

HP Universal CMDB, Universal Discovery, and Configuration Manager

Software Version: 10.22

End-to-End Workflow Walkthrough Guide

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How to Deal with License Upgrade from a Previous Version to UCMDB 10.20?

This end-to-end workflow walkthrough scenario describes licensing services for upgrading UCMDB to 10.20 from a version earlier than 10.10. This workflow includes the following steps:

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Step 4. Launch License summary report and check license usage	0
Step 5. Review the counted OS instances in the Licensed OSIs Report	1
Step 6. Install additional license capacity when you discover more OSs than you are licensed for1	3

Step 1. Upgrade UCMDB to version 10.20

For detailed instructions about upgrading UCMDB, see the *HP Universal CMDB Deployment Guide*.

Step 2. Check the License summary report

The permissive Instant-On License is installed by default and is going to expire in 21 days.

- 1. Launch UCMDB UI as Admin user.
- 2. Click the **<License status>**[®] button on the status bar.

The License summary report window opens.

- 3. Check the License summary report.
 - Only Instant-On license is listed even though you have had some licenses installed when you worked with the previous version. The license issued for previous versions are not compatible with UCMDB 10.20 and they are not visible.

- The UD Full license usage is not yet displayed even if there are discovered OSIs in your UCMDB. This is because they were not touched by Probe 10.20 yet.
- OSs managed by CM usage displays the number of OSIs belonging to the results of the managed in CM views.
- The Managed Data Repository (MDR) usage is displayed according to the third party integrations you have in UCMDB.
- Automated Service Modeling OOTB provides a capacity of 10 service discovery actions, which are always available regardless of what license are installed.
- The Automated Service Modeling usage is zero. This can be consumed since version 10.20.

Expiring			×	
Your license will expire soon.				
License summary				
Universal Discovery - Full: 0/20,000 - Usage: 0 % Available 3rd party integrations: 3/200 - Usage: 1 % Automated Service Modeling OOTB: 0/10 - Usage: 0 % Available licenses	Aut	s managed by CM: 21 omated Service Mode maining days: 20	5/5,000 - Usage: 4 % ling: 0/500 - Usage: 0 %	
Status # License description	License type	Expiring date	License capacity	
1 Instant-On License	INSTANT_ON	1/25/15 11:59 PM	1	
Selected license Status: This license will expire soon. Starting date: N/A License description: Instant-On License Expiring date: 1/25/15 11:59 PM License type: INSTANT_ON Remaining days: 20 License capacity: 1 Image: Capacity Status S				
			OK Cancel	

- 4. Wait for Probe 10.20 to run discovery.
- 5. Check the License summary again.

- The Instant-On license expiring in several days is listed.
- Universal Discovery Full usage is displayed according to how many discovered operating systems you have in UCMDB.
- OSs managed by CM usage displays the number of OSs that belong to the results of the managed in CM views
- The MDR usage is displayed according to the third party integrations you have in UCMDB.
- Automated Service Modeling OOTB provides a capacity of 10 service discovery actions, which are always available regardless of what license are installed.
- The Automated Service Modeling usage is zero. This can be consumed since version 10.20.

		Expiring			×		
	Expi Your li	ring cense will expire soon.					
Licen	License summary						
R 🗉 🛛							
Available 3	Universal Discovery - Full: 212/20,000 - Usage: 1 % OSs managed by CM: 215/5,000 - Usage: 4 % Available 3rd party integrations: 3/200 - Usage: 1 % Automated Service Modeling: 0/500 - Usage: 0 % Automated Service Modeling OOTB: 0/10 - Usage: 0 % Remaining days: 20						
Availa	able	licenses					
Status	#	License description	License type	Expiring date	License capacity		
0	1 Ir	nstant-On License	INSTANT_ON	1/25/15 11:59 PM	1		
Selected license Status: This license will expire soon. Starting date: N/A License description: Instant-On License Expiring date: 1/25/15 11:59 PM License type: INSTANT_ON Remaining days: 20 License capacity: 1 Instant of the second se							
	OK Cancel						

Step 3. Install licenses issued for UCMDB 10.20, check licenses details and license capacity using JMX console

Install the licenses issued for UCMDB 10.20, according to the contract you already have, by using
JMX Console > Licensing Services > addLicense.

When installing licenses, the Instant-On is overwritten.

For details, see the *How to Manage UCMDB Licenses Using the JMX Console* section in the *HP Universal CMDB JMX Reference Guide*.

JMX Search JMX List Operations Index (Current Server is a writer: myd-vm04584)

UCMDB:service=Licensing Services

Operations:	
addLicense	Install License
addLicenseFromFile	Install License from File
getAllActiveLicenses	Show All Active Licenses
getAllLicenses	Show All Licenses Including Expired and Invalid
getLicenseSummary	Show the License Summary of all Active Licenses
removeAllLicenses	Remove All the Installed Licenses (BACK UP FIRST!)

addLicense

Install License

Name	Туре	Value	Description
customerID	java.lang.Integer		Customer ID
licenseKey	java.lang.String		Raw License Key
Invoke			

2. Check information about licenses details by using the **getAllLicenses** method of Licensing Services from the JMX console.

Step 3. Install licenses issued for UCMDB 10.20, check licenses details and license capacity using JMX console

JMX Search JMX List Operations Index Back to MBean Reinvoke MBean (Current Server is a writer: myd-vm00862)

Mbean: UCMDB:service=Licensing Services. Method: getAllLicenses

Feature	Value
License	UCMDB-CM - Advanced Configuration Manager per OS Instance
Туре	TERM
Start Time	Wed Jan 07 02:00:00 IST 2015
End Time	Fri May 01 02:59:59 IDT 2015
Capacity	500
License	Universal Discovery Inventory per OS Instance
Туре	TERM
Start Time	Wed Jan 07 02:00:00 IST 2015
End Time	Fri May 01 02:59:59 IDT 2015
Capacity	300
License	HP UCMDB Automated Service Modeling pack of 10
Туре	TERM
Start Time	Wed Jan 07 02:00:00 IST 2015
End Time	Fri May 01 02:59:59 IDT 2015
Capacity	2
License	Universal Discovery per OS Instance
Туре	TERM
Start Time	Wed Jan 07 02:00:00 IST 2015
End Time	Fri May 01 02:59:59 IDT 2015
Capacity	200
License	UCMDB Third Party Integration per MDR
Туре	TERM
Start Time	Wed Jan 07 02:00:00 IST 2015
End Time	Fri May 01 02:59:59 IDT 2015
Capacity	15

3. Check information about licensed capacity by using the **getLicenseSummary** method of Licensing Services from the JMX console.

JMX Search JMX List Operations Index Back to MBean Reinvoke MBean (Current Server is a writer: myd-vm00862)

Mbean: UCMDB:service=Licensing Services. Method: getLicenseSummary

Feature	Value
Third Party MDR	15
Universal Discovery Inventory	300
Universal Discovery	200
Advanced Configuration Manager	500
Automated Service Modeling	20
UCMDB Foundation	true
Customer Type	BASE

Step 4. Launch License summary report and check license usage

Launch License summary report from UCMDB UI and check the license usage, according to what capacity you are licensed for:

- The installed licenses details are displayed in Available licenses panel.
- UD Full usage number of OSIs discovered by Full discovery jobs
- UD Inventory usage number of OSIs discovered by Inventory discovery jobs
- OSIs managed by CM usage number of OSIs that are managed by CM
- Available third party integrations usage number of integrations with non HP products
- Advanced Service Modeling usage number of service discovery activities
- Oracle LMS in case you have license for Oracle LMS report
- Foundation in case you have Foundation license

End-to-End Workflow Walkthrough Guide

Step 5. Review the counted OS instances in the Licensed OSIs Report

		Compliant			×
		mpliant censes are compliant.			
Licen	se	summary			
🚼 🗉 🛛	d)				
Universal I OSs mana	Disc ged	overy - Inventory only: 132/300 - Usage: 44 % by CM: 215/500 - Usage: 43 % vice Modeling: 0/20 - Usage: 0 %	Available 3	Discovery - Full: 80/20 Brd party integrations:	2
		Indation: Yes		days: 114	715. 0710 - 038go. 00 X
Availa	ble	e licenses			
Status	#	License description	License type	Expiring date	License capacity
0	1	UCMDB-CM - Advanced Configuration Manager per OS Instance	TERM	5/1/15 2:59 AM	500
۲	2	Universal Discovery Inventory per OS Instance	TERM	5/1/15 2:59 AM	300
۲	3	HP UCMDB Automated Service Modeling pack of 10	TERM	5/1/15 2:59 AM	2
۲	4	Universal Discovery per OS Instance	TERM	5/1/15 2:59 AM	200
۲	5	UCMDB Third Party Integration per MDR	TERM	5/1/15 2:59 AM	15
	is lic Iscri pe: 1	ense is active. ption: UCMDB-CM - Advanced Configuration Manager per OS Instance FERM		Expir	ng date: 1/7/15 2:00 AW ing date: 5/1/15 2:59 AM aining days: 114
					OK Cancel

Step 5. Review the counted OS instances in the Licensed OSIs Report

- 1. Select Managers > Modeling > Reports. In the Custom Reports pane, click Administration and do one of the following:
 - Right-click Licensed OSIs Report and select Create New Report.
 - Double-click Licensed OSIs Report.
 - Select **Licensed OSIs Report** and drag it onto the right pane.
- 2. Review the counted OS instances in the Licensed OSIs Report:

- OSs that are discovered by UD Full jobs have **True** in the **UD Full** column if they are covered by license capacity, "**False**" if not covered, and "-" if not applicable for the license type.
- OSs that are discovered by UD Inventory license have True in the UD Inventory column if they are covered by license capacity, "False" if not covered, and "-" if not applicable for the license type.
- OSs that are managed in Configuration Manager have True in the CM Managed column if they are covered by license capacity, "False" if not covered, and "-" if not applicable for the license type.
- The **Third party licenses** tab shows the integration points consuming capacity from the UCMDB third party integration license.
- The **ASM License** tab shows the service discovery activities created in UCMDB.

h 🖄 🔤 🥥 🕶 • 🔁 • 🔄				Licensed CIs Third party license	Terrer
				Licensed Cis Third party license	ASM License
ow CI instances of: Computer (215)	🖅 🖸 🔣 🔄 🔍				
CI Identification	CI Type	UD Full	UD Inventory	CM Managed	
test207	Computer	-	true	true	
test208	Computer		true	true	
test209	Computer	-	true	true	
test21	Computer		true	true	
test22	Computer	-	true	true	
test23	Computer		true	true	
test24	Computer	-	true	true	
test25	Computer	-	true	true	
test26	Computer		true	true	
test27	Computer	-	true	true	
test28	Computer		true	true	
test29	Computer	-	true	true	
host_n33333ode	Computer	true		true	
host_node	Computer	true	-	true	
test0	Computer	true	-	true	
test3	Computer	true	-	true	
test30	Computer	true		true	
test31	Computer	true	-	true	
test32	Computer	true	-	true	
test33	Computer	true	-	true	
test34	Computer	true	-	true	

∘ If I	no capacity is consumed	from a license type,	the relevant column	will not be displayed.
--------	-------------------------	----------------------	---------------------	------------------------

Licensed OSIs1* X		4 ۵
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	Licensed Cls Third party license	ASM License
Show Cl instances of: Managed Object (0)		
Integration name	Adapter name	
test1	Import_CSV	
test2	Troux_To_UCMDB	
test3	TrouxPushAdapter	

ſ	Licensed OSIs1* X	4 4 8
	🗄 🕼 🔞 🔤 🗐 👄 • 🛃 • 📓	
Ī		Licensed Cls Third party license ASM License
	Show Cl instances of: BusinessApplication (3) 💌 🗶 ៅ 🗭 🕼 🚉 🕇 🔍	
	Display Label	ASM License
	Financial	True
	HR	True
	Production	True

Step 6. Install additional license capacity when you discover more OSs than you are licensed for

When discovering more Operating Systems than you are licensed for, you are still able to use UCMDB Server. However, the server status is Non-compliant.

1. Launch License Summary report to check what exceeded capacity is.

		Non-compliar	nt		>
PO		n-compliant have exceeded your permitted license usage.			
Universal OSs mana Automated Is UCMDE	Disc Iged Ser For	summary covery - Inventory only: 0/300 - Usage: 0 % by CM: 215/500 - Usage: 43 % vice Modeling: 0/20 - Usage: 0 % undation: Yes e licenses	Available 3	-	-
Status	#	License description	License type	Expiring date	License capacity
Glatus	# 1	UCMDB-CM - Advanced Configuration Manager per OS Instance	TERM	5/1/15 2:59 AM	500
	2		TERM	5/1/15 2:59 AM	300
٥	3		TERM	5/1/15 2:59 AM	2
۲	4	Universal Discovery per OS Instance	TERM	5/1/15 2:59 AM	200
۰	5	UCMDB Third Party Integration per MDR	TERM	5/1/15 2:59 AM	15
	is lic escri pe: `	vense is active. iption: UCMDB-CM - Advanced Configuration Manager per OS Instance TERM		Expiri	ng date: 1/7/15 2:00 Al ing date: 5/1/15 2:59 A ining days: 114
					OK Cancel

2. In order to be compliant, you can install additional license capacity using the **addLicense** method in the JMX console.

JMX Search JMX List Operations Index Back to MBean Reinvoke MBean (Current Server is a writer: myd-vm00862)

Mbean: UCMDB:service=Licensing Services. Method: addLicense

Successfully Added:

Feature	Value
License	Universal Discovery per OS Instance
Туре	TERM
Start Time	Wed Jan 07 02:00:00 IST 2015
End Time	Fri May 01 03:00:00 IDT 2015
Capacity	100

3. In the JMX console, invoke the **getLicenseSummary** method to verify that the licensed capacity is increased.

JMX Search JMX List Operations Index Back to MBean Reinvoke MBean (Current Server is a writer: myd-vm04584)

Mbean: UCMDB:service=Licensing Services. Method: getLicenseSummary

Feature	Value
Third Party MDR	3
Universal Discovery Inventory	200
Universal Discovery	200
Advanced Configuration Manager	300
UCMDB Foundation	true
Customer Type	BASE
	Construction of the local division of the lo

4. Launch License summary report again.

Now the UCMDB Server status is **Compliant**.

End-to-End Workflow Walkthrough Guide

Step 6. Install additional license capacity when you discover more OSs than you are licensed for

		Compliant			
\mathbb{R}_{\bigcirc}	Co	mpliant			
₿ ₩	Al li	censes are compliant.			
licen	se	summary			
_	_	Carrintary			
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niversal l	Disc	overy - Inventory only: 0/300 - Usage: 0 %	Universal	Discovery - Full: 212/3	300 - Usage: 70 %
)Ss mana	ged	by CM: 215/500 - Usage: 43 %	Available 3	3rd party integrations:	3/15 - Usage: 20 %
utomated	Ser	vice Modeling: 0/20 - Usage: 0 %	Automated	I Service Modeling OC)TB: 3/10 - Usage: 30
UCMDB	EO	indation: Yes	Remaining	days: 114	
	100		_		
A		. Keenee	-		
Availa		elicenses			
Availa		elicenses	-		
Availa Status		e licenses License description	License type	Expiring date	License capacity
	able		-	Expiring date 5/1/15 2:59 AM	License capacit
Status	able #	License description	License type		
Status	# 1	License description UCMDB-CM - Advanced Configuration Manager per OS Instance	License type TERM	5/1/15 2:59 AM	500
Status ©	# 1 2 3	License description UCMDB-CM - Advanced Configuration Manager per OS Instance Universal Discovery Inventory per OS Instance	License type TERM TERM	5/1/15 2:59 AM 5/1/15 2:59 AM	500 300
Status 0 0	# 1 2 3	License description UCMDB-CM - Advanced Configuration Manager per OS Instance Universal Discovery Inventory per OS Instance Universal Discovery per OS Instance	License type TERM TERM TERM	5/1/15 2:59 AM 5/1/15 2:59 AM 5/1/15 2:59 AM	500 300 100
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Status 0 0 0 0 0 0 0 0	# 1 2 3 4 5 6	License description UCMDB-CM - Advanced Configuration Manager per OS Instance Universal Discovery Inventory per OS Instance Universal Discovery per OS Instance HP UCMDB Automated Service Modeling pack of 10 Universal Discovery per OS Instance	License type TERM TERM TERM TERM TERM	5/1/15 2:59 AM 5/1/15 2:59 AM 5/1/15 2:59 AM 5/1/15 2:59 AM 5/1/15 2:59 AM 5/1/15 2:59 AM	500 300 100 2 200
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How to Create a Dynamic Widget from UCMDB UI?

This end-to-end workflow walkthrough scenario describes how to create a Dynamic Widget from UCMDB and demonstrates the resulting widget in the UCMDB Browser.

This workflow includes the following steps:

Step 1. Create a Dynamic Widget by using the Pattern View Editor	16
Step 2. Enable or disable the widget for different roles	19
Step 3. View the resulting widget in the UCMDB Browser	19

Step 1. Create a Dynamic Widget by using the Pattern View Editor

To create a Dynamic Widget, follow these steps:

- 1. Log on to UCMDB, and then open the Modeling Studio.
- 2. Click **New** and then select **Dynamic Widget**.

The New Dynamic Widget window opens.

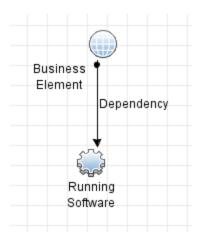
3. Select **Create new query**, and then click **OK**.

The Pattern View Editor opens.

4. From the **CI Types** pane, drag and drop the **BusinessElement** and **RunningSoftware** CI types into the **Query Definition** canvas, and then add a Dependency relationship between the two CITs.

For detailed instructions, refer to the *How to Add Query Nodes and Relationships to a TQL Query* section in the *HP Universal CMDB Modeling Guide*.

End-to-End Workflow Walkthrough Guide Step 1. Create a Dynamic Widget by using the Pattern View Editor



- 5. Right-click the **Business Element** query node in the canvas and then select **Set As Contact Query Node**.
- 6. Click the **Report** button to switch to the Report Definition mode. For each node, select and add any needed attributes into the **Report Layout** column.

Note: You can also add all the attributes for each node, and then enable the needed attributes in the **Widget** tab.

- 7. Click the **Widget** button to switch to the Widget Definition mode. Configure the values in the following four columns for each attribute:
 - **Overview**: Defines if the attribute is visible in the preview mode for the widget. Up to six attributes can be visible.
 - **Details**: Defines if the attribute appears after you click the **Details** button.
 - **Refocusable**: Defines if the value of the attribute appears as a link that directs to the CI to which the value belongs.
 - **Group Name**: Categorizes properties in groups.

Note: All the above configurations only apply to the Properties Mode widget type.

8. Select the top level of the tree in the **Hierarchy** pane, and then select one of the following mode in the **Widget Type** field.

End-to-End Workflow Walkthrough Guide

Step 1. Create a Dynamic Widget by using the Pattern View Editor

- Properties Mode
- Topology Map Mode
- Topology CIT Group Mode
- Topology Textual Mode

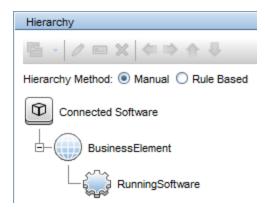
The Properties Mode displays attribute values from the nodes returned by the topology returned by the view that is created. All the other modes display a map of the topology.

Note: If you change the widget type, the UCMDB Browser user need to log off and log on again to see the change in the resulting widget.

9. (Optional) If you set the widget type to Properties Mode, you can also group nodes by CI Type so that the information presentation is more structured.

The following steps demonstrate how to add a grouping on the Running Software node:

 a. Click the View button to switch to the View mode. In the Hierarchy pane, drag and drop the RunningSoftware node under the BusinessElement node, as shown in the following screen shot.



- b. Right-click the RunningSoftware node, and then select Add Group By CI Type.
- 10. Click Save
- 11. Enter Connected Software in the View name field, and then click OK.

Step 2. Enable or disable the widget for different roles

You can enable or disable the Dynamic Widget on a role basis. To do this, follow these steps:

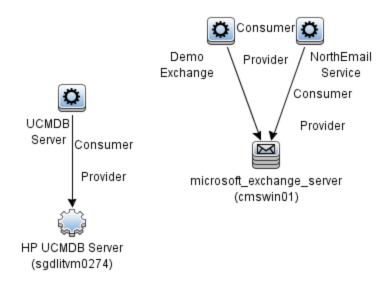
- 1. Go to Security > Roles Manager.
- 2. Select the role for which you want to enable the Dynamic Widget.
- 3. In the **Resource** tab, under **Resource Types**, select **UCMDB Browser Widgets**.

You can see the new Connected Software widget under Available UCMDB Browser Widgets.

4. Drag and drop the Connected Software widget to the **Selected UCMDB Browser Widgets With Permissions** column.

Step 3. View the resulting widget in the UCMDB Browser

In the UCMDB Browser, to view the resulting widget of the Dynamic Widget created above, you need to search for a Business Element that has connected Running Software instances. If you do not know which Business Element has connected Running Software instances, you can preview the result of the Connected Software view from UCMDB and see which CIs have data. For example, the following result indicates that the NorthEmailService CI has data.



Therefore, you can search for NorthEmailService to view the data. The UCMDB Browser returns the result as shown in the following screen shot.

Note: Make sure that you log on as a user that has the permission to see the widget.

End-to-End Workflow Walkthrough Guide Step 3. View the resulting widget in the UCMDB Browser

Search Reports	Service Modeling	Notifications
north	٥,	Found 1 result
All results (1)		
		NorthEmailService
Special filters:		
Main CI Type		Q:
No CI Type Se	ected 🖻	
Name: Name Attrib	ute (optional)	Type: Business application > Business
Related CI Type		
No CI Type Se	ected 🔄	

The UCMDB Browser presents the information based on the configurations in step 7, 8, and 9 when you create the Dynamic Widget.

If the widget type is Properties Mode

When you select the search result, you can see the following new widget.

CONNECTED S	OFTWARE		^
Create Time: Vendor:	Fri Jan 16 09:30:40 GMT+200 2015 microsoft_corp	ProductName: Version:	microsoft_exchange_server 2010
E.	Details		

If the nodes are not grouped by CI Types, when you click the **Details** button, the detailed information is presented as follows. The attributes are grouped according to the defined group name.

APP INFO	
Application IP Routing Domain:	DefaultDomain
Application IP Type:	IPv4
Application IP:	16.155.192.80
Application Version Description:	Version 14.0 (Build 639.21)
ADDITIONAL PROPERTIES	
ProductName:	microsoft_exchange_server
roductioner	-
Vendor:	microsoft_corp

If the nodes are grouped by CI Types, when you click the **Details** button, the detailed information is presented as follows.

Сог	nnected Softwa	re				×
C.U.				ms_e	exchange_server (1)	
All	er by CI Type	1	<	JMS	microsoft_exchange_server (cmswin01) Type: MicrosoftExchangeServer	Ø
-	b by CI Type on RunningSons_exchange_server	1				

If there are more than one Running Software, they will be listed under the exchange server.

You can select a CI to view its properties, as shown in the following screen shot.

Connected Softw	are			
Microsoft_exc	hange_server (cmswin01) ftExchangeServer			
APP INFO				
Application IP Routing Domain:	DefaultDomain			
Application IP Type:	IPv4			
Application IP:	16.155.192.80			
Application Version Description:	Version 14.0 (Build 639.21)			
ADDITIONAL PROPERTIES				
ProductName:	microsoft_exchange_server			
Vendor:	microsoft_corp			
Version:	2010			

For instructions on how to group nodes by CI Types, see Step 9 on page 18.

If the widget type is Topology Mode

When you click the search result, the new widget appears as follows.

CONN	ECTED SOFTWARE	^
	Mail	1

When you hover the mouse over the widget and then click the **Details** button, the following map appears.

Connected Software					
Textual 💽 Map	>	Topology		Grouped	
				BusinessApplication	
				NorthEmailService	¢
				MicrosoftExchangeServe	
				microsoft_exchange_	S JMS
			_		
	:1 –	+ 🖽			

How to Work with Generic Adapter Mapping UI?

This end-to-end workflow walkthrough scenario describes how to integrate UCMDB with Service Manager in order to import the newly discovered 3D Printer CIs into Service Manager.

This workflow includes the following steps:

Step 1. Create the new CI Type in UCMDB	.25
Step 2. Import the new CIs in UCMDB	.26
Step 3. Create the TQL query to see all the 3D Printer instances	27
Step 4. Create the integration point to the Service Manager server	.29
Step 5. Create the new CI Type and the mapping for the new CI Type in Service Manager	. 31
Step 6. Create the push job for the new CI Type and push the CIs to Service Manager	. 36

Step 1. Create the new CI Type in UCMDB

Follow these steps to create the new 3D Printer CI Type in UCMDB:

- 1. Log on to UCMDB, and then open the CI Type Manager.
- 2. Select the **Node** element in the CI Types tree, and then click **New** 😹.

The new 3D Printer CI Type will be a child of the existing Node CI type.

3. Follow the Create CI Type Wizard to create the new CI Type.

For details about how to create a new CI Type, refer to the *How to Create a CI Type* section in the *HP Universal CMDB Modeling Guide*.

End-to-End Workflow Walkthrough Guide Step 2. Import the new CIs in UCMDB

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Select web Server Select web Server Impact Analysis Manager Impact Analysis Manager Impact Manager Impact Manager			
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Impact Analysis Manager Impact Analysis Manager Impact Analysis Manager Impact Manager Impact Analysis Manager Impact Manager Impact Analysis Manager Impact Manager Impact Manager	~		
Impact Analysis Manager Impact Analysis Manager Impact Analysis Manager Impact Manager Impact Manager <td></td> <td></td> <td></td>			
Select an identification method. In all methods, a CMDB ID and a global_id are also assigned. Image: Cirrype Manager Image:	Impact Applying Mapager		
CI Type Manager 	Impact Analysis Manager		
Ci Type Manager Ci Typ			Identification:
Image: Computer (1) Image: Computer (1) Image: Computer (1) Image: Computer (1) <td></td> <td>E- CommunicationEndpo</td> <td>Innerted from parent</td>		E- CommunicationEndpo	Innerted from parent
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Enrichment Manager Enrichment (2) En			
Erindenment wanager			Number) of OD Unique identitier (i.e. OdUniqueid). I wo nodes are considered to be the same node if they have the same
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⊕ RunningSoftware • Name → ⊕ DUDI Registry (0) ● ⊕ Decodin (0) • Name ● ⊕ Decodin (0) • Name ● ⊕ Party (0) Base CI Type: ● <td< td=""><td></td><td></td><td>OS identifiare include:</td></td<>			OS identifiare include:
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⊕ Amountor (0) ⊕ Party (0) Base CI Type: ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓			
			View Help
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			Base CI Type:
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			I Net Device (U)
Modeling	(b) modeling		
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🚯 Module: C1 Type Manager 🔹 User: admin, Login time: 1/19/15 12:56 PM, Last login time: 1/19/15 12:23 PM 👔 🗞 OC Connected to INDRIE4 🚰 📡 📾 📿 234M of 325M	Nodule: CI Type Manager	B User: admin, Login time: 1/19/15	12:56 PM, Last login time: 1/19/15 12:23 PM 👔 😵 Connected to INDRIE4 🔓 Ŗ 🞯 💕 234M of 325M 🔋 🤶

Step 2. Import the new CIs in UCMDB

Import the new CIs in UCMDB either by integration population or by discovery.

For more information, refer to the following topics in the *HP Universal CMDB Data Flow Management Guide*:

- How to Work with Population Jobs
- How to Run Module/Job-based Discovery

End-to-End Workflow Walkthrough Guide Step 3. Create the TQL query to see all the 3D Printer instances

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	CI Type: 3D Printer;	Select scope: View CMDB
1		Select scope: View @ CMDB 3d-printer-chic Show Related Cls
Reports	Name CI Type	Q ago
~	3d-printer-bucharest 3D Printer 3d-printer-chicago 3D Printer	Filter Related CIs by CI Type
	3d-printer-paris 3D Printer	
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CI Type Manager		
~		
		arest Description:
Enrichment Manager		· · · · · · · · · · · · · · · · · · ·
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		3d-printer-bucharest Properties History Discovery
		Name: 3d-printer-bucharest ID: 57e4f3dadbb980b568c2ae98bb40cd6f CI Type: 3D Printer
		Export - Quick filter: Q- Type here to filter properties
Modeling		Actual Deletion Period 40
(i) Data Flow Management		Allow CI Update True
Administration		BiosDate
		BiosSerialNumber
Security	<u>F</u> ind:	BiosSource
	Search results count:3	BiosUuid
Module: IT Universe Manager	r 🔒 User: admin, Login time: 1/19/15 12:56 PM, Last login time	1/19/15 12:23 PM 🖗 🛇 Connected to INDRIE4 📑 Ŗ 🚳 🧭 223M of 325M 📋 ?

Step 3. Create the TQL query to see all the 3D Printer instances

Follow these steps to create the TQL query to see all the 3D Printer instances:

- 1. Go to the Modeling Studio, click **New** 🚵, and then click **Query**.
- 2. From the **CI Types** pane, locate the **3D Printer** CI type, and then drag and drop the **3D Printer** CI type into the **Query Definition** canvas.

Note: To preview the query result, click the Preview button \square .

End-to-End Workflow Walkthrough Guide Step 3. Create the TQL query to see all the 3D Printer instances

Diversal CMDB and	d Discovery	User: admin Customer: Default Client (Actual) License status: Expiring in 11 days	Logout
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	CiCollection (0)		
	InfrastructureElement (15)     Organization Resource (0)		
	Application Resource (0)     ApplicationSystem (0)		
CI Type Manager	ApplicationSystem (0)     E     G     CommunicationEndpoint (0)	(3)	
	DatacenterResource (0)		
	NetworkEntity (7)		
Enrichment Manager	Node (5)		
Enrichment Manager	3D Printer (3)	Ref (1997)	
	ClusterResourceGroup (0)	165	
	Computer (1)		
	E-B NodeElement (2)		
	RunningSoftware (1)		
	B UDDI Registry (0)	Legend: 📓 Contact Node 🖻 External 🔍 Has Conditions 🗣 Has Identities 🗊 Hidden in Query Results 💱 Model Outp	out ^{&gt;&gt;} ×
	Location (0)		
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B Modeling	Contract (0)     Cost (0)		
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- 3. Right-click the 3D Printer query node, and then click **Query Node Properties**.
- 4. In the **Query Node Properties** window, make the following changes so that this TQL query can be used to push data to the Service Manager server.
  - a. Change the element name to Root to indicate the root of the TQL query.
  - b. In the **Element Layout** tab, select the **Select attributes for layout** option, add the **Name** and **Global Id** attributes to the **Specific Attributes** column.

These attributes will be pushed to Service Manager. You can add other attributes if you want.

Query Node Properties Query Node Properties Expense you to add attributes or	snaity, qualifiers and CI specific conditions	
<ul> <li>Enables you to add attributes, ca</li> </ul>	intanty, quaniers and cl specinic conducins	
ment name:	Element type:	
pot	3D Printer 💌 🗹 Show element in query results	ery Resi
	Attributes Element Type Element Layout	dentity
	e returned in the query result for this query node.	
CI Types	Conditions	
SD Printer 🕸	Attributes condition Specific Attributes	
	Available Attributes     Specific Attributes       Enable Apping     Name       ExtendedVoeFamily     Image: Comparison of the systematic syste	Ξ
	Language	

## Step 4. Create the integration point to the Service Manager server

Follow these steps to create the integration point to the Service Manager server:

- 1. Go to the Integration Studio, and then click **New Integration Point** 🔭.
- 2. Specify the integration name.
- 3. Click Select Adapter , and then Select ServiceManagerEnhancedAdapter9.x.
- 4. Fill in the needed information. The following screen shot shows an example.

#### End-to-End Workflow Walkthrough Guide Step 4. Create the integration point to the Service Manager server

🙆 New Integration Point				
New Integration Point				
Integration Properti	es			
* Integration Name	Service Manager			
Integration Description				
Adapter	ServiceManagerEnhancedAdapter9.x			
Is Integration Activated				
Adapter Properties				
* Hostname/IP	16.187.189.245			
* Port	13080			
URL Override				
* Credentials ID	Generic Protocol: sm			
Development Mode	False			
* Data Flow Probe	INDRIE4			
Additional Probes				
* Mandatory Properties	Test connection			
	OK			

- 5. Click the **Test connection** button to verify the connectivity to the Service Manager server.
- 6. Click **OK**.

# Step 5. Create the new CI Type and the mapping for the new CI Type in Service Manager

Follow these steps to create the new CI Type in Service Manager by using UCMDB's Mapping Tool and to create a mapping for the new 3D Printer CI Type:

1. Right-click the newly created integration point, and then click **Go to Adapter**.

The **ServiceManagerEnhancedAdapter9.x** adapter opens in Adapter Management.

- 2. To create the mapping file, make sure the **ServiceManagerEnhancedAdapter9-x** adapter is selected, click **New** , and then click **New Configuration File**.
- 3. Enter the mapping file name in the **Name** field.

Note: Include the full path in the Name field, for example:

ServiceManagerEnhancedAdapter9-x/mappings/push/SM 3D Printer Push.xml

4. Click **OK**, and then click **Yes** if you are prompted with the following message:

Do you want to open the configuration file with the new mapping tool editor?

The UI Mapping Tool opens.

- 5. Click Add New CI Type to External Class Model
- 6. Fill in the needed information for the new CI Type, and then click **OK**.

#### End-to-End Workflow Walkthrough Guide

Step 5. Create the new CI Type and the mapping for the new CI Type in Service Manager

Add new node			
Add new node You must define a new node's properties for an external class model.			
General			
* Name:	3DPrinter		
Description:	A new type of printer.		
Metadata			
table			
subtype			
	OK Cancel		

Define the TQL query that provides the CIs need be pushed to Service Manager. To do this, click Add TQL Queries in the Local Query pane, and then select the previously created 3D Printers TQL query.

ServiceManagerEnhancedAdapter9-x/mappingslpush/SM 3D Printer Push.xml				
Mapping Tool - Push Scenario				
External Class Model	Visual Mapping	Local Query		
		Query: 3D Printers 💌 🕞 💋 😫 🐁 🧲		
External Entity Class Model		3D Printers		
- 🗊 3DPrinter 🗉		Root		
the cluster				
- bizservice				
networkcomponents				
- 🛈 furnishings				
printer				
mainframe				
Attributes	XML Editor	Attributes		
$I^{\otimes} \rightarrow$	오.년 🛙	<del>\</del>		
Status Displ Name Type Des	1 xml version="1.0" encoding="UTF-8" standalone="yes"?	Stat Dis Name Type Des		
	2 <integration></integration>	Glob glob STR A gl		
	3 <info></info>	Name name STR Shor		
	4 <source name="Product Name" vendor="Product Vendor" version="&lt;/th"/> <th></th>			
	5 <target name="Product Name" vendor="Product Vendor" version="&lt;br">6 </target>			
	7 <target entities=""></target>			
	8			
	9			
	×			

8. Select the Root node under the 3D Printers TQL query node in the **Local Query** pane, and then drag it onto the **Integration** node in the **Visual Mapping** pane.

This configuration indicates that the data source for this mapping is the 3D Printers TQL query rooted in the Root element.

Visual Mapping	Local Query
<b>९ ७ ″ ″ ″ ″ ″ ↓ 1</b> 2 × 1 % %	Query: 3D Printers 💌 🞝 🔂 😫 📽 🔄
3D Printers Root	3D Printers

9. Select the Service Manager entities that will be created as a result of the mapping process. To do this, drag the 3DPrinter type from the **External Class Model** pane onto the 3D Printer TQL query node in the **Visual Mapping** pane.

Step 5. Create the new CI Type and the mapping for the new CI Type in Service Manager

External Class Model	Visual Mapping
	9. 22 C   C C C C C C C C C C C C C C C C
External Entity Class Model	Integration 3D Printers
e cluster	3DPrinter
- bizservice	
printer     mainframe	

10. Drag the needed attributes of the Service Manager 3DPrinter type from the **Attributes** pane onto the 3DPrinter node in the **Visual Mapping** pane. In this case, the Type attribute and two mandatory attributes: Clidentifier and UCMDBId.

External Class Model						Visual Mapping		
😋 😫 📽 🛤 ⇒						®		
External Entity Class Model						Integration 3D Printers Clidentifier MOCIDBID UCMDBID Type Ignore on Null		
	printer							
	mainframe							
					Ř			
Attributes						XML Editor		
						9. 恒 🖱		
Status	Displ	Name	Туре			1 xml version="1.0" encoding="UTF-8" standalone="yes"?		
	defaul	DefaultG	STRI			<pre>2 <target <="" datatype="STRING" ignore-on-null="false" mapping="" name="CIIde" pre=""></target></pre>		
	floor	Floor	STRI			3		
	id	CIName	STRI					
	istatus	AssetStat	STRI					
	location	Location	STRI					
	netwo	DNSName	STRI					
	opera	OS	STRI					
	room	Room	STRI		=			
			OTO					
	serial	SerialNo	STRI					
		SerialNo Subtype	STRI					

11. Double click each of the three attributes and enter the values as follows:

Step 5. Create the new CI Type and the mapping for the new CI Type in Service Manager

• Type: `3dprinter'

The Type attribute need be passed to Service Manager as a string. Don not miss the single quotes, which are needed to differentiate a string constant from a variable.

• **UCMDBId**: Use the Global Id attribute from UCMDB.

To do this, drag the Global Id attribute from the **Attributes** pane onto the **UCMDBId** element in the **Visual Mapping** pane.

• **Clidentifier**: Use the Name attribute from UCMDB and make a small customization.

To do this, follow these steps:

- i. Double-click the **Clidentifier** element in the **Visual Mapping** pane, and then type Root [. A drop-down box appears and shows the available attributes for the Root TQL query element of the 3D Printer Cl Type.
- ii. Select Root['name'].
- iii. Continue type + ' ucmdb imported'.

The final value is Root['name'] + ' - ucmdb imported'.

The following screen shot shows the result of the mapping process.

#### End-to-End Workflow Walkthrough Guide Step 6. Create the push job for the new CI Type and push the CIs to Service Manager

ServiceManagerEnhancedAdapter9-x/mappings/push/SM 3D Printer Push.xml								
Mapping Tool - Push Scenario								
External Class Model	Manual Manufac	Local Query						
	Visual Mapping           𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅         𝔅							
	VG 75 (C) (66 (C) (66   45 1/3 🕺   15 116	Query: 3D Printers 💌 🕞 🔂 😫 😫 🦛						
External Entity Class Model		3D Printers						
3DPrinter	E- 3D Printers Root	Root						
E- cluster	□- 😰 3DPrinter							
- bizservice	Clidentifier Root('name'] + ' - ucmdb imported Ignore on Null							
networkcomponents	UCMDBId Root['global_id'] Ignore on Null							
- 🕅 furnishings	Type '3dprinter'							
+								
printer								
mainframe	4	a						
 Attributes	XML Editor	Attributes						
		Althoutes						
Status Displ Name Type	1 xml version="1.0" encoding="UTF-8" standalone="yes"?	Stat Dis Name Type Des						
defaul DefaultG STRI	<pre>2<source_instance query-name="3D Printers" root-element-name="Root"></source_instance></pre>	Glob glob STR A gl						
floor Floor STRI	<pre>3 <target_entity name="3DPrinter"></target_entity></pre>	Name name STR Shor						
id CIName STRI	4 <target_mapping datatype="STRING" ignore-on-null="false" nam<="" td=""><td></td></target_mapping>							
istatus AssetStat STRI	<pre>5 <target_mapping datatype="STRING" ignore-on-null="false" nam<="" pre=""></target_mapping></pre>							
location Location STRI	<pre>6 <target_mapping 7="" <="" datatype="STRING" ignore-on-null="false" nam="" target_entity=""></target_mapping></pre>							
netwo DNSName STRI	1							
opera OS STRI	8							
room Room STRI	2							
serial SerialNo STRI								
subtype Subtype STRI								
type Type STRI								
Vendor Vendor STDI								

12. Click Save 🛅.

# Step 6. Create the push job for the new CI Type and push the CIs to Service Manager

Follow these steps to create the push job for the newly created 3D Printer CI Type and push the CIs to Service Manager:

- 1. Go to Adapter Management.
- 2. Right-click the **ServiceManagerEnhancedAdapter9-x** adapter, click **Go to Integration Point**, and then click the newly created integration point for Service Manager.

The Integration Studio opens.

- 3. Make sure the Service Manager integration point is selected, and then open the **Data Push** tab.
- 4. Click **New Integration Job** 🚵, and add the 3D Printers TQL query as follows.

#### End-to-End Workflow Walkthrough Guide

#### Step 6. Create the push job for the new CI Type and push the CIs to Service Manager

New Int	egration Job	×
~	New Integration Job Define the Integration Job details and scheduling information	
Name SM	3D Printer Push	
Job Def		
	Query Name	Allow Deletion
3D Printer	75	
	ler Definition	
Sched	uler enabled	
Repeat:	Once     Starts:     Ends:       Interval     1/20/15     14:10     Interval       Day of Month     Once     1/20/15	15 💌

- 5. Click Save Integration Point 🛅.
- 6. Select the newly created SM 3D Printer Push job, and then click **Full Synchronization** in the **Integration Jobs** section.

#### End-to-End Workflow Walkthrough Guide

Step 6. Create the push job for the new CI Type and push the CIs to Service Manager

Service Manager			Po	pulation Federation Data Push			
Data Push Jobs copy or update CI Types and attributes from the local CMDB to an external data repository							
Integration Jobs							
* 🖉 🗙 💋 🖬 🔜 🗉							
Job Full Synchronization - Runs the selected job, synchronizing all of the data Last Synchronization Type							
SM Push job	- Did no		None	Juon on Lation 1 Jpo			
SM 3D Printer Push	- Did no	ot run	None				
Statistics Query Status							
C							
Query Name	Created	Updated	Deleted	Failed			
Total	0	0	0	0			
Last Undated: Never (Valid t	to: 01/20/2015 02:12:55 PM)						
Last Updated: Never (Valid to: 01/20/2015 02:12:55 PM)							

7. Click **Refresh C** to check if the job is finished.

Job Name	Status	Last Synchronization Type		
SM 3D Printer Push	Ocompleted successfully	Full		
SM Push job	<ul> <li>Did not run</li> </ul>	None		

# How to Work with Assisted Modeling in UCMDB Browser?

This end-to-end workflow walkthrough scenario describes how a site manager can organize all services in the site, through the UCMDB Browser.

The flow assumes that all services follow this organization scheme: BusinessFunction [contains] BusinessService [contains] BusinessApplication.

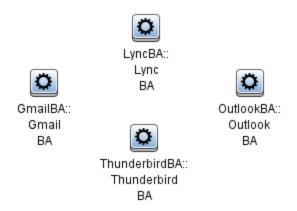
This workflow includes the following steps:

Step 1. Create BusinessApplications CIs	39
Step 2. Create a New Modeling Query	40
Step 3. Assign the MODELING_ENABLED Qualifier to BusinessFunction and BusinessService	. 41
Step 4. Organize Services by Using Assisted Modeling	. 42
Step 5. Verification	46

### Step 1. Create BusinessApplications CIs

Follow these steps to create BusinessApplications CIs:

- 1. Log in to UCMDB, and then go to **Modeling > IT Universal Manager**.
- 2. Create the following CIs if they do not exist:
  - OutlookBA
  - GmailBA
  - ThunderbirdBA
  - LyncBA



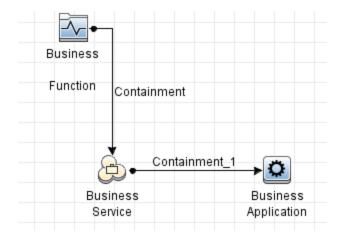
For more information about how to create a CI, refer to *HP Universal CMDB Modeling Guide> Modeling > IT Universe Manager > Working with CIs.* 

## Step 2. Create a New Modeling Query

Follow these steps to create a new modeling query:

- 1. Log in to UCMDB, and then go to **Modeling > Modeling Studio**.
- 2. Create a new query with the following content and relationship:

BusinessFunction [contains] BusinessService [contains] BusinessApplication



3. Add the query to the **modeling** bundle.

Step 3. Assign the MODELING_ENABLED Qualifier to BusinessFunction and BusinessService

🛃 Query	Definition Properties	
	Query Definition Properties	Select Bundles
Туре:	S Integration	Select Bundles Select the bundles that will be as
Bundles:	modeling	
Scope:	CMS	□ label2002 ✓ modeling
Priority:	Medium	mui

4. Save the query and name it as **ServiceHierarchy**.

For more information about how to create a TQL Query, refer to *HP Universal CMDB Modeling Guide*> *Introduction* > *Topology Query Language* > *How to Define a TQL Query*.

# Step 3. Assign the MODELING_ENABLED Qualifier to BusinessFunction and BusinessService

Make sure both the **BusinessFunction** and **BusinessService** CI Types have the **MODELING_ENABLED** qualifier, so that you can create these CI types by using the Assisted Modeling feature in the UCMDB Browser.

To do this, go to **Modeling > CI Type Manager**, select the CI Type, and then go to the **Qualifiers** tab. The **MODELING_ENABLED** qualifier should be in the right column.

CI Types	Dependencies Details Attributes Q	ualifiers Icon Attache 🔍 🍸
CI Types 💌 \star 🗶 💭 🔤 👋	This page enables you to assign qualifiers to a	CI type definition.
ConfigurationItem (9155)	Qualifiers	Configuration Item Type Qualifiers
Business Service View (     BusinessActivity (0)     BusinessApplication (54)	ABSTRACT_CLASS BLE_LINK_CLASS CMS BROWSER SEARCH	MODELING_ENABLED
BusinessFunction (1) BusinessProcess (0) BusinessTransaction (0)	CONTAINER FILTER_ANALYSIS HANDLER	
Datacenter (0) ⊡-⊗ Service (5) ⊡-⇔ BusinessService (5)	HIDDEN_CLASS MAJOR_APP	

## Step 4. Organize Services by Using Assisted Modeling

Follow these steps to organize services by using Assisted Modeling in the UCMDB Browser:

- 1. Log in to the UCMDB Browser.
- 2. Select the **Service Modeling** tab, and then click the **Start Assisted Modeling** link.

**Note:** If Service Modeling is not enabled, the **Assisted Modeling** tab appears. Select the **Assisted Modeling** tab.

Universal CMDB Browser / This is	a custom masthead text	Search	Reports	Service Modeling
Create Service Model 🛛 🕂	All Services (59	)		
Start Assisted Modeling	Draft			

3. From the **Select template** drop-down list, select **ServiceHierarchy**, which is the query just created.

<b>=</b> Back		
ASSISTED MODELING	BusinessService	BusinessFunction
Select template ServiceHierarchy	BusinessApplication	Ð (···· <b>Ð</b>
		0

4. Create a new **Communication** CI of the BusinessFunction type. To do this, click the 😶 icon in the

**BusinessFunction** node, and then click the **Create New BusinessFunction** link. Name the CI as **Communication** and then click **Apply**.

	Assisted Modeling			
	Edit Cl			
BusinessFunction	COMPLEMENTARY			
Communication	Location:			
Type: Business Function	Owner: +			
	NAME			
	* Name: Communication			

- 5. Create **Mail Services** and **Chat Services** CIs of the BusinessService type. To do this, follow the similar process as the previous step.
- 6. Examine if the topology graph now resembles the following example:

**Note:** The following example uses the **Hierarchical: vertical** layout.

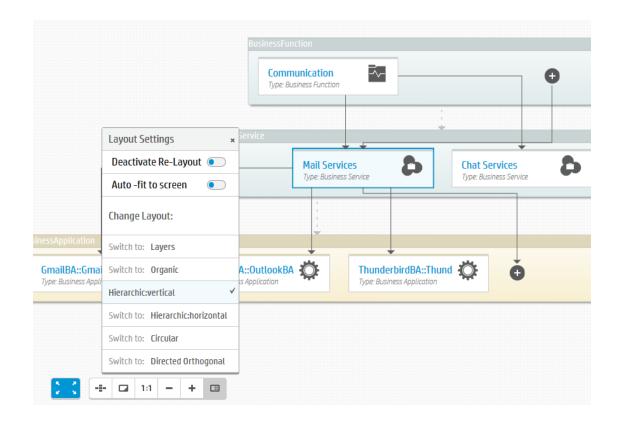
•	Communication Type: Business Function	
ssService	· · · · · · · · · · · · · · · · · · ·	
	Chat Services Type: Business Service	
	BusinessApplication	
	•	

- 7. Select Mail Services, click the **et al.** icon inside the **BusinessApplication** node, and then click the **Add existing BusinessApplication** link.
- 8. Type BA in the text field and then press **Enter** to filter the result (because the business application names end with BA). The result should be similar with the following example:

Ass	isted Modeling ×
Add exis	ting Cl
BA	
-	
٥	LyncBA::LyncBA
Ø	GmailBA::GmailBA
Ø	1485871926-8bab17a7-fa64-412a-b85d-18acb9d6cd4b <b>::</b> 1
Ø	OutlookBA::OutlookBA
*	ThunderbirdBA::ThunderbirdBA

- 9. Point to **GmailBA**, **OutlookBA**, and **ThunderbirdBA**, and then click the **Add** button that appears under each item.
- 10. Examine if the topology graph now resembles the following example:

**Note:** The following example uses the **Hierarchical: vertical** layout.

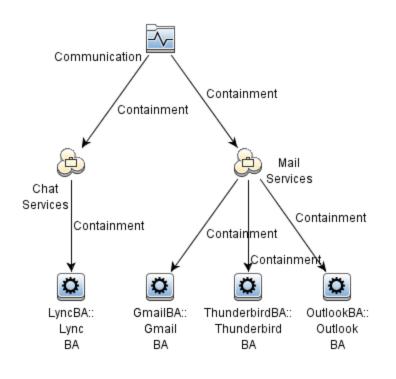


- 11. Add the LyncBA CI inside the BusinessApplication node and links to Chat Services. To do this, follow the similar procedure as Step 7 to 9.
- 12. Click the **Save** button. The following message appears at the top:

Topology saved successfully

### Step 5. Verification

Log in to UCMDB and check if the created links and CIs are as expected:



# How to Perform the Daily Monitoring Process?

This end-to-end workflow walkthrough scenario describes how to perform the daily monitoring process.

This workflow includes the following steps:

Step 1. Check UCMDB UI	48
Step 2. Check UCMDB Server	51
Step 3. Check Probes	52

## Step 1. Check UCMDB UI

Check the following items:

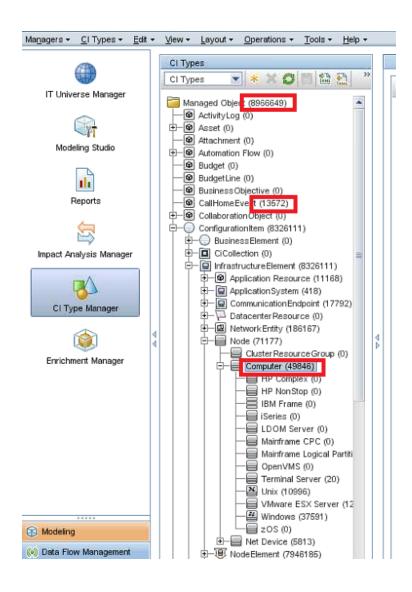
- The status of each probe:
  - The status should be **Connected**.
  - The last access time should be within 30 seconds.
  - The probe version should be up to date.

Domains and Probes	Domains and Probes								
* • X Q 🖸 🗅 🕸 %	Data Flow Probes	Data Flow Probes							
Domains and Probes	Probe Name	IP	Status	Last	Access time	Probe Versio			
🗄 – 🕵 Default Domain (Default)	DVCIUDDD1 SRV	10.19.213.21	Connected	04/28/2015	1:51:37 AM	10.11.CUP3.391			
	DVCIUDSDIS1 SRV	10.19.213.22	Connected	04/28/2015	1:51:52 AM	10.11.CUP3.391			
	ILRAUDAG2SRV	10.232.63.203	Connected	04/28/2015	1:51:34 AM	10.11.CUP3.391			
	ILRAUDDDIS1 SRV	10.232.63.46	Connected	04/28/2015	1:52:02 AM	10.11.CUP3.391			
	ILRAUDDMZ1 SRV	10.102.1.90	Connected	04/28/2015	1:51:36 AM	10.11.CUP3.391			
	ILRAUDSDIS1SRV	10.232.63.45	Connected	04/28/2015	1:51:42 AM	10.11.CUP3.391			
	USSTLDDIS01	10.26.48.157	Connected	04/28/2015	1:51:51 AM	10.11.CUP3.391			
	USSTLSDIS01	10.26.48.170	Connected	04/28/2015	1:52:00 AM	10.11.CUP3.391			
4	Job Execution Pol								
		705	Probes			Jobs			
	Tir	ne							
	suspended	Nor	5000000000		None (total blackou	t)			
<b>P</b>			5000000000		None (total blackou All	đ)			
P .	suspended	Nor	5000000000			đ)			
4	suspended	Nor	5000000000			n)			
4	suspended	Nor	5000000000			£)			
	suspended	Nor	5000000000			£)			
N N	suspended	Nor	5000000000			£)			
N N	suspended	Nor	5000000000			8)			
	suspended	Nor	5000000000			e)			
	suspended	Nor	5000000000			e)			
	suspended	Nor	5000000000			a)			
	suspended	Nor	5000000000			e)			
	suspended	Nor	5000000000			*)			
	suspended	Nor	5000000000			e)			

- The status of the jobs on each probe:
  - The status of each probe should be **Connected**.
  - The running job number and thread number should be as expected and will not cause performance issue. For more information, contact HP Support.
  - Sending queue should not be accumulating.

	Domains Browser	ILRAUDSDIS1 SRV							
2	Domains	Refresh							
Integration Studio	- P DefaultDomain			_					
	-@ DVCIUDDD1SR	Last updated: 04/28/2015	11:54:32 AM	Running jobs: 19	Total Discovered C	Is in sending queue: 0			
<b>(</b> @)	-@ DVCIUDSDIS1S	Status: Connected		Scheduled Jobs: 18					
N	-@ ILRAUDAG2SR\	Probe IP: 10.232.63.48	5	Threads: 39					
Universal Discovery	- (0) ILRAUDDDIS1S - (0) ILRAUDDMZ1SF	Progress							
_	-(ii) ILRAUDSDISTSI								
(C)	-(iii) Integration Servic	⇒ Job	Progress	Next invocation	Previous invocation	Triggered Cls	Thread count	Discovered Cls i	in Ser
a Flow Probe Setup	-@ USSTLDDIS01	A MZ DMZ SERVE	90%	05/08/2015 02:50:28 PM	04/28/2015 06:47:40 AM		0	0	
	- W USSTLSDIS01	A MZ DMZ SERVE	74%	05/08/2015 02:58:50 PM			2	0	
$\Diamond$		A MZ_EMEA_DESK	Scheduled	04/28/2015 12:00:14 PM			0	0	
134		A MZ EMEA DESK	Scheduled	05/08/2015 02:58:51 PM			0	0	
conciliation Priority		A MZ_EMEA_DESK	80%	05/08/2015 02:58:51 PM			0	0	
		A MZ_EMEA_DESK	Scheduled	05/11/2015 03:15:35 PM	04/28/2015 04:59:32 AM	2	0	0	
(13)		A MZ EMEA DESK	Scheduled	04/28/2015 12:00:14 PM	04/28/2015 11:50:14 AM	1	0	0	
		& MZ_EMEA_DESK	50%	05/11/2015 03:02:26 PM	04/28/2015 05:01:17 AM	2	0	0	
pter Management		A MZ_EMEA_DESK	25%	05/11/2015 03:28:49 PM	04/28/2015 07:08:08 AM	4	0	0	
~		MZ_EMEA_DESK	Scheduled	05/11/2015 03:11:23 PM	04/28/2015 05:07:16 AM	2	0	0	
( <u>.</u>		MZ_EMEA_DESK	0%	05/11/2015 03:22:49 PM	04/28/2015 04:58:30 AM	2	0	0	
UD Community		MZ_EMEA_SERV	Scheduled	05/08/2015 12:59:02 PM	04/28/2015 11:01:18 AM	16945	0	0	
OD Community		MZ_EMEA_SERV	12%	05/08/2015 12:40:03 PM	04/28/2015 11:52:47 AM	11354	15	0	
		MZ_EMEA_SERV	5856	05/08/2015 01:20:01 PM	04/28/2015 11:53:31 AM	18159	6	0	
		MZ_EMEA_SERV	Scheduled	05/08/2015 01:41:21 PM	04/24/2015 01:41:21 PM	1	0	0	
a Flow Probe Status		A MZ_EMEA_SERV	91%	05/08/2015 01:41:29 PM	04/28/2015 08:43:19 AM	5876	7	0	
		MZ_EMEA_SERV	88%	05/08/2015 02:07:07 PM	04/28/2015 08:21:14 AM	6959	0	0	
		A MZ EMEA VCEN	Schodulad	04/08/0015 10:30-04 BM	04/07/0016 12:30:24 PM	19	0	0	
100								1	
oftware Library		Discovery Results							
		OV							
		Filter: Time Range[All]							_
deling		CIT		Created	Updated	Delete	d E	Discovered Cls	
		CallHomeEvent	14	5		460	479		3
a Flow Management		Chassis	9	36		0	174		
ninistration		ClientServer	3757	0		0	5002		
1.40		Cluster Software	1	0		0	197		
curity		Composition	293300	0		0	7700070		

- The total CI number:
  - $\circ~$  The total CI number should not exceed the limitation.
  - The **CallhomeEvent** CI number should not be accumulating.
  - The total Computer CI number should be as expected.



# Step 2. Check UCMDB Server

Check the following items:

- Regular CPU and memory usage of the UCMDB server.
- Regular CPU, memory, and Disk I/O usage of the server database.
- Confirm no Java dump file exists in the following folder:

#### <UCMDBServer_Installation_Folder>\bin

### Step 3. Check Probes

Check the following items:

- Regular CPU and memory usage of the probe service.
- Regular CPU and memory usage of the ProbeDB service.
- Regular CPU and memory usage of the XMLEnricher service.
- The probe server has enough disk space.
- Confirm no Java dump file exists in the following folder:

#### <DataFlowProbe_Installation_Folder>\bin

- Check scan files if the Inventory Discovery by Scanner job is running:
  - All the files in the following folder should be updated within one hour:

#### <DataFlowProbe_Installation_Folder>\runtime\xmlenricher\Scans\incoming

• All the files in the following folder should be updated within eight hours:

#### <DataFlowProbe_Installation_Folder>\runtime\xmlenricher\Scans\sending

A few files that were updated eight hours ago might be cause by system glitch and should be deleted.

• The **Corrupt**, **Delta**, or **Error** subfolder of the following folder should not contain any files:

#### <DataFlowProbe_Installation_Folder>\runtime\xmlenricher\Scans\failed

Such a file can be caused by exception in the xml enricher. Try to reprocess the scan file by copying it to the **incoming** folder.

# How to Relate Two CIs from the UCMDB Browser

This end-to-end workflow walkthrough scenario describes how to relate two CIs from the UCMDB Browser. This walkthrough is based on UCMDB Browser 4.04, however, the instruction applies for other UCMDB Browser versions.

This document provides step-by-step instructions for two different approaches to relate two CIs:

Relate Two CIs by Using the Properties Widget	53
Relate CIs by Using Assisted Modeling	55

### Relate Two CIs by Using the Properties Widget

You can relate two CIs by using the Properties widget. For any selected CI, you can relate Owner CIs and Location CIs. To do this, follow these steps:

1. Make sure the Show Location Details and Show Owner Details options are set to true.

You can find these options in **UCMDB UI > Administration > Infrastructure Settings Manager**. The default values are true.

#### End-to-End Workflow Walkthrough Guide Relate Two CIs by Using the Properties Widget

<u>n</u> agers <del>•</del> _ <u>V</u> iew <del>•</del> _Tools <del>•</del>	<u>H</u> elp ▼				
<u></u>	Categories	ľ	🛯 🚰 🕠 Restore Default	Filter by col	umn Name
frastructure Settings M	<all></all>		. Name	Value	
	Action Limits		Local installation mode perm	True	Defines whether t
	Aging Settings		Show Location Details	True	Specifies whether
L'A	Class Model Settings		Switch between external an	False	The position of the
Package Manager	DAL Root Class Settings				
	GUI Settings				
	General Settings				
	General properties				
Scheduler	History Settings				
	Integration Settings	0			
	LDAP General	0			
	LDAP General Authentication				
State Manager	LDAP Group Definition				
	LDAP Options for Classes an				
Modeling	Mail Settings Map Parameters				
Data Flow Management	Model Settings				
Data How Management	Monitor Settings				
1	Query Operations Settings				
Administration					
* Administration	Quota Settings				

2. Go to the UCMDB Browser, select a CI, click **PROPERTIES** to expand the widget, and then switch to the edit mode.

Universal CMD	B Browser Search Reports	Service Modeling	lotifications	admin 🔅   🕜
BSTest	E ×	Properties		×
OVERVIEW 💽	NAVIGATION CONTEXT	VIEW MODE 🔵	EDIT MODE	
PROPERTIES	E = - ^	Create Time:	Tuesday, November 3, 2015 at 10:22:28 AM UTL+2	Show Al
BusinessCriticality:	HIGH Thursday, November 12, 2015 a	Created By: LastModifiedTime:	UCMDB-UI: User:admin Thursday, November 12, 2015 at 9:10:41 AM UTC+2	Show Al
Deploy Type:	9:10:41 AM UTC+2 Development	Owner:	owner1 X +	
ENVIRONMENT		Location: Updated By:	 LoggedInUser:admin	
Business Servi		NAME	Loggeomoser.aunin	
Infrastructure		Name:	BSTest	
🗇 Other	2			
IMPACT SIMULATION		Save changes	Cancel	

- 3. Edit the corresponding fields to create relationships:
  - To create a Membership relationship between the Locations and the selected CI, select one or more Locations.

• To create an Ownership relationship between the Owners and the selected CI, select one or more Owners (which are all Party CI Types).

**Note:** If the selected CI is a Node, then, similar with Owner and Location, you will also be able to select IP Addresses. In this case, Containment relationships will be created between the selected CI and the entered IP Addresses.

4. Click Save changes.

## Relate CIs by Using Assisted Modeling

As you see, there are many limitations when relating CIs through the Properties widget. If your needs cannot be fulfilled because of these limitations, you can use Assisted Modeling.

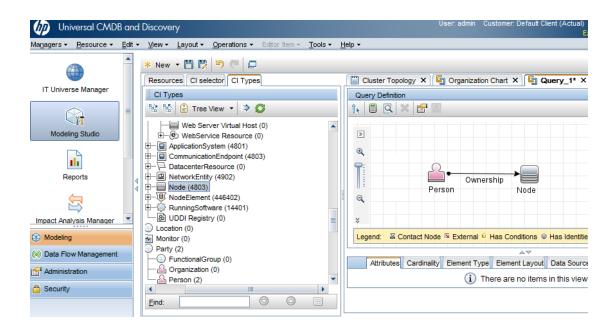
Through Assisted Modeling, you can relate any kind of CIs; you can relate two or more existing CIs, or even create new CIs related to existing CIs.

There are already some OOTB modeling queries that you can use to create and relate CIs. In addition, you can create and use any number of custom modeling queries.

This section provides step-by-step instructions on how to relate an Owner and a Node through Assisted Modeling. Even though you can do the same task through the Properties widget, using Assisted Modeling is highly configurable and you can relate any kind of CIs in an identic manner.

### Step 1. Create the modeling query from the UCMDB UI

- 1. Go to UCMDB UI > Modeling Studio, click the New 🚵 button, and then select Query.
- 2. Create a query that resembles the following example:



This query defines the kinds of CIs you want to relate. In this case, the query defines a Person CI and a Node CI with the Ownership relationship. For more information about how to create a query, see "How to Define a TQL Query" on page 1.

Add the query to the modeling bundle so that you can use it in Assisted Modeling. To do this, click the Query Definition Properties button, select modeling for the Bundles field, and then click OK.

Query Definition	
î⊾   🗉 🔍   ≍ 🚰 🖾	<u>\$</u>
» @	Query Definition Properties
Ownership	Type: 🔄 Integration
Person Node	Bundles:
¥ Legend: ≚ Contact Node № External ® Has Conditions @ H	Select Bundles Select the bundles that will be associated wi
Attributes Cardinality Element Type Element Layout I	│ ituAdmin ✓ modeling ☐ mui

4. Click the **Save** 🛅 button, type the name of the query, and then click **OK**.

### Step 2. Relate Cls

Before you continue, keep in mind that the modeling queries are cached. You need to wait for a while before you can see the query you just created in the UCMDB Browser. The amount of time is specified in **Infrastructure Setting Manager > Time for which information in the Browser cache is valid**, which by default is 5 minutes.

Follow the steps below to relate CIs:

- 1. Open the UCMDB Browser, and then do one of the following according to what you see:
  - Go to the Service Modeling tab, and then click Start Assisted Modeling.
  - Go to the Assisted Modeling tab.

	Universal CMDB Browser	Search	Reports	Service Modeling	Notifications
	Create Service Model		All S	Services (15)	)
	Start Assisted Modeling		Dra	ft	
	Find by service name	0		ntitledService_adn	nin_1
	All	~			
	Deployed at:		{+]	} Add Owner	
Note	2:				
~ H	you do not have the access right t	to the Servi	ico Modelinu	a feature, you do not	t soo tho

- If you do not have the access right to the Service Modeling feature, you do not see the Service Modeling tab. Instead, you see the Assisted Modeling tab.
- You must have the View right to at least one modeling query (one query added to the modeling bundle) in order to see the link to access Assisted Modeling.
- 2. In the **Select template** drop-down list, select the query you just created.

P	Universal CMDB Browser	Search	Reports	Service Modeling	Notifications
	Start Assisted Mod	leling			
-	<b>=</b> Back				
-	ASSISTED MODELING	^			
	Select template	~		Pers	
	Advanced Business App Advanced Business Trai Business Function	lication			G
	Organization Chart Simple Business Applica			Node	0
	Simple Business Transa owners_template	iction	ſ		

The topology map then loads the query. Both nodes have the Plus  $\bigcirc$  icon.

- 3. Click the Plus 🛨 icon in the Person CI Type.
- 4. In the Add new CI to the template panel, click Add Existing Person.



Note: In this panel, a **Create New Person** link is also available to create a Person Cl. If you do not see this link, you need to add the MODELING_ENABLED qualifier to the CI Type. To do this, go to **UCMDB UI > Modeling > CI Types Manager**, select the Person CI Type, go to the **Qualifiers** tab, and then add the SERVICE_MODEL qualifier to the **Configuration Item Type Qualifiers** pane.

5. In the **Add existing CI** panel, type a keyword in the **Search** field. All the Person CIs with the display name that matches the keyword are displayed below the **Search** field.

Person	Assisted Modeling	×
Ð	Add existing Cl	
		0,
Node	owner1	
•	owner1	
	owner2	
	Done	

If you do not type any keyword, all Person CIs are displayed.

6. Point to the Person CI you want to relate, and then click the **Add** button that appears.

The Person CI is then added to the topology map.

<b>≡</b> Back	Person
ASSISTED MODELING ^	Person
Select template       owners_template	owner1
Save	•
Clear Assisted Modeling	· · · · · · · · · · · · · · · · · · ·

7. Click the Plus 🛨 icon in the Node CI Type, and then follow the similar steps (from Step 3 to Step 6) to add a Node CI.

The added Node CI is automatically linked to the Person CI with the relationship that is specified in the query. The resulting topology map resembles the following.

<b>B</b> ack	Person
SSISTED MODELING	Person
elect template	owner1
owners_template	Node
Save	
Clear Assisted Modeling	-1512251917 nt 4

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**Note:** From here, you can do a number of things:

- Relate more CIs to the existing CIs in the map. When you select an existing CI in the topology map, the Plus 
   icon appears in the other CI Type. You can follow the similar steps to relate CIs.
- Edit the CI (instead of going through the Properties widget). When you select a CI, the panel that opens on the right allows you to edit the CI.
- 8. Click the Save button.

A message pops up and tells you if the template is properly saved.

You have successfully related two CIs using the UCMDB Browser. You can check the relationship between the two CIs by using one of the following methods:

- Use the Properties widget in the UCMDB Browser.
- Go to UCMDB UI > IT Universe Manager > Search CIs, search for the node you just related, and then click the Show Related CIs button.

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