

# 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<sup>®</sup> 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		
from CMDB records 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	Insert and Stay 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 Related L	out	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 Ul Action	es cies		Enable Proxy be- tween PCE and MID server				
Schedule	er Threshold Limit	Re	Notificat	ions						
En	able Limits 🔽					Cancel Job on Limit Exceed				
	le Limit on New Label					New Label Creation Limit				
	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 PCE Field Mapping Cleprecated]- Illumio PCE Label Group Details->Illumio Illumio PCE Labels Mapping Stage->Illum Illumio PCE Workload>>Illumio PCE Cont Illumio PCE Workload>Mapping Stage-> Illumio PCE Workloads Mapping Stage-> Illumio Scheduled Jobs->Illumio PCE Cont	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:

≡ 7	Display Name (singu 🖌 Search		⊚ –	Actions on selected rows 🗸 Ne
llumio PC	E Configuration = Illumio PCE Configuration			
<u> </u>	Display Name (singular)	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.

= 7	Display Name (singu + Search		© ±	<ul> <li>Actions on selected rows</li> </ul>	
lumio P(	CE Configuration = Test 1	, ,			
_ Q	Display Name (singular)	isplay Name (singular) Display Name (plural)			
	Application	Applications	арр	A	
	Role	Roles	role	R	
0	Location	Locations	loc	L	
	Environment	Environments	env	E	
		≪ < 1 to 4 of 4 > >>			

Figure 10. Related list of Illumio Label Dimensions

< = Illumio Label Location	Dimension			Ø	0	쌺	Up	date	$\uparrow$	$\downarrow$
<ul> <li>Label Type Initia</li> <li>Display Name (si</li> <li>Display Name (play Name (p</li></ul>	ngular): Enter a Singular Display Name for Lal lural): Enter a Plural Display Name for Label T									
* Кеу	loc	st Label Type Initial	L				7			
* Display Name (singular)	Location	* Display Name (plural)	Locations				j			
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	ing [Deprecated]s	Source Table 👻 Se	arch		0	- Actions on s	elected rows	✓ New
PCE Co	onfig	uration = Test 1								
	2	Source Table	Host Name	Application	Location	Role	Environment	IP Address 1	IP Address 2	IP Addr
		cmdb_ci_appl_dot_net	name					po_number		
	D	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 Lat	bel Dimensions (4)	o Config Class Mappings (	2) Illumio Critical Label Group Configurations								
= 7	Source Table +	Search									
Illumio PC	Illumio PCE Configuration = Test 1										
<u> </u>	Source Table Active		Conditions for Deleting Workloads	Conditions for Excluding Workloads							
0	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	ppings Order -	Search	0	🛓 🚽 Actions on selected rows 🗸 New
Illumio	Config Class Mapping = cm	db_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:

≡ 7	Illumio Class Field Mappings	Drder - Se	arch	⊚ ± — Act	ions on selected rows 🗸 New
llumio Co	nfig Class Mapping = cmdb_ci_lb_a	a10			
<u> </u>	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	419 419	··· 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>	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.

= 7 Label Group			
≡ Y Label Group	• Search		⊚ 📩 — Actions on selected rows ✔ New
Illumio PCE Configuration	Illumio PCE Configuration		
Label Group		:	Illumio Label Dimension
TrialCritical			Application
		•• •	1 to 1 of 1 > >>

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

	tical Label Group Configuration )24-04-14 12:02:38	Ø	0	췒		Update	Delete		$\leftarrow$
Example: The cus Critical label g Labels in a crit	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.		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									
									Ō

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		8	Running freeform script can cause system disruption or loss of data.
			Run script (JavaScript executed on server)
	*	()	
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");

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 <a href="https://docs.servicenow.com/?context=CSHelp:MID\_Server">https://docs.servicenow.com/?context=CSHelp:MID\_Server</a>

## 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.

$\mathbf{\nabla}$	All										
<u>چ</u>	Q	■ Name 🔺	■ Host name	<b>≡</b> Status	■ Validated	Version	Last refreshed	■ Started	$\equiv$ Stopped	Router	≡ Logged in u
		Search	Search	Search	Search	Search	Search	Search	Search	Search	Search
	i	Illumio Mid Server	crest	• Down	• Yes	<ul> <li>london-06-</li> <li>27-</li> <li>2018_patch6-</li> <li>02-06-</li> <li>2019_02</li> </ul>	2019-06-17 17:54:06	2019-06-11 17:08:19	2019-06-11 11:02:08		mid_user
	i	Illumio Madrid MidServer	crest	• Up	• Yes	<ul> <li>madrid-12-</li> <li>18-</li> <li>2018_patch3-</li> <li>04-24-</li> <li>2019_05</li> </ul>	2019-07-07 23:44:02	2019-06-24 12:27:22	2019-06-24 12:27:12		<ul> <li>Illumio_mid</li> </ul>
	Actions o	n selected rows \$								1 to 2 d	of 2 🕨 🕨

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	d_MidServer				Ø	ŧ	000	Jpdate Del	ete 🔨	$\downarrow$
	communication between the ServiceNow platform Server or find assistance with <u>MID Server troubles</u>		id services. Ad	dd MID Serve	er configuratio	on para	meters ar	nd capabilities h	ere. Read	
Name (?)	Illumio_Madrid_MidServer	Host	name (?)	crest						
Status (?)	Up	IP ad	ddress (?)	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 Cli	usters Ext	ension Conte	exts l	.ogs (34)	Threads (64)	Propert	ies
MID Server Issues	New Search Short description   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.

	Favorites History Workspaces Admin	Koles 😭 🔍 Update set: Syr	stem Administrator [Illumio] 🖤 🍳 🕐 🐺
🛛 Roles 🔹	= 7 🖙 Roles Name - Search		Actions on selected rows Vew
FAVORITES	All > Name contains illumio		
No Results	□ Q Name ▲	Description	Elevated privilege
ALL RESULTS	*illumio	Search	Search
V System Security	x_illu2_illumio.illumio_admin	The admin user of Illumio app	false
	x_illu2_illumio.illumio_pce_configuratio		false
✓ Users and Groups	x_illu2_illumio.illumio_user	The normal user of Illumio app	false
Roles	x_illu2_illumio.mid_server_user		false
<ul> <li>User Administration</li> </ul>			
Roles			
✓ Role Delegation			
Delegate Roles in Group			
User Roles			
Group Roles			

Figure 26. List view of the ServiceNow custom roles

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

<				/ tt ····	Update Delete 🛧 🗸
★ Suffix ⑦	illumio_admin	Application ⑦	Illumio		٢
Name (?)	x_illu2_illumio.illumio_admin	Elevated privilege (?)			
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.

'Users 🛞 📌	≡ 7	Users Name	Search			Actions on selections	ected rows V
ORITES Results	All	User ID	Name 🔺	Email	Active	Created	Updated
		ketan.lakum.illumio			true	2024-04-11 00:31:45	2024-04-11 01:48:53
RESULTS		mid_user			true	2024-04-01 01:51:20	2024-04-02 01:33:0
<ul> <li>Configuration</li> </ul>		abel.tuter	Abel Tuter	abel.tuter@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:0
✓ CI Lifecycle Management		abraham.lincoln	Abraham Lincoln	abraham.lincoln@example.com	true	2013-07-23 17:15:54	2024-03-30 11:34:
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:
Password Reset		aileen.mottern	Aileen Mottern	aileen.mottern@example.com	true	2012-02-17 19:04:49	2024-03-30 11:34:
Blocked Users		alejandra.prenatt	Alejandra Prenatt	alejandra.prenatt@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:
<ul> <li>Organization</li> </ul>		alejandro.mascall	Alejandro Mascall	alejandro.mascall@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:
Users		alene.rabeck	Alene Rabeck	alene.rabeck@example.com	true	2012-02-17 19:04:53	2024-03-30 11:34:
System Security		alfonso.griglen	Alfonso Griglen	alfonso.griglen@example.com	true	2012-02-17 19:04:51	2024-03-30 11:34:
✓ Users and Groups		alissa.mountjoy	Alissa Mountjoy	alissa.mountjoy@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:
Users		allan.schwantd	Allan Schwantd	allan.schwantd@example.com	true	2012-02-17 19:04:53	2024-03-30 11:34:
Groups		allie.pumphrey	Allie Pumphrey	allie.pumphrey@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:
Roles	-	allyson.gillispie	Allyson Gillispie	allyson.gillispie@example.com	true	2012-02-17 19:04:50	2024-03-30 11:34:
Access Role Detail View		alva.pennigton	Alva Pennigton	alva.pennigton@example.com	true	2012-02-17 19:04:50	2024-03-30 11:34:
<ul> <li>Reports</li> </ul>		alyssa.biasotti	Alvssa Biasotti	alyssa.biasotti@example.com	true	2012-02-17 19:04:52	2024-03-30 11:34:0

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 Q Application Update set:	scope: Illumio System Administrator [Illumio]	<del>(</del>	0 4 🚯
🖓 Users 🛞 🖈	Ser User New record					00	≊ ··· 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_Angele	es) 🗸	
CI Lifecycle Management     CI State Registered Users	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     Users 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 () choose field • oper • vvalue Collection Roles List v.litu.2. Iltumio.Iltumio.pce_configurat x.litu.2. Iltumio.Iltumio.pce_configurat x.litu.2. Iltumio.Iltumio.pce_selected x.litu.2. Iltumio.Iltumio.pce_selected x.litu.2. Iltumio.Iltumio.pce.selected x.litu.2. Iltumio.Iltumio.pce.selected x.litu.2. Iltumio.Iltumio.pce.selected x.litu.2. Iltumio.Iltumio.pce.selected x.litu.2. Iltumio.Iltumio.pce.selected x.litu.2. Iltumio.Iltumio.pce.selected x.litu.2. Iltumio.Iltumio.pce.selected x.litu.2. Iltumio.Iltumio.pce.selected x.litu.2. Iltumio.Iltumio.pce.selected x.litu.2. Iltumio.Iltumio.staffic.flow.sta x.litu.2. Iltumio.Iltumio.pce.workloads_stage. v.litu.2. Iltumio.inter.set.set. v.litu.2. Iltumio.inter.set.set. v.litu.2. Iltumio.inter.set.set.set. v.litu.2. Iltumio.inter.set.set.set.set.set.set.set.set.set.set	
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 Works	spaces Admin	Illumio PCE Configurations 😭	Q Application scope: Illumio Update set: System Administrator [Illumio]	(a) ଦ	4 🔒
∑ ≬lumio 🛞 🖈	= 🏹 😁 Illumio PCE Configu	arations Name •	Search		6	🔊 👌 New
FAVORITES	All					
No Results	Q Name ▲	PCEURL	Auto Sync to PCE	MID Server	Updated	
ALL RESULTS V Illumio Dashboard V Configuration PCE Configuration V Tables PCE Workloads Scheduled Jobs Critical Label Groups V Support Support Contact			No 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	00	D	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

	0 =	Save Configuration	Check PCE Configura	ation Illumio D	ata Collection	Delete Configuration	· ↑ ↓
			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 Illum	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					
E 🕅 Display Name (singu • Search 💿 – Actions on selected rows • New							
IIIumio 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 Label Dimension     New record		Ø	0	쉖	 Submit
<ul> <li>Key: Enter a unique key for the new Label Type.</li> <li>Label Type Initial: The label type initial is used to crive Display Name (singular): Enter a Singular Display Name (plural): Enter a Plural Display Name</li> <li>Href: The href will be populated automatically once</li> </ul>	ame for Label Type. for Label Type.				
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 Configuration test	n	0 🛎 …	Save Configuration	Check PCE Configu	ration	Illumio D	ata Collect	tion Delete C	onfiguration	$\uparrow$ $\downarrow$
Scheduler Threshold Limit R	etry Mechanism									
Auto Sync to PCE				Run	Daily			~		
				Time(run_time)	Hours 0	00	00	00		
Related Links Run Point Scan	Configuration   Illumio Data	Collection Delete Configurat				0	- Actio	ons on selected r		New
Illumio PCE Configuration = test						~				
Source Table	Active	Conditions for Deleting	Workloads		Condition	ns for Excl	luding Wor	kloads		
cmdb_ci_appl_dot_net	true									
		44 <b>4</b>	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	<ul> <li>User Configurable Sort Order: Whether to use sort order or not to identify the primary workload. Enabling this checkbox will populate the following fields:</li> <li>Order: Select order for creating workload.</li> <li>Order By Column Name: Column on which the CMDB records will be sorted to identify the primary workload.</li> </ul>
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 use Source Table: ServiceNow CMDB te User Configurable Sort Order: Whe Order: Select order for creat * Order Sylcolumn Name: Col Conditions for Deleting Workloads Conditions for Excluding Workloads Conditions for Creating Incidents: I	ble to use as a source for workloads, ther to use sort order or not to identify ng workload, umn on which the CMDB records will b Workloads related to the CMDB records : CMDB records that fall into this cond	e sorted to identify the prim ds that fall into this conditi lition will be excluded.	ary workload. on will be deleted.		
Illumio 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					
= $\nabla$ Illumio Class Field Mappings	Order • Search				Q - Actions on selected rows. Vew
Illumio Config Class Mapping = cmdb_ci_a;					
C Type	Active	Field		Illumio Label Dimension	Order +
Label Dimension	true	short_descrip	tion		
Label Dimension Hostname	true	name		(mat )	
Hostname	true	name		(empty)	
			•• • 1 to 3 of 3	5 35	

# 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
• Type: Type to • Illumio Label • Field: Field to • Advanced: A • Script: When • Is Multiple: T • If chec • If not c	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 unche n 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.				
Type Source Table	Label Dimension     Active       .NET Application     * Illumio Label       [cmdb ci appl dot net]     Dimension		٩		
Advanced * Field			•		
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

New record	-	Ø	0	쉖	 Submit
<ul> <li>Field: Field to</li> <li>Advanced: Ar</li> <li>Script: When</li> <li>Is Multiple: TI</li> <li>If check</li> <li>If not cl</li> </ul>	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.		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	쉚	 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  Act			•			_
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.

Illumio Class Created 202	Field Mapping 4-04-14 02:46:15		Ø	않	 Update Delete	) ↑	$\downarrow$
Type: Type to be Illumio Label Di Field: Field to b Advanced: An o Script: When Ac Is Multiple: This o If checke o If not che	e mapped between PCE and CMDB for the given source Class M mapped. nension: Reference to the Illumio Label Dimension Record. mapped from the Source table with the values from the PCE (T iton 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 single IP Address (Either it can IP Addresses to be sent to PCE)	his is only considered when Advanced is unchecked).					
Type Source Table Advanced * Field	Label Dimension  .NET Application [cmdb_ci_appl_dot_net]  Description	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	I Label Group Configuration	0	0	愉	 Submit
<ul> <li>Example: The custor</li> <li>Critical label grou</li> <li>Labels in a critica</li> </ul>	lle 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. label group are not overnvritten for a workload. The entire workload record is skipped. ups are not specified, any label on the PCE can be modified.	abel.			
Illumio PCE Configuration	test				
★ Label Group					
* Illumio Label Dimension		C	۶.		
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			
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					
Modifications Create Unmanaged Workloads on PCE from CMDB records					Unmanaged Workloads Creation Limit					
Enable Limit on 🗌 Workload Deletion					Workload Deletion Limit					
<ul> <li>Workload Deletion</li> <li>Enable Limits: Enables limits on number of manual or auto changes per sync. <ul> <li>Sets limits as a number (e.g., 300) or percentage (e.g., 20%).</li> <li>Rounds up the number of workloads calculated from percentage.</li> </ul> </li> <li>Enable Limit on New Label Creation: Limit on creation of new labels on the PCE in a sync.</li> <li>Enable Limit on Workload Modifications: Limit on number of workloads with label modifications in a sync.</li> <li>Create Unmanaged Workloads on PCE from CMDB Records: Limit on number of numbe</li></ul>										

#### 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.

<pre> Example 3 = Illumio PCE Configuration test </pre>	0 8 ≊	••• S	Save Configuration	Check PCE Configurat	ion Illumio Data Collection	Delete Configuration	↑ J	
Scheduler Threshold Limit Retry Mechanis	m							
HTTP Retry Count		5		HTTP Retry interval max (seconds)		300		
				HTTP Retry interval increment (seconds)		30		
<ul> <li>Retry Mechanism:</li> <li>Retry Mechanism is being used with a backoff time whenever server error or error with code 429 occurs.</li> <li>HTTP Retry Count: 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.</li> <li>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.</li> <li>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.</li> </ul>								

#### 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, and the last 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 🕸	Application scope: Illumio Update set: System Administrator	[Illumia] ⊕ & @ 🖵 🌏
∑ 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				
V Illumio     Dashboard     Configuration     PCE Configuration     V Tables	1	0	0	0
Tables      PCE Workloads      Scheduled Jobs      Critical Label Groups      Support      Support      Support Contact	Unique Workloads	x Label Dimensions		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	
		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	o PCE Configurations 🕁 🛛	Q Search 🔹	
∑ illumio 🖈	$\equiv \nabla$	👳 Illumio PCE Configurations	Name • Search		⊚ ≛ Action	s on selected rows
FAVORITES	All					
No Results		Name 🔺	PCEURL	Auto Sync to PCE	MID Server	Updated
ALL RESULTS		Search	Search	Search	Search	Search
	1	fest 1		true	illumio mid	2024-04-16 01:10:18
Dashboard						
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
<ul> <li>✓ Illumio</li> <li>Dashboard</li> <li>☑ ☆</li> </ul>	* API Key ••••••••	l
✓ Configuration	* MID Server Illumio Mid Q O Enable Proxy between PCE and MID server	l
PCE Configuration		ł
↓ ↓ Tables ↓ PCE Workloads	Scheduler Threshold Limit Retry Mechanism	l
Scheduled Jobs	Auto Sync to PCE	l
<ul> <li>Critical Label Groups</li> <li>✓ Support</li> </ul>	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) ⊕ 😒 💿 📮 🧌	
♥ illumio   ⊗	< = Illumio PCE 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
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 Contact	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 second secon	

Figure 52. The "Scheduler" tab for PCE configuration

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

servicenow AI	Favorites History	Workspaces Admin	Illumio Scheduled		Application scope: Illumio Jpdate set: System Adminis	trator [Illumio] 🌐 දා	00	•
∑ illumio 🛞 🖈	= 🛛 🤤 Illumio Scher	duled Jobs Job Started	• Şearch				selected rows	~
FAVORITES	All							
No Results	🗌 🔍 Job Type	Illumio PCE Configuration	Current Operation	Job Status	Job Started 👻	Job Completed	Job Owner	<b></b>
ALL RESULTS	Data Collection	JTest	Fetching PCE data	Failed	2024-04-13 23:49:06	2024-04-14 01:39:37	System Administrator	
v Illumio	Data Sync	Test	Synchronization with PCE completed	Completed	2024-04-13 23:05:00	2024-04-13 23:09:17	System Administrator	
Dashboard → Configuration	Connectivity Check	Test	Connectivity check successful	Completed	2024-04-13 23:03:17	2024-04-13 23:03:28	System Administrator	
PCE Configuration	Data Sync	Test	Synchronization with PCE completed	<ul> <li>Completed with errors</li> </ul>	2024-04-13 23:01:39	2024-04-13 23:02:09	System Administrator	
✓ Tables PCE Workloads	Data Sync	JTest	Synchronization with PCE completed	<ul> <li>Partial Success</li> </ul>	2024-04-13 23:00:16	2024-04-13 23:03:52	System Administrator	
Scheduled Jobs	Connectivity Check	Test	Connectivity check successful	<ul> <li>Completed</li> </ul>	2024-04-13 22:26:39	2024-04-13 22:26:49	illumio user	
Critical Label Groups V Support	Data Sync	JTest	Synchronization with PCE completed	<ul> <li>Partial Success</li> </ul>	2024-04-13 22:22:41	2024-04-13 22:27:28	System Administrator	
Support Contact	Data Collection	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.

∑ illumio ⊗ 🖈	Illumio Scheduled Job Created 2024-04-13 2	os 23:05:00			t: System Administrator (Illu	6 ≅		Delete	$\uparrow$
FAVORITES	Job Type	Data Sync	Currer	t Operation	Synchronization with P	CE complete			
No Results	Job Started	2024-04-13 23:05:00		Job Status	Completed				
ALL RESULTS	Job Completed	2024-04-13 23:09:17		Incident					
<ul> <li>Illumio</li> <li>Dashboard</li> <li>Configuration</li> <li>PCE Configuration</li> <li>Tables</li> <li>PCE Workloads</li> <li>Scheduled Jobs</li> <li>Critical Label Groups</li> <li>Support</li> <li>Support Contact</li> </ul>	Logs	[2024-04-14T06:05:00.091Z] Illumi [2024-04-14T06:05:00.091Z] FettG [2024-04-14T06:05:32:8362[Total] [2024-04-14T06:05:32:8362[Total] [2024-04-14T06:07:50:8272] Adde [2024-04-14T06:08:01.0471Z] FettG [2024-04-14T06:08:01.0471Z] FettG [2024-04-14T06:08:01.0471Z] [2024-04-14T06:08:04.372][Total] [2024-04-14T06:08:04.3772][Total] [2024-04-14T06:08:04.3772][Total] [2024-04-14T06:08:04.3772][Total] [2024-04-14T06:08:04.3772][Total] [2024-04-14T06:08:04.3772][Total] [2024-04-14T06:08:04.3772][Total] [2024-04-14T06:08:04:372][Total] [2024-04-14T06:08:06][Total][	hing PCE data labels fetched : 848 workloads fetched : 12425 d PCE data to mapping table ing CMDB servers ing CMDB servers to PCE tronizing workloads to PCE ing 2 unknown workload(s) critical label groups fetched: 0 tritical label groups fetched: 0						
	Illumio PCE Configuration	Test					0	J	
	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 A	Favorit	es History Wor	kspaces Admin	Illumio PCE V	Vorkloads 🕁	Q Application scope: Illum Update set: System Adm		🕀 & @ 4 🚯
🖓 illumio 🛛 🛞 🖈	≡ 7	👳 Illumio PCE Work	kloads Hostname 🔹 🌾	arch			ted rows 🗸	Sync selected servers with PCE
AVORITES o Results	All Q	Hostname	Illumio PCE Configuration	Known to PCE	Conflicts	PCE Public IP Address	Incident	Href
LL RESULTS		apache linux ny 100	Test	Unmanaged	false		(empty)	/orgs/138/workloads/868e9a1 4fa0-4c26-b
✓ Illumio □ Dashboard		v-6.2	Test	Managed	false	124.123.123.30	INC0010008	/orgs/138/workloads/77496bc 03c7-4b42-8
✓ Configuration		SAP WEB01	Test	Unmanaged	false		(empty)	/orgs/138/workloads/826f91t d342-4ae2-8
<ul> <li>PCE Configuration</li> <li>✓ Tables</li> </ul>		SAP WEB02	Test	Unmanaged	false		(empty)	/orgs/138/workloads/dc58d8f 0b66-4ec3-9
PCE Workloads Scheduled Jobs	0	SAP WEB04	Test	Unmanaged	false	1.1.1.1	(empty)	/orgs/138/workloads/2a699d 1bbc-40c9-a
Critical Label Groups		10-0-9-55	Test	Managed	false	203.88.139.34	(empty)	/orgs/138/workloads/abe8c8f 5d14-48f8-8
✓ Support		crest_test1	Test	Unmanaged	false		INC0010004	/orgs/138/workloads/d49e27 b3f0-48b9-8
		Node 3	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/5a4c39l 34e0-4c5d-b
		Sap3	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/f368dcb 562c-4bae-a
		Sap2	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/171f492 1ed2-4a9e-a
	-	Storage-D4	ITact	Holmown	true		(emntu)	

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 H	istory Workspaces	Admin	Illumi	o PCE Configurations 🕁	Q Search	▼ ⊕ ∞ ⊙ ↓ ⊕
∑ illumio 🖈	≡ ⊽ ⊜∥	lumio PCE Configurations	Name	• Search			
FAVORITES	All						
No Results	□ Q Name	•	PCE URL		Auto Sync to PCE	MID Server	Updated
ALL RESULTS	Search	1	Search		Search	Search	Search
∨ Illumio	Test 1				true	illumio mid	2024-04-16 01:10:18
Dashboard							
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 🖈 Q. Application scope: Illumio 🌚 🗞 💿 斗 🎲	
🛛 illumio 🛞 🖈	Illumio PCE Configuration	
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	I
ALL RESULTS	* PCE URL Organization ID	I
∨ Illumio	* API Key •••••••	I
Dashboard V Configuration	* MID Server Illumio Mid Q O Enable Proxy between PCE	I
PCE Configuration	and MID server	I
✓ Tables	Scheduler Threshold Limit Retry Mechanism	I
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 Run Point Scan	
	Illumio Label Dimensions (19) Illumio Config Class Mappings (2) Illumio Critical Label Group Configurations	
	E V Display Name (singu • Search O Actions on selected rows • New	
	Illumio PCE Configuration = Test	÷
	O         Display Name (slural)         Key         Label Type Initial	1

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 🔤	Favorites History :	Illumio Scheduled		Application scope: Illumio Update set: System Administr	ଦ୍ୟ ଡି	¢	-	
∑ illumio 🛞 🖈	Illumio Scheduled Job       Created 2024-04-13	os 23:05:00		Ø 😧 🛱	··· De	ete 🗅 个	$\downarrow$	
FAVORITES	Job Type	Data Sync	Current Operation	Synchronization with PCE complete				î
No Results	Job Started	2024-04-13 23:05:00	Job Status	Completed				L
ALL RESULTS	Job Completed	2024-04-13 23:09:17	Incident					L
<ul> <li>Illumio</li> <li>Dashboard</li> <li>Configuration</li> <li>PCE Configuration</li> <li>Tables</li> <li>PCE Workloads</li> <li>Scheduled Jobs</li> <li>Critical Label Groups</li> <li>Support</li> <li>Support Contact</li> </ul>	Logs	[2024-04-14T06:05:00.0912] Illum [2024-04-14T06:05:30.0912] FetCl [2024-04-14T06:05:32.8362]Total [2024-04-14T06:05:32.8362]Total [2024-04-14T06:07:50.8272] Adde [2024-04-14T06:08:01.0472] FetCl [2024-04-14T06:08:01.0472] FetCl [2024-04-14T06:08:01.0472] [2024-04-14T06:08:02.0352] Symc [2024-04-14T06:08:04:33,772]Total [2024-04-14T06:08:04:33,772]Total [2024-04-14T06:08:04:33,772]Total [2024-04-14T06:08:04:33,772]Total [2024-04-14T06:08:05:02]SZ]Symc Total workloads: 8 Created unknown workloads: 2 Updated unanaged workloads: 0 Deleted workloads: 0	hing PCE data labels fetched : 848 workloads fetched : 12425 de PCE data to mapping table ing CMDB servers ping CMDB servers ping CMDB servers to PCE hronizing workloads to PCE ing 2 unknown workload(s) critical label groups fetched : 0 critical label groups fetched : 0					
	Illumio PCE Configuration	Test						L
	Delete						Ō	

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 🔤	Favorit	es History Work	spaces Admin	Illumio PCE W	'orkloads 🕁	Q Application scope: Illumie Update set: System Adm		🖶 २ ७ म 🌏
🛛 illumio 🛛 🛞 🖈	$\equiv \nabla$	👳 🛛 Illumio PCE Work	loads Hostname - þea	arch			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	Incident	Href
ALL RESULTS		apache linux ny 100	Test	Unmanaged	false		(empty)	/orgs/138/workloads/868e9a1 4fa0-4c26-b
<ul> <li>✓ Illumio</li> <li>Dashboard</li> </ul>		v-6.2	Test	Managed	false	124.123.123.30	INC0010008	/orgs/138/workloads/77496bc; 03c7-4b42-8
✓ Configuration		SAP WEB01	Test	Unmanaged	false		(empty)	/orgs/138/workloads/826f91b€ d342-4ae2-8
<ul> <li>PCE Configuration</li> <li>✓ Tables</li> </ul>		SAP WEB02	Test	Unmanaged	false		(empty)	/orgs/138/workloads/dc58d8fa 0b66-4ec3-9
PCE Workloads Scheduled Jobs	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 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	ITact	Unknown	true		(emntu)	
				** *	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 AII	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 <b>0</b> 🛎	Sync Server to PCE Create Incid	dent Delete $\uparrow \downarrow$
FAVORITES	Hostname	Node 3	Illumio PCE Configurati	on JTest	
No Results	Known to PCE	Unmanaged	Deleted from P	CE III	_
ALL RESULTS	Duplicate		Confli	ts 🗹	
<ul> <li>✓ Illumio</li> <li>Dashboard</li> <li>✓ Configuration</li> </ul>		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 ,	/orgs/138/workloads/5a4c39bc-34	e0-4c5d-b644-a96d0a267d9c		
PCE Workloads Scheduled Jobs	Interfaces	{"umw0":{"pce_value":"","cmdb_valu	a <sup>a</sup> :""}}		
Critical Label Groups	PCE Public IP Address		Enforcement Mo	de visibility_only	
│	OS ID Incident		ServiceNow CMDB Identif	er Node 3	0
	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)

S	ervicenow 🔤	Favorite	es History Work	spaces Admin	Illumio PCE	Workloads 🕁	Q Application sco Update set: Sys	pe: Illumio tem Administr	🖶 & @ + 🌖
Ţ	7 illumio 🛛 🛞 🖈	≡ 7	👳 Illumio PCE Work	loads Hostname • Sea	arch		Actions on selecter	d rows 🗸	Sync selected servers with PCE
FAV	ORITES	All							
No	Results		Hostname	Illumio PCE Configuration	Known to PCE	Conflicts	PCE Public IP Address	Incident	Href
	RESULTS		Search	Search	Search	Search	Search	Search	Search
	∠ Illumio		AppServerHelpDesk2	JTest	Unknown	true		INC0010014	
	Dashboard		Storage-D1	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/b1dbaca d07a-4e24-a
	✓ Configuration		JTESTNode 2	JTest	Unknown	true		(empty)	
	PCE Configuration		SAP LB1	JTest	Unknown	true		(empty)	
	· ✓ Tables PCE Workloads		apache linux ny 100	Test	Unmanaged	false		(empty)	/orgs/138/workloads/868e9a 4fa0-4c26-b
	Scheduled Jobs		v-6.2	Test	Managed	false	124.123.123.30	INC0010008	/orgs/138/workloads/77496b 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/dc58d8f 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		Application scope: Illumio Update set: System Administr	ч © С 🏐
∑ illumio 🛞 🖈	Illumio PCE Workload AppServerHelpDesk2	1		Ø 😧 🕸 🚥 Sync to PC	CE Delete 🛧 🦊
FAVORITES	Hostname	AppServerHelpDesk2	Illumio PCE Configuration	JTest	•
No Results	Known to PCE	Unknown	Deleted from PCE		_
ALL RESULTS	Duplicate		Conflicts		
<ul> <li>✓ Illumio</li> <li>Dashboard</li> <li>✓ Configuration</li> </ul>		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.

servicenow A	Favorites History Wo	rkspaces Admin	Illumio PCI	E Workloads 🤮	Application so Update set: S	cope: Illumio ystem Administr	🖶 Q Ø Q 🌐
🛛 illumio 🛞 🖈	= 🏹 🥽 Illumio PCE Wor	kloads Hostname 🔹 🌾	earch		Actions on select	ted rows 🗸	Sync selected servers with PCE
FAVORITES	All						
No Results	🗌 🔍 Hostname	Illumio PCE Configuration	Known to PCE	Conflicts	PCE Public IP Address	Incident	Href
ALL RESULTS	Search	Search	Search	Search	Search	Search	Search
✓ Illumio	AppServerHelpDesk2	JTest	Unknown	true		INC0010014	
Dashboard	Storage-D1	JTest	Unmanaged	true		(empty)	/orgs/138/workloads/b1dbac 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/868e9a 4fa0-4c26-b
Scheduled Jobs	v-6.2	Test	Managed	false	124.123.123.30	INC0010008	/orgs/138/workloads/774961 03c7-4b42-8
Critical Label Groups	SAP WEB01	Test	Unmanaged	false		(empty)	/orgs/138/workloads/826f91 d342-4ae2-8
Support Contact	SAP WEB02	Test	Unmanaged	false		(empty)	/orgs/138/workloads/dc58d8 0b66-4ec3-9
	SAP WEB04	Test	Unmanaged	false	1.1.1.1	(empty)	/orgs/138/workloads/2a6990 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	["umw0":["pce_value":"","cmdb_value":"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	ţ\$		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	ıst 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 (sins	gular)			Display Name (plural	Kev 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 AII	Favorites History Admin : Illumio Config Class Mapping - cmdb_ci_web_server 🔅 Q. Application scope: Illumio Update set: System Administr 📵 😒	@ 4 📵
🛛 illumio 🛞 🖈	K     ≡     Illumio Config Class Mapping     ∅     ∅     ∞     ···     Update	Delete 🕆 🤟
FAVORITES	Configure Source CMDB CI class to be used with the PCE configuration.	î I
No Results	Source Table: ServiceNow CMDB table to use as a source for workloads.	
ALL RESULTS	User Configurable Sort Order: Whether to use sort order or not to identify the primary workload.     Order: Select order for creating workload.	
$\sim$ Illumio	<ul> <li>Order By Column Name: Column on which the CMDB records will be sorted to identify the primary workload.</li> <li>Conditions for Deleting Workloads: Workloads related to the CMDB records that fall into this condition will be deleted.</li> </ul>	
Dashboard	Conditions for Excluding Workloads: CMDB records that fall into this condition will be excluded.     Conditions for Creating Incidents: Create Incident for the workloads that fall into this condition.	
✓ Configuration		
PCE Configuration	Illumio PCE Configuration Test	I
✓ Tables	Source Table Web Server [cmdb.ci.web.s	I
PCE Workloads	User Configurable Sort Order 🗹 * Order by Column Name None 🗸	I
Scheduled Jobs		I
Critical Label Groups		
Support	Conditions for Deleting Add Filter Condition Add "OR" Clause	
Support Contact	choose field oper value	
	Conditions for Excluding Add Filter Condition Add "OR" Clause	
	choose field oper value	
	Conditions for Creating Add Filter Condition Add "OR" Clause	
	choose field 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  Created  Created by  Floors  Contact  Created by  Created	•	checked). pt).				
Type Hostname Source Table Cluster Node [cmdb_ci_cluster_node]	County County Created Created by Duplicate Eax phone	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	i ا	··· Update	e Delete	) ↑	$\downarrow$
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	Reference to the Illumio Label Dimension Re from the Source table with the values from th Advanced mapping where you can provide sc s checked the script will be considered for the only be visible when the type is set to IP Addh e expected will be a comma separated list of v value expected will be a single IP Address (Eit	cord. ne PCE (This is only considered when <b>Advanc</b> ript. mapping. ress. ralues or array (Either it can be from field or fr							
Type Source Table Advanced * Field	Hostname  Cluster Node [cmdb_ci_cluster_node]  Assigned to Building Location City		Active 🗹			•			
Update Delete									

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 🔅 Q Application scope: Illumio Update set: System Administr 🌐 Q	@ 4
∑ illumio 🛞 🖈	$ \leq = \frac{\text{Illumio Config Class Mapping}}{\text{cmdb_cl_web_server}} \qquad \qquad & & & & & & & & \\ \end{bmatrix}  \qquad \qquad$	Delete
AVORITES No Results ALL RESULTS V Illumio Dashboard	Configure Source CMDB CI class to be used with the PCE configuration.  Source Table: ServiceNow CMDB table to use as a source for workboads.  User Configurable Sort Order: Whether to use sort order or not to identify the primary workload.  Order Select order for creating workload.  Order BY Column Name: Column on which 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.  Order BY Column Name: Column on which the CMDB records that fail into this condition will be deleted.  Conditions for Deleting Workloads: CMDD Precords that fail into this condition will be excluded.  Conditions for Creating Incidents: Create Incident for the workloads that fail into this condition.	ĺ
✓ Configuration		
PCE Configuration     V Tables     PCE Workloads	Illumio PCE Configuration Test O Source Table Web Server [cmdb_ci_web_s  Active	
Scheduled Jobs	User Configurable Sort Order	
Critical Label Groups	Workload	
Support Contact	Conditions for Excluding Add Filter Condition Add "OR" Clause Workloads	
	Conditions for Creating Add Filter Condition Add "OR" Clause Incidents	
	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 🔀 Q ③ Q	
∑ illumio 🛞 🖈	$ \begin{tabular}{lllllllllllllllllllllllllllllllllll$	🔹 🚥 Save Configuration Check PCE Configuration Illumio Data Collection Delete Configuration A	¥
FAVORITES	The user provided in the 'config.xml' on the MID Server must ha	we the roles 'x_illu2_illumio.mid_server_user' and 'mid_server'.	1 î
No Results	* Name Test		
ALL RESULTS	* PCE URL	Organization ID	1
V Illumio	* API Kev	* Secret Key	1
Dashboard           Onfiguration         PCE Configuration	* MID Server Illumio Mid	C C Enable Proxy between PCE and MID server	
	Scheduler Threshold Limit Retry Mechanism		
Scheduled Jobs	Enable Limits 🔽	Cancel Job on Limit Exceed	
Critical Label Groups ✓ Support	Enable Limit on New Label Creation	New Label Creation Limit	
Support Contact	Enable Limit on Workload	Workload Modifications Limit	
	Modifications Create Unmanaged	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 (re.g., 300) or percentage (e o. Rounds up the number of workloads calculated fr Enable Limit on New Label Creation: Limit on creation of	.g., 20%). om percentage.	•

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 AII	Favorit	es History	: Illumio PC	E Workloads 😭	Q Application Update set:	scope: Illumio System Administrator [Illumio]	⊕ & @ + 🌏
☐ 🖓 illumio 🖈	= 7	💷 Illumio PC	E Workloads Hostname	Search			
FAVORITES					Actio	ns on selected rows 🗸	Sync selected servers with PCE
No Results	All						
ALL RESULTS	<u> </u>	Hostname	Illumio PCE Configuration	Known to PCE	Conflicts	PCE Public IP Address	Href
$\sim$ Illumio		Search	Search	Search	Search	Search	Search
Dashboard		JTest23	Test 1	Unmanaged	false		/orgs/138/workloads/57bd95d a3ba-47f6-9
<ul> <li>✓ Configuration</li> <li>PCE Configuration</li> </ul>		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						Þ
				•• •	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

$\langle \equiv IIIumio PC \\ JTest 23$	CE 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
OS ID		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		<ul><li>∅&lt; 2</li><li>Ø = ∞</li><li>Delete</li></ul>
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	17	0 -	r ≅ … Follow Updat	e Resolve Delete
Number	INC0010017	Channel	None 🗸	·
* Caller	Q	State	New	·
Category	Inquiry/Help 🗸	Impact	3 - Low 🗸	•
Subcategory	None 🗸	Urgency	3 - Low	•
Service	٩	<u>Priority</u>	5 - Planning	
Service offering	٩	Assignment group	Q	]
Configuration item	JTest23 Q	Assigned to	Q	]
* Short description	Test 1: JTest23			
Description	Hostname: JTest23		1	
	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 🔶 🤟
User Configurable Sort Order         Order: Select order for         Order By Column Nam         Conditions for Deleting Worl         Conditions for Excluding Wo	IDB table to use as a source for workloads. 1: Whether to use sort order or not to identify the primary workload.				
Illumio PCE Configuration	Test 1				0
Source Table	.NET Application [cmdb_ci_appl_do 🝷 Active 🗹				
User Configurable Sort Order					
Conditions for Deleting Workloads	Add Filter Condition Add "OR" Clause				
	Name   Contains  Delete  AND  OR  X				
Conditions for Excluding Workloads	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 : Sys	tem Properties 😭 🔍 Application scor Update set: Syst	oe: Illumio tem Administra	itor [Illumio]   🕀	n () 4	-
	≡ 77	😇 System Properties Application \star Şearc	h -	r ⊚ ≜	Actions on selected	d rows 👻	New
FAVORITES	All						
No Results	Q	Name	Value	Туре	Application 🔺	Description	۱^
ALL RESULTS		Search	Search	Search	Search	Search	
No Results		glide.war	glide-utah-12-21-2022_patch7a-09-28- 202		(empty)		2 (
		glide.war.assigned	glide-utah-12-21-2022_patch7a-09-28- 202		(empty)		î (
		upgrade_server_url	https://nodeupgrade.service-now.com/		(empty)		2 C
		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		ć
		sn_portal_starte_0.template.payload.scri	true	true   false	AES Portal UI Template		2 ( +

Figure 78. System Properties list view

3. Search property named: **"x\_illu2\_illumio.incident\_creation\_for\_scheduled\_job"** and

#### open it.

$\equiv \nabla$	System Properties     Application	Search			∿r ⊚ 🛓 🛛 Actio	ns on selected row	/s VNew
All > Name	e starts with x_illu2_illumio.incident_creatio	n_for_scheduled	d_job				
<u> </u>	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	Ŷ	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
Value 🖾 🛷							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.

	$ = \qquad $									$\downarrow$
Job Type	Data Collection	Current O	Completed fetching PCE data							
Job Started	2024-04-11 07:05:37	Ja	b Status	Failed						
Job Completed	2024-04-11 09:05:44		Incident	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	ng PCE data imit Exceeded								
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	Q	Assignment group	<u>्</u>	)
Configuration item	٩	Assigned to	<u>्</u>	)
*  Short description	data collection failed for pce config		Ç 🖪	
Description	Job Type: data collection Current Operation: Completed fetching PC Job Status: failed	Edata	۵ ۲	
		Delated Search Desults		

Figure 82. Incident Form for Scheduled Job

Incident   INC0010127	,		00	* *	Discuss Follow	Update Reso	lve Delete 🔿	$\leftarrow$	
Number	INC0010127			Channe	el None	~			
★ Caller	Q			Stat	e New	•			
Category	Inquiry/Help 🗸			Impac	t 3-Low	~			
Subcategory	None 🗸			Urgenc	y 3 - Low	~			
Service	Q			Priorit	y 5 - Planning				
Service offering	٩		Ass	signment grou	p	Q			
Configuration item	auto dum 3 🔍	<u>ج</u> (		Assigned t	D	Q			
*  Short description	POC config:						<b>Q</b>		
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	
<b>A</b>										
	Flows Subflows Actions Executions Connections Help									
	Search Update	ed 🔻 Search								
	T All	Name		Anniliantina	Charles		the desired by:	11-1-1-1 <b>-</b>		
	Q	Search	Internal name Search	Application	Status Search	Active	Updated by Search	Updated V Search		
		Create Async Jobs	create_async_jobs	Illumio	Published	true	admin	2024-04-05 05:46:49		
		Update Label Dimensions	update_label_dimensions	Illumio	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	Illumio	Published	true	admin	2024-04-04 22:32:06		
		Create Label Dimensions	create_label_dimensions	Illumio	Published	true	admin	2024-04-04 22:30:46		
		Create Label	create_label	Illumio	Published	true	admin	2024-04-04 22:29:43		
		Check PCE Configuration	check_pce_configuration	Illumio	Published	true	admin	2024-04-04 22:25:12		
		Update Label	update_label	Illumio	Published	true	admin	2024-04-04 20:02:39		
		<u>Get Async Job</u> <u>Status</u>	get_async_job_status	Illumio	Published	true	admin	2024-04-04 20:01:22		
		<u>Get Async Job</u> <u>Results</u>	get_async_job_results	Illumio	Published	true	admin	2024-04-04 20:00:37	*	
										00

## 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	
Seripe	•				Parameters     Step Status	JSON Object
[→ Error Evaluation					✓ Mid Script step	
[→ Outputs					Status	String
					Headers	JSON
	4				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	$) \bigcirc$
Action Outline	* PCE Configuration Test 1	llapse All	>
→] Inputs	Run test in background ①	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
	<	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	Dbject
[→ Outputs			
			String JSON
	( 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	Enow Flow Designer						•
Act Fet	tion Operat tch Label Dimensi × Operat	tion Tion Details × +					
EXECUTION	DETAILS Fetch Label Dime	ensions	Ċ	Test Run - Complet	ted  Op	en Action Open G	Context Record
					State	Start time	0
	VARIABLE NAME	VALUE					
	Calling Source	Flow Designer Test					
ACTION							
Ritumi	Fetch Label Dimensions			Open Action 🗹	Completed	2024-04-17 20:00:36	2297ms
	Configuration Details						
	VARIABLE NAME	RUNTIME VALUE	CONFIGURATI	ON		TYPE	
	PCE Configuration	Test 1 ①				Reference	
	Output Data						
	VARIABLE NAME	RUNTIME VALUE	CONFIGURATI	ON		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";"ch unked","Vary":"Accept-Encoding","Status";"	headers			JSON	
	Response	[{"href":"/orgs/138/label_dimensions/4f06096b-2f0d-4cdb-a a2b-ed07cce9e6a5","key":" <b>\$\$\$</b> ","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 Method	
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"} ]	
--	----------------------	---	
--	----------------------	---	

#### **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 : Illumio Scheduled Jobs	- Created 2024-04-15 22:37:04 🔅 Q Application : Update set:	scope: Illumio System Administrator (Illumio) 💮 🔉 🗇 💮
∑ illumio ♣		Ø	😧 🛎 🚥 Cancel Scheduled Job Delete 🔿 🥠
FAVORITES No Results	Job Type Data Collection		-
ALL RESULTS	Job Started 2024-04-15 22:37:04 Job Completed	Job Status Incident	Running
<ul> <li>✓ Illumio</li> <li>Dashboard</li> </ul>	© Logs [2024-04-16705:37:04.5952] IIII [2024-04-16705:37:04.5952] FE [2024-04-16705:37:32.4582]To	tching PCE data	
PCE Configuration	Illumio PCE Configuration Test		0
PCE Workloads	Cancel Scheduled Job Delete		
Critical Label Groups			٥
│			
Configuration C	[2024-04-16705:37:04.5952] Fe [2024-04-16705:37:32.4582] To Illumio PCE Configuration Test	tching PCE data	

# Figure 89. Cancel Scheduled Job UI action

servicenow All	Favorites History :	Illumio Scheduled Jobs - C	created 2024-04-15 22:37:04 😭	Q Application s Update set: 5	icope: Illumio System Administrator (Illumio)	۲	<i>₽</i> © ₽	ę,
∑ illumio	Illumio Scheduled JobCreated 2024-04-15 2	s 2:37:04			0	않	··· Delete	$\leftarrow  \rightarrow$
FAVORITES	Job Type	Data Collection	Ci	urrent 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				
<ul> <li>✓ Illumio</li> <li>Dashboard</li> <li>✓ Configuration</li> </ul>	Logs	[2024-04-16T05:37:04.5952] Illumi [2024-04-16T05:37:04.5952] Fetch [2024-04-16T05:37:32.4582]Total [2024-04-16T05:37:44.5612] The J	ing PCE data abels fetched : 990					
<ul> <li>PCE Configuration</li> <li>✓ Tables</li> </ul>	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		- <b>1</b> 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	<ul> <li>Table(s) in this application: 1 (<u>Show tables</u>)</li> <li>Record(s) in this application: 0</li> </ul>		
	<ul> <li>Fields defined on tables outside of this application: 50</li> <li>Retain tables and data</li> </ul>		
JavaScript 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: <u>https://www.illumio.com/support</u>



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 🔽 New Label Creation		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				<b>(</b> )	*
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
Type type	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:

B root@crest./home/Illumio_79560/agent/logs	- 0 ×
06/20/19 19:04:51 (768) Worker-Standard:hawascriptFrobe-d170afcddb5400104adddlbc4961663 *** Script: >>> DEBUG: 11lumioAnge: HTTP GMC call completed. Status: 06/20/19 19:04:51 (770) Worker-Standard:hawascriptFrobe-d170afcddb504004ddlbc496163 *** Script: >>> DEBUG: 11lumioAngestPulseApynolbs - Ob Stat 06/30/19 19:04:51 (771) Worker-Standard:hawascriptFrobe-d170afcddb5400109adddlbc4961963 *** Script: >>> INFO: 11lumioAngestPulseApynolbs - Getting a 06/30/19 19:04:51 (771) Worker-Standard:hawascriptFrobe-d170afcddb5400109adddlbc4961963 *** Script: >>> INFO: 11lumioLogs: 11lumioManageApynolbs - Getting a 06/30/19 19:04:51 (771) Worker-Standard:hawascriptFrobe-d170afcddb5400109adddlbc4961963 *** Script: >>> ISEDUG: 11lumioLogs: AFICALLL: G&Thtps://2x2devtst55 tafilos/f51aadard-C5db-0137-25db-032Cfcddc540	sus: done Isync job results 9.ilabs.io:8443/api/v2/orgs/1/da
09/30/19 19:04:56 (371) LogStatusMonitor.60 stats threads: 60, memory max: 910.0mb, allocated: 500.0mb, used: 40.0mb, standard.gueed: 0 probes, standard.gueed: 0 probes, interactive, sepedited, processing: 0 probes, interactive, used: 0 probes, interactive, processing: 0 probes, standard.gueed: 0 probes, interactive, used: 0 probes, interactive, processing: 0 probes, standard.gueed: 0 probes, interactive, used: 0 probes, interactive, used: 0 probes, interactive, processing: 0 probes, interactive, processing: 0 probes, interactive, used: 0 probes, interactive, processing: 0 probes, interactive, probability, p	200 cords : 5623 atus: 201 l records to SNOW
und: 0 nrobes. extedited processing: 0 nrobes. intractive.nument: 0 nrobes. intractive.nnoessing: 0 nrobes (95/30/5) 19:05/71 (00) Works-chandrid.wargitperobe-difficated0000084dHblc40106 wrd Script: >>>> DEB06: filmiclogy: SNOW HYP FUT call completed. Sta 93/30/13 19:05:17 (00) Works-chandrid.wargitperobe-difficated000184dHblc40106 wrd Script: >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	0.service-now.com/api/now/table
lied: maximum execution time exceeded Check logs for error trace or enable glide.rest.debug property to verify REST request processing", "message":"com.glide.s n: Transaction cancelled: maximum execution time exceeded", "status":"failurge")	
097/01/31 15/002/31 (0007) #Kreet-Standard:Warkscriptroke-diruktedbautouskabalpisakyise; Suor #Kectusin (1007/AB) of Stript: proter limitskabalgeskymbods 097/01/31 51:05 (000) Broket-Standard:Warkscriptroke-dirUketdba001054db10164951085 Bangewing; /hose/11/1000/3565/040000/2502540000 db1024951045, protect-Standard:Warkscriptroke-dirUketdba001054db10164961085 Morket completed: JavascriptFrobe time: 0:01:46.572 097/01/23 19:05:371 (033) ECCEMBerl.: Bending ecce gauge.df024db1054951085.ml	/ecc_queue.dl70afc4db5400109add
09/30/19 19/06/56 (297) LogStatusMonitor.60 staTs threads: 60, memory max: 910.0mb, allocated: 474.0mb, used: 31.0mb, standard.queued: 0 probes, standard.proc usd: 0 probes, sepedited.processing: 0 probes, interactive, queued: 0 probes, interactive processing: 0 probes 09/30/19 19/07/56 (341) LogStatusMonitor.60 stats threads: 60, memory max: 910.0mb, allocated: 474.0mb, used: 29.0mb, standard.queued: 0 probes, standard.proc usd: 0 probes, expedited.processing: 0 probes, interactive, queued: 0 probes, interactive, processing: 0 probes	essing: 0 probes, expedited.que
09/30/1919:08:56 (392) LogitatusMonitor.60 stats threads: 60, memory max: 910.0mb, allocated: 974.0mb, used: 30.0mb, standard.queued: 0 probes, standard.proc ued: 0 probes, sequelide_processing: 0 probes, interactive_queued: 0 probes, interactive_processing: 0 probes 09/30/19 31:09:02 (037) Worker-Interactive:Heartbactrobe-72616740805400103addiblicSa61945 Broken starting: Heartbactrobe 09/30/19 31:09:02 (037) Worker-Interactive:Heartbactrobe-72616740805400103addiblicSa61945 Broken starting:	essing: 0 probes, expedited.que
09/30/19 19:09:02 (097) Worker-Interactive:ReartbeatProbe-72616740db5400109xdddlbica961945 Finished firing the heartbeatprobe 09/30/19 19:09:02 (150) Worker-Interactive:ReartbeatProbe-72616740db5400109xdddlbica961945 Enquesing: /home/Illumio_79560/agent/work/monitors/ECCSender/output dddblica961945 xml	_0/ecc_queue.72616748db5400109a
daminicaso1945,xml 097/0/19 19:09:22 (151) Worker-Interactive:HeartbeatProbe-72616748db5400109adddibica961945 Worker completed: HeartbeatProbe time: 0:00:00.001 097/0/19 19:09:22 (431) BCCSender.1 Sending ecc_gueue.72616748db5400109adddibica961945.xml 097/0/19 19:09:06 (019) AutoUpgrade.3000 Unteking to see if MID server forefaxional StatesUP 097/0/19 19:09:06 (019) AutoUpgrade.3000 Checking to see if MID server needs to upgrade. 097/0/19 19:09:06 (039) AutoUpgrade.3000 Checking to see if MID server needs to upgrade.	
09/30/19 19:09:07 (585) hutotpgrade.3600 Curtent packages: 09/30/19 19:09:07 (585) hutotpgrade.3600 Installed: [mid-core.london-06-27-2018_patch8-hotfix2-05-21-2019_05-22-2019_1149.universal.universal.zip, mid-jre. 22-05-21-2019_05-22-2019_1149.linux.x86-64.zip]	_
09/30/19 19:09:07 (585) AutoBygrade.3600 Assigned: [hid-upgrade.london-06-27-2018_patch8-hotfix2-05-21-2019_05-22-2019_1149.universal.universal.zip] 09/30/19 19:09:07 (585) AutoBygrade.3600 Missing: [ 09/30/19 19:09:07 (585) AutoBygrade.3600 DownLoaded: [] 09/30/19 19:09:07 (585) AutoBygrade.3600 DownLoaded: []	re.london-06-27-2018_patch8-ho
0/30/19 15:24:24 (191) LogStatusMonitor.60 stats threads: 46, memory max: 910.0mb, allocated: 140.0mb, used: 29.0mb, standard.queued: 0 probes, standard.proc	essing: 0 probes, expedited.que
🖶 🔎 Type here to search 🛛 O 🛱 🤮 🔚 🏦 😭 🔯 🖉 🦉 🛃 🦁 🗾	∧ 🚱 📼 ⊄× ENG 19:09 💭

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**.

🖓 Transac 📌	≡ 7	Transaction C	Quota Rules Exect	ution Order 🔹 Search		Actions of Actions	n selected rows 🗸 🚺
FAVORITES	All Q	Name	Active	Condition	Description	Maximum Duration (seconds)	Execution Order
ALL RESULTS		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	
Transaction Quota Rules  System Diagnostics		REST Batch API request timeout multipart	true	urlMATCH_RGX*/api/now(/v[0-9]+)?/batch		300	
Active <b>Transac</b> tions (All Nodes)		Presence	true	urlSTARTSWITH/api/now/ui/presence^EQ	When system is busy kill off the presenc	10	1
Slow Transactions		Scan timeout	true	type=instance_scan^EQ		10,800	1
✓ Transaction Call Chain Transaction Call Chain Regis		REST Notification API request timeout	true	type=rest^urIMATCH_RGX*/api/now(/v[0-9]	This quota rule applies to all incoming	60	:
Transaction Call Chains		UI REST Transactions	false	type=rest^foreground=true^urIMATCH_RGX*	This is a complement to the UI Transacti	298	:
✓ System Logs Transactions		Scripts Background	true	urlLIKEquota_managed_transaction=on^EQ		14,400	:
Transactions (All user)		REST Batch API	true	type=batch_rest^urIMATCH_RGX*/api/now(/	This quota rule applies	30	1
Transactions (All user) Transactions (Background) Client Transactions		REST Batch API request timeout REST Import Set API request	true	type=batch_rest^urlMATCH_RGX*/api/now(/	This quota rule applies to all incoming This quota rule applies	30	

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 Quota	a Rule - REST Batch API request timeout 😭 🔍	Application scope: Global 🕀 & ⑦ 다 🤀
7 transaction 🛞 🖈	<         Transaction Quota Rule           REST Batch API request	timeout		Ø ⅔ … Update Delete ↑ ↓
FAVORITES	Name	REST Batch API request timeout	Application	Global
No Results	Active 🗾	1	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 <b>Transaction</b> s (All Nodes)	Maximum SQL Statement			
Slow Transactions	Maximum Outbound Requests		Maximum Outbound Request Duration (seconds)	
<ul> <li>Transaction Call Chain</li> </ul>	* Condition	Add Filter Condition Add "OR"	Clause	
Transaction Call Chain Regi	All	I of these conditions must be met		
Transaction Call Chains	Ту	Гуре 🔻	is V Batch REST	
✓ System Logs				
Transactions	U	JRL •	matches regex	ANDORX
Transactions (All user)	U	JRL •	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							
Illumio PCE onfiguration	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 W	orkspaces Admin Cross scop	e privileges 🖈 🔍 🔍	Search 👻	
≡ 🛛 ion Cross-Scope Access ⊗ 🖇 Search			Actions     Actions	s on selected rows Ver
All FAVORITES	Target Scope Global	Target Name Glide API: TranslationLoader	Operation Execute API	Status
ALL RESULTS	Global Global	Glide API: TranslationLoader Glide API: TranslationLoader	Execute API Execute API	Allowed
Application Cross-Scope Access	Global Global	Glide API: TranslationLoader Glide API: TranslationLoader	Execute API Execute API	Allowed
AES Flow Templates Performance Analytics - Enhanced UI	Global Global	sys_db_object PAUtils	Read Execute API	Allowed
User Experience Analytics PAR Integration AI Search For Next Experience	Global Global	Glide API: TranslationLoader ais_datasource	Execute API Create	Allowed
AES Catalog Builder Wizard ML UI	Global Global	Glide API: TranslationLoader ml_trainer_definition	Execute API Read	Allowed
Audio player component Interceptor UI for Service Operations Wo Data Grid UI Component	Global Global Global	Glide API: TranslationLoader Glide API: TranslationLoader Glide API: TranslationLoader	Execute API Execute API Execute API	Allowed Allowed Allowed
Mobile App Builder API Service Level Management Experience for	Global Global	Glide API: TranslationLoader Glide API: TranslationLoader Glide API: TranslationLoader	Execute API Execute API	Allowed
Application Intake	Global	Glide API: TranslationLoader	Execute API	Allowed

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	Global	Application           Image: Constraint of the second secon	Read 🗸		]	
★ 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	ere en la constanta de la con	lete 🔿 🕆	$\downarrow$				
Job Type	Data Collection	Current Operation Fetching PCE data					
Job Started	2024-04-15 23:33:40	4-04-15 23:33:40 Job Status Failed					
Job Completed	2024-04-15 23:40:39	15 23:40:39 Incident INC0010033					
Logs	[2024-04-16T06:33:40.6902] Illumi [2024-04-16T06:33:40.6902] Fetch [2024-04-16T06:34:21.3192]Total I [2024-04-16T06:35:56/4272]Total [2024-04-16T06:40:39.8302]Excep						
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	100		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	ave the	roles 's	k_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	0		Enable Proxy between PCE and MID server		
Scheduler Threshold Limit	Retry Mechanism							
Auto Sync to PCE	$\checkmark$					Run	Daily	~
						Time(run_time)	Hours 00 00	00
Save Configuration Check F	CE Configuration	Illumio E	Data 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 AII	Favorites History Admin : Illumio Scheduled Jobs - Created 2024-04-16 02:38:08 🔅 Q Application scope: Global Update set: Default (Global @ Q							
∑ Illumio ♣	<	≤ Illumio Scheduled Jobs Created 2024-04-16 02:38:08						
FAVORITES	Job Type	Connectivity Check	Onnectivity 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	4-04-16 02:38:27 Incident					
<ul> <li>Illumio</li> <li>Dashboard</li> <li>Configuration</li> <li>PCE Configuration</li> <li>Tables</li> <li>PCE Workloads</li> </ul>	Logs Illumio PCE Configuration	[2024-04-16T09:38:08.713Z] MID [2024-04-16T09:38:08.713Z] Start [2024-04-16T09:38:17.505Z]Check	024-04-16T09:38:08.713Z] MID Server is running and it is up-to-date 024-04-16T09:38:08.713Z] MID Server user has required roles 024-04-16T09:38:07.13Z] Started validating the connectivity with PCE 024-04-16T09:38:17.505Z]Checking connectivity between MID Server and the PCE (https://devtest428.ilabs.io:8443) 024-04-16T09:38:31.859Z]Successfully authenticated the PCE credentials					
Critical Label Groups  Support Support Contact	Delete				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.

UTION DI	ETAILS Update Label Dim	ensions	C Test Run - Error	• Go to err	or O	pen Action Open Co	ontext Rec
					State	Start time	0
	Update Label Dimensions			Open Action 🖸	Error	2024-04-16 00:27:44	38ms
	Error: JSON; line 42)						]
	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 ①				Reference	
	Request Body	{ ""display_name":"Duumy application 2", "display_info": { "initial": "ab", "display_name_plural": "				JSON	
	Output Data						
	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		
Image: Servers & Endpoints       Norkloads         Vorkloads       Pairing Profiles         Image: Profiles       Image: Servers         Image: Profiles       Image: Servers         Image: Profiles       Image: Servers         Image: Profiles       Image: Servers         Image: Profiles       Image: Service Accounts         User Activity       Authentication         Access Restriction       Image: Service Accounts         Image: Profiles       Image: Service Accounts         User Access Restriction       Image: Service Accounts         Image: Profiles       Image: Service Accounts         Image: Profiles		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
	۲	Summary Scope 🛞 All		