

# IBM Cloud Pak for Multicloud Management Integration Installation guide

This document provides a detailed step by step guide for installation of the IBM Cloud Pak for Multicloud Management integration components:

- Sysdig Agent
- Sysdig Secure Event Forwarding
- OpenID Single Sign On
- Navigation Menu Shortcuts

v1.0.3



Overview	4
General requirements	4
Sysdig agent	5
Requirements	5
Installation	5
Online installation	7
Airgapped installation	14
Event Forwarding	15
Requirements	15
Installation	15
Rules configuration and IBM Cloud Pak for Multicloud Management Context mapping	21
Event labels	22
Event fields	22
OpenID Connect SSO	24
Requirements	24
Installation	24
Client registration in IBM Cloud Pak for Multicloud Management	24
OpenID configuration in Sysdig Secure	27
OpenID configuration in Sysdig Monitor	30
User onboarding in Sysdig Secure and Sysdig Monitor	31





Navigation Menu Shortcuts	32
Requirements	32
Online Installation	32





# Overview

Sysdig integration with IBM Cloud Pak for Multicloud Management is composed of several components. Currently each component is installed and configured independently.

### **General requirements**

Some component configuration requires the user to execute *kubectl*, *cloudctl* or *helm* commands on the command line.

- Install and Set Up kubectl
- Installing IBM Cloud Pak CLI (cloudctl)
- Installing Helm

Alternatively, the *kubectl*, *cloudctl* and *helm* commands can be executed in the **Visual Web Terminal** that is available directly in the top navigation bar of the IBM Cloud Pak for Multicloud Management console:

Tab1 +					Visual Web Termin
eady cessfully connected to you	r cloud. For next	steps, try this	command:	getting started	11:23:
ubectl get ns					11:24:0
Name		Status	Age		
cert-manager		<ul> <li>Active</li> </ul>	12d		
cert-test		Terminating	11d		
default		• Active	12d		
icp-system		<ul> <li>Active</li> </ul>	12d		
istio-system		<ul> <li>Active</li> </ul>	12d		
kube-node-lease		<ul> <li>Active</li> </ul>	12d		
kube-public		• Active	12d		
kube-system		<ul> <li>Active</li> </ul>	12d		
openshift		<ul> <li>Active</li> </ul>	12d		
openshift-apiserver		<ul> <li>Active</li> </ul>	12d		
openshift-apiserver-operator		• Active	12d		
openshift-authentication		<ul> <li>Active</li> </ul>	12d		





# Sysdig agent

The Sysdig agent deploys on every node of your infrastructure, and monitors system calls depending on your defined policies and rules to detect undesired activities. Policies and rules are defined in Sysdig Secure. Whenever anything matching a defined policy occurs, the agent triggers a security event. The event is registered in Sysdig Secure for further analysis.

### Requirements

- Kubernetes or Openshift cluster(s) managed by IBM Cloud Pak for Multicloud Management.
- A namespace where the Sysdig Agent is later deployed must exist.
  - The Sysdig Agent installation instructions in this information uses the sysdig-agent namespace. If it does not exist, create it by running the following command: kubect1 create ns sysdig-agent
  - Otherwise, you can use a different pre-existing namespace (i.e. *kube-system*, or *default*).
- An IBM Cloud Pak for Multicloud Management account with administrator privileges.
- A Sysdig Secure installation (either <u>SaaS license</u>, or <u>On-Prem version</u>).
- A Sysdig Secure Agent Installation Key (obtained in the installation instructions).

# Installation

- 1. Navigate to Sysdig Secure.
  - a. For SaaS, navigate to <u>https://secure.sysdig.com/</u>.
  - b. For On-Prem, navigate to <u>https://HOSTNAME/secure</u>, where HOSTNAME is the address of your On-Prem instance.
- 2. Enter the credentials (email and password) for the admin user.
- 3. In Sysdig Secure, obtain the Agent Installation Key in the Agent installation section:





a. Click the green circle with your user initials at the bottom left of the screen, and then click on *Settings* on the pop-up menu to go to Account *Settings*.

	Entire Infrastructure	
	AI	
	Switch Team	
	- Entire infrastructure	
	Secure Operations (No Captures) HOST Entire Infrastructure	
	Entire Infrastructure HOST	
3	Store Front end CONTAINER kubernetes.namespace.name in ("store-frontend")	
Get Started	Team with full visibility CONTAINER Entire Infrastructure	
A	Settings	
	➔ Logout	

b. Copy the Agent access key that will be used during the agent installation:







#### **Online installation**

- 1. Login to IBM Cloud Pak console
- 2. Go to the Catalog clicking on the catalog icon located at the the icon bar on the header of the console screen.

■	IBM Cloud Pak for Multicloud Management	Q ☷ ⊕ 쿄 ଡ ⊗
	Welcome, let's get started. The IBM® Cloud Pak for Multicloud Management, running on Red Hat® OpenShift®, provides consistent visibility, governance, and automation from on premises to the edge. Enterprises gain capabilities such as multicluster management, event management, application management, and infrastructure management. Enterprises can use this IBM Cloud Pak to help increase operational efficiency that is driven by intelligent data, analysis, and predictive golden signals, and gain built-in support for their compliance management.	Catalog

3. In the *Catalog*, search for the *Sysdig* Helm chart by entering "sysdig" in the search field. Click the Helm chart:

Q sysdig     All Categories   DevOps   Operations   Security   Data   IoT   Integration     Sysdig Monitor and Secure agent	alog		
All Categories Classification Cloud Platform Architecture   DevOps   Operations   Security   Data   IoT   Integration     Integration	sysdig		
All Categories Classification Cloud Platform Architectur   DevOps Operations Helm Charts   Security >   Data ibm-community-charts   IoT Sysdig Monitor and Secure agent   Integration Image: Secure agent			
DevOps       Operations     Helm Charts       Security     >       Data     ibm-community-charts       IoT     Sysdig Monitor and Secure agent       Integration     Image: Security of the secure agent	Categories	Classification 🔻 Cloud Platform 👻	Architecture 💌
Operations Helm Charts   Security >   Data sysdig   IoT Sysdig Monitor and Secure agent   Integration Integration	Ops		
Security     >       Data     sysdig ibm-community-charts       IoT     Sysdig Monitor and Secure agent       Integration     Integration	rations	Helm Charts	
Data     sysdig ibm-community-charts       IoT     Sysdig Monitor and Secure agent       Integration	urity >		]
IoT     Sysdig Monitor and Secure agent       Integration     Integration	a	ibm-community-charts	
Integration		Sysdig Monitor and Secure agent	
	gration		
Data Science & Analytics	a Science & Analytics		





4. This guide describes how to install the Sysdig agent from the IBM Cloud Pak console, so ignore the command-line installation instructions, and just click the *Configure* button:

IBM Cloud Pak for Multicloud Management	Q 🗄 🕀 🗔 📀
	<pre>() - name: mytraefik []</pre>
	You can generate an additional values YAML file with the custom AppChecks:
	<pre>\$ git clone https://github.com/kubernetes/charts.git \$ cd community/sysdig \$ ./scripts/appchecks2helm appChecks/solr.py appChecks/traefik.py</pre>
	And deploy the Chart with both of them:
	<pre>\$ helm installname my-release -f custom-app-checks.yaml -f valu</pre>
	Support
	For getting support from the Sysdig team, you should refer to the official Sysdig Support page.
	In addition to this, you can browse the documentation for the different components of the Sysdig Platform:
	Sysdig Monitor
	Sysdig Secure
	Platform Documentation
	Monitor Documentation
	Secure Documentation

5. Provide a release name, choose the namespace where the agent will be installed, and select the cluster or clusters where it will be deployed:



in cloud I at for Maneroud Management		Q	≣	D
← View All				
eved is V 1 0 0				
Sysuig V L.O.U				
Comparation				
Configuration				
Sysdig Monitor and Secure agent. Edit these parameters to	or configuration.			
Helm release name *				
sysdig-agent				
Target namespace *	Target cluster *			
sysdig-agent	✓ local-cluster			~
License *				
I have read and agreed to the License agreement				
✓ I have read and agreed to the License agreement				
I have read and agreed to the License agreement           Parameters         Parameters				
<ul> <li>I have read and agreed to the License agreement</li> <li>Parameters</li> <li>To install this chart, additional configuration is needed in Q</li> </ul>	Juick start. To customize installation, view and edit All parameters.			
<ul> <li>I have read and agreed to the License agreement</li> <li>Parameters</li> <li>To install this chart, additional configuration is needed in Q</li> </ul>	)uick start. To customize installation, view and edit All parameters.			
I have read and agreed to the License agreement Parameters To install this chart, additional configuration is needed in Q Quick start	uick start. To customize installation, view and edit All parameters.			
I have read and agreed to the License agreement Parameters To install this chart, additional configuration is needed in Q Quick start Required and recommended parameters to view and edit.	uick start. To customize installation, view and edit All parameters.			
I have read and agreed to the License agreement Parameters To install this chart, additional configuration is needed in Q Quick start Required and recommended parameters to view and edit.	uick start. To customize installation, view and edit All parameters.			

Recommended values:

- Helm release name: sysdig-agent
- Target namespace: sysdig-agent

**NOTE:** The namespace must exist on the Target cluster, so you need to create it first.

6. Read the License agreement and check the "*I have read and agreed to the License agreement*" checkbox:







7. In the *Quick Start* section under *Parameters*, provide a *Cluster Name* and the *Sysdig Agent access key* in the corresponding fields:

Quick start
Required and recommended parameters to view and edit.
Ciuster Name *
my-mcm-cluster
Sysdig configuration
Sysdig Agent access key *
00123456-xxxx-xxxx-abcdef012345

The *Cluster Name* will be included in the events detected by Sysdig Secure. As you need to provide a different cluster name for each cluster where the agent is deployed, **you'll need to deploy once per cluster**.

8. For additional settings, expand the All Parameters section:



9. Only for Sysdig On-Prem, you need to provide the *Hostname for the Sysdig collector* of your Sysdig installation by checking the *Sysdig Installation on-premises* option in *Sysdig On-Prem installation settings* section, and providing the *collector* host and port:





systing on-rien installation settings	
Sysdig installation on-premises	
lostname for the Sysdig collector	Post for the Sysdig collecto
my-sysdig-host	6443
my-sysdig-host	6443
SSL enabled	

Additionally you can disable *ssl*, or disable the *SSL certificate verification* if not using a valid SSL certificate.

10. If you want to install a different version of the agent set it in the *Image configuration* subsection, by changing the value of *Image Tag*:

Image configuration		
Image registry	Image repository	
docker.io	sysdig/agent	
Image tag	Image pull policy	
10.1.1	Only if not present	•
10.1.1	Only if not present	•

11. To enable the Sysdig captures functionality (see more details in

https://docs.sysdig.com/en/disable-captures.html), which is disabled by default, uncheck the





Disable Sysdig Captures checkbox in the Sysdig Configuration section:

oysung	Comparation	
Sysdig	Agent access key *	
0012	3456-xxxx-xxxx-abcdef012345	
Dis	ible Sysdig Captures *	
Dis	ble Sysdig Captures *	
Disa Additio	ible Sysdig Captures *	

- 12. You can enter additional agent settings as described in the <u>Configuring System Agent document</u>. Additional settings for different environments are available at:
  - a. Kubernetes (Vanilla): https://docs.sysdig.com/en/steps-for-kubernetes--vanilla-.html
  - b. IKS: <u>https://docs.sysdig.com/en/agent-install--iks--ibm-cloud-with-sysdig-.html</u>
  - c. OpenShift: https://docs.sysdig.com/en/steps-for-openshift.html
  - d. Others: <u>https://docs.sysdig.com/en/agent-installation.html</u>
- 13. Click the *Install* button at the bottom left to trigger the deployment of the agent







14. The sysdig-agent installation should appear in list of Helm releases under Monitor health -> Helm releases:

IBM Cloud Pak for	Multicloud Managemen	t				Q	€	÷	Þ	?	(e
Helm relea	ISES										
Q agent	0										
Name	Cluster Name	Namespace	Status	Chart Name	Current Version	Updated 👻					
sysdig-agent	local-cluster	sysdig-agent	Deployed	sysdig	1.7.7	27 days ago					
items per page 20 🗖	<ul> <li>  1-1 of 1 items</li> </ul>					1 of 1 pages	<	1	- 3	>	

15. After a few minutes, you should see the new cluster under the Sysdig Monitor Overview by clusters section. Open Sysdig Monitor and click on the Overview icon on the side navigation bar, then choose *Kubernetes -> Clusters* in the pop-up menu:

E) >	Clusters					ĩ
	Cluster is any					
Overview		Events Node Ready Status	Pods Available vs Desired	CPU Requests vs Allocatable	Memory Req. vs Allocatable	Compliance score
<b>11</b> Dashboards	CL k8s-onprem	No 100% Events	100%	20%	6%	Docker k8s
Explore			5 25		0 01.0	
Ŷ						
Alerts						
Events						
Captures						





#### or in the Explore section:

£ .	Explore								
MONITOR	Hosts & Containers	▼ host.hostName ▼ × > container.id ▼ ×	Ð						Q 🔅
$\otimes$	Name	<ul> <li>cloudProvider.instance.ty</li> </ul>	cpu.used.percent %	memory.used.percent	net.bytes.total KiB/s	net.request.count.in /s	fs.root.used.percent %	fs.largest.used.perce	file.bytes.total MiB/s
Overview	<ul> <li>Entire Infrastructure (1)</li> </ul>	۵	13.8	76.3	25.5	576.1	10.8	10.8	7.0
11	✓ ip-172-31-52-42 (35)		13.8	76.3	25.5	576.1	10.8	10.8	7.0
Dashboards	🛶 03296f72ccb4		<0.1	<0.1	0	0	10.8	10.8	0
	naf26b9d3fc6		1.2	21.0	47.7	2.6	10.8	10.8	0.7
Evolore	🛶 12ddc4d3c571		<0.1	0.1	1.3	0.2	10.8	10.8	0
- Copiere	👉 15f20bdce0c0		2.5	24.6	53.5	8.0	10.8	10.8	<0.1
Ţ	👉 19e46be0f3dc		<0.1	0.5	0.3	0.1	10.8	10.8	<0.1
Alerts	👉 1e7a45bd7b64		0.6	22	88.2	246.8	10.8	10.8	0.1
	👉 251871ab3476		<0.1	<0.1	0.4	0.2	10.8	10.8	<0.1
Events	👉 3a18ed87b186		<0.1	<0.1	0.4	0.2	10.8	10.8	<0.1
<b>6</b> ]	👉 46f69fec6ab1		0.5	1.2	65.0	309.1	10.8	10.8	0.1
Captures	👉 565fa0eaa5be		<0.1	0.1	<0.1	0	10.8	10.8	0
	👉 56c795c84bd6		0.2	0.7	20.0	0	10.8	10.8	0
	👉 5cac59167d89		0	2.4	0	0	10.8	10.8	0
	🛶 5e68d30344a7		0.9	4.7	144.8	0.1	10.8	10.8	<0.1
	👉 603f80a23a3e		0.4	7.5	38.5	4.1	10.8	10.8	0.1
	75ab2f2c1f62		0.1	<0.1	5.1	1.2	10.8	10.8	<0.1

16. The agent installation is finished and ready.

#### **Airgapped installation**

See the **README** file in the tarball for instructions to complete the airgapped installation.





# **Event Forwarding**

Sysdig Secure Event Forwarding integration allows you to receive security events detected in Sysdig directly into the Govern & Risk Security Findings dashboard in IBM Cloud Pak for Multicloud Management. From the dashboard you can directly jump into Sysdig Secure event to perform further incident analysis and response.

### Requirements

- Kubernetes or Openshift cluster(s) managed by IBM Cloud Pak for Multicloud Management.
- An IBM Cloud Pak for Multicloud Management account with administrator privileges.
- A Sysdig Secure installation (either SaaS license, or <u>On-Prem version</u>).
- Sysdig Agent already installed on the cluster.
- A grafeas-service-admin-id API Key in IBM Cloud Pak for Multicloud Management (created in the installation instructions).

# Installation

1. Login to IBM Cloud Pak console with an administrator account.



2. Go to Administer -> Identify and access

×	× IBM Cloud Pak for Multicloud Management					
$\bigcirc$	Observe environments	>	_∽ Administer			
8	Automate infrastructure	>	Identity and access			
	Manage applications		Metering			
$\bigcirc$	Govern risk		Helm repository			
$\checkmark$	Monitor health	>	Humio			
φģ	Administer	>	Sysdig Secure			

3. Click the Service IDs tab, and then click on the grafeas-admin-service-id entry.

≣	IBM Cloud Pak for M	ulticloud Management				Q	₿	Ð	Ð	?
	Service IDs	Teams	Service IDs							
						Q	Cre	ate Serv	vice ID	
	Name		Desc	cription	Created	Modif	ied			
	cem-service-id		-		1 day ago	1 dav	ago		:	

Security Advisor service id grafeas-admin-service-id

Security Advisor service id grafeas-external-service-id

Security Advisor service id grafeas-internal-service-id



grafeas-admin-service-id

grafeas-external-service-id

grafeas-internal-service-id

1 day ago



#### 4. Click on the API Keys tab, then on the Create API Key button:

ervice IDs / grafeas-admin-service-id						
grafeas-admin-service-id						
Service Policies API Keys	Teams					
			0	Crea	te API K	ev
			~	Gree		с у
Name	De	escription C	reated			
security-advisor-adminService-apikey	Se	ecurity Advisor apikey for adminService 1	day ago		:	
sysdig-token	To	oken for Sysdig Secure integartion 30	0 days ago		:	
items per page 20 v 1-2 of 2 items			1 ~ 10	f 1 pages		•

5. Provide a name (i.e. sysdig-token) and optionally a description, and click Create:

grafeas-admin-service-id Create API Key		×	
Name (j)			
sysdig-token			
Description (j) Enter a description		]	
Cancel	Create		





6. Copy and store, or download, the created API Key. You will need it later for configuring the Event Forwarder:



7. Login to Sysdig Secure, go to the Account *settings* using the account menu on the bottom left, and then go to the *Event Forwarding* section. Click on the *Add integration* button and choose IBM MCM:

Ċ	Set	tings	Event Forwarding			
	٢	User Profile				Add Integration
POLICY EVENTS		Users	Enabled	Integration	Data to Send	Syslog
6				A wrong one	Policy events	> Splunk
POLICIES	-	Teams		URL: rsyslog.mydomain.com		IBM MCM
	¢	Notifications				👶 IBM QRadar
CAPTURES	•	AWS Accounts				
	0	Sysdig Storage				
BENCHMARKS		Data Retention				
IMAGE SCANNING	\$	Feeds Status				
	Ţ	Agent Installation				
	>	Event Forwarding				
	07	Authentication				
0						





8. Fill up the configuration details, using the IBM Cloud Pak for Multicloud Management API Endpoint of your cluster and the Grafeas API Key previously created:

New Integration	
Integration Type	ІВМ МСМ
Enabled	
Integration Name	My MCM Cluster
URL	https://my-mcm-clouster.com
Grafeas API Key	
Account ID	lid-mycluster-account
Data to Send	Policy events × v
Allow insecure connections	
	Cancel Save

Integration Name: enter any name to identify this event forwarder.

**URL**: The URL, including https:// and port if it is not the default 443, to your IBM Cloud Pak for Multicloud Management API endpoint. This URL should be the same you use to connect to the IBM Cloud Pak for Multicloud Management console.

Grafeas API Key: The API key you obtained in Step 6.

Account ID: You can leave it blank to use the default value of *id-mycluster-account*. If you want to use a different account name, provide it here. You can list the existing accounts in your cluster using *cloudctl iam accounts* command.

**Data to Send:** select the types of events that you want to forward to IBM Cloud Pak for Multicloud Management.

9. Click *Save* to complete the configuration.





Settings	Event Forwarding			
User Profile				Add Integration
Users	Enabled	Integration	Data to Send	
Teams		Wy MCM Cluster URL: https://icp-console.apps.yellow-13.dev.multicloudops.io	Policy events	I
Notifications				
AWS Accounts				
Sysdig Storage				
Data Retention				
C Feeds Status				
Agent Installation				
> Event Forwarding				

#### 10. The new Event Forwarder will now be listed in the Event Forwarding screen.

11. Once the Event Forwarder is ready, new Policy Events in Sysdig Secure should be forwarded to the *Govern risk* findings section in BM Cloud Pak for Multicloud Management. For example, the following events from Sysdig Secure:

Story -	Policy Events	Enti	re infrastructure
SECURE	Browse By Hosts & Containers	•	About 5 hours
Policy Events Policies Policies Activity Audit Captures Benchmarks	Browse By Hosts & Containers         > ip-10-0-130-147         > ip-10-0-130-147         > ip-10-0-134-181         > ip-10-0-135-224         > ip-10-0-142-237         > ip-10-0-145-191         > ip-10-0-145-191         > ip-10-0-151-192         > ip-10-0-152-209         > ip-10-0-165-58         > ip-10-0-155-85         > ip-10-0-174-171	<ul> <li>2</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>2</li> <li>2</li> <li>3</li> <li>0</li> <li>1</li> <li>0</li> <li>0&lt;</li></ul>	About Hours Fa 1 policies triggered: Access Cryptomining Network p-10-0-151-192 > security-playground About Hours Fa Sensitive Info Exfiltration p-10-0-147-17 > ping-php About 11 hours Fa 2 policies triggered: Terminal shell in container , Launch Suspicious Network Tool in Container - No Dig 2 entities involved About 18 minutes





Will be available i	n Govern	ı risk dashboa	rd. inside S	Security Find	ings section

■ IBM Cloud Pak for Multicloud Manager	nent					Q	≣	• I	5 (?	) (2)
Governance and risk $\odot$						C Refre	esh every	5s <b>•</b>	Last update	: Filter
Policies Security findings										
						Security findi	ngs	Clu	ster findir	ngs
Description	Resources	Severity	Cluster	Standards	Controls	Categories		Up	date 👻	
Policy violation finding	Policy: policy-vmpolicy	High	ocp-cluster13e- turbo	NIST	Vm Operator	System And Informat Integrity	ion	7 min ago	nutes	
Terminal shell in container	container: woocommerce	High	yellow-13	MITRE	Sysdig Secure	Other		10 da	iys ago	
Launch Suspicious Network Tool in Container - No Dig	container: client	Medium	yellow-13	Other	Sysdig Secure	Other		10 da	iys ago	
Access Cryptomining Network	container: security- playground	Medium	yellow-13	PCI	Sysdig Secure	Other		10 da	iys ago	
Access Cryptomining Network	container: security- playground	Medium	yellow-13	PCI	Sysdig Secure	Other		10 da	iys ago	
Access Cryptomining Network	container: security- playground	Medium	yellow-13	PCI	Sysdig Secure	Other		10 da	iys ago	
Sensitive Info Exfiltration	container: ping-php	High	yellow-13	PCI	Sysdig Secure	Other		11 da	iys ago	
Terminal shell in container	container: woocommerce	High	yellow-13	MITRE	Sysdig Secure	Other		11 da	iys ago	
Launch Suspicious Network Tool in Container - No Dig	container: client	Medium	yellow-13	Other	Sysdig Secure	Other		11 da	iys ago	
Access Cryptomining Network	container: security- playground	Medium	yellow-13	PCI	Sysdig Secure	Other		11 da	iys ago	
items per page 10 👻   11-20 of 99 items						2 of 10 p	oages	<	2 🕶	>

# Rules configuration and IBM Cloud Pak for Multicloud Management Context mapping

Policy Events forwarded to Security Findings are mapped to the IBM Cloud Pak for Multicloud Management context:

- Resource Type
- Resource Name
- Namespace
- Cluster Name





The mapping is performed based on two different sources: event **fields** and event **labels**. Please consider the following guidelines to allow an optimal mapping to IBM Cloud Pak for Multicloud Management Context.

#### **Event labels**

Kubernetes events in Sysdig Secure are enriched with a set of labels including:

- kubernetes.cluster.name
- kubernetes.namespace.name
- kubernetes.pod.name
- ...

as described in the <u>Sysdig Event Forwarding documentation</u>. These labels are included by default, but can be removed by using the *exclude* option in the agent configuration. **This should not be necessary and will prevent the mapping from working correctly, so please don't use this option in the agent settings.** 

#### **Event fields**

When a Policy Event is triggered from a defined Falco rule, the event will include all the **fields** that are used in the Falco rule output. For example, the following rule, coming from the Kubernetes Audit source:



#### will include the fields:

- ka.user.name
- ka.target.name





• ka.target.namespace

The full list of available fields is available in <a href="https://falco.org/docs/rules/supported-fields/">https://falco.org/docs/rules/supported-fields/</a>

The available fields help mapping the event to the IBM Cloud Pak for Multicloud Management context for *k8s\_audit* (Kubernetes Audit log) source. So in case you define a custom rule for *k8s\_audit* **please include relevant fields in the output**:

- ka.target.name (for the Resource Name).
- ka.target.resource (contains the Resource Type).
- ka.target.namespace (contains the Namespace).





# **OpenID Connect SSO**

Single-sign-on (SSO) integration simplifies the registration and login experience of IBM Cloud Pak for Multicloud Management users in Sysdig Monitor and Sysdig Secure.

IBM Cloud Pak for Multicloud Management acts as an OpenID Connect identity provider, so any user can login in the Sysdig platform with the same credentials they are using in IBM Cloud Pak for Multicloud Management. If they have already logged in, the same session is used and the user won't need to identify again. Newly onboarded users are assigned to a default team in Sysdig applications

# Requirements

- Kubernetes or Openshift cluster(s) managed by IBM Cloud Pak for Multicloud Management.
- A IBM Cloud Pak for Multicloud Management account with administrator privileges.
- Users in IBM Cloud Pak for Multicloud Management must have an email attribute.
- A Sysdig Secure installation (either SaaS license, or <u>On-Prem version</u>).
- A Sysdig Monitor installation (either SaaS license, or <u>On-Prem version</u>).
- For SaaS only, your Sysdig Secure / Sysdig Monitor *customer name*, which is associated with your license and account. You can ask Sales to set and provide your *customer name*.
- IBM Cloud Pak for Multicloud Management console must have a valid TLS certificate. If that is not the case, check how to include external CA certificates:
  - Use CA Certs for External SSL Connection (Kubernetes)
  - Use CA Certs for External SSL Connection (Openshift)

### Installation

SSO configuration is a three stepwise process. First, you need to create a new "client registration" in IBM Cloud Pak for Multicloud Management, which is the Identity Provider in the OpenID Connect protocol. Then, you configure the client side on both Sysdig Secure and Sysdig Monitor.

#### **Client registration in IBM Cloud Pak for Multicloud Management**





This document covers the client registration using *cloudctl* tool. Additional information and other ways of performing this registration are detailed in:

https://www.ibm.com/support/knowledgecenter/SSFC4F 1.3.0/iam/3.4.0/auth onboard.html

- Download and install *cloudctl* tool, if not already installed. Download and installation instructions are available here: https://www.ibm.com/support/knowledgecenter/SSFC4F 1.3.0/cloudctl/install cli.html
- Login to your cluster using the *cloudctl login* command using a user with administrator permissions. You'll be asked for your user and password: cloudctl login -a <u>https://your-cluster-ip-endpoint</u>
- 3. Create a *registration.json* following the template described in the onboarding docs. The *registration.json* file should look like:

```
{
  "token_endpoint_auth_method":"client_secret_basic",
  "client_id": "your-client-id",
  "client_secret": "<some-random-secret-string>",
  "scope": "openid profile email",
  "grant_types":[
     "authorization_code",
     "client_credentials",
     "password",
     "implicit",
     "refresh_token",
     "urn:ietf:params:oauth:grant-type:jwt-bearer"
  ],
  "response_types":[
     "code",
     "token",
     "id_token token"
  ],
  "application_type":"web",
  "subject_type":"public",
  "preauthorized_scope":"openid profile email general",
  "introspect_tokens":true,
```





```
"trusted_uri_prefixes":[ "https://secure.sysdig.com/"],
"post_logout_redirect_uris":[
    "https://secure.sysdig.com/api/oauth/openid/logout"
],
"redirect_uris":[
    "https://secure.sysdig.com/api/oauth/openid/secureAuth",
    "https://app.sysdigcloud.com/api/oauth/openid/auth"
]
```

4. In the previous *registration.json* file, choose a *client\_id* and generate a random *client\_secret*. Adjust the *redirect\_uris* and *post\_logout\_redirect\_uris* to contain the OpenID redirect URIs for On-Prem as described in <u>https://docs.sysdig.com/en/openid-connect--on-prem-.html</u> (the example URIs are for SaaS).

```
a. For SaaS:
    "trusted_uri_prefixes":[ "https://secure.sysdig.com/"],
    "post_logout_redirect_uris":[
        "https://secure.sysdig.com/api/oauth/openid/logout"
],
    "redirect_uris": [
        "https://secure.sysdig.com/api/oauth/openid/secureAuth",
        "https://app.sysdigcloud.com/api/oauth/openid/auth"
]
```

b. For onPrem, use (replace HOSTNAME by the host name of your Sysdig instance and include the port even if it is the standard 443): "trusted\_uri\_prefixes":[ "https://HOSTNAME:PORT/"], "post\_logout\_redirect\_uris":[ "https://HOSTNAME:PORT/api/oauth/openid/logout" ], "redirect\_uris": [

```
"https://HOSTNAME:PORT/api/oauth/openid/secureAuth",
"https://HOSTNMAME:PORT/api/oauth/openid/auth"
```

```
]
```



}



5. Create the client registration using the *cloudtcl iam oauth-client-register* command:

```
$ cloudctl iam oauth-client-register -f registration.json
OK
client_name: your-client-id
client_id: your-client-id
client_secret: <some-random-secret-string>
```

6. Your client is now registered. Keep the *client\_secret* string that you used for the registration, as it will be used when configuring the client side in Sysdig Secure and Sysdig Monitor.

#### **OpenID configuration in Sysdig Secure**

- 1. Login to Sysdig Secure using an account with administrator privileges.
- 2. Go to Account -> Settings using the user icon on the bottom left of the screen:

	Secure Operations Entire Infrastructure	HOST
<b>3</b>		
AI		
	Settings	
	➔ Logout	





3. Go to the Authentication section and choose OpenID in connection settings. Let's suppose <a href="https://my-mcm-cluster/">https://my-mcm-cluster/</a> is the base URL for your IBM Cloud Pak for Multicloud Management cluster API endpoint. Fill up all the fields with the following values:

Authentication	
Enable Single Sign On	OpenID V Set Authentication
Connection Settings	
OpenID SAML Good	gle Oauth
Client ID	sysdig-secure-ibm-demo
Client Secret	
Issuer URL	https://icp-console.apps.yellow-13.dev.multicloudops.io/idauth/oidc/endpoint/OP
Create user on login	Flag to enable/disable create user on login
Metadata Discovery	Discovery is supported by the Issuer
Base Issuer	https://icp-console.apps.yellow-13.dev.multicloudops.io/idauth/oidc/endpoint/OP
Authorization Endpoint	https://icp-console.apps.yellow-13.dev.multicloudops.io/oidc/endpoint/OP/authorize
Token Endpoint	https://icp-console.apps.yellow-13.dev.multicloudops.io/idprovider/v1/auth/token
Json Web Key Set Endpoint	https://icp-console.apps.yellow-13.dev.multicloudops.io/oidc/endpoint/OP/jwk
Token Auth Method	Client Secret Post 🗸
Disable username and password login	Flag to enable/disable username and password login

• Client ID: your-client-id (same value as in registration.json)



**Delete Settings** 

Save



- *Client Secret:* **<some-random-secret-string>** (same value as in *registration.json*)
- Issuer URL: <u>https://my-mcm-cluster/idauth/oidc/endpoint/OP</u>
- Create user on login: Enabled if you want all users in IBM Cloud Pak for Multicloud Management identity provider to be automatically onboarded in Sysdig Secure.
   Otherwise, disable it and manually add users in Sysdig Secure before they are able to login.
- Metadata Discovery: **Disabled**
- Base Issuer: https://my-mcm-cluster/idauth/oidc/endpoint/OP
- Authorization Endpoint: <u>https://my-mcm-cluster/oidc/endpoint/OP/authorize</u>
- Token Endpoint: <u>https://my-mcm-cluster/idprovider/v1/auth/token</u>
- Json Web Key Set Endpoint: https://my-mcm-cluster/oidc/endpoint/OP/jwk
- Token Auth Method: Client Secret Post
- 4. ▲ Please note that the prefix for *Tokend Endpointt* field differs from the other endpoints (it is /idprovider/v1/auth/).
- 5. Click *Save* button, and then at the top of the same screen, choose *OpenID* in the *Enable Single Sign On* drop-down, and click the *Set Authentication* button.
- 6. For SaaS, you'll need to obtain your *company name* ID for your Sysdig Secure account (sales support can provide it to you, in case you don't know it already).

Once this is ready, you should be able to trigger OpenID Connect SSO authentication by using the following URLs:

- On-Prem: <u>https://HOSTNAME/api/oauth/openid?product=SDS</u>
- SaaS: <u>https://secure.sysdig.com/api/oauth/openid/<company name>?product=SDS</u>
- Using the Sysdig Secure link from the Navigation Menu shortcuts in the IBM Cloud Pak for Multicloud Management console.
- Using the *Review event in Sysdig Secure* link from a Sysdig Secure security finding details in the Govern Risk console.

Or by clicking the OpenID button on the login page:





Sysdig Secure
Enter your email address
Enter your password
Log in
Forgot your password?
or log in with:
G Google SAML COpenD
Not a customer? Try for free

and for SaaS, then enter your *company name* when prompted:



#### **OpenID configuration in Sysdig Monitor**

Sysdig Monitor OpenID Single Sign On configuration is exactly the same as configuring Sysdig Secure.





Once the configuration is finished, you should be able to trigger OpenID Connect SSO authentication by using the following URLs:

- On-Prem: <u>https://HOSTNAME/api/oauth/openid</u>
- SaaS: <u>https://app.sysdigcloud.com/api/oauth/openid/<company name></u>
- Using the Sysdig Monitor link from the Navigation Menu shortcuts in the IBM Cloud Pak for Multicloud Management console.

#### User onboarding in Sysdig Secure and Sysdig Monitor

Users will get automatically onboarded in Sysdig Secure and Sysdig Monitor the first time they login using Single Sign-On, and added to the *Default* team in the corresponding application on first login.

As *teams* are independent in Sysdig Secure and Sysdig Monitor, a user that logs in first in Sysdig Secure won't belong to any team in Sysdig Monitor, and **login will be denied**. The opposite also applies, so if it first logs in Sysdig Monitor, the user won't be in any Sysdig Secure team.

Login as an administrator user in the corresponding application (Sysdig Secure or Monitor), and navigate to Settings -> Users and add the user to any team in order to allow it to login to the application.





# **Navigation Menu Shortcuts**

The Navigation Menu integration includes direct links from IBM Cloud Pak for Multicloud Management menu to launch Sysdig Secure and Sysdig Monitor.

### Requirements

- Kubernetes or Openshift cluster(s) managed by IBM Cloud Pak for Multicloud Management.
- A IBM Cloud Pak for Multicloud Management account with administrator privileges.
- Navigation menu Helm Charts.

# **Online Installation**

- 1. Download and install Helm (version 3.x preferred)
- 2. Add the sysdiglabs Helm chart repository:

helm repo add sysdiglabs <u>https://sysdiglabs.github.io/charts/</u>

If you are using **Helm 2** and it is not initialized, you might get an error message like:

```
Error: Couldn't load repositories file ...
```

```
You might need to run `helm init` (or `helm init --client-only` if tiller is already installed)
```

In that case, run the suggested command:

helm init --client-only

And repeat step 2 again. Now it should work.

3. Refresh the repositories cache:





#### helm repo update

4. Create the sysdig-navmenu namespace:

kubectl create ns sysdig-navmenu

- 5. For Helm 3 or higher (check running "helm version").
  - a. For Sysdig SaaS, use the command:

helm install -n sysdig-navmenu \

--set saas=true,companyName=<my-company-name> \

sysdig-navmenu sysdiglabs/sysdig-mcm-navmenu

where **<my-company-name>** is replaced with your company name ID.

b. For On-Prem, use:

helm install -n sysdig-navmenu \
 --set saas=false,sysdigURL=<https://HOSTNAME> \

sysdig-navmenu sysdiglabs/sysdig-mcm-navmenu

where <https://HOSTNAME> is replaced with your on-prem installation URL.

- 6. For Helm 2 (check running "helm version").
  - a. For Sysdig SaaS, use the command:

```
helm install --namespace sysdig-navmenu \
    --set saas=true,companyName=<my-company-name> \
    -n sysdig-navmenu sysdiglabs/sysdig-mcm-navmenu --tls
```

where **<my-company-name>** is replaced with your company name ID.





b. For On-Prem, use:

```
helm install --namespace sysdig-navmenu \
    --set saas=false,sysdigURL=<https://HOSTNAME> \
    -n sysdig-navmenu sysdiglabs/sysdig-mcm-navmenu --tls
```

where <https://HOSTNAME> is replaced with your on-prem installation URL.

