.

**Note:** If the Data Flow Probe is running in separate mode, make sure you set the shared key on both probeManager and probeGateway.

## How to Set Master Keys

You can use the JMX console to change the master key that is used to encrypt all UCMDB keys.

### Change the master key for a cluster

This method assumes that your UCMDB environment is deployed in a high-availability setup.

#### Caution:

- This method involves a restart of the entire cluster, so plan accordingly. It is recommended to change the master key of the cluster when there is little or no load on the servers. For example, you should avoid using this method during data-in operations.
- Do not change any settings in the time period between changing the master key and restarting the server. Not following this instruction may result in a failure to start the server.
- Machines that are not up or that will be added later to the cluster will need to be configured manually. Until they are configured, at most they can run as reader machines; trying to run them as writer machines will fail.

1. Back up the **c:\hp\UCMDB\UCMDBServer\conf\cmdb.conf** file and the values for the following settings:
  - **ha.cluster.authentication.keystore.password**
  - **ha.cluster.authentication.shared.secret**
  - **ha.cluster.message.encryption.keystore.password**
  - **ssl.server.keystore.password**
  - **ssl.server.truststore.password**
2. Make sure all the servers in the cluster are up and running.
3. On the writer machine, launch the Web browser and enter the following address to log in to the JMX console: **http://localhost:8080/jmx-console**.

**Note:** If a load balancer is present, you must bypass it and not log on to the writer machine through a load balancer.

4. Do one of the following:
  - Search for **changeMasterKeyForCluster**.
  - Click **UCMDB:service=Security Services > changeMasterKeyForCluster**.
5. Enter and confirm the master key, and click **Invoke**. The master key will be changed first on the writer machine and then on all reader machines.
6. Restart all the machines in the cluster. You can use the JMX method **High Availability Services > restartCluster** to do this.

**Note:** Restart the cluster immediately after changing the master key. If you do not, future database connections may fail.

## Change the master key for a new machine in a cluster

If at least one of the following settings was changed, use Method A; otherwise, use Method B:

- `ha.cluster.authentication.keystore.password`
- `ha.cluster.authentication.shared.secret`
- `ha.cluster.message.encryption.keystore.password`
- `ssl.server.keystore.password`
- `ssl.server.truststore.password`

### Method A

This method assumes that you already have properly configured a master key for the writer machine that is up and running in the cluster. If not, follow the instructions in ["Change the master key for a cluster" on page 37](#).

1. Copy the `c:\hp\UCMDB\UCMDBServer\bin\wrapper.conf` file from the writer machine to the same location on the new (reader) machine.
2. Restart the server.

### Method B

1. Back up the `c:\hp\UCMDB\UCMDBServer\conf\cmdb.conf` file.
2. On the writer machine, launch the Web browser and enter the following address to log in to the JMX console: `http://localhost:8080/jmx-console`.
3. Do one of the following:
  - Search for **changeMasterKey**.
  - Click **UCMDB:service=Security Services > changeMasterKey**.
4. Enter and confirm the master key, and click **Invoke**.
5. Restart the machine.

**Note:** Restart the cluster immediately after changing the master key. If you do not, future database connections may fail.

## Revert the master key for a cluster to its default value

This procedure resets the master key for an entire cluster.

1. Make sure all the servers in the cluster are up and running.
2. On the writer machine, launch the Web browser and enter the following address to log in to the JMX console: **http://localhost:8080/jmx-console**.

**Note:** If a load balancer is present, you must bypass it and not log on to the writer machine through a load balancer.

3. Do one of the following:
  - Search for **restoreMasterKeyForCluster**.
  - Click **UCMDB:service=Security Services > restoreMasterKeyForCluster**.
4. Click **Invoke**. The master key will be changed first on the writer machine and then on all reader machines.
5. Restart all the machines in the cluster. You can use the JMX method **High Availability Services > restartCluster** to do this.

**Note:** Restart the cluster immediately after changing the master key. If you do not, future database connections may fail.

## Revert the master key for a machine that was down when master key was reverted for whole cluster

1. Back up the **c:\hp\UCMDB\UCMDBServer\conf\cmdb.conf** file.
2. On the writer machine, launch the Web browser and enter the following address to log in to the JMX console: **http://localhost:8080/jmx-console**.
3. Do one of the following:



- Search for **restoreMasterKey**.
  - Click **UCMDB:service=Security Services > restoreMasterKey**.
4. Click **Invoke**.
  5. Restart the machine.

**Note:** Restart the cluster immediately after changing the master key. If you do not, future database connections may fail.

## How to View Discovery Status and Errors for a Selected CI

As an IT administrator, with the new **View Discovery Status and Error** permission, you are able to run the enhanced **Show Discovery Progress** action in IT Universe Manager. This allows you to,

- **Show Errors.** You can view all error/warning messages during the discovery progress for a selected CI.
- **Show All “<Error Message>” Issues.** Displays all similar discovery issues related to a specific job, thus allowing you to view all CIs impacted by this particular discovery issue.

This enables you to focus on troubleshooting the root cause of the errors and warnings for a particular CI or CIs impacted by a particular discovery issue, without having to access the Universal Discovery module which contains too many unnecessary information. Then you can verify if a CI data error is caused by any discovery issue.

**Note:** Running the **Show Discovery Progress** action in Universal Discovery allows you to view discovery statuses and error/warning messages for all triggered CI instances.

This task includes the following steps:

- [Prerequisites: Grant the Required Permissions](#)
- [View Discovery Status and Errors in IT Universe Manager](#)

## 1. Prerequisites: Grant the Required Permissions

**Note:** This step is performed by the system administrator.

**To view discovery status and errors in IT Universe Manager,** your administrator need to grant the following permissions to you:

- o **View Discovery Status and Error**
- o **Show Discovery Status**
  - a. Log in to UCMDB and go to **Security > Roles Manager > Roles**.
  - b. Select a role for which you want to assign the required permissions.

Create a new role if you do not have such a role. In this case, **IT Administrator** is created and selected.

**Note:** The **View Discovery Status and Error** permission is not available for all out-of-the-box roles.


- c. In the IT Administrator window, go to the General Actions tab, select the **View Discovery Status and Error** action in the Available Actions pane and move it the Selected Actions pane.
- d. Go to the Resources tab, select **CIT Menu Items** in the Resource Types pane, select **ConfigurationItem** CI type in the Resources pane, and then select **Show Discovery Status** in the Available Actions pane and move it the Selected Actions pane.

**To view all discovery status and errors in Universal Discovery,** you also need the access to the **Universal Discovery** module.

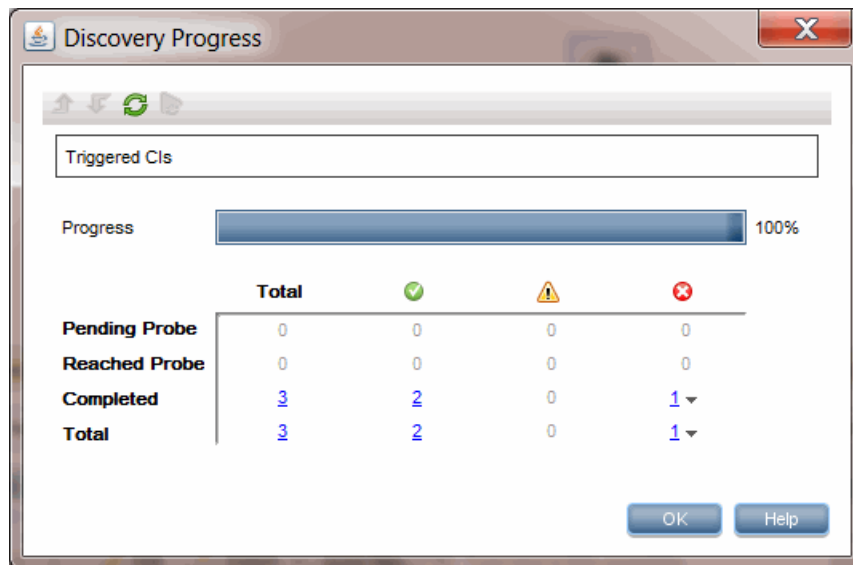
- a. Enable the **View Discovery Status and Error** and **Show Discovery Status** permissions by following the instructions above.
- b. Go to the Resources tab, select **UI Modules** in the Resource Types pane, and then select and move **Universal Discovery** to the Selected UI Modules with Permissions pane.



## 2. View Discovery Status, Errors, and Warnings for a Selected CI in IT Universe Manager

- a. Log in to UCMDB with the new role IT Administrator, go to **Modeling > IT Universe Manager**.

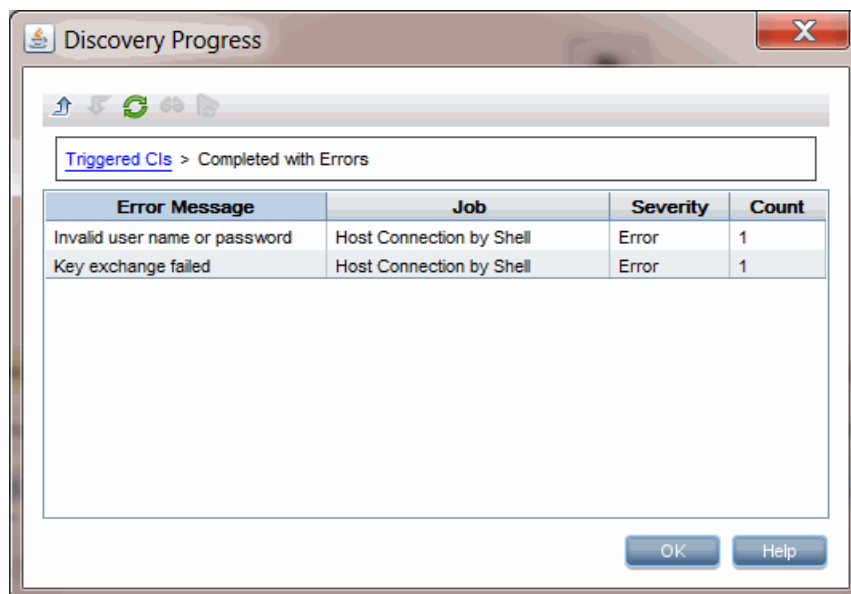
- b. In the CI Selector pane, go to the **Search CIs** tab, click the **Start the Search**  icon for the **CI Name** field.
- c. From the returned results, select a discovered node to allow the page to load.
- d. Right click the discovered node, select **Actions > Show Discovery Progress**.


The Discovery Progress dialog box pops up and loads discovery statistics.



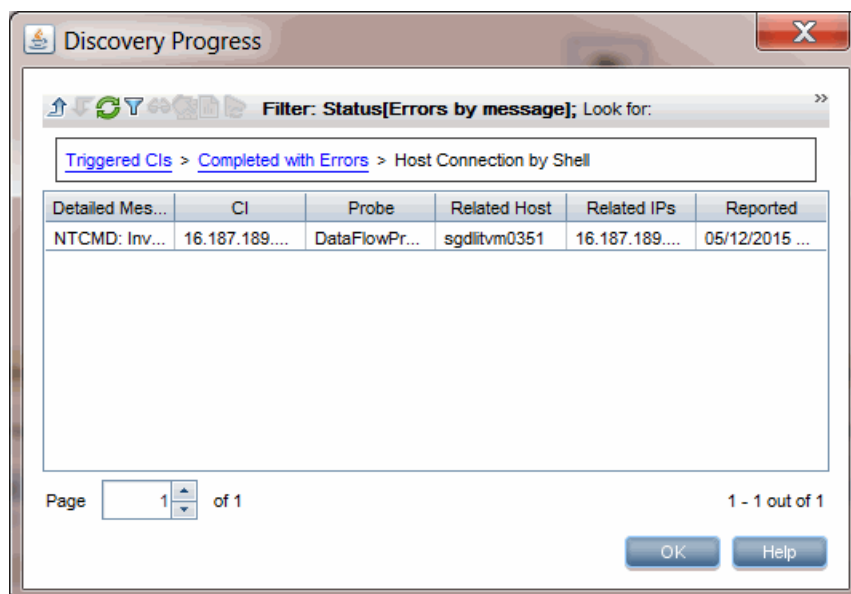
- e. In the CI Instances table,
  - Click the link in the  column and select **Show errors**.
  - Click the link in the  column and select **Show warnings**.

The Discovery Progress dialog loads error or warning messages that are related to the selected node.




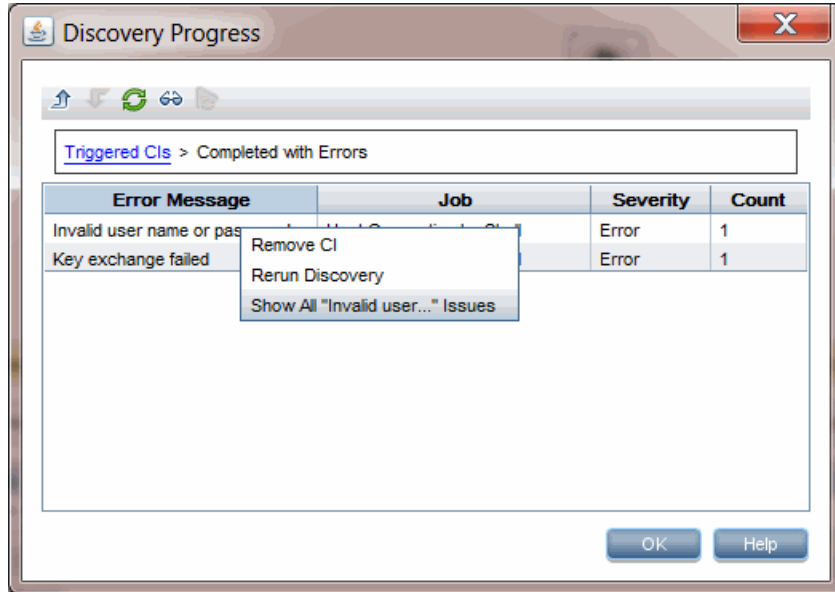
- f. To view details of an error/warning message entry, double-click the error/warning message, or, select it and click the **Show Triggered CIs**  icon.

Detailed error/warning messages occurred during the discovery progress for the particular pair of error message and job you selected are displayed.

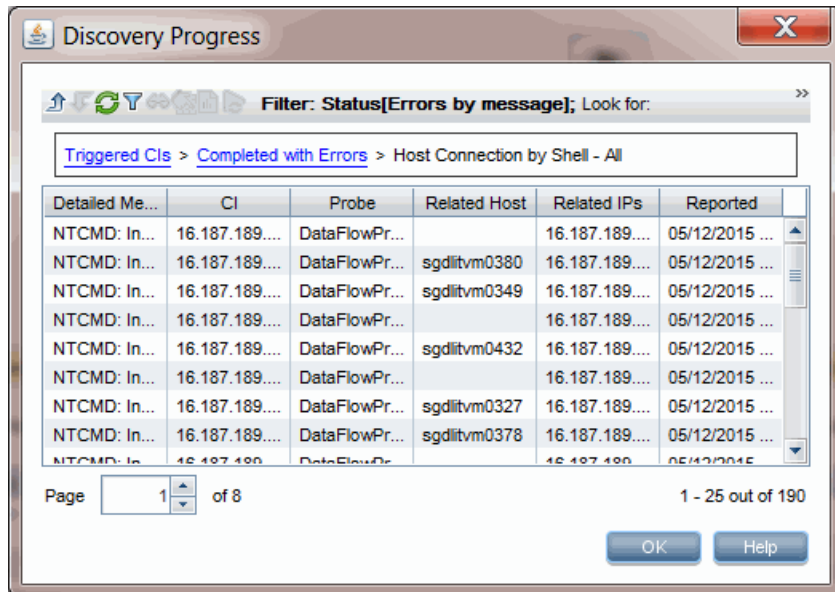


- g. To view all CIs impacted by a particular discovery issue,

- i. Go back to the Completed with Errors page by clicking **Up One Level** .
- ii. Right-click the error/warning message of your interest and select **Show All <Error Message> Issues**.



- iii. All CIs impacted by this particular discovery issue are displayed.



# Send Documentation Feedback

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**Feedback on Release Notes (Universal CMDB & Configuration Manager 10.01 CUP12)**

Just add your feedback to the email and click send.

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