SUSE Security (formerly NeuVector)

Integrating SUSE Security with Microsoft Sentinel

Getting Started

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Microsoft Sentinel

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Date: 2025-03-03

Summary

This guide provides a step-by-step process for integrating SUSE Security with Microsoft Sentinel, enabling a unified security approach. It covers resource creation through applying a base configuration. This integration allows for automated responses to threats and streamlines security operations.

Disclaimer

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Contents

1 Introduction

Security is becoming increasingly important for users and administrators alike. Unfortunately, many tools have unique interfaces or interactions that make getting an overview of the environment more difficult. This guide introduces a solution for unifying the security approach by integrating SUSE Security with Microsoft Sentinel. Integrating SUSE Security with Microsoft Sentinel provides a comprehensive overview of the environment. It also enables new ways to interact with security using Microsoft Security Copilot.

SUSE Security (https://www.suse.com/products/rancher/security/) ↗ (formerly NeuVector) is a fully open source, zero trust container security platform. SUSE Security offers enhanced runtime security, advanced threat detection, and expanded compliance features. It continuously scans throughout the container lifecycle. It can remove security roadblocks. Bake in security policies at the start to maximize developer agility.

Microsoft Sentinel (https://azure.microsoft.com/en-us/products/microsoft-sentinel) ↗ is a scalable, cloud-native security information and event management (SIEM) that delivers an intelligent and comprehensive solution for SIEM and security orchestration, automation, and response (SOAR). Microsoft Sentinel provides cyberthreat detection, investigation, response, and proactive hunting, with a bird's-eye view across your enterprise.

By combining these two best-in-class offerings, you can receive alerts and automatic responses to security threats, including intrusions or other risks, for workloads running in Azure, whether VM or Kubernetes-based.

1.1 Scope

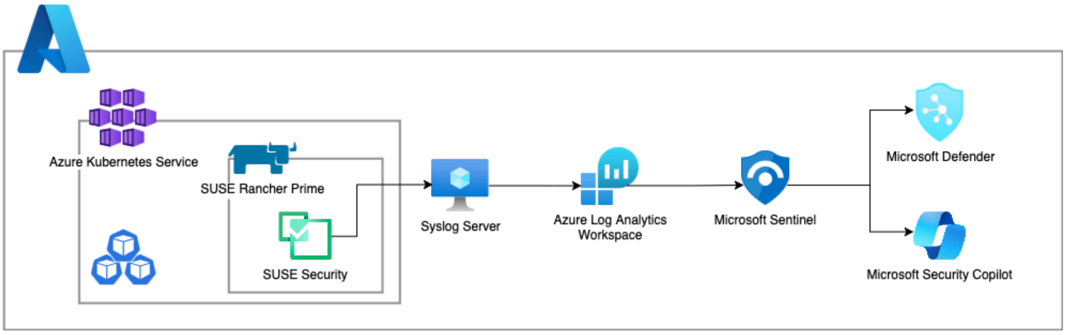
This guide will walk you through the process of deploying and configuring SUSE Security. It will also cover how to set up SUSE Security to export log data into Azure Log Analytics Workspace, which can be used in Microsoft Sentinel for monitoring across your entire Azure domain.

1.2 Audience

This guide is designed for System Administrators, SecOps, IT Operations, or anyone interested in creating a unified security view for an Azure environment, encompassing both VM and Kubernetes-based workloads.

2 Technical Overview

This guide demonstrates how to integrate SUSE Security with Microsoft Sentinel. This is accomplished by exporting data from SUSE Security into a Syslog server and then collecting it into an Azure Log Analytics Workspace. This data will then be used in Microsoft Sentinel. The following diagram provides a basic overview of the data flow.



2.1 Components and Tools

SUSE Rancher Prime

SUSE Rancher Prime is the unified cloud-native platform helping teams manage their Kubernetes from infrastructure to applications. 100% open source, SUSE Rancher streamlines cluster deployment, offering centralized authentication, access control and observability across your deployments anywhere.

SUSE Security

SUSE Security is the only fully open source, zero trust container security platform. SUSE Security offers enhanced runtime security, advanced threat detection, and expanded compliance features. Continuously scan throughout the container lifecycle. Remove security roadblocks. Bake in security policies at the start to maximize developer agility.

Azure Log Analytics Workspace

Log Analytics workspace is a data store into which you can collect any type of log data from all of your Azure and non-Azure resources and applications. Workspace configuration options let you manage all of your log data in one workspace to meet the operations, analysis, and auditing needs of different personas in your organization.

Microsoft Sentinel

Microsoft Sentinel is a scalable, cloud-native security information and event management (SIEM) that delivers an intelligent and comprehensive solution for SIEM and security orchestration, automation, and response (SOAR). Microsoft Sentinel provides cyberthreat detection, investigation, response, and proactive hunting, with a bird's-eye view across your enterprise.

2.2 Process Overview

Getting started with integration SUSE Security and Microsoft Sentinel is fairly easy. The basic process:

1. Create an Azure Resource Group
2. Use SUSE Rancher Prime to deploy an Azure Kubernetes cluster
3. Create a VM to act as a Syslog server
4. Create an Azure Log Analytics Workspace to store log data
5. Configure the data from SUSE Security to flow into the Azure Log Analytics Workspace
6. Create alerts and actions in Microsoft Sentinel based on the data

3 Prerequisites

This guide aims to be comprehensive, but concise. To follow along, ensure you have the following:

- An active Azure subscription with permissions to deploy resources
- A registered instance of SUSE Rancher Prime Suite or higher

4 Procedure

4.1 Infrastructure

To create this integration, several resources need to be created in Azure. This includes an Azure Kubernetes (AKS) cluster where workloads will be running and a virtual machine (VM) to act as a Syslog server. An Azure Log Analytics Workspace and an instance of Microsoft Sentinel are needed for log data storage and processing. Additionally, one or more Security Compute Units (SCUs) are required to integrate Microsoft Sentinel further for use with Azure Security Copilot.

A separate Azure Resource Group is recommended to hold resources created throughout this guide. A new Resource Group can be created in the Azure Portal or through the Azure CLI. This guide will use the South Central US region in commands, however any region can be used.

```
az group create --name sentinel-demo --location southcentralus
```

The next step is to create an Azure Virtual Network. It will need two different subnets in the network. A larger one for the AKS resources and workloads and a much smaller one to hold the syslog server.

1. Create the Virtual Network

   ```
   az network vnet create -g sentinel-demo -n demo-vnet --address-prefix 10.10.0.0/22
   ```

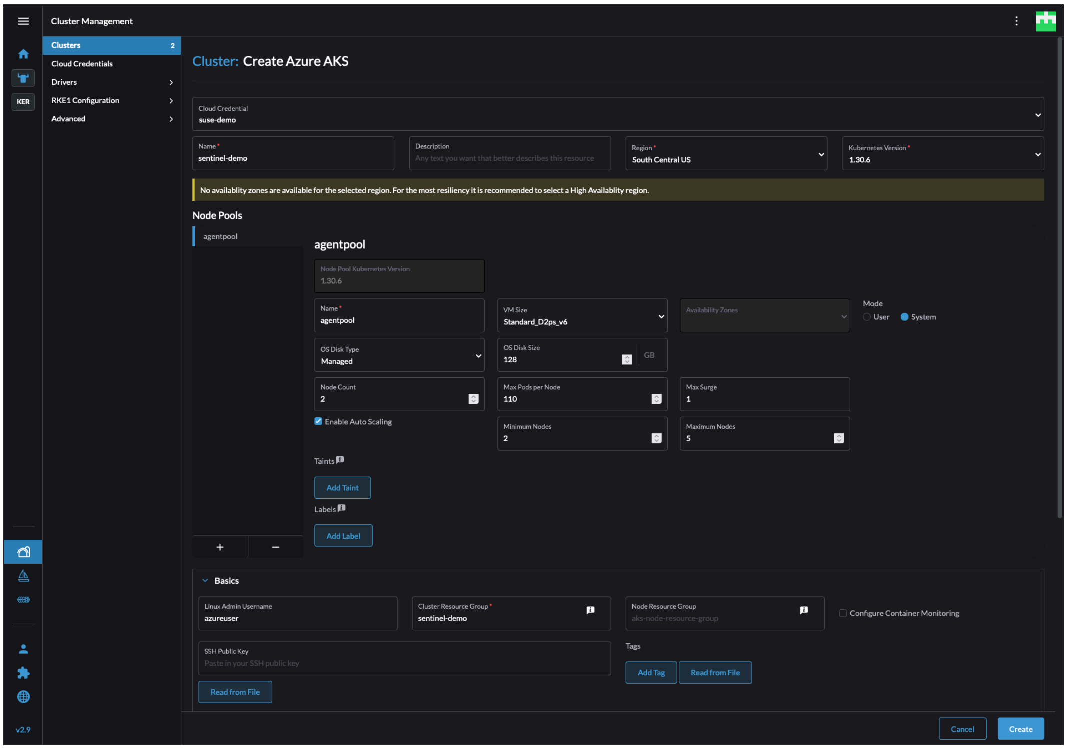
2. Create the larger subnet

   ```
   az network vnet subnet create -g sentinel-demo --vnet-name demo-vnet --name aks-
   subnet --address-prefixes "10.10.0.0/23"
   ```

3. Create the smaller subnet

   ```
   az network vnet subnet create -g sentinel-demo --vnet-name demo-vnet --name syslog-
   subnet --address-prefixes "10.10.3.240/28"
   ```

With the network prepared, the next step is to create an AKS cluster. The easiest method is through SUSE Rancher Prime. From the Home page select *Create* above the cluster list, then select *Azure AKS*. Enter values for the requested fields and click *Create*. SUSE Rancher Prime will create the cluster inside of Azure and deploy the Rancher agent on the cluster to allow for management through the Rancher portal.



Cluster: Create Azure AKS

Cloud Credential: suse-demo

Name *: sentinel-demo

Description: Any text you want that better describes this resource

Region *: South Central US

Kubernetes Version *: 1.30.6

No availablity zones are available for the selected region. For the most resiliency it is recommended to select a High Availablity region.

Node Pools

agentpool

Node Pool Kubernetes Version: 1.30.6

Name *: agentpool

VM Size: Standard_D2ps_v6

Availability Zones

Mode: ○ User ● System

OS Disk Type: Managed

OS Disk Size: 128 GB

Node Count: 2

Max Pods per Node: 110

Max Surge: 1

☑ Enable Auto Scaling

Minimum Nodes: 2

Maximum Nodes: 5

Basics

Linux Admin Username: azureuser

Cluster Resource Group *: sentinel-demo

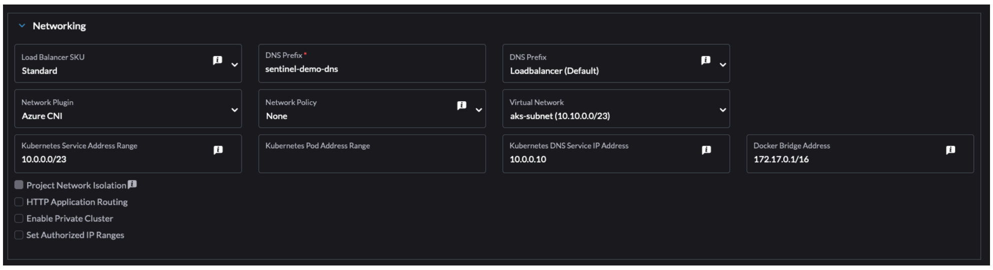
Node Resource Group: aks-node-resource-group

□ Configure Container Monitoring

SSH Public Key: Paste in your SSH public key

Note

This guide assumes Azure CNI networking is used. It is the recommended CNI from Azure for use with AKS clusters.



Networking

Load Balancer SKU: Standard

DNS Prefix *: sentinel-demo-dns

DNS Prefix: Loadbalancer (Default)

Network Plugin: Azure CNI

Network Policy: None

Virtual Network: aks-subnet (10.10.0.0/23)

Kubernetes Service Address Range: 10.0.0.0/23

Kubernetes Pod Address Range

Kubernetes DNS Service IP Address: 10.0.0.10

Docker Bridge Address: 172.17.0.1/16

□ Project Network Isolation

□ HTTP Application Routing

□ Enable Private Cluster

□ Set Authorized IP Ranges

Note

Existing clusters are supported, but must be imported into SUSE Rancher to deploy SUSE Security. See the SUSE Rancher documentation (https://ranchermanager.docs.rancher.com/how-to-guides/new-user-guides/kubernetes-clusters-in-rancher-setup/register-existing-clusters) ↗ for steps to import an existing cluster.

Important

If the network was not created as a part of this guide, then a small, separate network must be created to contain the Syslog server. The smallest network segment allowed by Microsoft Azure is /29.

```
az network vnet create -g sentinel-demo -n demo-vnet --address-prefix 172.16.0.0/29
 --subnet-name default --subnet-prefixes 172.16.0.0/29
```

This network must be peered with the network containing the AKS cluster to allow for the Syslog server to receive logs exported from SUSE Security.

```
# create demo-vnet to aks peering
az network vnet peering create --name syslog-to-aks-peer --vnet-name demo-vnet --
remote-vnet aks-vnet-xxxxx --resource-group sentinel-demo --allow-vnet-access --
allow-forwarded-traffic

# create aks to demo-vnet peering
az network vnet peering create --name aks-to-syslog-peer --vnet-name aks-vnet-xxxxx
 --remote-vnet demo-vnet --resource-group sentinel-demo --allow-vnet-access --
allow-forwarded-traffic
```

The next step is to create a virtual machine to act as the Syslog server. It will be placed in the smaller subnet previously created.

```
az vm create -n syslog-server -g sentinel-demo --image SUSE:sles-15-sp6:gen2:2024.11.13
 --vnet-name demo-vnet --subnet syslog-subnet --size Standard_B2s --generate-ssh-keys
```

Note

This command uses the pay-as-you-go version of SUSE Linux Enterprise Server. It can be substituted for the bring-your-own-license version as required.

The last piece of infrastructure to deploy is the Azure Log Analytics Workspace. This is used to store all of the log data sent to the Syslog server. It will be used as an intermediary between the Syslog server and Microsoft Sentinel where alerts and actions can be created.

```
az monitor log-analytics workspace create -g sentinel-demo -n demo-log-analytics
```

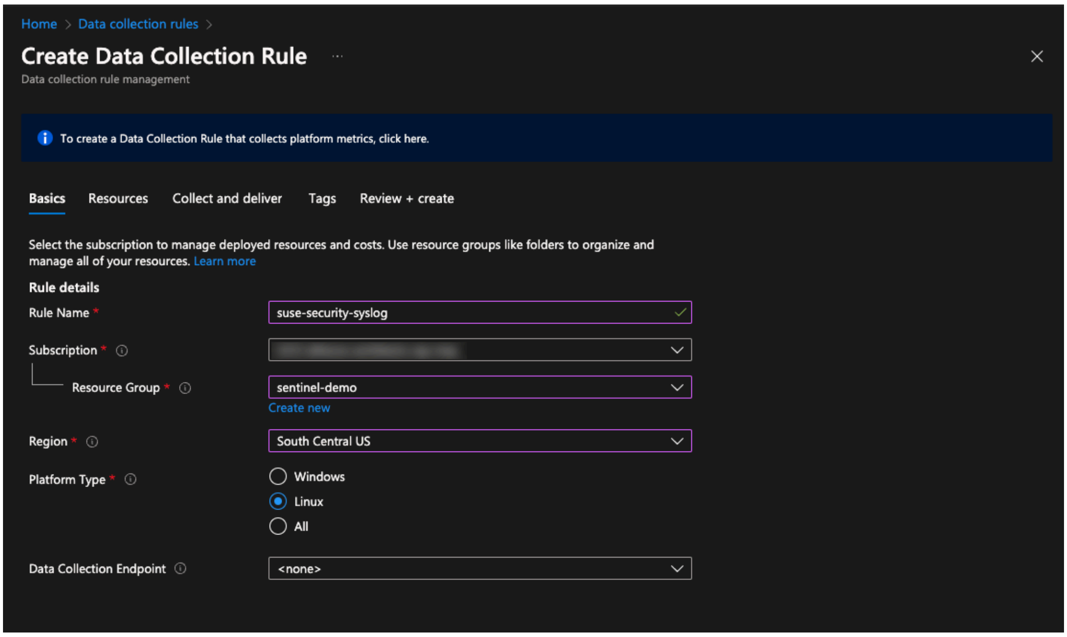
The environment is now deployed.

4.2 Configuration

This section will cover the configuration of SUSE Security and the data pipeline into Microsoft Sentinel.

4.2.1 Log Analytics Workspace

Create the necessary Data collection rule which will capture the syslog events from the VM and store them in the Log Analytics Workspace. In the Azure Portal search for `Data collection` rules in the top search box. This will bring up a list of existing rules. Click *Create* near the top to make a new one. In the template that appears give the rule a name such as `suse-security-syslog`. Then select the resource group created previously. Ensure that the region matches the region used for the other resources. Set the Platform Type to `Linux` and click *Next* at the bottom.



Create Data Collection Rule

Data collection rule management

To create a Data Collection Rule that collects platform metrics, click here.

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all of your resources. Learn more

Rule details

Rule Name * suse-security-syslog

Subscription * [redacted]

Resource Group * sentinel-demo

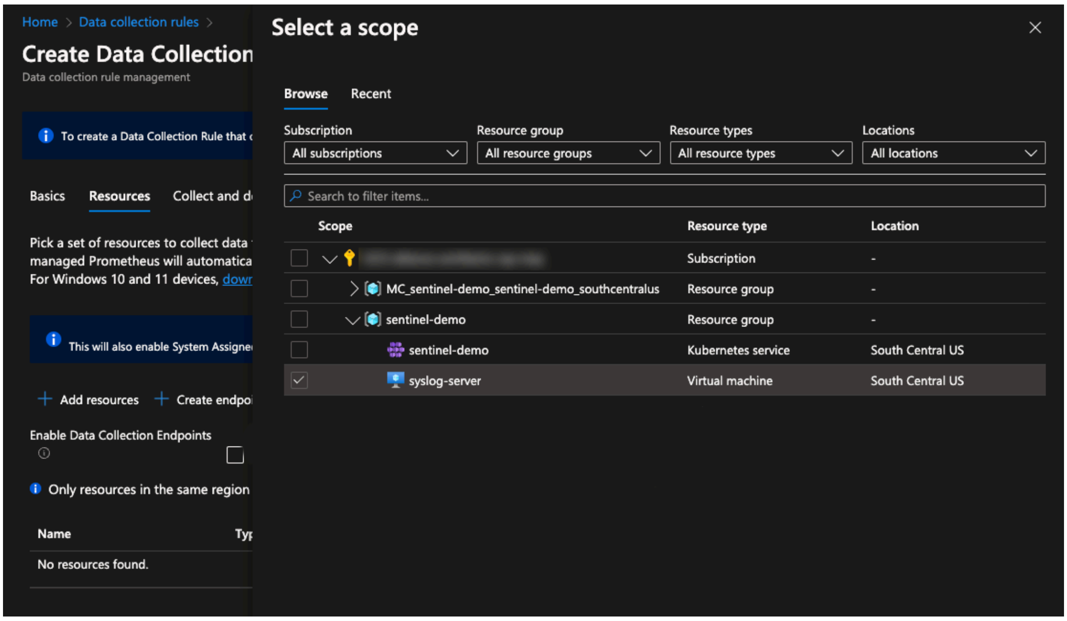
Create new

Region * South Central US

Platform Type * ○ Windows ● Linux ○ All

Data Collection Endpoint <none>

The next tab, `Resources`, allows for the selection of the systems or data producers to collect from and add into the Log Analytics Workspace. Click *Add resources*. This will open a sidebar for selecting the scope. Use the tabs to navigate to the correct resource groups. Select the syslog-server VM previously created. Then click *Apply*. This will add the server to the resources page. Click *Next* at the bottom to continue.



Home > Data collection rules >

Create Data Collection

Data collection rule management

To create a Data Collection Rule that c

Basics | Resources | Collect and d

Pick a set of resources to collect data
managed Prometheus will automatica
For Windows 10 and 11 devices, dowr

This will also enable System Assigne

+ Add resources + Create endpo

Enable Data Collection Endpoints ☐

Only resources in the same region

Name	Typ
No resources found.	

Select a scope

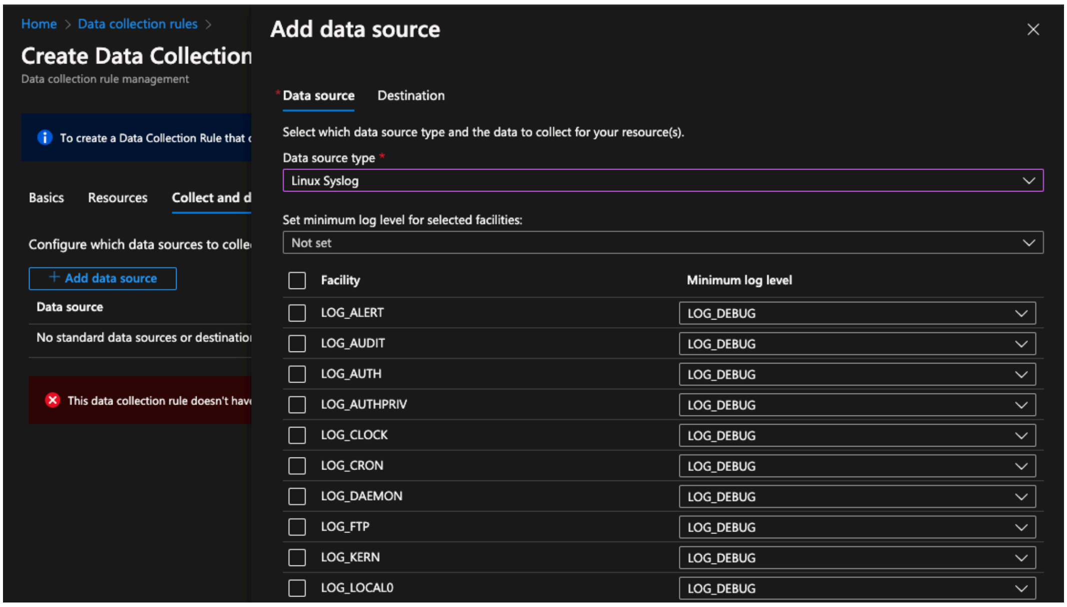
Browse | Recent

Subscription: All subscriptions
Resource group: All resource groups
Resource types: All resource types
Locations: All locations

Search to filter items...

	Scope	Resource type	Location
☐	[redacted]	Subscription	-
☐	MC_sentinel-demo_sentinel-demo_southcentralus	Resource group	-
☐	sentinel-demo	Resource group	-
☐	sentinel-demo	Kubernetes service	South Central US
☑	syslog-server	Virtual machine	South Central US

The next tab determines how Azure will attempt to collect data from the resources specified. Click *Add data source* to open another sidebar. In the first tab of the sidebar, change the Data source type to `Linux Syslog`. Then click *Next* at the bottom.



Home > Data collection rules >

Create Data Collection

Data collection rule management

To create a Data Collection Rule that c

Basics | Resources | Collect and d

Configure which data sources to colle

+ Add data source

Data source
No standard data sources or destinatio

This data collection rule doesn't hav

Add data source

Data source | Destination

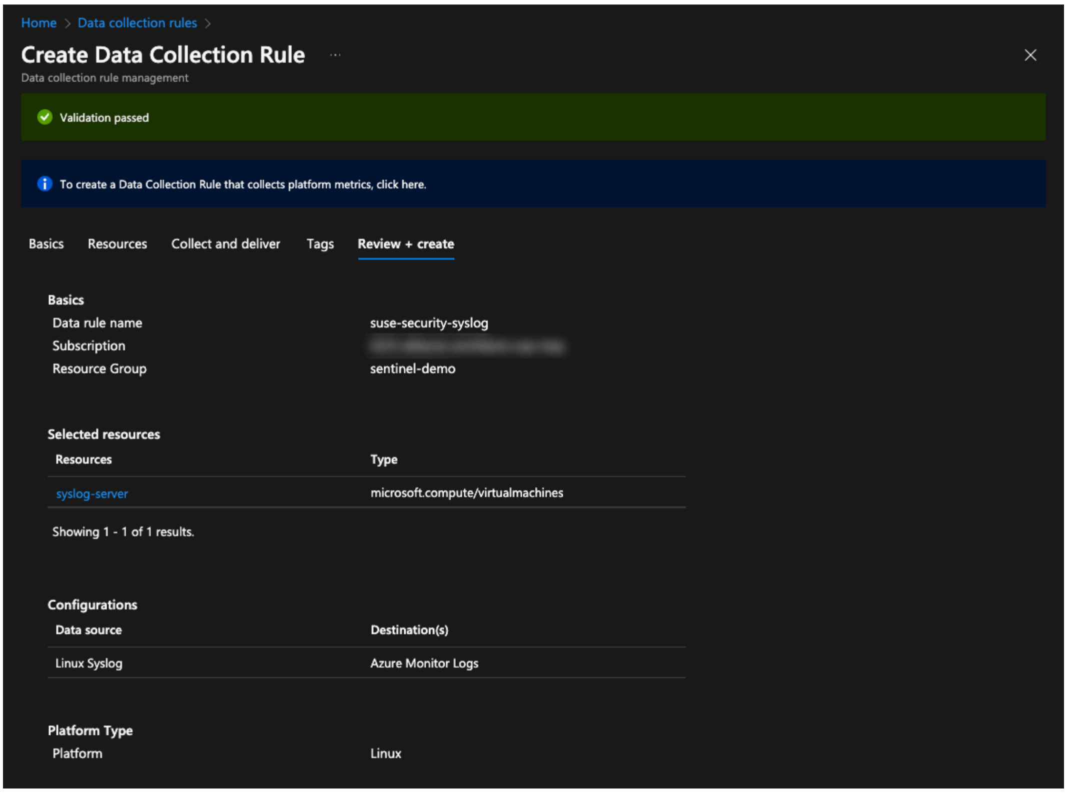
Select which data source type and the data to collect for your resource(s).

Data source type *: Linux Syslog

Set minimum log level for selected facilities: Not set

☐ Facility	Minimum log level
☐ LOG_ALERT	LOG_DEBUG
☐ LOG_AUDIT	LOG_DEBUG
☐ LOG_AUTH	LOG_DEBUG
☐ LOG_AUTHPRIV	LOG_DEBUG
☐ LOG_CLOCK	LOG_DEBUG
☐ LOG_CRON	LOG_DEBUG
☐ LOG_DAEMON	LOG_DEBUG
☐ LOG_FTP	LOG_DEBUG
☐ LOG_KERN	LOG_DEBUG
☐ LOG_LOCAL0	LOG_DEBUG

In the second tab, `Destination`, click *Add destination*. This will add a new entry to the list. For this entry change **Destination Type** to `Azure Monitor Logs`. Also change **Destination Details** to `demo-log-analytics` which is the name of the Log Analytics Workspace previously created. Click *Add data source* at the bottom, then *Review + Create*. This will show the rule being created and allow for verification that everything is correct. When ready, click *Create*.



Create Data Collection Rule

Data collection rule management

✓ Validation passed

To create a Data Collection Rule that collects platform metrics, click here.

Basics

Data rule name	suse-security-syslog
Subscription	[redacted]
Resource Group	sentinel-demo

Selected resources

Resources	Type
syslog-server	microsoft.compute/virtualmachines

Showing 1 - 1 of 1 results.

Configurations

Data source	Destination(s)
Linux Syslog	Azure Monitor Logs

Platform Type

Platform	Linux

When the deployment is complete, Log Analytics is ready to receive data from the Syslog server.

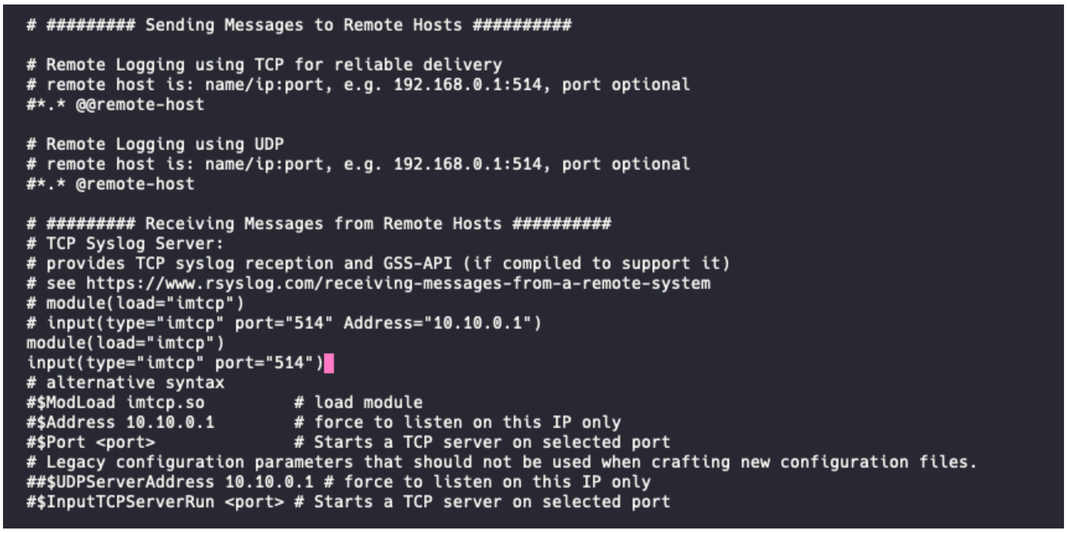
4.2.2 Syslog Server

The syslog server is used as an intermediary between the SUSE Security platform and Azure Log Analytics Workspaces. SUSE Security can export data to a syslog server, but Log Analytics Workspaces cannot act as that server. To allow the VM to act as this server, the Rsyslog service must be configured to allow for remote connections. To accomplish this, connect via SSH to the syslog-server VM created using the SSH key created during the VM creation process previously. They will be stored locally to where the command was run.

After connecting to the system, edit the file `/etc/rsyslog.d/remote.conf` and add the following two lines.

```
module(load="imtcp")
input(type="imtcp" port="514")
```

Save the file and restart the Rsyslog daemon, `sudo systemctl restart rsyslog`.



```
# ######### Sending Messages to Remote Hosts ##########

# Remote Logging using TCP for reliable delivery
# remote host is: name/ip:port, e.g. 192.168.0.1:514, port optional
#*.* @@remote-host

# Remote Logging using UDP
# remote host is: name/ip:port, e.g. 192.168.0.1:514, port optional
#*.* @remote-host

# ######### Receiving Messages from Remote Hosts ##########
# TCP Syslog Server:
# provides TCP syslog reception and GSS-API (if compiled to support it)
# see https://www.rsyslog.com/receiving-messages-from-a-remote-system
# module(load="imtcp")
# input(type="imtcp" port="514" Address="10.10.0.1")
module(load="imtcp")
input(type="imtcp" port="514")
# alternative syntax
#$ModLoad imtcp.so          # load module
#$Address 10.10.0.1         # force to listen on this IP only
#$Port <port>               # Starts a TCP server on selected port
# Legacy configuration parameters that should not be used when crafting new configuration files.
##$UDPServerAddress 10.10.0.1 # force to listen on this IP only
#$InputTCPServerRun <port> # Starts a TCP server on selected port
```

The Syslog server is now ready to receive data from SUSE Security.

4.2.3 SUSE Security

To install SUSE Security log in to the Web UI for SUSE Rancher Prime and select the AKS cluster created at the start.

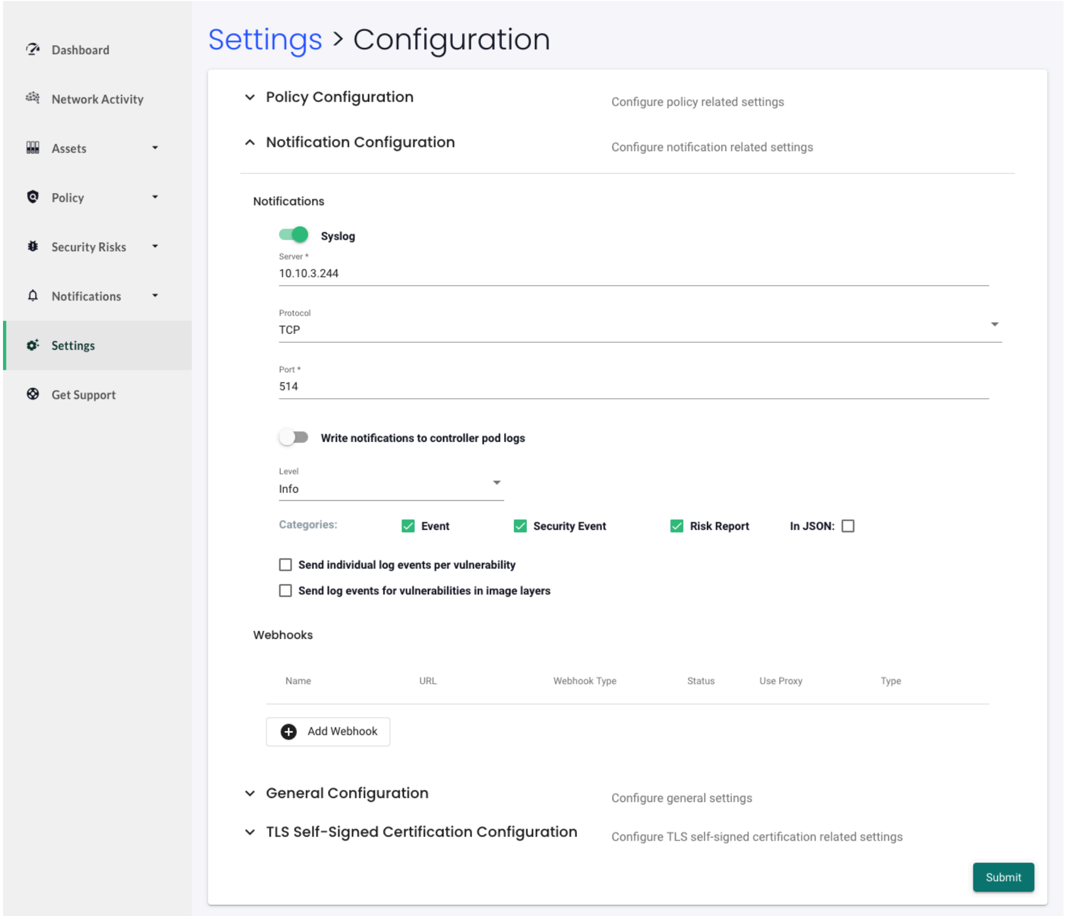
Tip

For existing cluster, they must be imported into SUSE Rancher Prime to install SUSE Security. Refer to the SUSE Rancher documentation (https://ranchermanager.docs.rancher.com/how-to-guides/new-user-guides/kubernetes-clusters-in-rancher-setup/register-existing-clusters) ↗ for guidance.

In the left sidebar after connecting to the cluster, select *Apps* and then *Charts*. This will list all available applications in the **SUSE Application Collection**. Find **SUSE Security** in the list and follow the instructions to install it into the cluster. After installation there will be a new item in the left sidebar, *Security*. Select this to connect to the SUSE Security interface.

INFO: This guide will not go over the myriad of configurations and optimizations that can be made in SUSE Security to increase overall security and compliance in an environment. Refer to the SUSE Security documentation (https://open-docs.neuvector.com/) ↗ or contact a SUSE representative for any questions.

In the sidebar select *Settings* and then the box labeled *Configuration*. Under the Notification Configuration turn on the Syslog toggle to enable export. Enter the local IP address for the syslog-server VM above, and change the Protocol from `UDP` to `TCP`. Then click *Submit*. SUSE Security will now write all events into the Syslog server, which in turn, will submit them to the Log Analytics Workspace.



Settings > Configuration

Policy Configuration — Configure policy related settings

Notification Configuration — Configure notification related settings

Notifications

● Syslog

Server *
10.10.3.244

Protocol
TCP

Port *
514

○ Write notifications to controller pod logs

Level
Info

Categories: ☑ Event ☑ Security Event ☑ Risk Report In JSON: □

□ Send individual log events per vulnerability

□ Send log events for vulnerabilities in image layers

Webhooks

Name	URL	Webhook Type	Status	Use Proxy	Type

General Configuration — Configure general settings

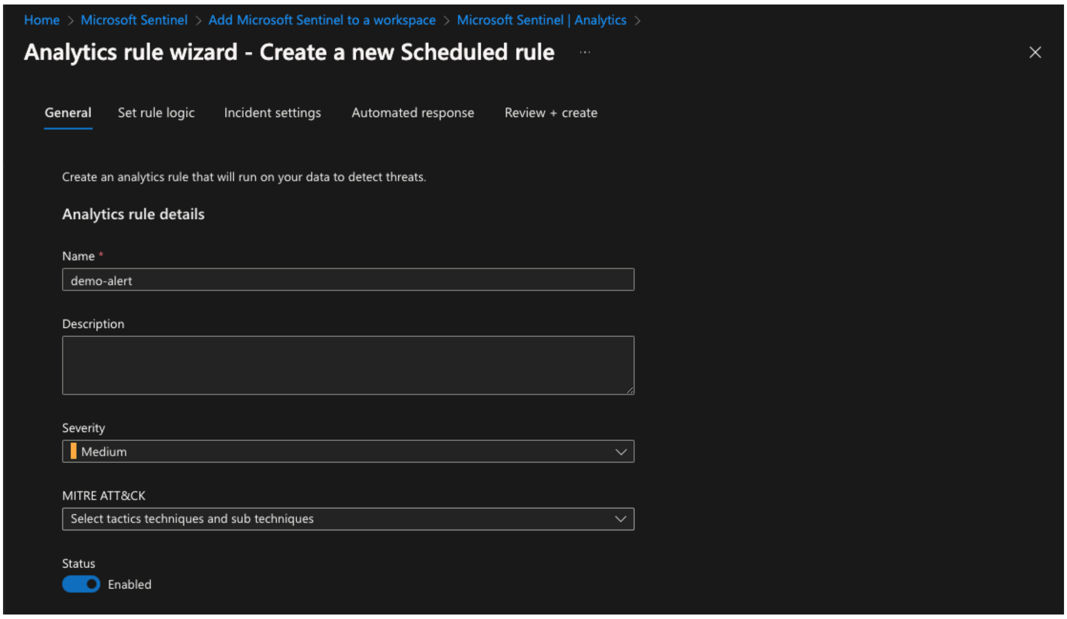
TLS Self-Signed Certification Configuration — Configure TLS self-signed certification related settings

4.2.4 Microsoft Sentinel

With the data pipeline in place it is now possible to configure Microsoft Sentinel to use data from SUSE Security. In the Azure Portal search for `Microsoft Sentinel` in the top bar. Click *Create* to add Microsoft Sentinel to the existing Log Analytics Workspace. Select the workspace created previously, then click *Add* at the bottom of the page. This will deploy Microsoft Sentinel and configure it to use the data from the Log Analytics Workspace.

After it has deployed, in the left sidebar select *Analytics*. This section allows for custom queries to search the log data and either flag them or take action according to query definition. For this guide, the rule defined will not take any action, but will raise an incident for review. Consult the Microsoft Sentinel documentation (https://learn.microsoft.com/en-us/azure/sentinel/) ↗ or contact an Azure representative to learn more about Microsoft Sentinel.

Click *Create* near the top, then select *Scheduled Query rule*. In the template popup give the rule a descriptive name. The Severity drop-down selection is used to define the level of any incidents created by the rule. These can be used to take additional actions based on the severity level. When ready select *Next* at the bottom.


Home > Microsoft Sentinel > Add Microsoft Sentinel to a workspace > Microsoft Sentinel | Analytics >
Analytics rule wizard - Create a new Scheduled rule
General
Set rule logic
Incident settings
Automated response
Review + create

Create an analytics rule that will run on your data to detect threats.

Analytics rule details

Name *: demo-alert

Description:

Severity: Medium

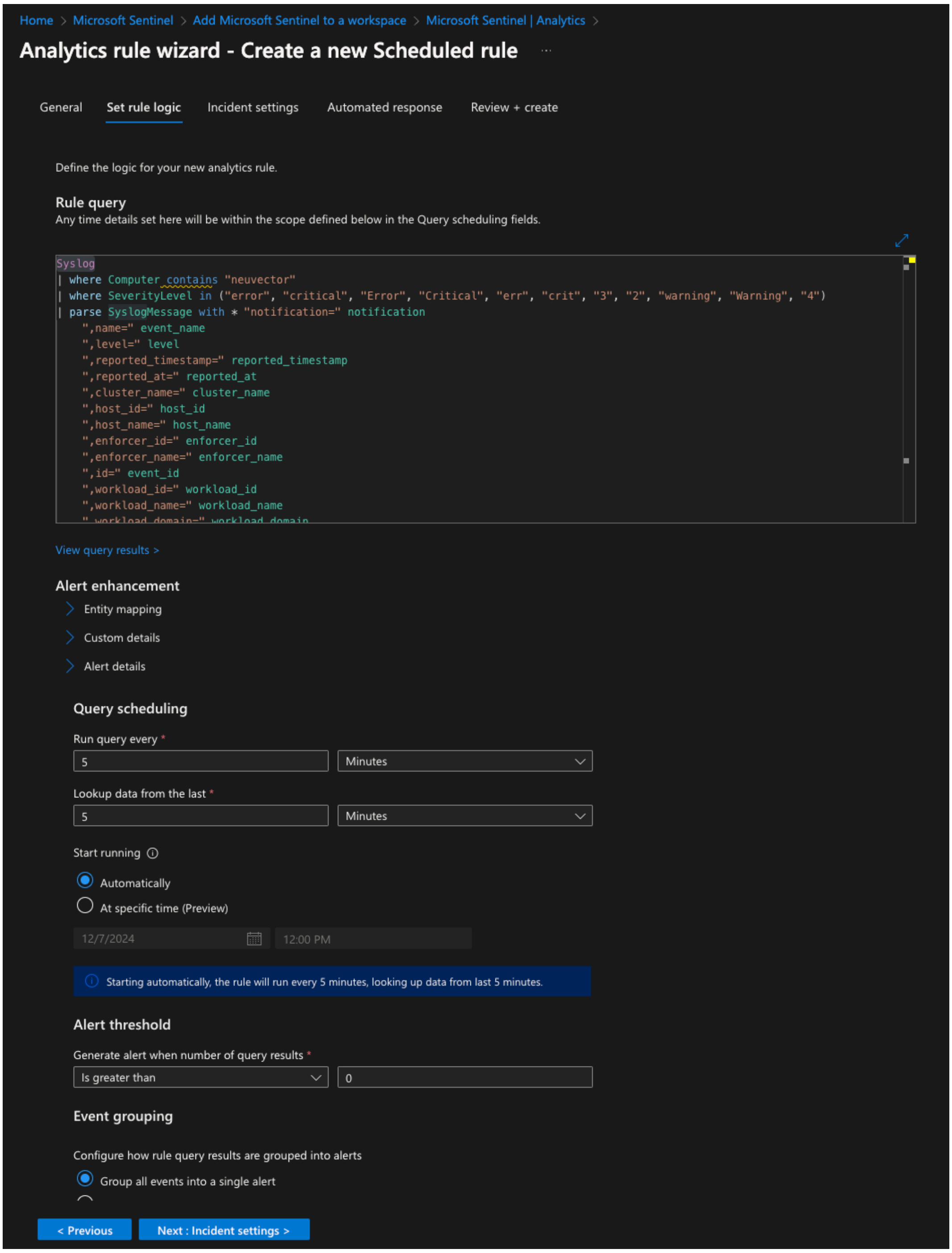
MITRE ATT&CK: Select tactics techniques and sub techniques

Status: Enabled

The **Set rule logic** tab is where queries are defined to filter all of the log data stored in the Log Analytics Workspace. For now, here is an example query that will select any entry that is logged as either a Warning, Error, or Critical. When it has selected those entries, it will filter out unnecessary columns.

```
Syslog
| where Computer contains "neuvector"
| where SeverityLevel in ("error", "critical", "Error", "Critical", "err", "crit", "3",
 "2", "warning", "Warning", "4")
| parse SyslogMessage with * "notification=" notification
    ",name=" event_name
    ",level=" level
    ",reported_timestamp=" reported_timestamp
    ",reported_at=" reported_at
    ",cluster_name=" cluster_name
    ",host_id=" host_id
    ",host_name=" host_name
    ",enforcer_id=" enforcer_id
    ",enforcer_name=" enforcer_name
    ",id=" event_id
    ",workload_id=" workload_id
    ",workload_name=" workload_name
    ",workload_domain=" workload_domain
    ",workload_image=" workload_image
    ",workload_service=" workload_service
    ",proc_name=" proc_name
    ",proc_path=" proc_path
    ",proc_cmd=" proc_cmd
    ",proc_effective_user=" proc_effective_user
    ",proc_parent_name=" proc_parent_name
    ",proc_parent_path=" proc_parent_path
    ",action=" action
    ",group=" group
    ",rule_id=" rule_id
    ",aggregation_from=" aggregation_from
    ",count=" count
    ",message=" message
| extend
    AlertSeverity = case(
        SeverityLevel in ("critical", "Critical", "crit", "2"), "Critical",
        SeverityLevel in ("error", "Error", "err", "3"), "High",
        SeverityLevel in ("warning", "Warning", "warn", "4"), "Warning",
        "Unknown"
    )
| project
    TimeGenerated,
    Computer,
    AlertSeverity,
    event_name,
    level,
    cluster_name,
    workload_name,
    workload_domain,
    workload_service,
    workload_image,
    proc_name,
    proc_path,
    proc_cmd,
    proc_effective_user,
    proc_parent_name,
    proc_parent_path,
    action,
    message,
    SyslogMessage
```

Copy this into the text box at the top of the tab. Clicking *View query results* will run the query against data currently in the Log Analytics Workspace and present the results in a table. This is useful in refining a query to include only the information needed. It is also possible to adjust how frequently this query is run. The minimum time is every five minutes. When ready, click *Next* at the bottom of the page.



Home > Microsoft Sentinel > Add Microsoft Sentinel to a workspace > Microsoft Sentinel | Analytics >
General
Set rule logic
Incident settings
Automated response
Review + create

Analytics rule wizard - Create a new Scheduled rule

Define the logic for your new analytics rule.

Rule query

Any time details set here will be within the scope defined below in the Query scheduling fields.

```
Syslog
| where Computer contains "neuvector"
| where SeverityLevel in ("error", "critical", "Error", "Critical", "err", "crit", "3", "2", "warning", "Warning", "4")
| parse SyslogMessage with * "notification=" notification
    ",name=" event_name
    ",level=" level
    ",reported_timestamp=" reported_timestamp
    ",reported_at=" reported_at
    ",cluster_name=" cluster_name
    ",host_id=" host_id
    ",host_name=" host_name
    ",enforcer_id=" enforcer_id
    ",enforcer_name=" enforcer_name
    ",id=" event_id
    ",workload_id=" workload_id
    ",workload_name=" workload_name
    ",workload_domain=" workload_domain
```

Alert enhancement

Query scheduling

Run query every *: 5 Minutes

Lookup data from the last *: 5 Minutes

Start running

● Automatically

○ At specific time (Preview)

12/7/2024 12:00 PM

Starting automatically, the rule will run every 5 minutes, looking up data from last 5 minutes.

Alert threshold

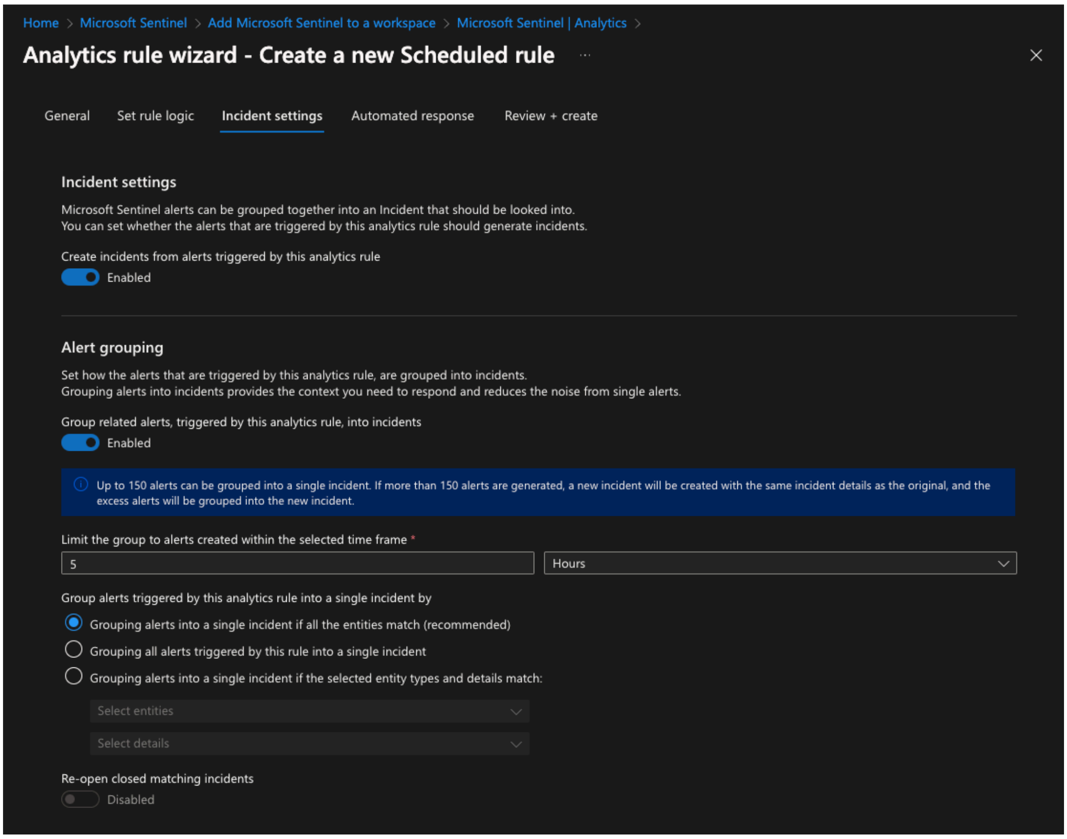
Generate alert when number of query results *: Is greater than 0

Event grouping

Configure how rule query results are grouped into alerts

● Group all events into a single alert

On the next tab, **Incident settings**, enable the toggle `Group related alerts, triggered by this analytics rule, into incidents`. This will help reduce the number of incidents received if the same issue triggers multiple times inside of SUSE Security. Click through the rest of the tabs, and click *Save* on the Review + Create tab.


Home > Microsoft Sentinel > Add Microsoft Sentinel to a workspace > Microsoft Sentinel | Analytics >
General
Set rule logic
Incident settings
Automated response
Review + create

Analytics rule wizard - Create a new Scheduled rule

Incident settings

Microsoft Sentinel alerts can be grouped together into an Incident that should be looked into.
You can set whether the alerts that are triggered by this analytics rule should generate incidents.

Create incidents from alerts triggered by this analytics rule
Enabled

Alert grouping

Set how the alerts that are triggered by this analytics rule, are grouped into incidents.
Grouping alerts into incidents provides the context you need to respond and reduces the noise from single alerts.

Group related alerts, triggered by this analytics rule, into incidents
Enabled

Up to 150 alerts can be grouped into a single incident. If more than 150 alerts are generated, a new incident will be created with the same incident details as the original, and the excess alerts will be grouped into the new incident.

Limit the group to alerts created within the selected time frame *
5 | Hours

Group alerts triggered by this analytics rule into a single incident by
● Grouping alerts into a single incident if all the entities match (recommended)
○ Grouping all alerts triggered by this rule into a single incident
○ Grouping alerts into a single incident if the selected entity types and details match:
Select entities
Select details

Re-open closed matching incidents
Disabled

This completes the configuration. The environment will now send all logs and alerts raised by SUSE Security into Microsoft Sentinel for additional processing. By integrating with other Microsoft Azure services like Microsoft Defender and Microsoft Security Copilot, administrators gain a unified interface. This interface allows them to monitor, query, and actively manage the security of their environment.

5 Next Steps

While this is a great step in unifying security visibility, there is one additional step that can be taken to extend that data and make it more interactive. This can be completed by adding Microsoft Sentinel as a data source in Microsoft Security Copilot.

5.1 Microsoft Security Copilot

Microsoft Security Copilot will allow for interacting with data through a traditional chat interface. Security Copilot requires Security compute units (SCUs) to be provisioned in the Azure subscription. This can be done by searching for `Microsoft Security Copilot compute ca-`

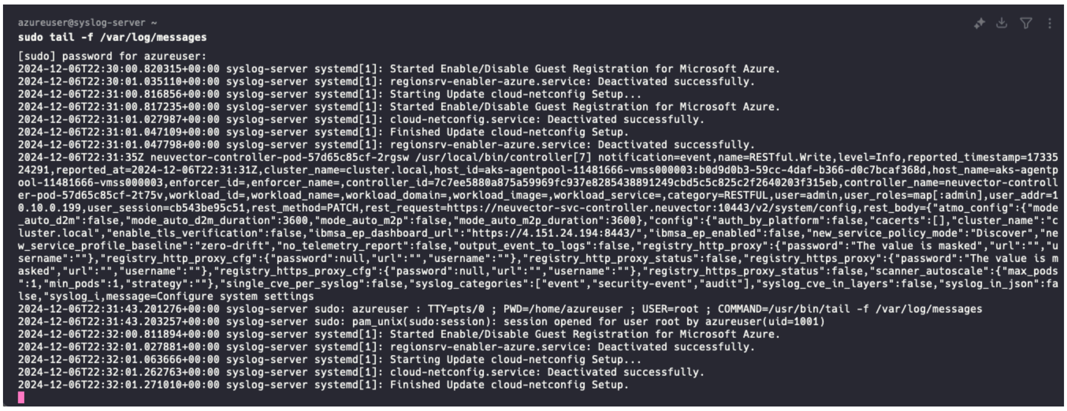
pacities in the Azure Portal. It is recommended to provision two to three SCUs for testing. These can be scaled up and down as required to assist in cost control. After the provisioning is complete, follow Microsoft's guide for connecting Microsoft Sentinel as a data source for Security Copilot (https://learn.microsoft.com/en-us/azure/sentinel/sentinel-security-copilot) ↗. The guide will also show how to use the data from Microsoft Sentinel inside of Microsoft Defender. This combination will allow for questions to be asked to Microsoft Security Copilot about cluster state, open CVEs, or other incidents raised by SUSE Security without combing through all log files manually.

6 Troubleshooting

If the system is not sending data as expected, it is recommended to check the following locations.

6.1 Syslog Server

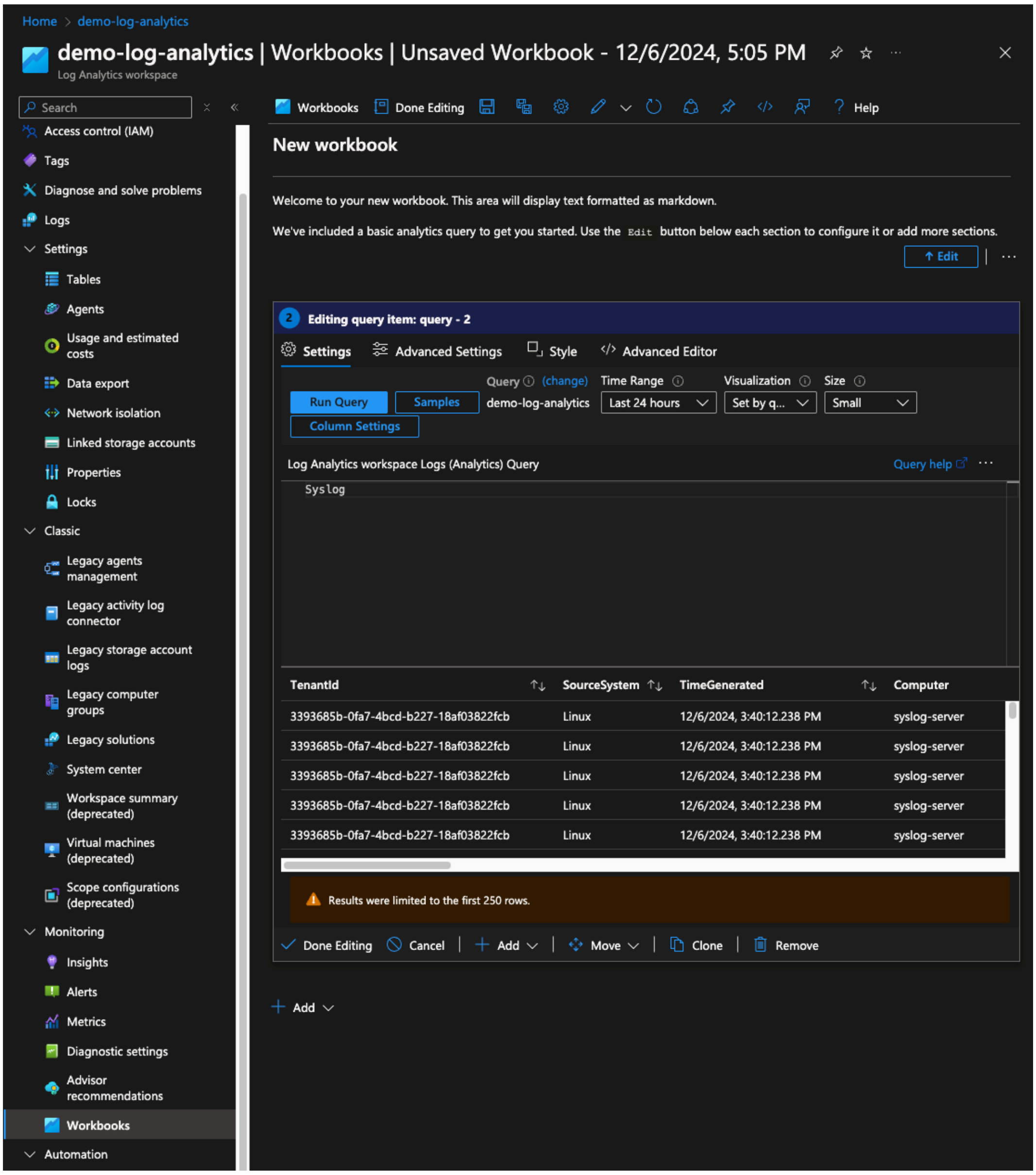
To confirm that data is flowing as expected from SUSE Security into the Syslog server connect to the VM using SSH. After connecting, execute the command `sudo tail -f /var/log/messages`. This will present a real-time flow of syslog entries. If there are entries with "controller-pod" or "aks-agentpool" then data is correctly flowing from SUSE Security into the Syslog server.



```
azureuser@syslog-server ~
sudo tail -f /var/log/messages
[sudo] password for azureuser:
2024-12-06T22:30:00.820315+00:00 syslog-server systemd[1]: Started Enable/Disable Guest Registration for Microsoft Azure.
2024-12-06T22:30:01.035110+00:00 syslog-server systemd[1]: regionsrv-enabler-azure.service: Deactivated successfully.
2024-12-06T22:31:00.816856+00:00 syslog-server systemd[1]: Starting Update cloud-netconfig Setup...
2024-12-06T22:31:00.817235+00:00 syslog-server systemd[1]: Started Enable/Disable Guest Registration for Microsoft Azure.
2024-12-06T22:31:01.027987+00:00 syslog-server systemd[1]: cloud-netconfig.service: Deactivated successfully.
2024-12-06T22:31:01.047109+00:00 syslog-server systemd[1]: Finished Update cloud-netconfig Setup.
2024-12-06T22:31:01.047798+00:00 syslog-server systemd[1]: regionsrv-enabler-azure.service: Deactivated successfully.
2024-12-06T22:31:35Z neuvector-controller-pod-57d65c85cf-2rgsw /usr/local/bin/controller[7] notification=event,name=RESTful.Write,level=Info,reported_timestamp=17335
24291,reported_at=2024-12-06T22:31:31Z,cluster_name=cluster.local,host_id=aks-agentpool-11481666-vmss000003:b0d9d0b3-59cc-4daf-b366-d0c7bcaf368d,host_name=aks-agentp
ool-11481666-vmss000003,enforcer_id=,enforcer_name=,controller_id=7c7ee5880a875a59969fc937e8285438891249cbd5c5c825c2f2640203f315eb,controller_name=neuvector-controll
er-pod-57d65c85cf-2t75v,workload_id=,workload_name=,workload_domain=,workload_image=,workload_service=,category=RESTFUL,user=admin,user_roles=map[:admin],user_addr=1
0.10.0.199,user_session=cb543be95c51,rest_method=PATCH,rest_request=https://neuvector-svc-controller.neuvector:10443/v2/system/config,rest_body={"atmo_config":{"mode
_auto_d2m":false,"mode_auto_d2m_duration":3600,"mode_auto_m2p":false,"mode_auto_m2p_duration":3600},"config":{"auth_by_platform":false,"cacerts":[],"cluster_name":"c
luster.local","enable_tls_verification":false,"ibmsa_ep_dashboard_url":"https://4.151.24.194:8443/","ibmsa_ep_enabled":false,"new_service_policy_mode":"Discover","ne
w_service_profile_baseline":"zero-drift","no_telemetry_report":false,"output_event_to_logs":false,"registry_http_proxy":{"password":"The value is masked","url":"","u
sername":""},"registry_http_proxy_cfg":{"password":null,"url":"","username":""},"registry_http_proxy_status":false,"registry_https_proxy":{"password":"The value is m
asked","url":"","username":""},"registry_https_proxy_cfg":{"password":null,"url":"","username":""},"registry_https_proxy_status":false,"scanner_autoscale":{"max_pods
":1,"min_pods":1,"strategy":""},"single_cve_per_syslog":false,"syslog_categories":["event","security-event","audit"],"syslog_cve_in_layers":false,"syslog_in_json":fa
lse,"syslog_i,message=Configure system settings
2024-12-06T22:31:43.201276+00:00 syslog-server sudo: azureuser : TTY=pts/0 ; PWD=/home/azureuser ; USER=root ; COMMAND=/usr/bin/tail -f /var/log/messages
2024-12-06T22:31:43.203257+00:00 syslog-server sudo: pam_unix(sudo:session): session opened for user root by azureuser(uid=1001)
2024-12-06T22:32:00.811894+00:00 syslog-server systemd[1]: Started Enable/Disable Guest Registration for Microsoft Azure.
2024-12-06T22:32:01.027881+00:00 syslog-server systemd[1]: regionsrv-enabler-azure.service: Deactivated successfully.
2024-12-06T22:32:01.063666+00:00 syslog-server systemd[1]: Starting Update cloud-netconfig Setup...
2024-12-06T22:32:01.262763+00:00 syslog-server systemd[1]: cloud-netconfig.service: Deactivated successfully.
2024-12-06T22:32:01.271010+00:00 syslog-server systemd[1]: Finished Update cloud-netconfig Setup.
```

6.2 Azure Log Analytics Workspace

To confirm that Azure Log Analytics Workspace is ingesting the data from the syslog-server navigate to **Workbooks** in the Log Analytics Workspace page of the Azure Portal. Select *Default Template*, then change the text in the query to `Syslog` and click *Run Query*. The results should populate with data and allow for scrolling to verify that log data is coming in from the syslog-server VM as expected.



New workbook

Welcome to your new workbook. This area will display text formatted as markdown.

We've included a basic analytics query to get you started. Use the `Edit` button below each section to configure it or add more sections.

Query demo-log-analytics

Time Range Last 24 hours

Visualization Set by q...

Size Small

Log Analytics workspace Logs (Analytics) Query

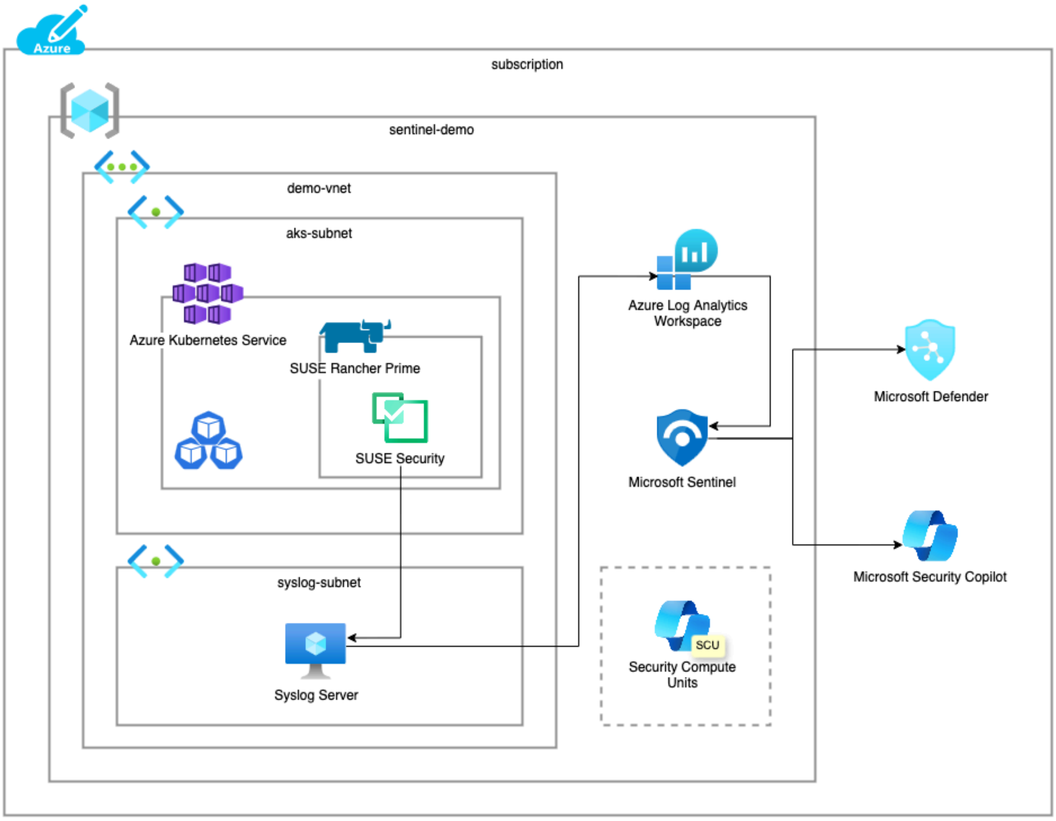
```
Syslog
```

TenantId	SourceSystem	TimeGenerated	Computer
3393685b-0fa7-4bcd-b227-18af03822fcb	Linux	12/6/2024, 3:40:12.238 PM	syslog-server
3393685b-0fa7-4bcd-b227-18af03822fcb	Linux	12/6/2024, 3:40:12.238 PM	syslog-server
3393685b-0fa7-4bcd-b227-18af03822fcb	Linux	12/6/2024, 3:40:12.238 PM	syslog-server
3393685b-0fa7-4bcd-b227-18af03822fcb	Linux	12/6/2024, 3:40:12.238 PM	syslog-server
3393685b-0fa7-4bcd-b227-18af03822fcb	Linux	12/6/2024, 3:40:12.238 PM	syslog-server

⚠ Results were limited to the first 250 rows.

7 Summary

This guide has shown how to take the data produced by SUSE Security and integrate it into Microsoft Sentinel to create a unified threat interface for an environment. This is accomplished by exporting the data from SUSE Security into an Azure Log Analytics Workspace which can be queried by Microsoft Sentinel and by Microsoft Defender and Microsoft Security Copilot.



The preceding network diagram illustrates this integration within a typical Azure environment. As shown, SUSE Security, deployed within an Azure Kubernetes cluster, forwards security logs to a dedicated Syslog server. This server then transmits the data to the Log Analytics Workspace, where it becomes accessible to Microsoft Sentinel and other security tools for analysis and response.

By centralizing security data in this manner, organizations can gain a comprehensive view of their security posture, enabling faster threat detection and response. This unified approach streamlines security operations and strengthens defenses against increasingly sophisticated cyberattacks.

Modern environments generate vast amounts of log data, which can be overwhelming. Tools that simplify the parsing and analysis of this data are crucial for maintaining awareness and flexibility in security efforts. This ultimately contributes to the safety of our systems, environments, and customers.

To learn more about integrating SUSE Security with Microsoft Sentinel, explore the detailed documentation available for SUSE Security (https://open-docs.neuvector.com) ↗ and Microsoft Sentinel (https://learn.microsoft.com/azure/sentinel) ↗. For personalized assistance, contact your SUSE or Microsoft representative to discuss your specific needs and security objectives.

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