

SCOPED CERTIFIED APPLICATION ADMINISTRATION GUIDE

Illumio App for CMDB (2.1.0)

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1 Overview

The Illumio application for ServiceNow provides enriched workload collection on the Illumio PCE (Policy Compute Engine) instance using the database of workloads discovered by ServiceNow.

The application features allow you to use the ServiceNow[®] tables as a customized source for workloads as well as synchronize the data to PCE both automatically and manually. Choose the source tables for workload discovery and fields for label mapping flexibly.

The application allows for the periodic discovery of workloads from ServiceNow to keep the data set updated. It sends the information about newly found workloads from ServiceNow to PCE and allows updates of the already known workloads with modified labels if required.



1.1 ServiceNow Integration

Figure 1. Integration of ServiceNow and Illumio Application

The architecture diagram in Figure 1 shows how the Illumio and ServiceNow components interact.

As a ServiceNow user, you know that the ServiceNow CMDB (Configuration Management Database), when paired with ServiceNow Service Mapping, becomes service-aware, enabling your ServiceNow applications to be service-aware as well. The CMDB identifies managed and unmanaged workloads in a ServiceNow application. That CMDB workload data needs to become available in the Illumio PCE.

The PCE can ingest CMDB workload data by sending a request through the MID Server to pull data from the ServiceNow job queue. In the ServiceNow instance itself, the Illumio application directs the CMDB workload data to the ServiceNow job queue. \rightarrow

1.2 Data Flow Between the CMDB to PCE

The diagram in Figure 2 shows the flow of data between the CMDB to PCE:



Figure 2. Diagram of ServiceNow and Illumio integration

- 1. **CMDB**: The workflow data from CMDB is drawn in the SN ECC job queue through the Illumio application.
- 2. Illumio application: The application collects and configures the data and adds it to a table. It also does the following:
 - Updates the tables to determine any conflicts.
 - Syncs the data from CMDB with PCE.
 - Stores the job in the ECC job queue after performing the updating and syncing.

In general, the Illumio application initially collects, configures, and adds the new job data to tables in the ECC job queue, and then also continuously updates these tables resolving conflicts and syncing it with PCE.

3. **ECC job queue**: Both the new job data coming from the Illumio application and the updated data coming from PCE gets stored in the ECC queue.

MID Server: The server fetches the new and updated job data periodically from the ECC queue and sends it to PCE.
 It also draws the data from the PCE and sends it directly to the Illumio application.

5. **PCE**: The engine forwards the data to the MID Server, which then can send it to the Illumio application on ServiceNow.

1.3 Illumio Application

The Illumio application has these features:

- Dashboard, used to view the CMDB data
- Configuration Screen
 - Automatic sync job scheduler
 - Threshold Limit
 - Retry Mechanism
 - Illumio Label Dimensions
 - i. Create Label Dimension
 - ii. Update Label Dimension
 - Illumio Config Class Mappings
 - i. ServiceNow CMDB table selection
 - ii. Specify criteria to exclude CIs
 - iii. Specify criteria to delete CIs
 - iv. Specify criteria to create incident
 - v. Illumio Class Field Mappings
 - Mapping to PCE label
 - Illumio Critical Label Group Configurations
 - i. Specify critical label groups for Label Dimensions
- PCE Workloads table
 - Workload managed, unmanaged or unknown to PCE used for creating unmanaged workloads
 - Conflicts used for updating PCE labels using the CMDB as a source of truth.
 - Perform "Sync to PCE", "Sync Server to PCE" and "Sync selected server with PCE" UI actions.
 - Create manual and auto Incidents.
- Scheduled Jobs
 - Process monitor.

- Incident is created when schedule job are completed with following job status :
 - i. Failed
 - ii. Completed with errors
 - iii. Partial success
- Critical Label Groups

2 Installation

This section describes how to download/install the Illumio application from the store.

2.1 Supported Illumio Versions

The supported Illumio application versions:

- v22.5
- v23.2.30
- SaaS
- v23.5.20
- v24.2.10

2.2 Supported ServiceNow Versions

The ServiceNow versions compatible with the Illumio application:

- Vancouver
- Washington DC
- Xanadu

2.3 Prerequisites

Provide the following prerequisites before installing the Illumio application:

2.3.1 Plugins

Activate the following plugins for the integration:

- Configuration Management (CMDB) (com.snc.cmdb)
- Text Index (com.glide.text_index)
- System Import Sets (com.glide.system_import_set)

To install the required plugins:

- 1. Log in to your instance with your HI credentials.
- 2. Verify you have the system administrator (admin) role.
- 3. Navigate to **System Definition > Plugins** in your instance.
- 4. Search and install the listed plugins.

2.3.2 Connectivity

- Connectivity to Illumio PCE via MID Server must be available.
- The Illumio application supports proxy between the MID server and ServiceNow and between the MID server and Illumio PCE.
- Whether to use a proxy between the MID server and PCE is based on the user's choice.

2.3.3 MID Server

Make sure the following prerequisites for discovering the PCE Workloads are in place:

- The MID Server is accessible from the ServiceNow instance.
- The MID Server can communicate with the ServiceNow instance directly or via a proxy.
- Proxies are correctly set.
- Illumio PCE is accessible through the proxy defined in the MID server (If the user wants to have a proxy between PCE and MID server)
- Illumio PCE APIs are accessible from the MID Server.

2.4 Permissions and Roles

ServiceNow requires the listed roles, and these roles need specific permissions to perform various activities:

- The system administrator (admin) can install the integration application plugins, can view application logs, can create Illumio admin and users.
- Illumio Admin can configure the "PCE Configuration", collect workloads from PCE, Sync workloads to PCE, can create Incidents and can access the Dashboard.
- Illumio User can sync workloads to PCE, and an access Dashboard.

2.5 Application Download/Install

• Get the Illumio App from the ServiceNow Store to the ServiceNow instance.

Go to the following URL:

https://store.servicenow.com/sn_appstore_store.do#!/store/application/15314f1ddb882700d c9fabc5ca961943/, click on "Get" and enter your HI Credentials to get the application for your instance. 1. Log to the instance to which you want to install the application.



Figure 3. Illumio application on the ServiceNow store

2. Navigate to "System Applications" -> "All Available Applications" -> "All".



Figure 4. ServiceNow Navigation

- 3. Search for the Illumio App for CMDB application, select it, and click on "Install".
- 4. A progress bar will appear while the application is being installed onto your instance.
- 5. Once your application is installed onto your instance, you can navigate to it by searching "Illumio" in the navigation bar, as shown below.



Figure 5. List of Illumio application modules

2.6 Upgrade Application

Steps to upgrade application from the store:

- Log in to the instance, Navigate to System Applications \rightarrow All Available Applications \rightarrow All.
- Find the application in the filter criteria or search bar.
- Select the version you want to install from the dropdown, next to the application.
- Click Install.

2.6.1 Upgrading the application to 2.1.0

- If the System Administrator upgrades the Illumio application to 2.1.0 from an older version, the user has to run Illumio data collection in order to fill the required data in the PCE workloads.
- On Successful installation of the new version of the application, the PCE Configuration module would have the below configurations in the new version:
 - The PCE Configuration details such as Name, PCE URL, API Key, Secret Key, Mid-Server and Organization ID will be the same as the older version configuration.

	Configuration 🖉 🕄	\$°	Save Configuration	Check PCE Configur	ration Illumio Data Collection Delete	Configuration \uparrow
* Name	рос					
* PCE URL	https://poc1.illum.io			Organization ID	138	
* API Key	•••••			* Secret Key	••••••	
* MID Server	illumio mid	٩	0	Enable Proxy be- tween PCE and MID server		
Scheduler Threshold	Limit Retry Mechanism					
Enable Limits	✓			Cancel Job on Limit Exceed		
Enable Limit on New Label Creation				New Label Creation Limit		
Enable Limit on Workload Modifications				Workload Modifications Limit		
Create Unmanaged Workloads on PCE				Unmanaged Workloads Creation Limit		
Enable Limit on Workload Deletion				Workload Deletion Limit		

Figure 6. Illumio PCE Configuration Form view

Note: The Cancel Job in Limit Exceed will be by default checked after upgrade.

• Users have to configure the related list view from the PCE Configuration for having Illumio Label Dimensions, Illumio Config Class Mapping and Illumio Critical Label Groups Configurations related list in the PCE Configuration.

To view the related list, follow the steps :

1. Click on the Hamburger icon on top and then Navigate to Configure -> Related Lists based on the below image.

< =	Illumio PCE Configu	ratio]≊ 0	(Save Configuration	Check PCE Configurat	tion	Illumio Data Collection	Delete Configuration	\uparrow
This re	Show File Properti	es	tion, but Illur	nio is tl	ne current application. T	To edit this record click h	nere.	[SN Utils] Switch to Global ap	plication click here	
The use	Configure Export View	>	Form Des Form Lay	sign out ists	st have the roles 'x_il	lu2_illumio.mid_server_u	user' a	and 'mid_server'.		4
	Create Favorite Copy URL Copy sys_id Show XML	-	All Table Security Business	Rules	-	Organization ID Secret Key	•••			
r	History Reload form	>	Client Sci Ul Policie Data Poli	ripts s cies		Enable Proxy be- tween PCE and MID server				
Schedule	er Threshold Limit	Re	Notificati	ions 'Y						
En	able Limits 🔽					Cancel Job on Limit Exceed				
Enab	le Limit on New Label					New Label Creation Limit				
Enab	Creation le Limit on 🔽 Workload difications					Workload Modifications Limit	2			+

Figure 7. Illumio PCE Configuration form view

 Select Illumio Label Dimensions → Illumio PCE Configuration , Illumio Config Class Mapping ->Illumio PCE Configuration and Illumio Critical Label Group Configuration → Illumio PCE Configuration from the "Available" choices on the left side and move them to the "Selected" list as shown in the below image.

Configuring related lists on Illumio PCE Configuration form		Cancel
Available Attachments Auto-Resolution Configuration->Retrain Background Job Processor Pool->Schedu Background Job->Scheduled Job Delete Recovery->Initiating metadata Deleted Application File->Parent Deleted File Related->Parent Illumio Incident Mapping->Illumio PCE C Illumio PCE Label Group Details->Illumio Illumio PCE Labels Mapping Stage->Illumi Illumio PCE Workload>>Illumio PCE Cont Illumio PCE Workload>>Illumio PCE Cont Illumio PCE Workloads Mapping Stage-> Illumio PCE Workloads Mappi	Selected Illumio Label Dimension->Illumio PCE (Illumio Config Class Mapping->Illumio Illumio Critical Label Group Configurat () () () () () () () () () (

Figure 8. Related List View

3. After the Related List View is saved, then the PCE Configuration would look like below:

Illumio Label Dimensions (4)	Illumio Config Class Mappings (1)	Illumio Critical Label Group Configurations		
= ∇ Display Name (si	ngu - Search		© – (Actions on selected rows New
Illumio PCE Configuration = II	lumio PCE Configuration			
Display Name (sin	ıgular)	Display Name (plural)	Key	Label Type Initial
Role		Roles	role	R
Location		Locations	loc	L
Environment		Environments	env	E
Application		Applications	арр	A
		 ✓ 1 to 4 of 4 → → 	••	

Figure 9. Related List of Illumio Label Dimensions

• Label Dimensions :

- The Illumio Label Dimensions list in the PCE Configuration would be populated with the default label dimensions of the older version that are : Application, Environment, Location, Role.
- The Label Dimensions would be listed in the following format.

Illumio Lab	el Dimensions (4) Illumio Config Class Mappings (2)	Illumio Critical Label Group Configurations		
= ♡	Display Name (singu + Search		© ± −	Actions on selected rows New
Illumio PC	E Configuration = Test 1			
_ Q	Display Name (singular)	Display Name (plural)	Key	Label Type Initial
	Application	Applications	арр	A
	Role	Roles	role	R
0	Location	Locations	loc	L
	Environment	Environments	env	E
		4 1 to 4 of 4 >>>>		

Figure 10. Related list of Illumio Label Dimensions

< = Illumio Label Location	Dimension			Ø	0	생	Up	date	\uparrow	\downarrow
Key: Enter a uniq Label Type Initia Display Name (si Display Name (si Href: The href wi	ue key for the new Label Type. I: The label type initial is used to create a uniq ngular): Enter a Singular Display Name for Lal ural): Enter a Plural Display Name for Label T II be populated automatically once sync of thi:	ue icon for the labels. (Maximum character limit - 2 cl bel Type. ype. s newly created label dimension is completed succes:	naracters). sfully.							
* Кеу	loc	st Label Type Initial	L							
* Display Name (singular)	Location	* Display Name (plural)	Locations				Ĵ			
Href	/orgs/1/label_dimensions/a989c494-33f4-4									
Update										

Figure 11. Form view of Illumio Label Dimensions

• Config Class Mappings :

• The Illumio Config Class Mappings list section will have the class mappings from the previous version and all the classes that were mapped will be mapped in the current version along with all its config class field mappings.

Note: There would be a difference that will be seen in the config class field mappings for multiple config class mapping if configured by the user.

• Ex: If there are two config class field mapping configured in the older version, that can be **cmdb_ci_appl_dot_net** and **cmdb_ci_lb_a10**.

=	7	Illumio PCE Field Mapp	oing [Deprecated]s	Source Table + Se	earch		٢	- Actions on	selected rows	✓ New
PCE C	onfi	guration = Test 1								
	Q	Source Table	Host Name	Application	Location	Role	Environment	IP Address 1	IP Address 2	IP Addr
		cmdb_ci_appl_dot_net	name					po_number		
	0	cmdb_ci_lb_a10	name	serial_number	host_name	sys_domain_path	justification			
•										► F

Figure 12.List view of PCE Field Mapping

* Source Table	.NET Application [cmdb_ci_appl_dot_net]
* Host Name	Name
Application	
Location	
Role	
Environment	
IP Address 1	PO number
IP Address 2	Click to select

• cmdb_ci_appl_dot_net is configured with following class field mappings :

Figure 13. Form view of PCE Field Mapping

• cmdb_ci_lb_a10 is configured with following class field mappings :

* Source Table	A10 Load Balancer [cmdb_ci_lb_a10]	
* Host Name	Name	
Application	Serial number	
Location	Host name 🔹	
Role	Domain Path 🔹	
Environment	Justification	
IP Address 1		

Figure 14. Form view of PCE Field Mapping

When the New version is installed, the PCE Configuration related lists would have config class Field Mapping with the below format :

Illumio	Label Dimensions (4)	Illumio Config Class Mappings (2)	Illumio Critical Label Group Configurations	
= '	Source Table	- Search		⊗ ≜ − Actions on selected rows ▼ New
Illumio	PCE Configuration = Te	est 1		
	Source Table	Active	Conditions for Deleting Workloads	Conditions for Excluding Workloads
	cmdb_ci_lb_a10	true		
	cmdb_ci_appl_dot_	net true		
			≪ < 1 to 2 of 2 →	»

Figure 15. Related list of Illumio Config Class Mapping

- In the above example, the cmdb_ci_appl_dot_net class has mapping field of Hostname and PCE Public IP Address only mapped with dot_net and the cmdb_ci_lb_a10 had mapping of all four label dimensions and Hostname mapped in the class fields.
- After the new version of the application is installed, each class would contain the field mappings of all its corresponding classes in them, as shown in the below figure.
- 1. cmdb_ci_appl_dot_net :

=	☑ Illumio Class Field Ma	oppings Order -	Search	0	🛓 🚽 Actions on selected rows 🗸 New
Illumio	Config Class Mapping = cm	idb_ci_appl_dot_net			
	2 Туре	Active	Field	Illumio Label Dimension	Order 🔺
	Label Dimension	true		Location	
	Hostname	true	name	(empty)	
	Public IP Address	true	po_number	(empty)	
	Label Dimension	true		Application	
	D Label Dimension	true		Environment	
	Label Dimension	true		Role	
			** *	1 to 6 of 6 🕨 🕨	

Figure 16. Related List view of Illumio Class Field Mapping

2. cmdb_ci_lb_a10:

=	√ Illumio Class Field Mappin	gs Order	✓ Search	© 4 —	Actions on selected rows New
Illumio	Config Class Mapping = cmdb_c	i_lb_a10			
	2. Туре	Active	Field	Illumio Label Dimension	Order 🔺
	Label Dimension	true	justification	Environment	
	Label Dimension	true	sys_domain_path	Role	
	Public IP Address	true		(empty)	
	Label Dimension	true	host_name	Location	
	Hostname	true	name	(empty)	
	Label Dimension	true	serial_number	Application	

Figure 17. Related List view of Illumio Class Field Mapping

Note : For a scenario where there were same hostname data available in two different configured Source Tabe class and with different label dimensions mapped in both the configurations then after upgrade to avoid any type of data loss both the Config Class Mapping would be having one another Config Class Field Mapping with Advanced script option.

The cmdb_ci_appl_dot_net class would have the Config Class Field Mapping of label dimensions from another class with each of them having their own advance script as shown below.



Figure 18. Form View of Config Class Field Mappings with Script

In the same way the cmdb_ci_lb_a10 would have the Config Class Field Mapping of the Hostname and IP Address 1 of cmdb_ci_appl_dot_net in there Config Class Field Mapping with each one of them from other table having there own advance script as below.

Illumio Class Field Mapping Created 2024-04-18 04:03:23	Ø	0	ŝŝ	··· Update Delete
Configure fields to be mapped between PCE and CMDB for the given source Class Mapping and Source Table. Type: Type to be mapped. Illumio Label Dimension: Reference to the Illumio Label Dimension Record. Field: Field to be mapped from the Source table with the values from the PCE (This is only considered when Advanced is unchecked). Advanced: An option for Advanced mapping where you can provide script. Script: When Advanced is checked the script will be considered for the mapping. Is Multiple: This field will only be visible when the type is set to IP Address. o If checked the value expected will be a somma separated list of values or array (Either it can be from field or from script). order: Order of IP Addresses to be sent to PCE.				
Type Public IP Address Active Source Table A10 Load Balancer [cmdb_ci_lb_a10]				
Advanced 🗹				
<pre>* Script □</pre>	10		8.0	
Update Delete				

Figure 19. Form View of Config Class Field Mappings

• Critical Label Group Configurations :

The critical label group configured in the older version would get aligned in the below format in the new version PCE Configuration.

Illumio Label Dimensions (19)	Illumio Config Class Mappings (2)	Illumio Critical Label Group Configuration	ns
≡ ⊽ Label Group	Search	© ±	- Actions on selected rows New
Illumio PCE Configuration = Illu	umio PCE Configuration		
Label Group	:	Illumio Label Dimension	
TrialCritical		Application	
	44 4	1 to 1 of 1 > >>	

Figure 20. Related List view of Illumio Critical Label Group Configuration

Illumio Cri Created 20	tical Label Group Configuration)24-04-14 12:02:38	Ø	0	쉖		Update	Delete		\leftarrow
This is an exclusio Example: The cus Critical label g Labels in a crit If critical label	n rule for workloads that can be synced. tomer doesn't want to accidentally change workloads in production, they can add a critic: roups are configured on the PCE for each label type. ical label group are not overwritten for a workload. The entire workload record is skipped groups are not specified, any label on the PCE can be modified.	al grou 1.	up con	tainin	g the	production	environmer	nt label.	
Illumio PCE Configuration	Illumio PCE Configuration								
★ Label Group	TrialCritical]		
✤ Illumio Label Dimension	Application					Q			
Update Delete									
									۵.

Figure 21. Form View of Illumio Critical Label Group Configuration

2.6.2 Upgrading the application from a version older than 1.3.1 to 1.4.4

- If the System Administrator upgrades the Illumio application to 1.4.4 from a version older than 1.3.1, and is not running Illumio data collection the System Administrator needs to run the fixed script(mentioned in the below steps) in the Background script of ServiceNow instance in order to fill the required data in the PCE workloads.
 - If a user is running the Illumio data collection, then there is no need to run the script after upgrading to 1.4.4 from a version older than 1.3.1.
- Steps to run the script:
 - 1. The admin role is required to run the below script.
 - 2. Go to System Definition > Script Background.

🖓 backg		\otimes	Running freeform script can cause system disruption or loss of data.
			Run script (JavaScript executed on server)
	*	(U)	
Integration - xMatt	ters		
V Script Include	es		
xMBackgroun	ndBatchSync		
System Definition			
Scripts - Backgro	ound		
System Logs			
Transactions (Ba	ackground)		
			Rum script in scope [jiobai V] Record for rollback? Z Execute in sandbox? Cancel after 4 hours Z
			customer No scripts

3. Select global from the scope.



4. Copy the following script and add it in the Run script.

// Fetching workloads from the table
var grWorkload = new GlideRecord('x_illu2_illumio_illumio_servicenow_servers');
grWorkload.query();
if (!grWorkload.hasNext()) {
// No workloads found in the table
gs.info("No workloads found in the table. Hence skipping the record updates")
} else {
gs.info("Started updating the workloads");
while (grWorkload.next()) {
// Updating the workloads
grWorkload.servicenow_cmdb_identifiers_list = grWorkload.getValue('cmdb_reference_field');
if (!grWorkload.update()) {
gs.error("Error while updating the record having sys_id: " + grWorkload.sys_id);
}
}
gs.info("Successfully updated the workloads");
1

5. Click on **Run script** to run the script.

3 Configuration

This section lists the required configuration steps for the Illumio application.

3.1 Configure the MID Server

You need to install the MID Server to communicate with Illumio PCE and ServiceNow. Deploy the MID Server in the local network and install its agent in the same network with the product with which you want to communicate.

3.1.1 The required role

System Administrator (admin)

3.1.2 Pre-requisites

The MID Server user configured on the agent should have these roles:

- mid_server
- x_illu2_illumio.mid_server_user(Illumio MID Server User)

Details on How to Configure MID Server are also provided in https://docs.servicenow.com/?context=CSHelp:MID_Server

3.1.3 Sizing Considerations

In addition to the ServiceNow <u>MID server system requirements</u>, it is recommended to scale the MID server's heap size based on CMDB CI and PCE workload counts as below.

- 50K workloads on PCE: 6GB heap memory
- 100K workloads on PCE: 8GB heap memory

3.1.4 Configuration steps

Follow these steps:

- 1. Set up a host within the local network as a MID Server agent.
- 2. In the left navigation pane, type **mid server** in the search box and select **Servers** in the "MID Server" section.



Figure 23. MID Server module in the navigation menu

3. The VM/mid-server details will automatically show in the list of MID Servers.

· (Ξ	MID Server	s New Search Name	e 🔻 Search	h					-	1 to 2 o	of 2 🕨 🕨
Þ	All										
<u>کې</u>	Q	■ Name	≡ Host name	≡ Status	■ Validated	Version	■ Last refreshed	≡ Started	\equiv Stopped	■ Router	≡ Logged in use
		Search	Search	Search	Search	Search	Search	Search	Search	Search	Search
	(j)	Illumio Mid Server	crest	• Down	• Yes	 london-06- 27- 2018_patch6- 02-06- 2019_02 	2019-06-17 17:54:06	2019-06-11 17:08:19	2019-06-11 11:02:08		mid_user
	(j)	Illumio Madrid MidServer	crest	• Up	• Yes	 madrid-12- 18- 2018_patch3- 04-24- 2019_05 	2019-07-07 23:44:02	2019-06-24 12:27:22	2019-06-24 12:27:12		• Illumio_mid_
	Actions o	n selected rows \$								1 to 2	of 2 🕨 🕨
											Û

Figure 24. List view of the available MID Servers

4. The form view of the MID Server record shows the current status of the MID server.

< MID Server Illumio_Madrid	_MidServer				Ø	ŧ	000	Jpdate Del	ete 🔨	\downarrow
The MID Server facilitates about <u>configuring the MID</u>	communication between the ServiceNow platform <u>Server</u> or find assistance with <u>MID Server troubles</u>	and external applications, data sources, an hooting.	id services. A	dd MID Sei	rver configurati	ion para	meters ar	id capabilities h	ere. Read	
Name (?)	Illumio_Madrid_MidServer	Host	name 🕐	crest						
Status (?)	Up	IP ac	idress (?)	10.0.14.6						
Validated ⑦	Yes	F	Router (?)							
Version ⑦	madrid-12-18-2018patch3-04-24-2019_05-0	Ne	twork ⑦							
Last refreshed ⑦	2019-07-07 23:44:02	Но	ost OS 🕐	Linux						
Started ⑦	2019-06-24 12:27:22	Windows do	omain 🕐							
Stopped ⑦	2019-06-24 12:27:12	Unresolved	issues (?)	0						
Logged in user ⑦	Illumio_mid_user									
Update Delete										
Related Links										
Rekey Invalidate Grab MID logs MID statistics Pause MID Restart MID Upgrade MID										
MID Server Issues Confi	iguration Parameters (5) Supported Application	s (1) IP Ranges (1) Capabilities (1) I	ncluded in Cl	lusters	Extension Cont	exts	Logs (34)	Threads (64)	Propert	ies
MID Server Issues	New Search Short description V Search	h								Ξ

Figure 25. Form view of the MID Server record

5. You can validate the MID Server using the links in the Related Links section.

3.2 Configure User Roles

The Illumio application comes with two custom roles out of the box. As a one time configuration, you must add the required system roles to these two custom roles.

3.2.1 The required role

System Administrator (admin)

Below are the roles you need to add to each custom role:

Custom Role	System Roles to be added					
Illumio Application Admin (x_illu2_illumio.illumio_admin)	x_illu2_illumio.illumio_user, export_set_scheduler, itil					
Illumio Application User (x_illu2_illumio.illumio_user)	itil					

3.2.2 Procedure

1. Navigate to "System Roles" and filter a custom role.

✓ New
_

Figure 26. List view of the ServiceNow custom roles

2. Select the custom role for which you want to add the system roles.

<				/ ti ····	Update Delete 🛧 🗸
★ Suffix ⑦	illumio_admin	Application ⑦	Illumio		٢
Name (?)	x_illu2_illumio.illumio_admin	Elevated privilege ⑦			
Assignable by ⑦	Q.				
Requires Subscription (2)	No ¢				
Description	The admin user of Illumio app				
Update Delete					
Contains Roles (1) Applications with Role	Modules with Role (5) Role Subscription Attrib	utes			
Contains Roles New Edit	Search for text v Search				1 to 1 of 1 🕨 🕨 🗉
Role = x_illu2_illumio.illumio_adm	in				
Q ≡ Contains					
i <u>x illu2 illumio.illumio</u>	user				
Actions on selected rows \$					1 to 1 of 1 🕨 🕨
					Q

Figure 27. Form view of the custom role's record

3. Assign the system roles mentioned in the table by clicking **Edit** under the tab "Contains Roles".

< Edit Members			Cancel Save
Add Filter Run filter choose field Collection export_set_admin	• oper	✓ value Contains Roles List x.jllu2_illumio_illumio_admin ecmdb_admin ecmdb_admin erport_set_scheduler x.jllu2_illumio.illumio_user	
Name x_illu2_illumio.illu	Cancel	Save	
			٩

Figure 28. Multi-select OOB Role window to add the custom role

4. Select the desired roles from the Collection list and move them to the Contain Roles List.

3.3 Create Illumio Admin

The System Administrator creates an Illumio application Admin user, which can configure the application that sets up Illumio configurations in ServiceNow.

3.3.1 The required role

System Administrator (admin)

3.3.2 Procedure

- 1. Navigate to **Organization > Users.**
- 2. Click the **Users** module.

servicenow All	Favorit	es History Works	oaces Admin	Users 😭 Q 🔓	opplication scope: Illu Jpdate set: System A	umio dministrator [Illumio]	ବ୍ଧ ଡି କ୍ର 🎒
🛛 Users 🛞 🖈	≡ 7	😇 Users Name 🔹	Search			Actions on selections	ected rows Vew
FAVORITES	All Q	User ID	Name 🔺	Email	Active	Created	Updated
		ketan.lakum.illumio			true	2024-04-11 00:31:45	2024-04-11 01:48:53
ALL RESULTS		mid_user			true	2024-04-01 01:51:20	2024-04-02 01:33:01
✓ Configuration		abel.tuter	Abel Tuter	abel.tuter@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:07
✓ CI Lifecycle Management		abraham.lincoln	Abraham Lincoln	abraham.lincoln@example.com	true	2013-07-23 17:15:54	2024-03-30 11:34:08
CI State Registered Users	0	adela.cervantsz	Adela Cervantsz	adela.cervantsz@example.com	true	2012-02-17 19:04:50	2024-03-30 11:34:05
✓ Password Reset		aileen.mottern	Aileen Mottern	aileen.mottern@example.com	true	2012-02-17 19:04:49	2024-03-30 11:34:07
Blocked Users		alejandra.prenatt	Alejandra Prenatt	alejandra.prenatt@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:06
 ✓ Organization 		alejandro.mascall	Alejandro Mascall	alejandro.mascall@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:08
Users		alene.rabeck	Alene Rabeck	alene.rabeck@example.com	true	2012-02-17 19:04:53	2024-03-30 11:34:08
 System Security 		alfonso.griglen	Alfonso Griglen	alfonso.griglen@example.com	true	2012-02-17 19:04:51	2024-03-30 11:34:06
✓ Users and Groups		alissa.mountjoy	Alissa Mountjoy	alissa.mountjoy@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:07
Users		allan.schwantd	Allan Schwantd	allan.schwantd@example.com	true	2012-02-17 19:04:53	2024-03-30 11:34:08
Groups		allie.pumphrey	Allie Pumphrey	allie.pumphrey@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:08
Roles		allyson.gillispie	Allyson Gillispie	allyson.gillispie@example.com	true	2012-02-17 19:04:50	2024-03-30 11:34:05
Access Role Detail View		alva.pennigton	Alva Pennigton	alva.pennigton@example.com	true	2012-02-17 19:04:50	2024-03-30 11:34:09
V Reports		alyssa.biasotti	Alyssa Biasotti	alyssa.biasotti@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:06
Users			44	1 to 50 of 630 + +			Ō

Figure 29. List view of the USER table

3. On the Users list that is displayed, click **New**. A new user form is displayed.

servicenow 🔤	Favorites History Wo	rkspaces Admin	User - New Record 1 Application : Update set:	scope: Illumio System Administrator [Illumio]	ه) ک	0 q 🚯
🖓 Users 🛞 🖈	Ser User New record			(0	≊ ··· Submit
FAVORITES	User ID		Email			
No Results	First name		Language	None	~	
ALL RESULTS	Last name		Calendar integration	Outlook	~	
✓ Configuration	Title		Time zone	System (America/Los_Angeles	;) ~	
✓ CI Lifecycle Management	Department	Q	Date format	System (yyyy-MM-dd)	~	
✓ Password Reset	Password needs reset		Business phone			
Blocked Users	Locked out		Mobile phone			
↓ Organization	Active	\checkmark	Photo	Click to add		
Users	Web service access only					
System Security Visers and Groups	Internal Integration User					
Users Groups Roles Access Role Detail View	Submit Related Links View linked accounts View Subscriptions					

Figure 30. Form view of the new user record

4. Fill out the form.

Note: The values for the User ID title and email address shown in the following table and figure are example values.

Field	Description
User ID	A unique User ID for the role in your Now Platform instance, such as illumio_admin.
First Name	The first name of the user you are assigning to be an Illumio application Admin user
Last Name	The last name of the user you are assigning to be an Illumio application Admin user
Title	The job title of the user, such as Illumio Admin.
Password	A unique password created for this role.
Email	A unique email address of the Illumio application Admin user

Ser User New record			0) 😤 🚥 Submit
User ID	Illumio_admin	Email	email@example.com	
First name		Language	None 🗸	
Last name		Calendar integration	Outlook 🗸	
Title		Q Time zone	System (America/Los_Angeles)	
Department	Q	Date format	System (yyyy-MM-dd) 🗸 🗸	
Password needs reset		Business phone		
Locked out		Mobile phone		
Active	\checkmark	Photo	Click to add	
Web service access only				
Internal Integration User				
Submit Related Links View linked accounts View Subscriptions				

Figure 31. An example of a filled form

- 5. Click on **Submit**. Once the form is submitted, you can assign the role.
- 6. On the Users list in the User ID column, click on the name of the new user you created, for example, **illumio_admin**.
- 7. Once the record is open, go to the Roles section and click on Edit.
- 8. Enter x_illu2_illumio.illumio_admin in the Collection field.
- 9. In the Collection column, select and move **x_illu2_illumio.illumio_admin** to the Roles List.

C Edit Members	Cancel Save
Add Filter Run filter 	
Cancel Save Name x_illu2_illumio.illumio_admin	
	Ċ

Figure 32. Multi-select window to select a role

10. Click on Save.

3.4 Configure Illumio PCE

The PCE Configuration runs the discovery and pulls existing workloads from the PCE populating the fetched data into the Illumio PCE Workloads table.

Note : Please check required role(Global Administrator) on the PCE side

3.4.1 The required Role

x_illu2_illumio.illumio_admin

3.4.2 Configure PCE

- 1. Login to the ServiceNow instance.
- 2. In the search menu in the top left-hand corner, enter **Illumio**. The Illumio application menu will be opened.
- 3. In the navigation menu, click on "Configuration" \rightarrow "PCE Configuration".

servicenow All	Favorites History	Workspaces Admin	Illumio PCE Configurations 😭 🖸	Application scope: Illumio Update set: System Administrator [Illumio]		o ə 🍓
∑ ≬lumio 🛞 🖈	= 🍸 🥽 Illumio PC	E Configurations Name	- Search			⊚ ≛ New
FAVORITES	All					
No Results	Q Name	 PCE URL 	Auto Sync to PCE	MID Server	Update	ed
ALL RESULTS V Illumio Dashboard V Configuration PCE Configuration V Tables PCE Workloads Scheduled Jobs Critical Label Groups V Support Support Contact			For records to display			

Figure 33. List view of the PCE Configuration

4. Click on the **New** button on the top. The configuration form is displayed.

	E Configuration d	Ø	0	쉖		Save Configuration
The user provided in	the 'config.xml' on the MID Server must have the roles 'x_illu2_illumio.mid_server_user' and 'mid_se	erver'.				
★ Name						
* PCE URL	Organization ID					
\star API Key	* Secret Key					
★ MID Server	Q Enable Proxy be- tween PCE and MID server					
Scheduler Thresh	old Limit Retry Mechanism					
Auto Sync to PCE	Run Daily				~	
	Time(run_time) Hours 00	0	0	00		
Save Configuration]					

Figure 34. Form view of the Illumio Configuration

5. Fill the form and click on **Save Configuration**.

Field	Description
Name	Unique name of user for identifying configuration.
PCE URL	URL of the Illumio PCE instance to fetch the workloads.
АРІ Кеу	Unique Illumio API ID for authentication.

MID Server	The MID Server is a ServiceNow component installed between the cloud and the data center.
Organization ID	Unique Illumio ID for your Organization.
API Secret	Illumio API secret key for authentication.

3.4.3 Illumio label dimensions

- 1. Login to the ServiceNow instance.
- 2. In the search menu in the top left-hand corner, enter **Illumio**. The Illumio application menu will be opened.
- 3. In the navigation menu, click on "Configuration" \rightarrow "PCE Configuration"
- 4. Open the PCE configuration record which is already added.
- 5. Click the **new** button on related list of "Illumio label dimension" on PCE Configuration form new form of Illumio label dimension will be opened

Illumio PCE Configuration test	0 =	Save Configuration	Check PCE Configur	ration Illumio	Data Collection	Delete Configuration	n + 4
			MID server	_			
Scheduler Threshold Limit Retry Mechanism							
Auto Sync to PCE			Run	Daily		~	
			Time(run_time)	Hours 00	00 00		
Save Configuration Check PCE Configuration Illumio Data Collection Delete Configuration							
Related Links							
Run Point Scan							
Illumio Label Dimensions (19) Illumio Config Class Mapp	ings (1) Illumio Critical Label Group C	onfigurations					
= 🖓 📾 Display Name (singu 🔹 Search				0	- Actions or	selected rows 🗸	New
Illumio PCE Configuration = test							
Display Name (singular)	Display Name (plural)	Key	La	bel Type Initial		isDeleted	
Duumy application 2	plural dummay	loca	ab)		false	

Figure 35. Related list of Illumio label dimensions

Illumio Lat New record	pel Dimension d			Ø	0		Submit
 Key: Enter a u Label Type Ini Display Name Display Name Href: The href 	nique key for the new Label Type. tial: The label type initial is used to cre: (singular): Enter a Singular Display Na (plural): Enter a Plural Display Name f will be populated automatically once s	ate a unique icon for the labels. (Maximum cha me for Label Type. or Label Type. ync of this newly created label dimension is co	racter limit - 2 characters). Impleted successfully.				
* Key * Display Name (singular) Href		★ Label Type Initial ★ Display Name (plural)					
Submit							

Figure 36. Form view of Illumio label dimensions

6. Fill the form and click on the Submit button.

Field	Description
Кеу	Unique key of label dimension for identifying configuration.
Label Type Initial	Initials for label dimension (maximum length 2).
Display Name (singular)	Display name (singular) for label dimension.
Display Name (plural)	Display Name (plural) for label dimension.
Href	Unique Href will be populated after submission of form.

3.4.4 Illumio Config Class Mappings

For PCE field mapping, users must have to create Illumio Config Class Mappings after that user has to create Illumio Class Field Mappings.

Procedure:

- 1. Login to the ServiceNow instance.
- 2. In the search menu in the top left-hand corner, enter **Illumio**. The Illumio application menu will be opened.
- 3. In the navigation menu, click on "Configuration" \rightarrow "PCE Configuration".
- 4. Open the PCE configuration record which is already added.
- 5. Click on the new button of Illumio Config Class Mappings related list.

Illumio PCE Configurati test	ion	0 =	Save Configuration	Check PCE Configu	ration	Illumio Da	ata Collecti	on Delete Config	uration $\uparrow \downarrow$
Scheduler Threshold Limit F	Retry Mechanism								
Auto Sync to PC	E 🗌			Run	Daily			~	
				Time(run_time)	Hours 0	0	00	00	
Save Configuration Check PC Related Links <u>Run Point Scan</u> Illumio Label Dimensions (19)	E Configuration Illumio Data	Collection Delete Configural	tion			ô -	- Actio	ns on selected rows	• New
Illumio PCE Configuration = test									
Source Table	Active	Conditions for Deleting	Workloads		Condition	ns for Exclu	uding Work	loads	
cmdb_ci_appl_dot_net	true								
		44 A	1 to 1 of 1 →	₩					

Figure 37. Form view of Illumio PCE Configuration

6. Form of Illumio Config Class Mappings will be opened.

Illumio Co New reco	nfig Class Mapping rd	Ø	쉖		Submit
Illumio PCE Configuration	test		(i)]	
Source Table	.NET Application [cmdb_ci_appl_d V Active V				
User Configurable Sort Order					
Conditions for Deleting Workloads	Add Filter Condition Add "OR" Clause				
Conditions for Excluding Workloads	Add Filter Condition Add "OR" Clause				
Conditions for Creating Incidents	Add Filter Condition Add "OR" Clause				
Submit					
Source Table	.NET Application [cmdb_ci_ap Active				
User Configurable Sort Order	Column Name			~	
* Order	Ascending ~				

Figure 38. Form view of Config Class Mapping

Field	Description
Illumio PCE Configuration	Name of Illumio PCE configuration for which new class mapping is being created.
Source Table	Select Source table from CMDB for mapping.
Active	Checkbox to activate or deactivate class mapping (default value checked).
User Configurable Sort Order	 User Configurable Sort Order: Whether to use sort order or not to identify the primary workload. Enabling this checkbox will populate the following fields: Order: Select order for creating workload. Order By Column Name: Column on which the CMDB records will be sorted to identify the primary workload.
Conditions for Deleting Workloads	Provide conditions for deleting workloads from the selected source table.
Conditions for Excluding Workloads	Provide conditions for excluding workloads from the selected source table.
Conditions for Creating Incidents	Provide conditions to automatically create Incidents for the workloads from the selected source table. Note: If the workloads are deleted then, the Incident linked to that workloads will not be deleted and if the same workload is fetched again that the respective Incident will get linked to it.

3.4.4.1 Illumio Class Field Mappings

- 1. Login to the ServiceNow instance.
- 2. In the search menu in the top left-hand corner, enter Illumio.

The Illumio application menu will be opened.

- 3. In the navigation menu, click on "Configuration" \rightarrow "PCE Configuration"
- 4. Open the PCE configuration record which is already added.
- 5. Open the existing record from Illumio Config Class Mapping, or create a new one
- 6. Form view of Illumio Config Class Mapping will be opened

Configure Source CMDB CI class to be used Source Table: ServiceNow CMDB is User Configurable Sorr Order: Whe Order: Select order for creativ Order: Select order for creativ Conditions for Deleting Workloads Conditions for Excluding Workloads Conditions for Creating Incidents: C	I with the PCE configuration. The to use so source for workloads. ther to use sort order or not to identify ng workload. I workload the CMDB records will be Workloads related to the CMDB record I Workloads that fall into this cond reate Incident for the workloads that fal-	the primary workload. e sorted to identify the prime ds that fall into this conditio tion will be excluded. all into this condition.	ary workload. n will be deleted.		
Illumic PCE Configuration	test				
Source Table	.NET Application [cmdb_ci_appl_dot_	net] •		Active .	
User Configurable Sort Order					
Conditions for Deleting Workloads	Add Filter Condition Add "OR"	Clause			
	choose field 🔹 💌	oper	value		
Conditions for Excluding Workloads	Add Filter Condition Add "OR"	Clause			
	choose field 🔹	oper	value		
Conditions for Creating Incidents	Add Filter Condition Add "OR"	Clause			
	choose field 🔹 💌	oper	value		
Update Delete					
= ∇ Illumio Class Field Mappings	Order - Search				Actions on selected rows_ New
Illumio Config Class Mapping - cmdb_ci_ap	pl_dot_net				
🗌 O, Type	Active	Field		Illumio Label Dimension	Order +
Label Dimension	true	short_descript	ion		
Label Dimension	true	name			
Hostname	true	name		(empty)	
		•	1 to 3 of 3	> >>	

Figure 39. Form view of Config Class Mapping

- 7. Click on the New button of Illumio Class Field Mappings or select the existing one.
- 8. Form view of Illumio Class Field Mapping will be opened

	ass Field Mapping rd	Ø	0	않	 Submit
Configure fields Type: Type to Illumio Label Field: Field :Field	to be mapped between PCE and CMDB for the given source Class Mapping and Source Table. be mapped. Dimension: Reference to the Illumio Label Dimension Record. be mapped from the Source table with the values from the PCE (This is only considered when Advanced is uncher option for Advanced mapping where you can provide script. Advanced is checked the script will be considered for the mapping. his field will only be visible when the type is set to IP Address. ked the value expected will be a comma separated list of values or array (Either it can be from field or from script), hecked the value expected will be a single IP Address (Either it can be from field or from script), of IP Addresses to be sent to PCE.	ecked)			
Type Source Table	Label Dimension Active .NET Application * Illumio Label [cmdh ci appl dot net] Dimension		٩		
Advanced * Field	Click to select		•		
Submit					

Figure 40. Form view of Illumio Class Field Mapping

Field	Description
Туре	Type to be mapped. 1. Hostname 2. IP Address 3. Label Dimension 4. Public IP Address
Source Table	Source table from CMDB for mapping already configured from Illumio Config Class Mappings.
Active	Check box for activate or deactivate class field mapping (default value checked).
Field	Select a particular field from the source table to be mapped with type.
Advanced	An option for Advanced mapping where you can provide a script.
Script	When Advanced is checked, the script will be considered for the mapping.

Dynamic fields based on Type field:

• Selected Type Field: Hostname / Public IP Address

Default view of Illumio Class Field Mapping form

Illumio Cla New record	ss Field Mapping d	Ø	0	쉖	 Submit
type: type to Illumio Label Field: Field to Advanced: Ar Script: When Is Multiple: TI If checl If not cl Order: Order	be mapped. Dimension: Reference to the Illumio Label Dimension Record. be mapped from the Source table with the values from the PCE (This is only considered when Advanced is unche option for Advanced mapping where you can provide script. Advanced is checked the script will be considered for the mapping. is field will only be visible when the type is set to IP Address. ed the value expected will be a comma separated list of values or array (Either it can be from field or from script), necked the value expected will be a single IP Address (Either it can be from field or from script), of IP Addresses to be sent to PCE.	cked)	L.		
Туре	Hostname 🗸 Active 🗹				
Source Table	.NET Application [cmdb_ci_appl_dot_net]				
Advanced					
* Field	Click to select		•		
Submit					

Figure 41. Default view of Illumio Class Field Mapping form

• Selected Type Field: IP Address

An additional field Order will be created for Ordering of IP Addresses to be sent to PCE.
Illumio Class Field Mapping Created 2024-04-1402:46:15	Ø	쉚1	 Update	Delete) ↑	/
Configure fields to be mapped between PCE and CMDB for the given source Class Mapping and Source Table. Type: Type to be mapped. Illumio Label Dimension: Reference to the Illumio Label Dimension Record. Field: Field to be mapped from the Source table with the values from the PCE (This is only considered when Advanced is unchecked) Advanced: An option for Advanced mapping where you can provide script. Gript: When Advanced is checked the script will be considered for the mapping. Is Multiple: This field will only be visible when the type is set to IP Address. If Acked the value expected will be a comma separated IIst of values or array (Either it can be from field or from script). If not checked the value expected will be a single IP Address (Either it can be from field or from script). Order: Order of IP Addresses to be sent to PCE.						
Type IP Address Active Active Ac			•			_
Update Delete						

Figure 42. Class Field Mapping Form for Type -" IP Address"

• Selected Type Field: Label Dimension

Additional reference field will be created to add reference of existing label dimensions with given configuration.

	Field Mapping 4-04-14 02:46:15		Ø	*1	 Update Delet	e) 🕆	\downarrow
Configure fields to I • Type: Type to be Illumito Label Di • Field: Field to be • Advanced: An o • Script: When Ac • Is Multiple: This • If checkee • If not che • Order: Order of	e mapped between PCE and CMDB for the given source Class M mapped. mension: Reference to the Illumio Label Dimension Record, mapped from the Source table with the values from the PCE (Th tion for Advanced mapping where you can provide script, vanced is checked the script will be considered for the mapping, field will only be visible when the type is set to IP Address, the value expected will be a comma separated list of values or an ked the value expected will be a single IP Address (Either it can the IP Addresses to be sent to PCE)	fapping and Source Table. nis is only considered when Advanced is unchecked). rray (Elther it can be from field or from script). be from field or from script).					
Type Source Table Advanced * Field	Label Dimension	Active V * Illumio Label Dimension			Q 0		
Update Delete Update Delete							

Figure 43. Class Field Mapping Form for Type - "Label Dimensions"

In case if a user wants to configure multiple source tables and multiple class field mappings then, then follow the same steps as mentioned above for another table.

Note

- 1. The Source Table list will be visible only if the "Itil" role is provided to the user.
- 2. Users can add multiple source tables as per their need, but he/she cannot map the same label twice. And once all PCE labels are mapped, then the user cannot create a new field mapping configuration.

3.5 Configure Critical Label Groups

This feature prevents Label Changes to the defined Core Service or Critical labels. If a user has configured the critical label group for a particular label, then the app will fetch all the labels which are available under that critical label group. And while syncing the workloads to PCE if any of the CMDB labels are under the critical label group then the entire workload would be skipped from sync.

3.5.1 The required Role

x_illu2_illumio.illumio_admin

3.5.2 Configure Critical Label Groups

- 1. Login to the ServiceNow instance.
- 2. In the search menu in the top left-hand corner, enter **Illumio**. The Illumio application menu will be opened.
- 3. In the navigation menu, click on "Configuration" \rightarrow "PCE Configuration"
- 4. Open the PCE configuration record which is already added.

Illumio Critica New record	al Label Group Configuration	0	0	세위	(Submit
This is an exclusion n Example: The custor Critical label grou Labels in a critica If critical label grou	ule for workloads that can be synced. ner doesn't want to accidentally change workloads in production, they can add a critical group containing the production environment ps are configured on the PCE for each label type. Ilabel group are not overwritten for a workload. The entire workload record is skipped. pups are not specified, any label on the PCE can be modified.	label.				
Illumio PCE Configuration	test					
* Illumio Label Dimension		0	2			
Submit						

Figure 44. Form view of the Critical label groups configuration

- 5. Click on the "Critical Label Groups" tab.
- 6. Fill in the "Label Groups" name and click on Save.

Note: When a user enters the Critical label group name in ServiceNow, then the app will only consider the labels of that group as critical. The application will ignore the subgroups and labels of the subgroups.

Field	Description
Illumio PCE configuration	Reference of PCE configuration for which the Critical Label Group is being made.
Label Group	Name of Label Group.

Illumio Label Dimension Reference of Illumio Label dimension to include it in Label Group.	
--	--

3.6 Configure Threshold Limit

This feature limits the number of changes to be applied for each sync, either manual sync or auto-sync. If any of the configured limits exceeds, then the entire sync would be prevented.

3.6.1 The required Role

x_illu2_illumio.illumio_admin

3.6.2 Configure Threshold Limit

- 1. Login to the ServiceNow instance.
- 2. In the search menu in the top left-hand corner, enter Illumio.

The Illumio application menu will be opened.

- 3. In the navigation menu, click on "Configuration" \rightarrow "PCE Configuration"
- 4. Open the PCE configuration record which is already added.

Illumio PCE Configuration test	Ø	0 =	۹۴ ۱۹	Save Configuration	Check PCE Configuration	Illumio Data Collection	Delete Configuration 1		
Scheduler Threshold Limit Retry Mechani	sm								
Enable Limits 🔽					Cancel Job on Limit 🗌 Exceed				
Enable Limit on New Label Creation					New Label Creation Limit				
Enable Limit on D Workload					Workload Modifications Limit				
Mocinications Create Unmanaged Workloads on PCE from CMDB records					Unmanaged Workloads Creation Limit				
Enable Limit on 🗌 Workload Deletion					Workload Deletion Limit				
 Enable Limits: Enables limits on number of manual or auto changes per sync. Sets limits as a number (e.g., 300) or percentage (e.g., 20%). Rounds up the number of workloads calculated from percentage. Enable Limit on New Label Creation: Limit on creation of new labels on the PCE in a sync. Enable Limit on Workload Modifications: Limit on number of workloads with label modifications in a sync. Create Unmanaged Workloads on PCE from CMDB Records: Limit on creation of number of unmanaged workloads on the PCE in a sync. Enable Limit on Workload Deletion: Limit on deletion of workloads on PCE in a sync. Cancel Job on Limit Exceed: If it is marked true then it will cancel the entire sync in case any of the configured limit is exceeded, else it will sync the N number of workloads provided the limit is N and rest will be ignored. 									

Figure 45. Form view of the threshold limit configuration

- 5. Mark checked the "Enable Limit" checkbox to enable the threshold limit feature.
- 6. If "Enable Limit" is unchecked, it will not consider any threshold limit configured in fields.
- 7. Select the checkboxes for which the user wants to set the limit and then specify the limits in respective text boxes and click on **Save**.

Field	Description
Enable Limit on New Label Creation	Mark this field checked and define numbers or percentage in the "New Label Creation Limit" field to set a limit on the creation of new labels in each sync.
Enable Limit on Workload Modifications	Mark this field checked and define numbers or percentage in the "Workload Modifications Limit" field to set a limit on the number of workloads to be modified in each sync.
Create Unmanaged workloads on PCE from CMDB records	Mark this field checked and define numbers or percentage in the "Unmanaged Workloads Creation Limit" field to set a limit on how much workload can be created in each sync.
Enable limit on workload deletion	Mark this field checked and define numbers or percentage in the "Workload Deletion Limit" field to set a limit on how much workload can be deleted in each sync.
Cancel Job on Limit Exceed	Mark this field checked to cancel the whole job if any of the enabled limits exceeds.

Note

- 1. Users are allowed to set limits in numbers or percentage. For example, a user wants to set a limit in numbers, then he/she needs to specify the value in a text box with an integer format Like 90. And in the case of percentage, users can specify the value like 50%.
- 2. If any of the limits exceeds during the synchronization of workloads to PCE and "Cancel Job on Limit Exceed" is marked unchecked, then the workloads within the specified limits will be synced and the rest of the workloads will be skipped. If the "Cancel Job on Limit Exceed" is marked checked then, the entire sync process would be prevented.
- 3. Label creation and workload modifications limit will be counted after filtering out the workloads which have critical labels as conflict.

3.7 Configure Retry Mechanism

This feature allows the user to configure the different parameters for the retry mechanism in case of any API failure with either 429 status code or server error

3.7.1 The required Role

x_illu2_illumio.illumio_admin

3.7.2 Configure Retry Mechanism

- 1. Login to the ServiceNow instance.
- 2. In the search menu in the top left-hand corner, enter **Illumio**. The Illumio application menu will be opened.
- 3. In the navigation menu, click on "Configuration" \rightarrow "PCE Configuration"

4. Open the PCE configuration record which is already added.

Illumio PCE Configuration test	00	**	Save Configuration	Check PCE Configurat	tion Illumio Data Collection	Delete Configuration	î	
Scheduler Threshold Limit Retry Mechanis	m							
HTTP Retry Count		5		HTTP Retry interval max (seconds)		300		
				HTTP Retry interval increment (seconds)		30		
 Retry Mechanism: Retry Mechanism is being used with a backoff time whenever server error or error with code 429 occurs. HTTP Retry This is the maximum number of times the app will attempt to synch if the initial attempt fails. Valid values are in the range from 0 to 100. HTTP Retry interval increment (seconds): This is the starting value of the time (in seconds) between retry attempts, as well as the incremental increase in the interval between retries. Valid values are in the range from 0 to 600. HTTP Retry interval max (seconds): This is the maximum time (in seconds) between retry attempts. Valid values are in the range from 0 to 600. 								

Figure 46. Form view of the retry mechanism configuration

- 5. Click on the "Retry Mechanism" tab.
- 6. Fill in the fields and click **Save**.

Field	Description
HTTP Retry Count	This is the maximum number of times the app will attempt to sync if the initial attempt fails. Valid values are in the range from 0 to 100.
HTTP Retry Interval increment (seconds)	This is the starting value of the time (in seconds) between retry attempts, as well as the incremental increase in the interval between retries. Valid values are in the range from 0 to 600. For example, if the Retry Interval is 10, the Retry Interval Max is 35, and the retry count is 5, then the first retry attempt will be after 10 seconds; the next retry will be 20 seconds later; the third retry will be 30 seconds later; the fourth retry will be 35 seconds later.
HTTP Retry Interval Max (seconds)	This is the maximum time (in seconds) between retry attempts. Valid values are in the range from 0 to 600.

4 Illumio Dashboard

Use the Illumio dashboard to manage the Illumio application.

4.1.1 The required role

These two users are permitted to work with the Illumio dashboard:

x_illu2_illumio.illumio_admin,x_illu2_illumio.illumio_user

4.1.2 Access the Illumio dashboard

To access the Illumio dashboard, do the following:

- 1. Log in to a ServiceNow instance.
- 2. To see the Illumio application, search "Illumio" in the search field in the upper-left corner.
- 3. From the navigation panel, select "Illumio" \rightarrow "Dashboard".

servicenow AII	Favorites History Workspace	ces i Illumio 🕸	Q Application scope: Illumio Update set: System Administrator	[Illumio] ⊕ & @ 🖵 🌏
∑ illumio	≡ ⊞ Illumio •			⊕ 🗅 ≊
FAVORITES	Illumio Home Advanced View			
No Results	Total PCE Configurations	Total Unique Workloads	Total Unique Workloads of Conflic	Total Duplicate Workloads
ALL RESULTS				
 ✓ Illumio Dashboard ✓ Configuration ↓ PCE Configuration ✓ Tables 	1	0	0	0
 ✓ Tables PCE Workloads Scheduled Jobs Critical Label Groups ✓ Support ✓ Support Contact 	Unique Workloads	Label Dimensions	9 Workload	s by Enforcement Mode

Figure 47. Dashboard

4.1.3 Dashboard home page

The Dashboard has 2 tabs named "Illumio Home" and "Advanced View".

4.1.3.1 Illumio Home

When you open the Illumio dashboard, it shows up in the default admin view.



Figure 48. Illumio dashboard (Illumio Home Tab)

The Illumio dashboard opens with a set of reports. The dashboard reports in Illumio Home are:

- 1. Total PCE Configdurations: Number of PCE configurations on Illumio application.
- 2. Total Unique Workloads: Number of unique workloads on the PCE Workloads table.
- 3. Total Unique Workloads of conflicts: Number of unique workloads with conflicts (Label conflicts).
- 4. Total Duplicate workloads: Number of duplicate workloads on the PCE Workloads table.
- 5. Unique Workloads:
 - a. Unique workloads by Illumio PCE configurations
 - b. Unique workloads by Illumio Known to PCE
 - c. Unique workloads by Illumio Duplicate
 - d. Unique workloads by Illumio Conflicts

- 6. Label Dimensions: Number of Label dimensions per PCE configuration
- 7. Workloads By Enforcement Mode
- 8. Managed Workloads By VEN status
- 9. Managed Workloads by Active VEN Versions
- 10. Managed Workloads By OS
- 11. Scheduled Job History [Weekly]: Bar chart of scheduled job history configured weekly on job completion time, stacked by job status. Clicking on the data bar will redirect to thePie chart of selected job status grouped by job type.

4.1.3.2 Advanced View

Select Advanced view tab from dashboard to see Advanced View Tab



Hostname	Known to PCE	Conflicts	Illumio PCE Configuration	
AppServerHelpDesk2	Unknown	true	JTest	
Storage-D1	Unmanaged	true	JTest	
JTESTNode 2	Unknown	true	JTest	
SAP LB1	Unknown	true	JTest	
apache linux ny 100	Unmanaged	false	Test	
v-6.2	Managed	false	Test	
SAP WEB01	Unmanaged	false	Test	
SAP WEB02	Unmanaged	false	Test	
SAP WEB04	Unmanaged	false	Test	
10-0-9-55	Managed	false	Test	
crest_test1	Unmanaged	false	Test	•
	44 4	1 to 39 of 39 > >>		

Figure 49. Advance View tab of Dashboard

The Advanced View opens with a set of reports The dashboard reports of Advanced View are as follows:

- 1. Lookup Filter: Filter to apply on all the reports in the Advanced View tab, based on selected PCE configuration, Default value for all PCE configurations.
- 2. Total Unique Workloads: Number of total unique workloads existing in all / selected PCE configuration.
- 3. Total Unique Workloads of Conflicts: Number of total unique conflicting workloads existing in all / selected PCE configuration
- 4. Total Label Dimensions: Number of total Label Dimensions existing in all / selected PCE

configuration

- 5. Total Duplicate Workloads: Number of total Duplicate Workloads existing in all / selected PCE configuration
- 6. Unique Workloads Known to PCE: Pie chart of Total unique workloads grouped by Known to PCE value existing in all / selected PCE configuration
- 7. Label Dimensions: Donut chart of total Label Dimensions existing in all / selected PCE configuration
- 8. Workloads List: List view of Workloads existing in all / selected PCE configuration

4.1.4 Configuration

- PCE Configuration is a list of current configurations, with the following fields:
 - o Name, such as Illumio PCE Configuration
 - o PCE URL
 - o Auto Sync to PCE, whether it is allowed or not (true or false)
 - o MID Server, such as ip-10-1-1-10
 - o Updated, a time stamp
- Illumio Label Dimensions is a list of label Dimensions, With the following fields:
 - o Key
 - o Label Type Initial
 - o Display Name (singular)
 - o Display name (plural)
 - o Href
- Illumio Config Class Mapping is a list of Class Mapping, with the following fields:
 - o Source Table
 - o Condition for Deleting/Excluding workloads
 - o Condition for creating Incidents
 - o Illumio Class Field Mapping
 - Host Name
 - Ip Address
 - Label Dimensions
 - public Ip Address

4.1.5 Tables

- PCE Workloads is a list of current managed and unmanaged workloads, with the following fields:
 - o Hostname, such as IP999999

- o ServiceNow Record Identifiers, source of CMDB records (in related list)
- o Known to PCE, which is defined as Unmanaged, Managed or Unknown
- o Duplicate, true(Duplicate CMDB record based on hostname matching) or false
- o Primary workload, which reflects the associated primary workload (If Duplicate is true) or empty
- o Label Conflicts, true (with RAEL conflicts) or false
- o Href
- o PCE Public Ip Address
- o Interfaces
- o Incident
- o Illumio PCE Workload Field Values
 - Created, a time stamp
 - Illumio Label Dimensions
 - CMDB Value
 - PCE Value
- Scheduled Jobs:
 - o Job type, such as Data collection or Data sync
 - o Current Operation, such as Completed discovery
 - o Job Status, such as completed
 - o Job Started, a time stamp
 - o Job Completed, a time stamp
 - o Logs
 - o Incident
 - o Illumio PCE Configuration

4.1.6 Support: Contact for Illumio

Website: https://www.illumio.com/support

E-mail: support@illumio.com

5 Workflow and User Action

This section describes different use cases of the Illumio integration with ServiceNow.

5.1 Illumio Discovery

The Illumio Discovery application pulls a PCE workload from a PCE instance and compares it to a ServiceNow CMDB table you select.

5.1.1 The required role

x_illu2_illumio.illumio_admin

5.1.2 Procedure

- 1. Log into a ServiceNow instance.
- 2. In the navigation menu, select **PCE Configuration**.
- 3. Click on the existing configurations or click **New** to create a new configuration (refer to the section for creating a new configuration: <u>Configure Illumio PCE</u>).

servicenow All	Favorites History Workspaces	Admin Illumi	o PCE Configurations 😭 🗌 🤇	२ Search 🔻	() () () () () () () () () () () () () (
∑ illumio	= 🖓 🥽 Illumio PCE Configurations 🕅	Name • Search		⊚ ≛ Action	s on selected rows
FAVORITES	All	DOCUDI	A + A + DOT	1415.0	
No Results	Name A	PCE UKL	Auto Sync to PCE	MID Server	Opdated
	Search	Search	Search	Search	Search
✓ Illumio	Test 1		true	illumio mid	2024-04-16 01:10:18
Dashboard					
 Configuration 					
PCE Configuration					
✓ Tables					
PCE Workloads					
Scheduled Jobs					
Critical Label Groups					
√ Support					
Support Contact					

Figure 50. Illumio configuration record to run discovery

4. Click Illumio Data Collection to start Illumio Discovery.

servicenow AII	Favorites History Workspaces : Illumio PCE Configuration - Test 🔄 Q. Application scope: Illumio Update set: System Administrator (Illumio) 🕀 Q. ③ Q. 🥋	
∑ illumio 🛞 🖈	Save Configuration 🖉 😧 😤 🚥 Save Configuration Check PCE Configuration Illumio Data Collection Delete Configuration \uparrow \downarrow	
FAVORITES	The user provided in the 'config.xml' on the MID Server must have the roles 'x_illu2_illumio.mid_server_user' and 'mid_server'.	î
No Results	* Name Test	l
ALL RESULTS	* PCE URL Organization ID	l
→ Illumio	* API Key ••••••••	l
✓ Configuration	* MID Server Illumio Mid Q O Enable Proxy between PCE and MID server	l
PCE Configuration		ł
✓ Tables	Scheduler Threshold Limit Retry Mechanism	l
Scheduled Jobs	Auto Sync to PCE	l
 Critical Label Groups ✓ Support 	Save Configuration Check PCE Configuration Illumio Data Collection Delete Configuration	l
Support Contact	Related Links Run Point Scan	

Figure 51. Form view of the Illumio configuration record

5. Schedule discovery by filling in the required data in the Scheduler tab.

servicenow 🔤	Favorites History Workspaces : Illumio PCE Configuration - Test 🔅 Q Application scope: Illumio Update set: System Administrator (Illumio) 🕀 ରେ 💿 📮	
♥ illumio ⊗	< = Illumio PCE Configuration & Save Configuration Check PCE Configuration Illumio Data Collection Delete Configuration \uparrow U	
FAVORITES	The user provided in the 'config.xml' on the MID Server must have the roles 'x_illu2_illumio.mid_server_user' and 'mid_server'.	î
No Results	* Name Test	l
ALL RESULTS	* PCE URL Organization ID	L
∨ Illumio	* API Key •••••••	L
Dashboard ✓ Configuration	* MID Server IIIumio Mid Q O Enable Proxy between PCE and MID server	l
PCE Configuration Tables	Scheduler Threshold Limit Retry Mechanism	l
PCE Workloads Scheduled Jobs Critical Label Groups ✓ Support Support	Auto Sync to PCE Run Weekly Day(run, dayofweek) Monday V Time(run_time) Hours 00 00	
	Save Configuration Check PCE Configuration Illumio Data Collection Delete Configuration Related Links Run Point Scan Illumio Label Dimensions (19) Illumio Config Class Mappings (2) Illumio Critical Label Group Configurations Illumio Label Dimensions (19) Illumio Scans Illumio Critical Label Group Configurations Image: The Scanse of th	*

Figure 52. The "Scheduler" tab for PCE configuration

6. Select **Scheduled Jobs** to check the discovery status.

servicenow A	Favorites His	tory Workspaces Admin	Illumio Schedule	d Jobs 😭 🛛 Q	Application scope: Illumio Update set: System Admini	strator [Illumio] 🌐 දා	@
∑ illumio 🛞 🖈	≡ 🏹 🕾 Illu	mio Scheduled Jobs Job Started	▼ [\$earch			Actions or	selected rows 🗸
FAVORITES	All						
No Results	🗌 🔍 🛛 Job Type	Illumio PCE Configuration	Current Operation	Job Status	Job Started 🔻	Job Completed	Job Owner 🔺
ALL RESULTS	Data Col	lection JTest	Fetching PCE data	Failed	2024-04-13 23:49:06	2024-04-14 01:39:37	System Administrator
V Illumio	Data Syn	c Test	Synchronization with PCE completed	Completed	2024-04-13 23:05:00	2024-04-13 23:09:17	System Administrator
Dashboard V Configuration	Connecti Check	vity Test	Connectivity check successful	Completed	2024-04-13 23:03:17	2024-04-13 23:03:28	System Administrator
PCE Configuration	Data Syn	c Test	Synchronization with PCE completed	 Completed with errors 	2024-04-13 23:01:39	2024-04-13 23:02:09	System Administrator
 ✓ Tables PCE Workloads 	Data Syn	c JTest	Synchronization with PCE completed	 Partial Success 	2024-04-13 23:00:16	2024-04-13 23:03:52	System Administrator
Scheduled Jobs	Connecti Check	vity Test	Connectivity check successful	Completed	2024-04-13 22:26:39	2024-04-13 22:26:49	illumio user
Critical Label Groups	Data Syn	c JTest	Synchronization with PCE completed	 Partial Success 	2024-04-13 22:22:41	2024-04-13 22:27:28	System Administrator
Support Contact	Data Col	lection JTest	Fetching PCE data	Cancelled	2024-04-13 22:22:16	2024-04-13 22:22:24	System Administrator

Figure 53. List view of the Scheduled Jobs

7. Check the logs to monitor the status of discovery.

servicenow AII	Favorites History :	Illumio Scheduled Jobs - C	reated 2024-04-13 23:05:00 😭	Q Application Update set	scope: Illumio : System Administrator	(Illumio)		ନ୍ଦ (2
∑ illumio 🛞 🖈	< Illumio Scheduled Job Created 2024-04-13	is 23:05:00			(8	<u>0</u>	D	elete	↑	\leftarrow
FAVORITES	Job Type	Data Sync	Cu	rrent Operation	Synchronization wit	h PCE cor	mplet				Î
No Results	Job Started	2024-04-13 23:05:00		Job Status	Completed						
ALL RESULTS	Job Completed	2024-04-13 23:09:17		Incident							
 Illumio Dashboard Configuration PCE Configuration Tables PCE Workloads Scheduled Jobs Critical Label Groups Support Support Contact 	Logs	1902-04-14TD665:00091/21 [liture] 1902-04-14TD665:00091/21 [ret:1 1902-04-14TD665:02.93/25 [Total 1902-04-14TD665:02.93/25 [Total 1902-04-14TD665:02.93/25 [Total 1902-04-14TD665:02.93/25 [Total 1902-04-14TD665:02.93/25 [Total 1902-04-14TD6665:02.93/27 [Total 1902-04-14TD6669:02.93/27 [Total 1902-04-14TD669:04.93/27 [Total <th>io data collection started ing PCE data labels fetched: 548 Workloads fetched: 12425 4 PCE data to mapping table bing CMDB servers ing CMDB servers ing CMDB servers thromaing workloads to PCE Intronal label groups fetched: 0 critical label groups fetched: 0 wronization with PCE completed</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	io data collection started ing PCE data labels fetched: 548 Workloads fetched: 12425 4 PCE data to mapping table bing CMDB servers ing CMDB servers ing CMDB servers thromaing workloads to PCE Intronal label groups fetched: 0 critical label groups fetched: 0 wronization with PCE completed								
	Illumio PCE Configuration	Test						0			
	Delete									٥	

Figure 54. Form view of the Scheduled Jobs

8. Once the discovery is completed, verify the workloads in the Illumio PCE Workloads table.

servicenow All	Favori	tes History Wor	kspaces Admin	Illumio PCE W	/orkloads 🕁	Application scope: Illumie Update set: System Adm	o inistrator [Illumio]		
🛛 illumio 🛞 🖈	≡ 7	👳 Illumio PCE Work	doads Hostname 🔹 þe	arch		Actions on select	ed rows 🗸	Sync selected servers with PC	CE
FAVORITES	All								
No Results	<u> </u>	Hostname	Illumio PCE Configuration	Known to PCE	Conflicts	PCE Public IP Address	Incident	Href	_
ALL RESULTS		apache linux ny 100	Test	Unmanaged	false		(empty)	/orgs/138/workloads/868e9 4fa0-4c26-b	'a14
 ✓ Illumio ☐ Dashboard 		v-6.2	Test	Managed	false	124.123.123.30	INC0010008	/orgs/138/workloads/77496 03c7-4b42-8	bc;
✓ Configuration		SAP WEB01	Test	Unmanaged	false		(empty)	/orgs/138/workloads/826f93 d342-4ae2-8	1bć
PCE Configuration ✓ Tables		SAP WEB02	Test	Unmanaged	false		(empty)	/orgs/138/workloads/dc58d8 0b66-4ec3-9	8fa
PCE Workloads		SAP WEB04	Test	Unmanaged	false	1.1.1.1	(empty)	/orgs/138/workloads/2a699 1bbc-40c9-a	db(
Critical Label Groups		10-0-9-55	Test	Managed	false	203.88.139.34	(empty)	/orgs/138/workloads/abe8c8 5d14-48f8-8	3fO
✓ Support		crest_test1	Test	Unmanaged	false		INC0010004	/orgs/138/workloads/d49e2 b3f0-48b9-8	7ac
		Node 3	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/5a4c3 34e0-4c5d-b	9bc
		Sap3	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/f368do 562c-4bae-a	cbf
		Sap2	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/171f49 1ed2-4a9e-a	921
		Storage-D/	ITart	Linknown	true		(emntr/)		×.
				44 4	1 to 39 of 39	► ►►			٥

Figure 55. Illumio PCE Workload table with the populated data

5.2 Sync to PCE

5.2.1 The required role

x_illu2_illumio.illumio_admin or

x_illu2_illumio.illumio_user

5.2.2 Procedure

- 1. Log in to a ServiceNow instance.
- 2. Sync to PCE in one of these three ways:
 - <u>Configure Auto "Sync to PCE"</u>
 - <u>UI action from the workload's Form view</u>
 - <u>UI action from the PCE workload table list view</u>

5.2.2.1 Configure Auto "Sync to PCE"

1. In the navigation menu select PCE Configuration

servicenow AII	Favorites History Works	spaces Admin	Illumio PCE Configurations 😒	Q Search	▼ ⊕ ∞ © ₽
∑ illumio	= 🏹 🥽 Illumio PCE Config	urations Name - Sea	arch	۵	Actions on selected rows Vew
FAVORITES	All				
No Results	□ Q Name ▲	PCEURL	Auto Sync to PCE	MID Server	Updated
	Search	Search	Search	Search	Search
	Test 1		true	illumio mid	2024-04-16 01:10:18
Dashboard					
✓ Configuration					
PCE Configuration					
✓ Tables					
PCE Workloads					
Scheduled Jobs					
Critical Label Groups					
✓ Support					
Support Contact					

Figure 56. Illumio configuration record list view

2. Select the "Auto Sync to PCE" checkbox.

servicenow All	Favorites History Workspaces : Illumio PCE Configuration - Test 🖈 🔍 Application scope: Illumio 🔮 🕫 💿 🙃 🌐
🛛 illumio 🛞 🖈	C = Illumio PCE Configuration & Save Configuration Check PCE Configuration Illumio Data Collection Delete Configuration \uparrow U
FAVORITES	The user provided in the 'config.xml' on the MID Server must have the roles 'x_illu2_illumio.mid_server_user' and 'mid_server'.
No Results	* Name Test
ALL RESULTS	* PCE URL Organization ID
∨ Illumio	* API Key ******
Dashboard	* MID Server Illumio Mid Q 0 Enable Praxy between PCE
PCE Configuration	and MID server
✓ Tables	Scheduler Threshold Limit Retry Mechanism
Scheduled Jobs	Auto Sync to PCE
Critical Label Groups	Time(run, time) Hours 00 00 00
Support	
Support Contact	Save Configuration Check PCE Configuration Illumio Data Collection Delete Configuration
	Related Links
	Illumia Label Dimensions (10) Illumia Config Class Mannings (2) Illumia Critical Label Group Configurations
	The state st
	Illumio PCE Configuration = Test
	Q Display Name (singular) Display Name (plural) Key Label Type Initial

Figure 57. "Scheduler" tab of PCE Configuration

This configuration syncs all the non-duplicate known, Managed and Unmanaged workloads and creates Unknown workloads in PCE automatically.

3. The Job Type of the discovery process is changed to "Data Collection" \rightarrow "Data Sync" after the auto-sync process starts. Check the logs to get statistics of the sync process.

servicenow A	Favorites History :	Illumio Scheduled	Jobs - Created 2024-04-13 23:05:00 😭 🔍 🤤	Application scope: Illumio Update set: System Administr	२	@ 4		-
🖓 illumio 🛛 😣	< Illumio Scheduled Job Created 2024-04-13	os 23:05:00		Ø 👩 🧕	÷	Delete) ↑	\downarrow
FAVORITES	Job Type	Data Sync	Current Operation	Synchronization with PCE compl	eti			î
No Results	Job Started	2024-04-13 23:05:00	Job Status	Completed				
ALL RESULTS	Job Completed	2024-04-13 23:09:17	Incident					
 Illumino Dashboard Configuration PCE Configuration Tables PCE Workloads Scheduled Jobs Critical Label Groups Support Support Contact 	Logs	12024-04-14T06-05:00.09121 [Ilum 12024-04-14T06-05:00.09121 Febr 12024-04-14T06-05:02.09121 Febr 12024-04-14T06-05:32 1221 [Isal 12024-04-14T06-05:33 1221 [Isal 12024-04-14T06-08:01.0422] Mag 12024-04-14T06-08:01.0422] Mag 12024-04-14T06-08:01.0422] Mag 12024-04-14T06-08:01.0422] Mag 12024-04-14T06-08:03.0121 [Isal 12024-04-14T06-08:03.0122] [Isal 12024-04-14T06-08:03.0122] [Isal 12024-04-14T06-08:03.012] [Isal 12024-04-14T06-08:02] [Isal 12024-04-14T06-08:03.012] [Isal 12024-04-14T06-08:02] [Isal 12024-04-14T06-08-08-08] [Isal 12024-04-1400-08] [Isal 12024-04-1400-08] [Isal 1202	io data collection started ing PCE data labels fetched: 548 work/Eds fetched: 1:2425 ing CM0B servers ing CM0B servers tronziation with PCE completed ing CM0B servers ing CM0B servers					
	Illumio PCE Configuration	Test			0	2		
	Delete							
							Ċ	•

Figure 58. Schedule job form view for job type Data Sync

5.2.2.2 UI action from the workload's Form view (Update workload on PCE)

- 1. Select the Illumio PCE Workloads table.
- 2. Click on any managed/unmanaged workload that has a flag in the Label Conflicts column as "true". (Note: Only non-duplicate workloads can be synced to PCE)

servicenow 💷	Favori	tes History Wor	kspaces Admin	Illumio PCE W	/orkloads 🕁	Application scope: Illumic Update set: System Admi	o nistrator [Illumio]	🕀 & @ & 🏐
🎖 illumio 🛞 🖈	≡ 7	👳 Illumio PCE Work	Hostname • Şe	arch		Actions on selected	ed rows 🗸	Sync selected servers with PCE
FAVORITES	All							
No Results	<u> </u>	Hostname	Illumio PCE Configuration	Known to PCE	Conflicts	PCE Public IP Address	(cmpcy)	Href
ALL RESULTS		apache linux ny 100	Test	Unmanaged	false		(empty)	/orgs/138/workloads/868e9a14 4fa0-4c26-b
 ✓ Illumio ☐ Dashboard 		v-6.2	Test	Managed	false	124.123.123.30	INC0010008	/orgs/138/workloads/77496bca 03c7-4b42-8
✓ Configuration		SAP WEB01	Test	Unmanaged	false		(empty)	/orgs/138/workloads/826f91bć d342-4ae2-8
		SAP WEB02	Test	Unmanaged	false		(empty)	/orgs/138/workloads/dc58d8fa 0b66-4ec3-9
PCE Workloads	0	SAP WEB04	Test	Unmanaged	false	1.1.1.1	(empty)	/orgs/138/workloads/2a699db 1bbc-40c9-a
Critical Label Groups		10-0-9-55	Test	Managed	false	203.88.139.34	(empty)	/orgs/138/workloads/abe8c8f0 5d14-48f8-8
✓ Support		crest_test1	Test	Unmanaged	false		INC0010004	/orgs/138/workloads/d49e27ac b3f0-48b9-8
		Node 3	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/5a4c39bc 34e0-4c5d-b
		Sap3	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/f368dcbf- 562c-4bae-a
		Sap2	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/171f4921 1ed2-4a9e-a
		Storage-D4	ITart	Unknown	true		(emntr/)	• *
					1 to 39 of 39	► ►►		٥

Figure 59. PCE workload table with populated data

3. Click Sync Server to PCE to update the label information of this particular workload.

servicenow All	Favorites History Wor	kspaces Admin	Illumio PCE Workload - Node 3 😭 🛛 C	Application scope: Illumio Update set: System Administr	ବ ଡ ୦ 👶		
∑ illumio 🛞 🖈	Illumio PCE Workload Node 3		Ø 0 🛎	Sync Server to PCE Create Incid	lent Delete $\uparrow \downarrow$		
FAVORITES	Hostname	Node 3	Illumio PCE Configurati	on JTest			
No Results	Known to PCE	Unmanaged	Deleted from P	CE	_		
ALL RESULTS	Duplicate		Confli	ts 🗹			
 ✓ Illumio Dashboard ✓ Configuration 		If the Hostname of this record matches the Hostname of another record and marked "Duplicate", this record will not be used.		If there is any update in the CMDB value then "Conflicts" in the workload will be enabled.			
PCE Configuration	Href ,	f /orgs/138/workloads/5a4c39bc-34e0-4c5d-b644-a96d0a267d9c					
PCE Workloads Scheduled Jobs	Interfaces	{"umw0":{"pce_value":"","cmdb_valu	a ^a :""}}				
Critical Label Groups	PCE Public IP Address		Enforcement Mo	de visibility_only			
│	OS ID		ServiceNow CMDB Identif	er Node 3			
	Sync Server to PCE Create In	cident Delete					

Figure 60. Form view of the managed/unmanaged workload record

5.2.2.3 UI action from the workload's Form view (Create workload on PCE)

- 1. Select the Illumio PCE Workloads table.
- 2. Click on any unknown workload. (Note: Only non-duplicate workloads can be synced to PCE)

	se		Favorite	es History Work	spaces Admin	Illumio PCE	Workloads 🕁	Q Application sco Update set: Sys	pe: Illumio tem Administr	🕀 & @ 🗘 🍓
ſ	7	illumio 🛞 🖈	\equiv \forall	👳 Illumio PCE Workl	oads Hostname 🔹 Sea	irch		Actions on selecte	d rows 🗸	Sync selected servers with PCE
	AVOF	ITES	All							
N	o Res	ults	<u> </u>	Hostname	Illumio PCE Configuration	Known to PCE	Conflicts	PCE Public IP Address	Incident	Href
_		сиите		Search	Search	Search	Search	Search	Search	Search
Î		llumio		AppServerHelpDesk2	JTest	Unknown	true		INC0010014	
		Dashboard		Storage-D1	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/b1dbaca2 d07a-4e24-a
		✓ Configuration		JTESTNode 2	JTest	Unknown	true		(empty)	
		PCE Configuration		SAP LB1	JTest	Unknown	true		(empty)	
		/ Tables		apache linux ny 100	Test	Unmanaged	false		(empty)	/orgs/138/workloads/868e9a1₄ 4fa0-4c26-b
		Scheduled Jobs		v-6.2	Test	Managed	false	124.123.123.30	INC0010008	/orgs/138/workloads/77496bca 03c7-4b42-8
		Critical Label Groups		SAP WEB01	Test	Unmanaged	false		(empty)	/orgs/138/workloads/826f91b∂ d342-4ae2-8
		Support Contact		SAP WEB02	Test	Unmanaged	false		(empty)	/orgs/138/workloads/dc58d8fa 0b66-4ec3-9

Figure 61. PCE workload table with populated data

3. Click **Sync to PCE** to create the particular workload as an unmanaged workload on PCE with the given label information.

servicenow AII	Favorites History Wo	orkspaces : Illumio F	PCE Workload - AppServerHelpDesk2 😭 🔍 🤤	Application scope: Illumio Update set: System Administr	a @ 4 🌏
∑ illumio 🛞 🖈	Illumio PCE Workload AppServerHelpDesk2	1		🧷 👩 ڠ 🚥 Sync to PC	E Delete 🛧 🤟
FAVORITES	Hostname	AppServerHelpDesk2	Illumio PCE Configuration	JTest	0
No Results	Known to PCE	Unknown	Deleted from PCE		
ALL RESULTS	Duplicate		Conflicts		
 ✓ Illumio Dashboard ✓ Configuration 		If the Hostname of this record matches the Hostname of another record and marked "Duplicate", this record will not be used.		If there is any update in the CMDB value then "Conflicts" in the workload will be enabled.	
PCE Configuration	Href				
PCE Workloads Scheduled Jobs	Interfaces	{"umw0":{"pce_value":"","cmdb_valu	e":""]}		
Critical Label Groups	PCE Public IP Address		Enforcement Mode		
✓ Support	OS ID		ServiceNow CMDB Identifier	AppServerHelpDesk2	0
Support Contact	Incident	INC0010014	0		
	Sync to PCE Delete				

Figure 62. Form view of the unknown workload record

5.2.2.4 UI action from the PCE workload table list view

- 1. Select the Illumio PCE Workloads table.
- 2. Select a workload from the list view and click **Sync selected servers with PCE** to update all the selected workload labels/IPs on the PCE. (Note: Only non-duplicate workloads can be synced to PCE)
- 3. In case of unmanaged workload, we can append up to 32 IP addresses in PCE IP addresses. The same IP address which is present in the PCE IP address list will be ignored. PCE public IP address will always be replaced with CMDB IP address if it has value.

sei	rvicenow 🔤	Favorit	es History Worl	spaces Admin	Illumio PCE	Workloads 🏠	Q Application sco Update set: Sy	ope: Illumio stem Administr	🖶 & @ 🗘 🎒
Ţ	illumio 🛞 🖈	≡ 7	👳 🛛 Illumio PCE Work	loads Hostname • Şea	arch			ed rows 🗸	Sync selected servers with PCE
FAVOR	RITES	All							
No Res	sults	Πα	Hostname	Illumio PCE Configuration	Known to PCE	Conflicts	PCE Public IP Address	Incident	Href
	-50175		Search	Search	Search	Search	Search	Search	Search
	Illumio		AppServerHelpDesk2	JTest	Unknown	true		INC0010014	
	Dashboard		Storage-D1	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/b1dbaca2 d07a-4e24-a
	✓ Configuration		JTESTNode 2	JTest	Unknown	true		(empty)	
	PCE Configuration		SAP LB1	JTest	Unknown	true		(empty)	
	· · Tables		apache linux ny 100	Test	Unmanaged	false		(empty)	/orgs/138/workloads/868e9a1 ^z 4fa0-4c26-b
	Scheduled Jobs		v-6.2	Test	Managed	false	124.123.123.30	INC0010008	/orgs/138/workloads/77496bca 03c7-4b42-8
	Critical Label Groups		SAP WEB01	Test	Unmanaged	false		(empty)	/orgs/138/workloads/826f91b6 d342-4ae2-8
	Support Contact		SAP WEB02	Test	Unmanaged	false		(empty)	/orgs/138/workloads/dc58d8fa 0b66-4ec3-9
			SAP WEB04	Test	Unmanaged	false	1.1.1.1	(empty)	/orgs/138/workloads/2a699db: 1bbc-40c9-a

Figure 63. Manual Sync multiple records

5.3 Sync IP addresses for workloads

1. We can sync up to 32 CMDB IP addresses to PCE IP addresses using **Auto Sync**, **Sync To PCE**, and **Sync Selected Server to PCE** functionality.

<pre>Illumio PCE Workloa Ytest3</pre>	d			PCE Delete $\uparrow \downarrow$
Hostname	Ytest3	Illumio PCE Configuration	Crest MNC	0
Known to PCE	Unknown	Deleted from PCE		
Duplicate	If the Hostname of this record matches the Hostname of another record and marked "Duplicate", this record will not be used.	Conflicts	If there is any update in the CMDB value then "Conflicts" in the workload will be enabled.	
Href				
Interfaces	{"umw0":{"pce_value":"","cmdb_value	e":"123.123.123.123"),"umw1":{"pce_value":"","cmdb_value":	:"10.10.10.10"}}	
PCE Public IP Address		Enforcement Mode		
OSID		ServiceNow CMDB Identifier	Ytest3	$\fbox{0}$
Incident	INC0010026	0		
Sync to PCE Delete				

2. We can view CMDB IP addresses and PCE IP addresses in the workload as follows.

Figure 64. CMDB and PCE IP address listing

3. In case of an **Unmanaged workload**, we can append up to 32 CMDB IP addresses into PCE IP addresses. The CMDB IP addresses which are already present in the PCE will be ignored.

5.4 Check PCE Configuration

1. To check end-to-end connectivity between ServiceNow, **MID server**, and **PCE**, click on **Check PCE Configuration** in PCE configuration.

<pre>Illumio PCE Configur Test 1</pre>	ation	C	0	¢۱¢۱		Save Configuration	Check PCE Configuration	Illumio Data Collection	Delete Configuration $\uparrow \downarrow$
The user provided in the 'config	xml' on the MID Ser	ver mu	ist hav	e the	roles '	x_illu2_illumio.mid_serv	er_user' and 'mid_server'.		
* Name	Test 1								
* PCE URL							Organization ID		
* API Key	•••••						* Secret Key	•••••	
* MID Server	illumio mid			Q	()		Enable Proxy between PCE and MID server		
Scheduler Threshold Limit	Retry Mechanism								
Auto Sync to PCE	\checkmark						Run	Daily	v
							Time(run_time)	Hours 00 00 0	00
Save Configuration Check I	PCE Configuration	Illun	nio Da	ta Co	llectio	Delete Configura	tion		
	Display N	ame (sing	tular)			Display Name (plural)	Kev	Label Type Initial	Ψ.

Figure 65. Check PCE configuration



2. The status of the connectivity can be seen in the Schedule jobs.



5.5 Configure sort order for duplicate workloads (with the same hostname)

- 1. In Illumio PCE field mapping, the **User Configurable Sort Order** checkbox is available for sorting workloads.
- 2. To enable sorting select the User Configurable Sort Order checkbox.
- 3. Select **Ascending** or **Descending** to sort the selected column in ascending and descending order respectively.
 - 4. Select the field name in Order by Column Name to sort workloads according to this field.

servicenow A	Favorites History Ad	min : Illumio Config Class Ma	apping - cmdb_ci_web_server 😭 🔍 🔍	Application scope: Illumio Update set: System Administr 🜐 오	0 0 0
🎖 illumio 🛛 🛞 📌	Illumio Config Class N cmdb_ci_web_server	Apping		🖉 🚱 🕸 🚥 Update	Delete 🔶 🧄
FAVORITES	Configure Source CMDB CI clas	s to be used with the PCE configuration.			i i
No Results	Source Table: ServiceNov	v CMDB table to use as a source for workloads			
ALL RESULTS	 User Configurable Sort C o Order: Select orde 	Order: Whether to use sort order or not to ident r for creating workload.	ify the primary workload.		
\sim Illumio	 Order By Column I Conditions for Deleting V 	Name: Column on which the CMDB records wi Norkloads: Workloads related to the CMDB re	I be sorted to identify the primary workload. cords that fall into this condition will be deleted.		
Dashboard	 Conditions for Excluding Conditions for Creating I 	Workloads: CMDB records that fall into this or ncidents: Create Incident for the workloads th	andition will be excluded. at fall into this condition.		
✓ Configuration					
PCE Configuration	Illumio PCE Configuration	Test			จ
✓ Tables	Source Table	Web Server [cmdb_ci_web_s •	Active		-
PCE Workloads	Liser Configurable Sort Order		* Order by Column Name	Nope	1
Scheduled Jobs	oser comgarable sort order	A	- order by column hume	Hone	
Critical Label Groups	* Order	Ascending			J
∨ Support	Conditions for Deleting Workloads	Add Filter Condition Add "OR" Clause			I
Support Contact		choose field • op	er value		
	Conditions for Excluding Workloads	Add Filter Condition Add "OR" Clause	ļ		
		choose field 🔹 🗸 op	er value		
	Conditions for Creating Incidents	Add Filter Condition Add "OR" Clause			
		choose field • op	er value		

Figure 67. Sorting workload

5.6 Dot walking for easier field mapping

1. While mapping fields in Configuration, we can also get fields of the reference table to easily

map fields of reference tables.

Illumio Class Field Mapping Created 2024-04-13 22:08:49			0	 •• Update	Delete	
	Select the element from the tree	\times				
Configure fields to be mapped between PCE and CMDB for • Type: Type to be mapped. • Illumio Label Dimension: Reference to the Illumio Label • Field: Field to be mapped from the Source table with the • Advanced: An option for Advanced mapping where you. • Script: When Advanced is checked the script will be con • Is Multiple: This field will only be visible when the type is • If checked the value expected will be a single I • If not checked the value expected will be a single I • Order: Order of IP Addresses to be sent to PCE.	Avatar Avatar Created Created by Floors Location City Company Contact Company Contact		checked). pt).			
Type Hostname Source Table Cluster Node [cmdb_ci_cluster_node]	Country Created Created by Duplicate	Ŧ				
Advanced						
* Field Name				•		
Update Delete						

Figure 68.Dot walking for field selection in Class field mapping

Illumio Class Field MaCreated 2024-04-13	apping 22:08:49		Ø	0	٩٩	··· Upda	Delete	1	\downarrow
Configure fields to be mappe • Type: Type to be mapped • Illumio Label Dimension: • Field: Field to be mapped • Advanced: An option for • Script: When Advanced • Is Multiple: This field will • If checked the valu • If not checked the: • Order: Order of IP Addree	d between PCE and CMDB for the given sourd Reference to the Illumio Label Dimension Rec from the Source table with the values from th Advanced mapping where you can provide scr considered for the only be visible when the type is set to IP Addr e expected will be a comma separated list of v value expected will be a single IP Address (Eitt sses to be sent to PCE.	ce Class Mapping and Source Table. cord. e PCE (This is only considered when Advanced is t ipt. mapping. ess. alues or array (Either it can be from field or from so her it can be from field or from script).	nchecked). ript).						
Type Source Table Advanced * Field	Hostname Cluster Node [cmdb_ci_cluster_node] Assigned to Building Location City	Activ	e 🔽			·]		
Update Delete		1							

Figure 69. Selection of other table field in mapping

5.7 Add proxy between ServiceNow ⇔ MID server and MID server ⇔ PCE

- 1. In the Configuration, select the checkbox named **Enable proxy between MID server and PCE** to enable proxy for connection between ServiceNow and MID server / MID server and PCE.
 - 2. Proxy server information should be stored in the MID server config file.

< Illumio PCE Configuration		🖉 🗮 👓 Save Configuration	Check PCE Configuration Illumio Data Collection	Delete Configuration
The user provided in the 'config.xml' on the MID S	Server must have the roles 'x_illu2_illumio.mid_server_user' and 'mi	d_server'		
* PCE URL		Organization ID		
* API Key		★ Secret Key		
* MID Server	illumio123 Q	Enable Proxy between PCE and MID server)
Scheduler Critical Label Groups Threshold	Limit			
Auto Sync to PCE		Run	Daily]
		Time(run_time)	Hours 00 00 00] []
Save Configuration Check PCE Configuration	on Illumio Data Collection Delete Configuration			
Related Links				
Run Point Scan				
		Time(run_time)	Hours 00 00 00	
Save Configuration Check PC	CE Configuration Illumio Data Collection	Delete Configuration		
	Display Name (singular)	Display Name (plural) Key	Label Type Initial	T

Figure 70. Enable proxy server

5.8 Delete unmanaged workload:

1. In the Configuration field mapping, set conditions for workloads that we want to delete.

servicenow AII	Favorites History Admin : Illumio Config Class Mapping - cmdb_ci_web_server 😒 🔍 Application scope: Illumio Update set: System Administr 🌐	2 O D 🌏
∑ illumio 🛞 🖈	Illumio Config Class Mapping	e Delete 🛧 🦊
ALL RESUITS V Illumio	Configure Source CMDB CI class to be used with the PCE configuration. Source Table: ServiceNow CMDB table to use as a source for workloads. User Configurable Sort Order: Whether to use sort order or not to identify the primary workload. Order Sect order for creating workload Order Sect order of the CMDB records will be sorted to identify the primary workload. Order By Column Name: Column on which the CMDB records will be sorted to identify the primary workload. Conditions for Deleting Workloads: Workloads related to the CMDB records that fail into this condition will be deleted. Conditions for Excluding Workloads: CMDB records that all into this condition will be deleted.	Î
✓ Configuration	Conditions for Creating incidents: Create incident for the workloads that fail into this condition.	
 PCE Configuration ✓ Tables 	Illumio PCE Configuration Test	0
PCE Workloads Scheduled Jobs	User Configurable Sort Order	
Critical Label Groups	Conditions for Deleting Workloads 	
Support Contact	Conditions for Excluding Workloads	
	Conditions for Creating Incidents Add Filter Condition Add "OR" Clause choose field oper	
	Update Delete	

Figure 71. Enable condition for deletion

2. In the Configuration, under the **Threshold** tab we can set the limit of workload deletion by selecting the checkbox named **Enable limit on workload deletion** and provide the limit value.(limit value should be in integer or percentage).

servicenow A	Favorites History Workspaces Admin	Illumio PCE Configuration - Test 🔅 Q Application scope: Illumio Update set: System Administr 🔀 🗞 📀 🗘	
🖓 illumio 🛛 🛞 🖈	$ \begin{tabular}{lllllllllllllllllllllllllllllllllll$	📾 🚥 Save Configuration Check PCE Configuration Illumio Data Collection Delete Configuration	$\uparrow \downarrow$
FAVORITES	The user provided in the 'config.xml' on the MID Server must ha	ave the roles 'x_illu2_illumio.mid_server_user' and 'mid_server'.	
No Results	* Name Test		
ALL RESULTS	* PCE URL	Organization ID	- I
V Illumio	* API Key	* Secret Key	- I
Dashboard V Configuration	* MID Server Illumio Mid	Image: Construction of the second	
	Scheduler Threshold Limit Retry Mechanism		
Scheduled Jobs	Enable Limits 🔽	Cancel Job on Limit Exceed	
Critical Label Groups	Enable Limit on New Label Creation	New Label Creation Limit	
Support Contact	Enable Limit on Workload	Workload Modifications Limit	
	Modifications	Unmanaged Workloads Creation Limit	
	Workloads on PCE from CMDB records	* Workload Deletion Limit 100	
	Enable Limit on Workload 🔽 Deletion		
	Enable Limits: Enables limits on number of manual or aut o. Sets limits as a number (e.g., 300) or percentage (e o. Rounds up the number of workloads calculated fr Enable Limit on New Label Creation: Limit on creation o	ito changes per sync. sg. 20%). on percentage. of new labels on the PCE in a sync.	•

Figure 72. Limit of record deletion

- 3. In the auto-sync process, workloads that match the condition for deletion will be marked as **Retired** workloads, and those workloads will be deleted.
- 4. If the Enable limit on workload deletion limit exceeds, then the sync process will be stopped.

5.9 Create Incident

There are three ways to create incident

The required role

x_illu2_illumio.illumio_admin ,x_illu2_illumio.illumio_user and

itil

a. Manual Incident Creation for workload:

Procedure:

An incident can be created manually for a workload using UI Action named "Create Incident" in workload form.

- 1. Log in to a ServiceNow instance.
- 2. To see the Illumio application, search "Illumio" in the search field in the upper-left corner.
- 3. From the navigation panel, select "Illumio" \rightarrow "PCE Workloads".
- 4. Table named "Illumio PCE Workloads" will be opened.
- 5. Open a Workload.

servicenow A	Favorites History	: Illumio PCI	E Workloads 😭	Q Application scope: Illumio Update set: System Administrator [Illumio]	🖶 २ ७ म 🌏
☐ Illumio 🖈	= 🏹 🕾 Illumio PC	CE Workloads Hostname	Search		
FAVORITES			G	Actions on selected rows 🗸	Sync selected servers with PCE
No Results	All				
ALL RESULTS	🗌 Q Hostname	Illumio PCE Configuration	Known to PCE	Conflicts PCE Public IP Address	Href
	Search	Search	Search	Search Search	Search
Dashboard	JTest23	Test 1	Unmanaged	false	/orgs/138/workloads/57bd95d a3ba-47f6-9
 ✓ Configuration PCE Configuration 	Jtest22323	Test 1	Unmanaged	false	/orgs/138/workloads/9fb61aac f272-4bd4-8
✓ Tables	JTest22	Test 1	Unmanaged	false	/orgs/138/workloads/9e294e10 48cf-468c-9
PCE Workloads Scheduled Jobs	JTEST323323	Test 1	Unmanaged	true	/orgs/138/workloads/0717de60 cf70-4af9-b
Critical Label Groups					
✓ Support					
Support Contact					
	4				×
			(1	to 4 of 4 🕨 🕨	٥

Figure 73. PCE Workloads List View

Form view of workload will be opened, an incident can be created of workload if it doesn't have any existing incident.

Note: workload without incident will have empty incident field and UI action of Create Incident will be visible

$\langle \equiv IIIumio PC \\ JTest 23$	E Workload	6	🖉 🤨 😤 🕛 Create Incident Delete
Hostname	JTest23	Illumio PCE Configuration	Test 1
Known to PCE	Unmanaged	Deleted from PCE	
Duplicate	If the Hostname of this record matches the Hostname of another record and marked "Duplicate", this record will not be used.	Conflicts	If there is any update in the CMDB value then "Conflicts" in the workload will be enabled.
Href	-		
Interfaces	0		
PCE Public IP Address		Enforcement Mode	visibility_only
OSID		ServiceNow	JTest23
Incident		CMDB Identifier	

Figure 74. Form view of PCE Workload Record

6. Click on "Create Incident", a new incident will be created and its reference number will be populated on the Incident field.

	E Workload		∅< 2Ø = ∞Delete
Hostname	JTest23	Illumio PCE Configuration	Test 1
Known to PCE	Unmanaged	Deleted from PCE	
Duplicate	If the Hostname of this record matches the Hostname of another record and marked "Duplicate", this record will not be used.	Conflicts	If there is any update in the CMDB value then "Conflicts" in the workload will be enabled.
Href			
Interfaces	0		
PCE Public IP Address		Enforcement Mode	visibility_only
OSID		ServiceNow	JTest23
Incident	INC0010017	CMDB Identifier	

Figure 75. PCE Workload form

< = Incident INC00100	017	0 1	r ≅ … Follow Update	Resolve
Number	INC0010017	Channel	None 🗸]
* Caller	Q	State	New)
Category	Inquiry / Help 🗸	Impact	3 - Low 🗸)
Subcategory	None 🗸	Urgency	3 - Low 🗸)
Service	٩	Priority	5 - Planning	
Service offering	٩	Assignment group	Q]
Configuration item	JTest23 Q	Assigned to	<u>्</u>]
* Short description	Test 1: JTest23			
Description	Hostname: JTest23		^	
	Known to PCE: unmanaged		-	

Figure76. Incident form view

b. Auto Incident Creation for workload:

Procedure:

Incident can be created automatically based on condition of Config Class Mapping form

- 1. Log in to a ServiceNow instance.
- 2. To see the Illumio application, search "Illumio" in the search field in the upper-left corner.
- 3. From the navigation panel, select "Illumio" \rightarrow "PCE Configuration".
- 4. Open any existing PCE Configuration and navigate to any existing Illumio Config Class.

Mapping record from Illumio Config Class Mapping related list.

5. Configure the Condition on Source table on Conditions for Creating Incidents field and save the Config Class Mapping.

Illumio Config Class Mapp cmdb_ci_appl_dot_net	ing	Ø	0	••• Update Delete 🛧 🤳
Configure Source CMDB CI class to Source Table: ServiceNow CM User Configurable Sort Order Order: Select Order for Order By Column Nam Conditions for Deleting Worl Conditions for Creating Incid	be used with the PCE configuration. IDB table to use as a source for workloads. rWhether to use sort order or not to identify the primary workload. er column on which the CNDB records will be sorted to identify the primary workload. doads: Workloads related to the CNDB records that fail into this condition will be deleted. rkloads: CMDB records that fail into this condition. ents: Create Incident for the workloads that fail into this condition.			
Illumio PCE Configuration	Test 1			
Source Table	.NET Application [cmdb_ci_appl_do 🝷			
User Configurable Sort Order				
Conditions for Deleting Workloads	Add Filter Condition Add "OR" Clause			
	Name Contains Delete AND OR X			
Conditions for Excluding	Add Filter Condition Add "OR" Clause			
workidaus	choose field • • oper •- value	_		
Conditions for Creating Incidents	Add Filter Condition Add "OR" Clause			
	Name Contains Server AND OR X			
Update Delete				

Figure 77. Illumio Config Class Mapping form

- 6. Perform the Data Collection by clicking on Data Collection UI action on PCE Configuration.
- 7. As a result, Incidents will be created for the Workloads containing "server" in its name.

c. Auto Incident Creation for Scheduled Job Table:

Procedure:

- 1. For creating Incident for Scheduled Job, Users have to Update System property.
- Login to ServiceNow Portal and type "sys_properties.list" press enter., a table named "System Properties" will be opened.

servicenow All	Favorit	es History Admin : Syst	tem Properties 😭 🔍 Application sco Update set: Sys	be: Illumio tem Administrat	tor (Illumio) 🕀 ର	0 4 🤅	
	≡ 7	😇 System Properties Application \star Şearc	h	* ⊚ ≛	Actions on selected	rows 🗸 Ne	w
FAVORITES	All						
No Results	<u> </u>	Name	Value	Туре	Application	Description	L Î
		Search	Search	Search	Search	Search	
No Results		glide.war	glide-utah-12-21-2022patch7a-09-28- 202		(empty)		i (
		glide.war.assigned	glide-utah-12-21-2022patch7a-09-28- 202		(empty)		î
		upgrade_server_url	https://nodeupgrade.service-now.com/		(empty)		î
		sn_ace.ace-whitelisted-experiences	f80203e4c3020110fc869bc8a840dd17	string	Admin Experience Framework		1
		sn_aes_cat_builder.sn_app_eng_studio.gli	03302dd377023010f082d599cf5a99ba	string	AES Catalog Builder		ĉ
		sn_app_eng_studio.glide.sc.builder.aes_c	211f71ca73202010ae42d31ee2f6a785	string	AES Catalog Builder		i C
		sn_portal_starte_0.template.payload.scri	true	true false	AES Portal UI Template		; (*

Figure 78. System Properties list view

3. Search property named: **"x_illu2_illumio.incident_creation_for_scheduled_job"** and

open it.

≡ 7	System Properties Application *	Search			∿ ⊚ ≛ Actio	ons on selected rov	vs v New		
All > Name	All > Name starts with x_illu2_illumio.incident_creation_for_scheduled_job								
	Name	Value	Туре	Application 🔺	Description	Updated	Updated by		
	x_illu2_illumio.incident_creation_for_s	Search	Search	Search	Search	Search	Search		
	x_illu2_illumio.incident_creation_for_sc	true	true false	Illumio	System property to enable Incident creat	2024-04-11 22:33:27	admin		

Figure 79. Search result in System properties

4. The view of "x_illu2_illumio.incident_creation_for_scheduled_job" will be opened.

System Property x_illu2_illumio.incident_creat	on_for_scheduled_job		0	0 1	* #		Update	Delete	\uparrow	Ŷ
* Suffix	Incident creation for scheduled job Application I	Illumio					0			Â
Name	$x_illu2_illumio.incident_creation_for_schedule$									1
Description	System property to enable Incident creation for the Schedule Job with status: Failed, Completed with Errors and Partial Suc	iccess								1
										1
Choices										1
Type	true false					•				1
Volue P (/)	true						٦			
Value	uue									
Ignore cache	2									
Private										
Read roles										1
	admin, x_illu2_illumio.illumio_admin									
Write roles										
	admin, x_illu2_iilumio.illumio_admin									
Update Delete										

Figure 80. Form view of System Property

- 5. To activate / deactivate Incident creation for Scheduled Job, set the Value field as true and false respectively
- 6. Incidents for Scheduled Jobs will be created only for the job status: Failed, Partial Success and Completed With Errors.
- 7. A reference of the incident will be automatically populated in the form view of a particular Scheduled Job.

Illumio Scl Created 20	heduled Jobs 024-04-11 07:05:37			Ø	0		(Delete	\uparrow	\downarrow
Job Type	Data Collection	Current Op	eration	Completed fetching	PCE da	ata				
Job Started	2024-04-11 07:05:37	Jot	o Status	Failed						
Job Completed	2024-04-11 09:05:44]	ncident	INC0010098				(i)		
Logs	[2024-04-11T14:05:37.160Z] Illumio [2024-04-11T14:05:37.160Z] Fetchir [2024-04-11T16:05:44.940Z] Time L [2024-04-12T02:21:08.720Z] Added	data collection started ng PCE data imit Exceeded PCE data to mapping table								
Illumio PCE Configuration										
Delete										



<pre>Incident INC0010098</pre>		0 +	😤 … Follow Update Res	Delete \uparrow \downarrow	
Number	INC0010098	Channel	None 🗸		
* Caller	Q	① State	New 🗸]	
Category	Inquiry / Help 🗸	Impact	3-Low 🗸]	
Subcategory	None 🗸	Urgency	3-Low 🗸]	
Service	Q	Priority	5 - Planning		
Service offering	٩	Assignment group	<u>्</u>]	
Configuration item	Q	Assigned to	<u>्</u>)	
* Short description	ription data collection failed for pce config				
Description	Job Type: data collection Current Operation: Completed fetching PC Job Status: failed	E data	۵ ۲		
		Delated Search Deculte			

Figure 82. Incident Form for Scheduled Job

Incident INC0010127	,		00	1• ≊	s ••• (Discuss Follow	Update	olve Delete	$\uparrow \downarrow$
Number	INC0010127			C	Channel	None	~		
★ Caller	Q				State	New	~		
Category	Inquiry/Help 🗸				Impact	3 - Low	~		
Subcategory	None 🗸			U	Jrgency	3 - Low	~		
Service	Q			l	Priority	5 - Planning			
Service offering	٩		A	ssignmen	nt group		Q		
Configuration item	auto dum 3 🔍	a ()		Assi	gned to		Q		
* Short description	POC config:							Q	
Description	Hostname: Href: Known to PCE: unmanaged								
Related Search Results >									

Figure 83. Incident Form for Workloads

5.10 Modularization and ServiceNow Spoke

Using ServiceNow Spoke actions, users can receive a response from a different API call from ServiceNow to PCE.

The required role

These two users are permitted to work with the ServiceNow Spoke.

x_illu2_illumio.illumio_admin ,x_illu2_illumio.illumio_user and

flow_operator

Procedure

- 1. Log into a ServiceNow instance.
- 2. To see the Flow Designer, search "Flow Designer" in the search field in the upper-left corner.
- 3. Go to the "Actions" tab and search the action Name that you want to perform.

Servicenow Flow Designer	0
^	
Flows Subflows Actions Executions Connections Help	New -
Search Updated v Search	*
All Q Name Internal name Application Status Active Updates	d by Updated 🔻
Search Sear	2024-04-05 05:46:49
Update_Label update_label_dimensions Illumic Published true admin	2024-04-04 22:39:11
Fetch Label Groups fetch _label_groups Illumio Published true admin	2024-04-04 22:33:43
Delete a Collection of Workloads Delete a Collection_of_workloads Illumic Published true admin	2024-04-04 22:32:06
Create Label create_label_dimensions Illumio Published true admin	2024-04-04 22:30:46
<u>Create Label</u> create_Label <u>Illumic</u> Published true admin	2024-04-04 22:29:43
Check PCE check_pce_configuration Illumic Published true admin	2024-04-04 22:25:12
Update_Label update_label Illumio Published true admin	2024-04-04 20:02:39
Get Async Job Status get_async_job_status illumio Published true admin	2024-04-04 20:01:22
Get <u>Async.Job</u> get_async_job_results Illumio Published true admin Results	2024-04-04 20:00:37

Figure 84. Flow Action list view

4. Click on the **Test** button to perform action.

Servicenow Flow Designer						0
Action Fetch Label Dimensi × +						
🕞 Fetch Label Dimer	nsions				Test Publish	Save
Action Outline	< Action Input			• Create	Input Data Collapse All	>
→] Inputs	Label	Name	Туре	Mandatory	▼ Input Variables	
1 Script step Script	** PCE Configuration	pce_configuration	Reference.Illumio	-	PCE Configuration	Record
2 Mid Script step	•				▼ Script step	
2 C	•				Step Status	JSON Object
[→ Error Evaluation					✓ Mid Script step	
L→ Outputs					Status	String
					Headers	JSON
	•				Response	JSON ,

Figure 85. Fetch Label Dimension Action

5. Provide the required parameters for each action as mentioned below in <u>Required Parameter</u> with Example and click on the **Run Test.**

servicenow Flow Dec			Ø
Action Fetch Label Dimensi.	Test Action ×		
🕞 🛛 Fetch Label	Run your Action to make sure it has no errors before you activate it. When the test finishes running, check the execution details to see each step's configuration, runtime values, and the log messages for any errors that occurred.	blish Save	$) \odot$
Action Outline	* PCE Configuration Test 1	llapse All	>
→] Inputs		s	
1 Script step Script	kun test in background ()	uration	Record
2 Mid Script step Script	Cancel Run Test	D	JSON
[→ Error Evaluation			Object
[→ Outputs	▼ Mid Script :	step	
			String
			JSON
	Respons	e	JSON 🖕

Figure 86. Test Action

6. To see the execution of the action, click on the "Your test has finished running. View the Action execution details".

servicenow Flow D			0
Action Fetch Label Dimensi.	Test Action ×		
🕞 Fetch Label	Run your Action to make sure it has no errors before you activate it. When the test finishes running, check the execution details to see each step's configuration, runtime values, and the log messages for any errors that occurred.		
Action Outline	* PCE Configuration Test 1 X • 0	se All	>
] Inputs	Your test has finished running. View the Action execution details.		
1 Script step Script	urati	ion Re	ecord
2 Mid Script step Script	Run test in background ()		JSON
⊖ Error Evaluation	Cancel Run Test	0	bject
[→ Outputs			
	(Response		JSON 🖕

Figure 87. Action Test Execution Result Link

7. Upon successful completion of the action, you can view the status code, headers and response of the API call.

service	Plow Designe	er		Ø
Act Fet	ion tch Label Dimensi ×	Operation Execution Details × +		
EXECUTION	DETAILS Fetch Labe	el Dimensions	C Test Run - Completed • Ope	n Action Open Context Record
			State	Start time 🕚
	Calling Source	VALUE		
	Calling Source	How Designer Test		
ACTION				
Riturnie	Fetch Label Dimensio	ons	Open Action 🗗 Completed	2024-04-17 20:00:36 2297ms
	Configuration Details			
	VARIABLE NAME	RUNTIME VALUE	CONFIGURATION	TYPE
	PCE Configuration	Test 1 💿		Reference
	Output Data			
	VARIABLE NAME	RUNTIME VALUE	CONFIGURATION	TYPE
	Action Status	{"Action Status":{"code":0,"message":"Success"}}		Object
	Don't Treat as Error	true	true	True/False
	Headers	{"Content-Type":"application/json","Transfer-Encoding":"o unked","Vary":"Accept-Encoding","Status":"	h headers	JSON
	Response	[{"href":"/orgs/138/label_dimensions/4f06096b-2f0d-4cdt a2b-ed07cce9e6a5","key":"\$\$\$","display_name	response	JSON
	Status	200	status	String

Figure 88. Action Test Execution Result

Required Parameters with Example:

1. Check PCE Configuration

API call to refer for Check PCE Configuration

API Name	Endpoint HTTP Metho	
Product Version	/api/v2/product_version	GET

Parameters

Field	Required	Description
PCE Configuration	yes	Select anyone PCE Configuration from the drop-down.

2. Create Async Job

API call to refer for Create Async Job

API Name	Endpoint	HTTP Method
----------	----------	-------------

Create an Async Job Request	/api/v2/orgs/{org_id}/{workload	GET
	s/labels}	

Parameters

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from drop-down.
Туре	yes	-	Select anyone type from drop-down.
Query Parameters	no	string	Use query parameters for a filtered job request. For Example : key=role (return only the 'role' labels).

3. Get Async Job Status

API call to refer for Get Async Job Status.

API Name	Endpoint	HTTP Method
Get Async Job Status	/api/v2/[href]	GET

Parameters

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from drop-down.
Async Job Location	yes	string	href of Job location. For example : "/orgs/138/jobs/1b1045ae-955e- 42f7-a6e2-c8aacfde7efa"

4. Get Async Job Result

API call to refer for Get Async Job Result.

API Name	Endpoint	HTTP Method
Get Async Job Result	/api/v2/[href]	GET

Parameters

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from drop-down.
Async Job Result Location	yes	string	href of Job Result. for example : "/orgs/138/datafiles/8faec520-da1 c-013c-f357-02e08809c359"

5. Fetch Label Dimensions

API call to refer for Fetch label Dimensions.

API Name	Endpoint	HTTP Method
Fetch Label Dimensions	/api/v2/orgs/{org_id}/ label_dimensions	GET

Parameters

Field	Required	Description
PCE Configuration	yes	Select anyone PCE Configuration from drop-down.

6. Create Label Dimensions

API call to refer for Create Label Dimension

API Name	Endpoint	HTTP Method
Create Label Dimension	/api/v2/orgs/{org_id}/ label_dimensions	POST

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from the drop-down.
Request Body	yes	Object	Example request body: { "key":"sha", "display_name": "SHA 256", "display_info": {"initial": "ALg", "display_name_plural": "SHA 256s" }}

7. Update Label Dimensions

API call to refer for Update Label Dimension

API Name	Endpoint	HTTP Method
Update Label Dimension	/api/v2/orgs/{org_id}/ label_dimensions	PUT

Parameters

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from the drop-down.
Label Dimension href	yes	string	href of label dimension for example : "/orgs/138/label_dimensions/afc16fa2-7d 03-4af3-b62a-e12b921166a2"
Request Body	yes	Object	Example request body: { "display_name":"Dummy 2", "display_info": { "initial": "ab", "display_name_plural": "plural dummy"}}

8. Fetch Label Groups

API call to refer for Fetch Label Groups

API Name	Endpoint	HTTP Method
Fetch Label Groups	/api/v2/orgs/{org_id}/ sec_policy/active/label_groups	GET

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from the drop-down.
Query Parameters	no	string	Use query parameters for filtered label groups. For Example : "key=app" (return only the 'app' labels).

9. Create Label

API call to refer for Create Label

API Name	Endpoint	HTTP Method
Create Label	/api/v2/orgs/{org_id}/ labels/	POST

Parameters

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from the drop-down.
Request Body	yes	Array of Object (length=1)	Example request body: [{ "key": "role", "value": "New role"}]

10. Update Label

API call to refer for Update Label

API Name	Endpoint	HTTP Method
Update Label	/api/v2/ [href]	PUT

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from the drop-down.
Label href	yes	string	href of label
Request Body	yes	Array of Object	Example request body:

(length=1)	[{"value": "update label"}]
------------	-----------------------------

11. Create Collection Workload

API call to refer for Create Collection Workload

API Name	Endpoint	HTTP Method
Create Collection Workload	/api/v2/orgs/{org_id} /workloads/bulk_create	PUT

Parameters

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from the drop-down.
Request Body	yes	Array of Objects (Max length=1000)	Example request body: [{"name":"dummy name1","hostname":"dummy_hostname1 "},{"name":"dummy name2","hostname":"dummy_hostname2 "}]

12. Update Collection Workload

API call to refer for Update Collection Workload

API Name	Endpoint	HTTP Method
Update Collection Workload	/api/v2/orgs/{org_id} /workloads/bulk_update	PUT

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from the drop-down.
Request Body	yes	Array of Objects	Example request body: [{"href":"/orgs/138/workloads/9d416475-
(max length=1000)	4d53-470b-95be-b900756a015c", "hostname": "dummy_hostname" }, {"href":"/orgs/138/workloads/76d46475-4 d53-470b-95be-b900756a015c", "hostname": "dummy_hostname2"}]		
----------------------	--		
	nostname . dummy_nostnamez }]		
	(max length=1000)		

13. Delete Collection Workload

API call to refer for Delete Collection Workload

API Name	Endpoint	HTTP Method
Delete Collection Workload	/api/v2/orgs/{org_id} /workloads/bulk_delete	PUT

Parameters

Field	Required	Туре	Description
PCE Configuration	yes	-	Select anyone PCE Configuration from the drop-down.
Request Body	yes	Array of Objects (length=1000)	Example request body: [{"href":"/orgs/138/workloads/32d21c7d-f 237-4871-a604-bacefed3bcf5"},{"href":"/o rgs/138/workloads/67d45c7d-f237-4871-a 564-abcdfed3bcf5"}]

5.11 Cancellation of Scheduled Job

The required role

x_illu2_illumio.illumio_admin or

x_illu2_illumio.illumio_user

Procedure

- 1. Login to ServiceNow instance.
- 2. To see the Illumio application, search "Illumio" in the search field in the upper-left corner.
- 3. From the navigation panel, select "Illumio" \rightarrow "Scheduled Jobs"
- 4. Open any scheduled job having job status "Running".
- 5. Click on "Cancel Scheduled Job" to stop execution of the current job.

Note: Canceling the Scheduled Job might not cancel it immediately in case of bulk synchronization, it will first perform the process of one chunk and then cancel the rest of the jobs.

servicenow 🔤	Favorites History :	umio Scheduled Jobs - Created 2024-04-15 22:37:04	Q Application Update set:	scope: Illumio System Administrator (Illumio) 🛛 🖨	• @ + 🌏
∑ illumio ★	Illumio Scheduled Jobs Created 2024-04-15 22:37:04		Ø	😧 😤 🚥 Cancel Scheduled Job	Delete 🗠 🤟
FAVORITES	Job Type Data Co	llection	Current Operation	Fetching PCE data	
	Job Started 2024-04	4-15 22:37:04	Job Status	Running	
ALL RESULTS	Job Completed		Incident		
✓ Illumio Dashboard	SLogs [2024-0 [2024-0 [2024-0 [2024-0	4-16T05:37:04.595Z] Illumio data collection started 4-16T05:37:04.595Z] Fetching PCE data 4-16T05:37:32:458Z]Total labels fetched : 990			
PCE Configuration	Illumio PCE Configuration Test				0
	Cancel Scheduled Job Delete				
Scheduled Jobs Critical Label Groups					٥
v Support					
Support Contact					

Figure 89. Cancel Scheduled Job UI action

servicenow AII	Favorites History :	Illumio Scheduled Jobs - C	Created 2024-04-15 22:37:04 🕁	Application : Update set:	scope: Illumio System Administrator (Illumio)		2 O (ç 🚯
	Illumio Scheduled JobCreated 2024-04-15 2	s 2:37:04			0	<u>.</u>	·· Delete) +
FAVORITES	Job Type	Data Collection		Current Operation	Fetching PCE data			
No Results	Job Started	2024-04-15 22:37:04		Job Status	Cancelled			
ALL RESULTS	Job Completed	2024-04-15 22:37:44		Incident				
 ✓ Illumio Dashboard ✓ Configuration 	Logs	[2024-04-16T05:37:04.595Z] Illum [2024-04-16T05:37:04.595Z] Fetch [2024-04-16T05:37:32.458Z]Total [2024-04-16T05:37:44.561Z] The	io data collection started ing PCE data labels fetched : 990 Job is Cancelled					
 PCE Configuration ✓ Tables 	Illumio PCE Configuration	Test						
PCE Workloads Scheduled Jobs Critical Label Groups Support Support Contact	Delete							Ō

Figure 90. Form View Canceled Scheduled Job

6 Upgrade

The ServiceNow application gets upgraded on occasion, and this change affects the Illumio application as well.

Upgrading is similar to installation, and the Illumio application should function normally after the ServiceNow upgrade.

Keep the following steps in consideration while upgrading:

- Verify the upgrade steps so that they do not impact working integration with the Illumio application.
- Connect the test instance of ServiceNow to the test instance of PCE.
- Run the Discovery once before performing any actions, as there might be changes in field choice values and some new fields may be added.
- Update the application on the ServiceNow instance and perform manual sync of labels to one or two workloads. If these tests are successful, you can put the application into production.
- If you upgrade a version of ServiceNow supported by the Illumio application, such as Vancouver, Washington DC, and Xanadu the application continues to function with no additional changes.
- The PCE versions supported by the Illumio application are also published. Upgrading the PCE to a version supported by the application is transparent to you as a customer.
- If you upgrade ServiceNow to a version that the Illumio application does not support, there is no guarantee that the application will function properly.
 As a practice, the Illumio application is updated soon after every ServiceNow release, and it is recommended to upgrade your ServiceNow version to the one for which the Illumio application is tested and certified.
- Before upgrading the application, please make sure there is no scheduled job in the running state in order to avoid unexpected results.

7 Uninstallation

To uninstall the Illumio Application from the ServiceNow UI:

1. In the navigation menu, go to System Applications -> My Company Applications -> Installed.



Figure 91. Navigation menu

2. On the Application Manager screen, go to the **Installed** tab.

< Application Manager C	Filter by Apps	Create new
All Apps In Development Not Installed Installed		Find in Store
Installed		
Illumio • Version 2.0.1 • Installed on Apr 14, 2024 • Uploaded by admin via ven02375 on Apr 14, 2024	2.0.1 [Installed]	
by Illumio Inc		

Figure 92. Uninstall an application

3. Open the application, scroll down to the related links and click on **Uninstall**.

Store Application User access		- 1 r	0	ββ	
() The User access application ca InsightCloudSec CMDB Integration	annot be changed because Rapid7 InsightCloudSec CMDB Integration is selected in your application picker. Switch to User access. [SN U on click here	Jtils] Swit	ch to l	Rapid7	
Subscription Management. If th	is application is licensable, set the subscription requirement and model.				
Licensable					
Subscription requirement	Monitor				
Subscription Model	Not applicable				
License Definition					
Related Links Manage Developers Move restricted to tracking Move tracking to restricted Switch to this Application Scan Application Repair Application Uninstall					

Figure 93.Form view of Store Application

4. Click on **OK** in the confirmation popup.

Store Application User access			* 0 =
The User access application cannot be change	Uninstall User access	×	to User access. [SN Utils] Switch to Rapid7
InsightCloudSec CMDB Integration click here	Are you sure you want to uninstall this application: User access?		
Design and Runtime Changing these options m	 Table(s) in this application: 1 (<u>Show tables</u>) Record(s) in this application: 0 		
	 Fields defined on tables outside of this application: 50 Retain tables and data 		
lavaScript Mode ES5 Standard			
		Cancel OK	
Subscription Management. If this application is	licensable, set the subscription requirement and model.		
Licensable			

Figure 94. Pop-up of Uninstall User access

8 Support & Troubleshooting

8.1 Support

• Contact details for Illumio Support: https://www.illumio.com/support



Figure 95. Support Contact

8.2 Troubleshooting

8.2.1 Check ServiceNow logs

To print error messages, use the following methods: gr.warn() and gs.error().

To print information messages use gs.info(). Go to Application logs from the navigation menu to analyze all the logs related to the application.

Note: Keep in mind that the critical error messages are listed as "Error", and debug statements are listed as "Information".

8.2.2 Check MID Server Logs

The error logs are populated in the file Agent0.log on the MIDServer under

/servicenow/<mid server name>/agent_folder/logs/agent0.log.0

Logs are also available from the ServiceNow instance. To view the logs:

- 1. Go to MID Server -> Server -> [Specific Record] MID Server.
- 2. Click Grab MID Logs under the Related Links.
- 3. Click on the Agent Files under the Related Links.
- 4. Open a record with name agent.log0.0
- 5. View the attachment **payload.txt**.

8.2.3 Not able to execute Illumio PCE discovery

If data is not populated or the PCE discovery is failing:

- 1. Check whether the MID Server is up-and-running.
- 2. Check if the proper roles are assigned to the configured users.
- 3. Check the status of the PCE discovery.
 - a) Navigate to "Scheduled Jobs" and verify the discovery status.
 - b) If the discovery status failed or is in error state, check the MID Server logs for that time.
- 4. Check if the integration is configured with the proper credentials;
 - a) Navigate to Illumio" > "PCE Configurations.
 - b) Check the API Key and Secret.

8.2.4 Application modules are not visible

1. If a user is unable to find the application-related modules from the navigation bar.

Check the roles available to the ServiceNow user:

- The Illumio Admin and Illumio Mid Server User has access to all modules.
- The Illumio User does not have access to configuration modules.
- 2. How to check the user role.
- The ServiceNow platform administrator can check the user role by navigating to **System** \rightarrow **Users**. Select the user from the list and check the granted roles from the Roles tab.

8.2.5 Workloads skipped while updating on PCE

While performing auto-sync if the workloads are not updated on PCE and all are marked as skipped, there is a possibility that the threshold limit set for that particular PCE Configuration has exceeded for any one of the parameters:

- 1. Label Creation.
- 2. Workload Modification Limit.
- 3. Workload Deletion Limit.
- 4. Unmanaged Workloads update on PCE from CMDB records.

Role Required : x_illu2_illumio.mid_server_user or x_illu2_illumio.illumio_admin

Procedure :

- Navigate to the PCE Configuration -> Select any one of the Configuration.
- Click on the Threshold Limit section and set the specific limit by selecting the parameter in the left side and specify the corresponding value in the right hand side field for specifying the limit.

Scheduler Threshold Limi	t Retry Mechanism			
Enable Limits		Cancel Job on Limit Exceed		
Enable Limit on Vew Label		New Label Creation Limit	1	
Enable Limit on Vorkload		Workload Modifications Limit	2	
Modifications Create 🗹		Unmanaged Workloads	2	
Unmanaged Workloads on PCE from CMDB		Creation Limit Workload	2	
records Enable Limit on 🧹		Deletion Limit		
Workload Deletion				

Figure 96. PCE Configuration form for Threshold Limit tab

The second reason can be the number of workloads to be sent for sync has exceeded the maximum limit defined in API schema. Change the batch size property in system property to create smaller batches of workloads while creating payload for updating workloads on PCE.

Role Required: System Administrator

Procedure:

- 1. Navigate to System Properties -> "bulk_operation_batch_size"
- 2. Change the batch limit to required number

System Property x_illu2_illumio.bulk_operation_	batch_size sys_properties				1	~ ~	tt	Update ?	Delete ?
★ Suffix suffix	bulk_operation_batch_size		Application sys_scope	Illumio				()	*
Name name	x_illu2_illumio.bulk_operation_batch_s								- 1
Description description	The batch size to perform bulk operation	on PCE - Default 1000							- 1
									- 1
Choices choices									- 1
Typeltype	integer integer						•		- 1
Value value	1000								- 1
									- 1
Ignore cache ignore_cache									
Private is_private									
Read roles read_roles	1								
Write roles write_roles	V								

Figure 97. System Property form view

8.2.6 Data collection failed

The data collection might fail when there is a large amount of data in the CMDB table to map with the PCE workloads data, and the MID Server logs contain transaction canceled message as shown below:

Proot@crest/home/Illumio_79560/agent/logs —	o ×
09/30/19 19:04:51 (768) Worker-Standard:DavascriptFrobe-0170Afc4db300109adddblca661963 *** Script: >>> EBBUG: IllumioLogs: HTTP GRF call completed. Status: 200 09/30/19 19:04:51 (770) Worker-Standard:DavascriptFrobe-0170Afc4db500109adddblca661963 *** Script: >>> EBBUG: IllumioLogs: IllumioManapeAsyncJobs - Getting async job results 09/30/19 19:04:51 (770) Worker-Standard:DavascriptFrobe-0170Afc4db5400109adddblca661963 *** Script: >>> EBBUG: IllumioLogs: IllumioManapeAsyncJobs - Getting async job results 09/30/19 19:04:51 (770) Worker-Standard:DavascriptFrobe-0170Afc4db5400109adddblca661963 *** Script: >>> EBBUG: IllumioLogs: AFICALL: G8Thttps://2x2devtest55.ilbs.io:8443/api/v2/o tafiles/filaada-C540-0137-032fc246cdd	^ orgs/1/da
09/J0/19 19:04:56 (371) LogistatusKnitc.00 stats threads: 60, memory max: 910.0bb allocated: 90/0bb, used: 40.0bb, standard.geuedi 0 probes, standard.processing: 0 probes, 00/J0/19 19:04:50 (364) Worker-Standard.mover.pht?bod-d170afc40500108addblica64050 *** Script: >> DEBDC: llimiologs: HTPE GE: all completed. Status: 200 09/J0/19 19:04:50 (364) Worker-Standard.mover.pht?bod-d170afc40500108addblica64050 *** Script: >> DEBDC: llimiologs: HTPE GE: all completed.status: 200 09/J0/19 19:04:51 (364) Worker-Standard.mover.pht?bod-d170afc40500108addblica64050 *** Script: >> DEBDC: llimiologs: HTPE GE: all completed.status: 200 09/J0/19 19:05:36 (112) Worker-Standard.mover.pht?bod-d170afc40500108addblica6405001 *** Script: >>> NTO: llimiologs: H1Dms/ManagaAsynchos - Posted all records to 300W 09/J0/19 19:05:36 (121) J0/StatusKnitc.f0 (60, meory max: 910.0bb, allocated: 47.0bb, used: 34.0bb, standard.queued: 0 probes, standard.processing: 0 probes, standard.probes, standard.processing:	lited.que dited.que
ued: 0 nrobes. excedited nrocession: 0 nrobes. intrantive.nemed: 0 nrobes. intrandive.nrocession: 0 nrobes 07/07/19 19:06:17 (OU) Norker-Standard:AssocriptFrobe-01704fcdB8001084dblica64569 *** Script: >>> EBBOG: IlumioLogs: SNW HTP FUT call completed. Status: 500 07/07/19 19:06:37 (OU) Norker-Standard:AssocriptFrobe-01704fcdB8001084ddblica64569 *** Script: >>> EBBOG: IlumioLogs: SNW HTP FUT call completed. Status: 500 47/10/19 19:06:37 (OU) Norker-Standard:AssocriptFrobe-01704fcdB8001084ddblica64569 *** Script: >>> EBBOG: IlumioLogs: SNW HTP FUT call completed. Status: 500 47/10/19 19:06:37 (OU) Norker-Standard:AssocriptFrobe-01704fcdB8001084ddblica64560 *** Script: >>>> EBBOG: IlumioLogs: SNW HTP FUT call completed. Status: 500 47/1102 (Ilumio Ilumio Jreg symp. Isba/fcdB6fcdB8001084dblica64160 *** Script: >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	now/table
led: maximum seculion time socied theki logi for eror take or enble glid, residency property to verify REF request processing", "message", "com,glide, sys. TransactionCancelled Di Transaction concelled: maximum seculion Line socieded (),"status", "failure")	iExceptio
09/30/19 19:00:37 (002) #orrer=standard:aavascripterode-di/Uafc4dd5400109adddlb1ca961963 SLOW execution (U007/dms) of script: prode:iiimioManageAsymcuods 09/30/19 19:06:37 (009) Worker-Standard:JavascriptErobe-di70afc4db5400109adddlb1ca961963 Engueuing: /home/illumio_75560/agent/work/monitors/ECCSender/output_2/ecc_queue.dl70afc4db54 db1bca961943 ml	00109add
09/30/19/19/19/19/19/19/19/19/19/19/19/19/19/	
00/30/19 19:06:56 (297) LogStatusMonitor.60 stats threads: 60, memory max: 910.0mb, allocated: 474.0mb, used: 31.0mb, standard.queued: 0 probes, standard.processing: 0 probes, exped ued: 0 probes, expedited.processing: 0 probes, interactive.queued: 0 probes, interactive.processing: 0 probes of 04/30/19 19:07:56 (341) LogStatusMonitor.60 stats threads: 60, memory max: 910.0mb, allocated: 474.0mb, used: 29.0mb, standard.queued: 0 probes, standard.processing: 0 probes, exped	lited.que lited.que
ued: 0 probes, espedited processing: 0 probes, interactive queued: 0 probes, interactive processing: 0 probes of probes, interactive queued: 0 probes, interactive queue, 10 probes, in	lited.que 5400109a
dominicatesistes.em gov/s/1/3 19:55:02 [151] Worker-Interactive:ReartbeatProbe-72616748db5400109addd1b1ca961945 Worker completed: ReartbeatProbe time: 0:00:00.001 0%/s/s/13 19:55:02 [481] DCCSender.1 Sending ecc.gneue.72616744db5400109addd1b1ca961945 Morker completed: ReartbeatProbe time: 0:00:00.001 0%/s/s/13 19:55:02 [481] DCCSender.1 Sending ecc.gneue.72616744db5400109addd1b1ca961945 Morker completed: ReartbeatProbe time: 0:00:00.001 0%/s/s/13 19:55:02 [481] DCCSender.1 Sending ecc.gneue.72616748db5400109addd1b1ca961945 Morker completed: ReartbeatProbe time: 0:00:00.001 0%/s/s/13 19:55:02 [481] Act:00prade.300 Checking to see if NID server operational State=UP 0%/s/s/13 19:55:00 [544] Act:00prade.300 Checking to see if NID server needs to upgrade. 0%/s/s/13 19:55:00 [544] Act:00prade.300 Checking to see if NID server needs to upgrade. 0%/s/s/14 19:55:00 [544] Act:00prade.300 Checking to see if NID server needs to upgrade. 0%/s/s/15 19:55:00 [544] Act:00prade.300 Checking to see if NID server needs to upgrade. 0%/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s	
(37) 51 51 51 51 51 51 51 51 51 51 51 51 51	h8-hotfi
00/30/19 19:05/07 (158) AntoOpgrade.3000 Assigned: [mid-upgrade.london-06-27-2018_patch8=hotfix2-05-21-2019_05-22-2019_1149.universal.universal.zip, mid-core.london-06-27-2018_p 103/30/19 19:05:07 (158) AntoOpgrade.3000 Missing: [] 103/30/19 19:05:07 (158) AntoOpgrade.3000 DownLoaded: []	atch8-ho dited.que v
🖽 🔎 Type here to search O 🖂 😧 🧰 😭 😰 💆 🖉 🚱 📲 💿 📲	09 -2019

Figure 98. Data collection failed

In this case, you need to change ServiceNow's "Transaction Quota Rule", the "REST Table API request timeout" and "REST and JSON Catch All".

Role Required: System Administrator

Procedure:

1. Navigate to **System Definition -> Transaction Quota Rules**.

servicenow All	Favorit	es History V	Vorkspaces A	Admin Transaction Quota	Rules 😭 🔍 Se	arch 💌 🕀) ବ ଡ ଦ 🍓
☐ Transac 🖈	≡ 7	👳 Transaction C	Quota Rules Exect	ition Order 🔹 Search		Actions of the second secon	on selected rows New
FAVORITES	All						
No Results	<u> </u>	Name	Active	Condition	Description	Maximum Duration (seconds)	Execution Order
		Search	Search	Search	Search	Search	Search
✓ System Definition		Fix Script Processor	true	type=xmlhttp^urlLIKEsysparm_processor=co	Allows the fix script processor to run f	14,400	1
Transaction Quota Rules System Diagnostics		REST Batch API request timeout multipart	true	urlMATCH_RGX*/api/now(/v[0-9]+)?/batch		300	90
Active Transac tions (All Nodes)		Presence	true	urlSTARTSWITH/api/now/ui/presence^EQ	When system is busy kill off the presenc	10	100
Slow Transactions		Scan timeout	true	type=instance_scan^EQ		10,800	100
✓ Transaction Call Chain Transaction Call Chain Regis		REST Notification API request timeout	true	type=rest^urlMATCH_RGX*/api/now(/v[0·9]	This quota rule applies to all incoming	60	100
Transaction Call Chains		UI REST Transactions	false	type=rest^foreground=true^urIMATCH_RGX*	This is a complement to the UI Transacti	298	100
 ✓ System Logs Transactions 		Scripts Background	true	urlLIKEquota_managed_transaction=on^EQ		14,400	100
Transactions (All user)		REST Batch API request timeout	true	type=batch_rest^urIMATCH_RGX*/api/now(/	This quota rule applies to all incoming	30	100
Transactions (Background)		REST Import Set		the sector MATCH DOM/sector (6.0.0)	This quota rule applies	(0	100

2. Click "REST Table API request timeout" and "REST and JSON Catch All".

Figure 99. **REST Table API request**

3. Change the Maximum Duration (seconds) to 120 or higher, depending on the transaction duration.

servicenow All	Favorites History :	Transaction Quot	a Rule - REST Batch API request timeout 😭 🔍	Application scope: Global 🕀 🗞 ⑦ 다 🤀
7 transaction 🛞 🖈	Transaction Quota Rule REST Batch API request	e it timeout		Ø 章 … Update Delete ↑ ↓
FAVORITES	Name	REST Batch API request timeout	Application	Global
No Results	Active 🗸	Z	Execution Order	100
ALL RESULTS	Maximum Duration (seconds)	120	Maximum Events	
✓ System Definition	Maximum Business Rules		Maximum Jobs	
Transaction Quota Rules ✓ System Diagnostics	Maximum Database Time (total)		Maximum SQL Queries	
Active Transaction s (All Nodes)	Maximum SQL Statement Time			
Slow Transactions	Maximum Outbound Requests		Maximum Outbound Request Duration (seconds)	
✓ Transaction Call Chain	* Condition	Add Filter Condition Add "OR"	Clause	
Transaction Call Chain Regi	AI	Il of these conditions must be met		
Transaction Call Chains	Т	Туре 🔻	is V Batch REST	
✓ System Logs				
Transactions	l	URL •	matches regex	ANDOR
Transactions (All user)	l	URL -	does not contain v sysparm payload type=n	AND OR X

Figure 100. Update Maximum Duration record

4. Click Update.

When the user had not added the cross scope of the config class then there will be error in mapping data to CMDB Table and the error will be as follows :

Job Type	Data Collection	Current Operation	Current Operation Mapping Discovery				
Job Started	2024-04-12 03:24:02	Job Status Failed					
Completed	2024-04-12 03:28:38	Incident	Incident INC0010002				
Logs	[2024-04-12T10:24:02.593Z] Illumio data collection started [2024-04-12T10:24:02.593Z] Fetching PCE data [2024-04-12T10:24:37.456Z]Total labels fetched : 817 [2024-04-12T10:27:31.136Z]Total workloads fetched : 12391 [2024-04-12T10:28:38.268Z] Fetching CMDB servers [2024-04-12T10:28:38.268Z] Fetching CMDB servers [2024-04-12T10:28:38.319Z] Mapping CMDB servers to PCE [2024-04-12T10:28:38.590Z] Exception occured while mapping data com.glide.script.fencing.access.ScopeAccessNotGrantedException: read access to cmdb_ci_lb_a10 not granted						
Illumio PCE	Illumio PCE Configuration						
Jungaration							

Figure 101. Schedule Job form view

To resolve the error, follow the below procedure

Role Required: System Administrator

Procedure :

1. Select "Illumio" as application scope



Figure 102. Homepage

2. Navigate to "System Applications > Application Cross-Scope Access" and create the new scope by clicking on the "New" button in the top right corner.

Servicenow All Favorites History Workspaces	s Admin Cross sco	ope privileges ☆	Search 💌	📵 Q Ø 🖉 🌒
≡ ▼ ion Cross-Scope Access ⊗ β Search			Actions	on selected rows 🗸 New
All				
No Results	Target Scope	Target Name	Operation	Status
	Global	Glide API: TranslationLoader	Execute API	Allowed
ALL RESULTS	Global	Glide API: TranslationLoader	Execute API	Allowed
✓ System Applications	Global	Glide API: TranslationLoader	Execute API	Allowed
Application Cross-Scope Access	Global	Glide API: TranslationLoader	Execute API	Allowed
Componential and the contract of the contract of the	Global	Glide API: TranslationLoader	Execute API	Allowed
AES Flow Templates	Global	sys_db_object	Read	Allowed
Performance Analytics - Enhanced UI	Global	PAUtils	Execute API	Allowed
User Experience Analytics PAR Integration	Global	Glide API: TranslationLoader	Execute API	Allowed
AI Search For Next Experience	Global	ais_datasource	Create	Allowed
AES Catalog Builder Wizard	Global	Glide API: TranslationLoader	Execute API	Allowed
MLUI	Global	ml_trainer_definition	Read	Allowed
Audio player component	Global	Glide API: TranslationLoader	Execute API	Allowed
Interceptor UI for Service Operations Wo	Global	Glide API: TranslationLoader	Execute API	Allowed
Data Grid UI Component	Global	Glide API: TranslationLoader	Execute API	Allowed
Mobile App Builder API	Global	Glide API: TranslationLoader	Execute API	Allowed
Service Level Management Experience for	Global	Glide API: TranslationLoader	Execute API	Allowed
Application Intake	Global	Glide API: TranslationLoader	Execute API	Allowed
	44 4	1 to 20 of 677 🕨 🕨		Ō

Figure 103. List view of "Application Cross-Scope Access"

- 3. Fill in the details below and submit it.
 - Target Scope: Global
 - **Target Name:** CMDB table name for which read access needs to be granted.
 - Target Type: Table
 - **Operation:** Read
 - Status: Allowed

<pre>Cross scope privilege New record</pre>			Ø	0	혦	 Submit
Source Scope * Target Scope * Target Name	Illumio Global Q cmdb_ci	Application Image: Application of the second seco	Illumio Read V Allowed V]	
★ Target Type	Table 🗸					
Submit						

Figure 104. Form view of Cross scope privilege

When such type of exception is encountered during data collection

< ≡ Illumio Scheduled Job Created 2024-04-15	en e	lete 🔿 🕆	\downarrow			
Job Type	Data Collection	Current Operation	Fetching PCE data			
Job Started	2024-04-15 23:33:40	Job Status	Failed			
Job Completed	2024-04-15 23:40:39	Incident	INC0010033	()		
Logs	[2024-04-16T06:33:40.6902] Illumi [2024-04-16T06:33:40.6902] Fetch [2024-04-16T06:33:421.3192]Total I [2024-04-16T06:35:56/4272]Total [2024-04-16T06:40:39.8302]Excep	124-04-16T06:33:40.690Z] Illumio data collection started 124-04-16T06:33:40.690Z] Fetching PCE data 124-04-16T06:34:21.319Z]Total labels fetched : 990 124-04-16T06:35:55:642TZ]Total workloads fetched : 22735 124-04-16T06:40:39.830Z]Exception occurred while posting results to SNOW, Please check MID server logs for more details.				
Illumio PCE Configuration	Test	0				
Delete						
						٦

Figure 105. Scheduled jobs form view

Follow the below steps to resolve the error :

- 1. Go to the mid server downloaded folder in the system where the mid server is configured.
- 2. Then go to the **agent** \rightarrow **conf** \rightarrow **wrapper-override.conf** file.
- 3. Uncomment the line with "wrapper.java.maxmemory=1024".



4. Increase the size of heap memory(in MB), restart the MID server and again execute the Illumio Data Collection job.

8.2.7 Check PCE Connectivity

User can go to the PCE configuration and click on the Check PCE configuration button to check if there is any issue in connectivity between ServiceNow and PCE.

1. To check end-to-end connectivity between ServiceNow , **MID server** and **PCE** , click on **Check PCE Configuration** in PCE configuration.

$\left \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	ation	0	101		Save Configuration	Check PCE Configuration	Illumio Data Collection	Delete Configuration $\uparrow \downarrow$
The user provided in the 'config.	xml' on the MID Serv	ver must ha	ive the	roles '>	k_illu2_illumio.mid_serv	er_user' and 'mid_server'.		A
* Name	Test 1							
* PCE URL						Organization ID		
* API Key	•••••					★ Secret Key	•••••	
* MID Server	illumio mid		Q	0		Enable Proxy between PCE and MID server		
Scheduler Threshold Limit	Retry Mechanism							
Auto Sync to PCE	✓					Run	Daily	~
						Time(run_time)	Hours 00 00	00
Save Configuration Check P	CE Configuration	Illumio D	ata Co	llectio	n Delete Configura	tion		

Figure 106. Check PCE configuration

2. The status of the connectivity can be seen in the Schedule jobs.

servicenow All	Favorites History Adr	nin : Illumio Schedu	eled Jobs - Created 2024-04-16 02:38:08 😭 🔍 🔍	Application scope: Global Update set: Default [Global]	₽ ₽
∑ Illumio 🖈	<	s 12:38:08		0 0 幸	\cdots Delete \uparrow \downarrow
FAVORITES	Job Type	Connectivity Check	Current Operation	Connectivity check successful	
No Results	Job Started	2024-04-16 02:38:08	Job Status	Completed	
ALL RESULTS	Job Completed	2024-04-16 02:38:27	Incident		
 ✓ Illumio Dashboard ✓ Configuration PCE Configuration ✓ Tables PCE Workloads 	Logs Illumio PCE Configuration	[2024-04-16T09:38:08.7132] MID [2024-04-16T09:38:08.7132] MID [2024-04-16T09:38:08.7132] Start [2024-04-16T09:38:17.5052] Cheel [2024-04-16T09:38:31.8592] Succe	Server is running and it is up-to-date Server user has required roles ed validating the connectivity with PCE king connectivity between MID Server and the PCE (https://do ssfully authenticated the PCE credentials	evtest428.ilabs.io:8443)	
Scheduled Jobs Critical Label Groups	Delete				
Support Support Contact					٥

Figure 107. Check PCE Configuration status

Note: If the connectivity check is not successful do check the Organization ID , PCE URL , API Key , Secret Key are properly configured.

8.2.8 Modularization ServiceNow Spoke :

The user can get the below error in the Flow Designer Actions whenever the JSON data given in the input field of the Action is in invalid JSON format.

Action Delet	e a Collection × Action Update Label Di	ime × Operation Execution Details × +				
EXECUTION DE	TAILS Update Label Dimension	ns	C Test Run - Error •	Go to error	Open Action Open Co	ontext Record
				State	Start time	()
(Read) (Jpdate Label Dimensions		Open /	Action 🗗 🛛 Error	2024-04-16 00:27:44	38ms
[Error: JSON; line 42)					
c	Configuration Details					
	VARIABLE NAME	RUNTIME VALUE	CONFIGURATION		TYPE	
	Label Dimension href	/orgs/138/label_dimensions/05dee0bd-0fcf-4eab-958c-0aa301d66 dee			String	
	PCE Configuration	Test ()			Reference	
	Request Body	{ ""display_name":"Duumy application 2", "display_info": { "initial": "ab", "display_name_plural": "			JSON	
c	Dutput Data					- 1
	VARIABLE NAME	RUNTIME VALUE	CONFIGURATION		TYPE	
	Action Status	{"Action Status":{"code":1,"message":"Error: JSON; line 42)"}}			Object	
	Don't Treat as Error	false	false		True/False	
	Headers		headers		ISON	-

Figure 108. Execution Details tab

8.2.9 403 error while creating or updating labels :

Please check required role(Global Administrator) on the PCE side

Mid Server Log:

2024-08-22 00:00:41 INFO (Worker-Standard:JavascriptProbe-d903182f1b085a10ceb6da88b04bcba5) [MIDSystem:35] *** Script: >>> ERROR: IllumioLogs: Exception occurred while getting async job status from PCE, Response Code: 403

Policies	•	88 Home > A Access Access Wizard		
Deny Rules Drafts & Versions		1 Select Roles		
Servers & Endpoints Vorkloads Pairing Profiles Policy Objects Coopes Coopes External Groups External Users Local Users Service Accounts User Activity Authentication Cestings Coopes		Clobal Viewer Global read-only access to all resources Global Policy Object Provisioner Provision Services, IP Lists, Label Groups, and Security Settings. Read-only access to all other resources. Global Administrator Manage all resources and Security Settings. Cannot manage users and roles. Global Organization Owner Manage all resources, users and Security Settings.	Rulesets and Rules Deny Rules Workloads and VENs Illumination Map App Groups List Illumination Plus Scopes and Roles Users and Groups Services IP Lists User Groups Label Groups Virtual Services Virtual Services Pairing Profiles Infrastructure Blocked Traffic Security Settings App Group Configuration My Profile My API Keys SSO Config	View, Add, Modify, Provision, Delete View, Add, Modify, Drovision, Delete View, Add, Modify, Delete View View View View None View, Add, Modify, Provision, Delete View, Add, Modify, Delete View, Modify, Provision View View, Modify, Provision View Modify View, Add, Modify, Delete None
	×	Summary Scope 🛞 All		