NOZOMI NETWORKS

QRadar Universal Application
Integration Guide

QUA v1.0.0 — 2024-09-13

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Chapter 1. Introduction

Overview

*This documentation describes the **QRadar Integration for Nozomi Networks Vantage and Sensor** (**QRadar Universal Application**) with the Nozomi Networks platform.*

The **QRadar Universal Application** is designed to enhance your security infrastructure. This solution uses the *hypertext transfer protocol (HTTP)* OpenAPI to gather critical information from both the Vantage and the sensor environments. This lets you efficiently monitor asset data and respond to security alerts.

The key features are shown below.

Unified alert management

The **QRadar Universal Application** provides a unified platform that lets you manage alerts and assets that originate from Nozomi Networks platform. Through the consolidation of data from both of these environments, security teams gain a holistic view of the security posture of their network.

HTTP OpenAPI integration

Through the use of the *HTTP* OpenAPI, the **QRadar Universal Application** ensures seamless communication between Nozomi Networks and QRadar. This means that data retrieval and synchronization are efficient and hassle-free, ensuring real-time awareness of security events.

Standardized data format

The data obtained from Vantage and the sensor products is shown in a consistent format that is easy to understand. This uniformity simplifies the monitoring and analysis process, which makes it easier to identify potential security threats.

Alert mapping to QRadar events

All alerts from Nozomi Networks are mapped to QRadar events within the system. This mapping ensures that each alert is treated as a distinct event, which allows for customized alert handling and analysis.

Automatic offense generation

When specific types of alerts are detected, such as Nozomi Networks incident alerts, the **QRadar Universal Application** raises QRadar offenses. This automated response makes sure that potential security incidents are quickly escalated for further investigation.

User-friendly GUI

The **QRadar Universal Application** has an intuitive *graphical user interface (GUI)* that gives a clear and organized view of all alert events. You can easily navigate through the alerts and apply various filters to narrow down the results, to make it easier to identify critical security events.

QRadar workflow integration

Users can easily configure LogSources to collect asset and alert data with the workflows available in the IBM QRadar GitHub repository.

Chapter 2. Requirements

Requirements

*A description of the requirements for the use of the **QRadar Universal Application**.*

You need:

- QRadar 7.5.0, or later
- To install the **Log Source Management** application

Note:
The Universal Cloud REST API protocol requires the **Log Source Management** application.

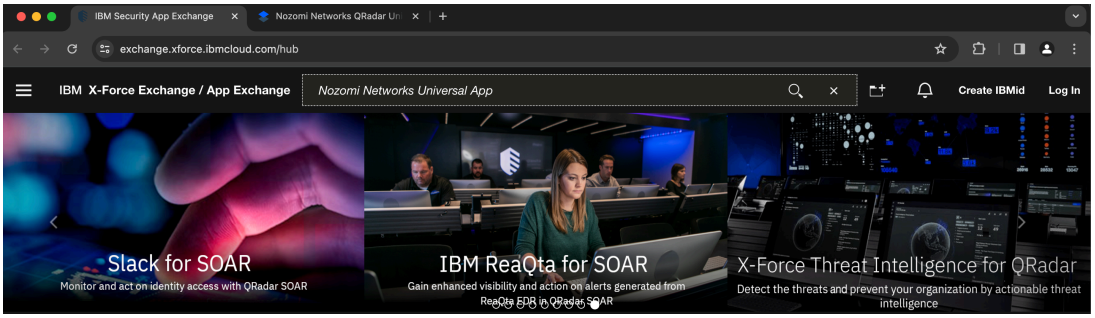
Chapter 3. Configuration

Install the QRadar Universal Application

*Before you can configure the **QRadar Universal Application**, you must download and install it.*

Procedure

1. Open the IBM X-Force Exchange.
2. In the search field, search for **Nozomi Networks Universal App**



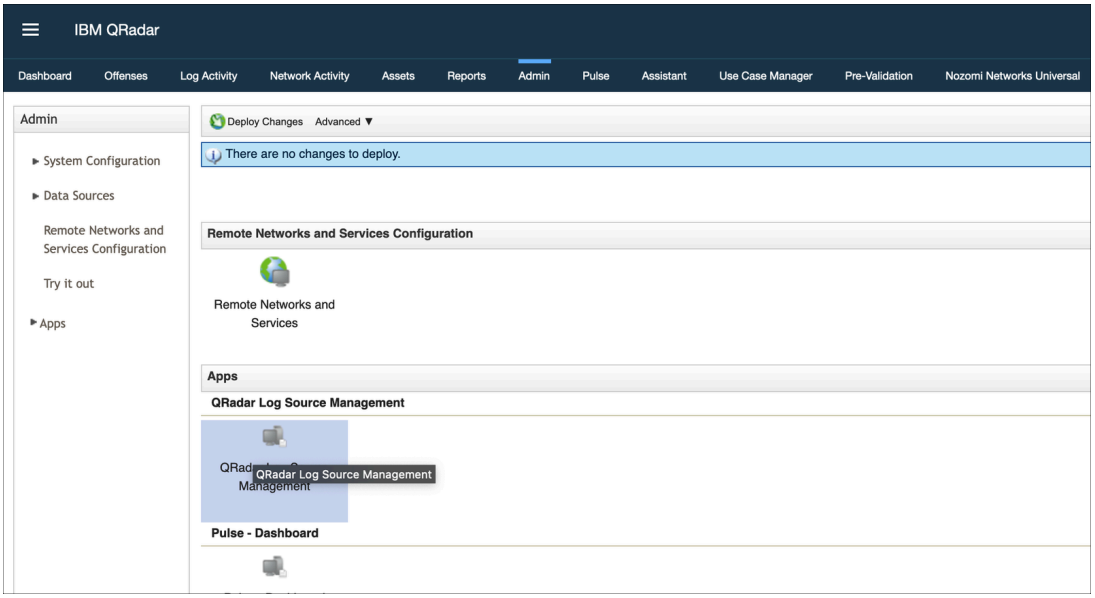
3. Download the package.
4. To install it in your QRadar instance, upload it in **Extensions Management**.

Create the log source

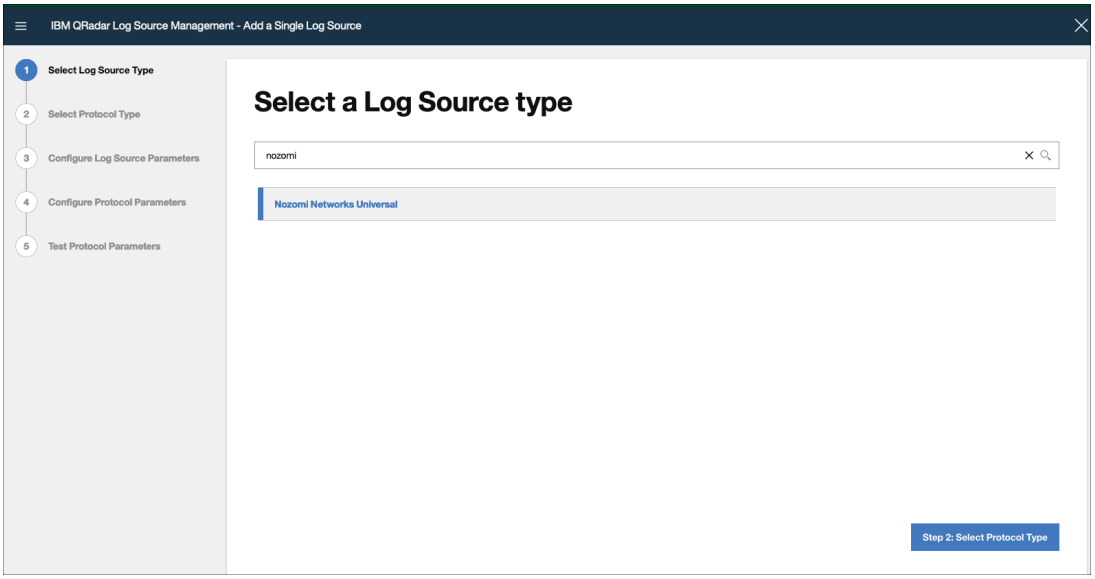
Learn how to set up a Nozomi Networks universal log source in QRadar. This covers navigation, selection, and configuration of log source parameters, including type, name, and unique identifiers, sourced from the IBM QRadar GitHub repository.

Procedure

1. Open QRadar.
2. Select **Admin > Apps**.
3. In the **Apps** section, select **QRadar Log Source Management**.



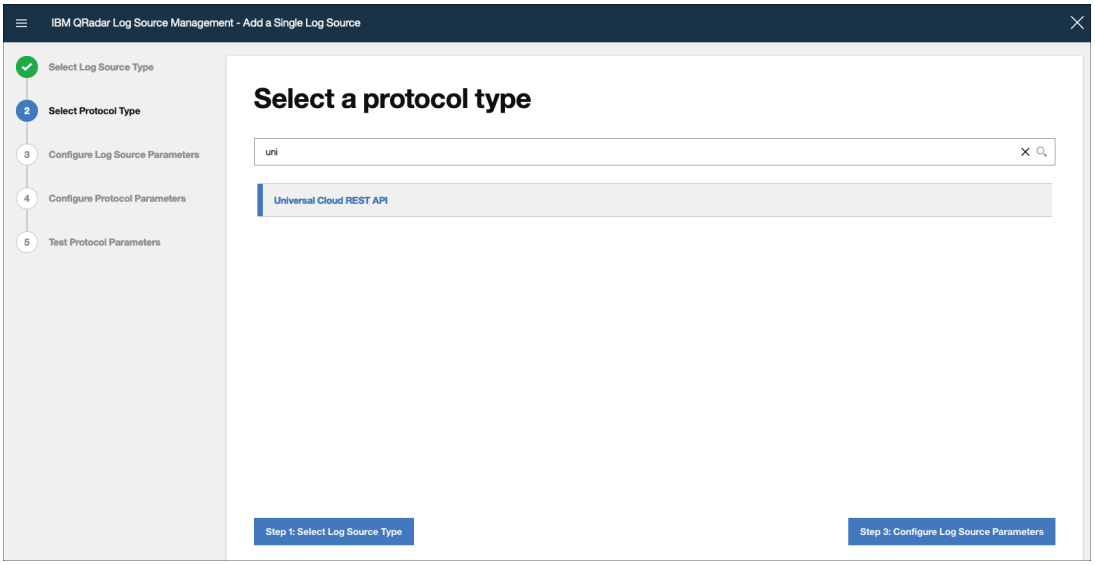
4. In the pane on the left, select **Select Log Source Type**.
5. In the search field, search for and then select: **Nozomi Networks Universal**.



6. In the bottom right corner, select **Step 2: Select Protocol Type**.

   Result: The **Select a protocol type** page opens.

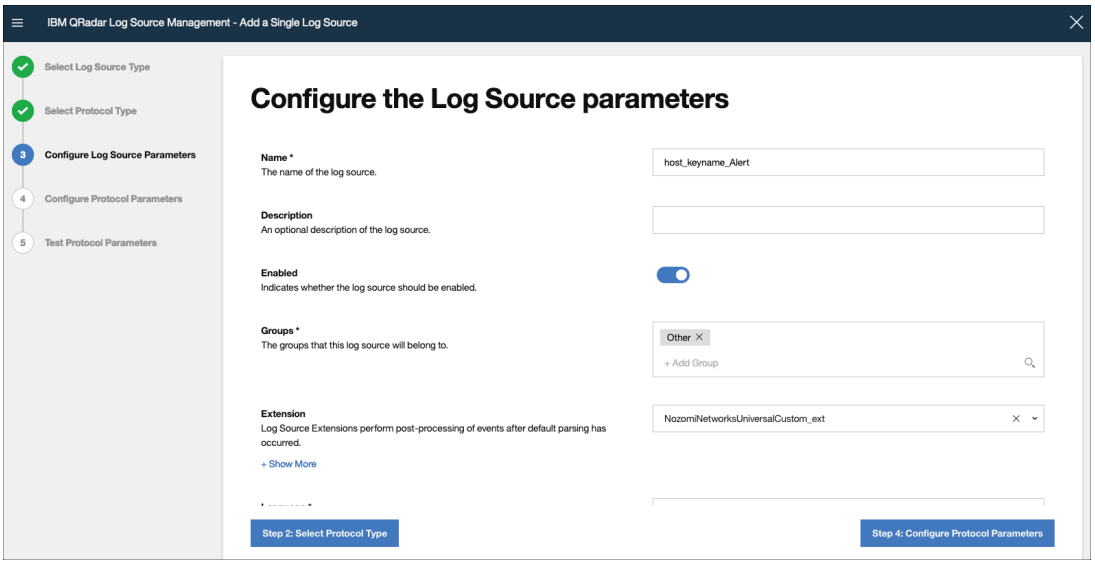
7. In the search field, search for and then select: **Universal Cloud REST API**.



8. In the bottom right corner, select **Step 3: Configure Log Source Parameters**.

   Result: The **Configure the Log Source parameters** page opens.

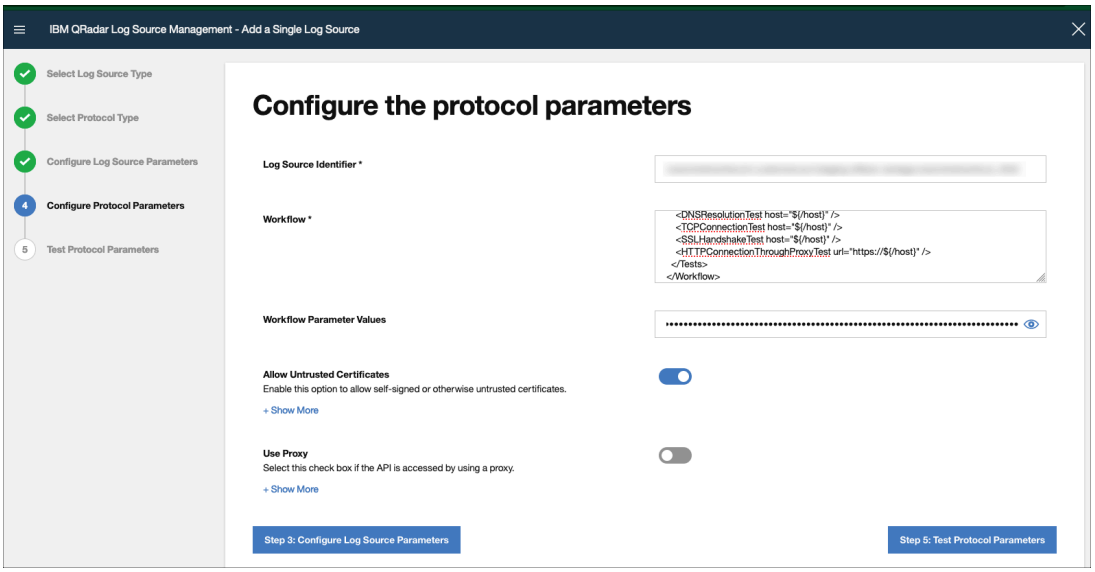
9. In the **Name** field, enter the name of the log source.



10. In the **Extension** field, enter: **NozomiNetworksUniversalCustom_ext**

> **Note:**
> If you do not add the extension, the QRadar system will automatically assign it.

11. In the bottom right corner, select **Step 4: Configure Protocol Parameters**.



Result: The **Configure the protocol parameters** page opens.

12. In the **Log Source Identifier** field, enter an identifier. Concatenate the Nozomi Networks endpoint with the `key_name`, followed by either `Alert` or `Asset` string:
`nozominetworkscom.customers.eu1.io_AKdf6123_Alert`
The Log Source Identifier should be unique and should be similar to:

```
${/host}_${/key_name}_Alert ${/host}_${/key_name}_Asset
```

`host` is the Vantage endpoint like:
`nozominetworkscom.customers.eu1.xxx.nozominetworks.io`
`key_name` is the key_name generated in Vantage.
`_Asset` and `_Alert` are just strings.
`LogSourceIdentifier` examples:

- `nozominetworkscom.customers.eu1.xxx.nozominetworks.io_AK023XXX_Alert`
- `nozominetworkscom.customers.eu1.xxx.nozominetworks.io_AK023XXX_Asset`

13. In the **Workflow** field, enter the value.
You can get the latest version from the IBM QRadar GitHub repository.

> **Note:**
> There are two types of workflow: **Alerts** and **Assets**.

14. In the **Workflow Parameter Values** field, enter the value.
    You can get the latest version from the IBM QRadar GitHub repository.

> **Note:**
> In the **Workflow Parameter Values** field you must add:
> - `host`
> - `key_name`
> - `key_token`
>
> The endpoint of your instance, key_name, and key_token of a user having the permission to access the entities wanted. Below is an example:

```
<?xml version="1.0" encoding="UTF-8" ?>
<WorkflowParameterValues
 xmlns="http://
qradar.ibm.com/UniversalCloudRESTAPI/WorkflowParameterValues/V1">
<Value name="host"
 value="nozominetworkscom.customers.vantage.nozominetworks.io" />
<Value name="key_name" value="AK023xxx" />
<Value name="key_token"
 value="fha0ef3b5f1a36Y9c30e352562e429eexxxxx" />
</WorkflowParameterValues>
```

15. In the bottom right corner, select **Step 5: Test Protocol Parameters**.

    Result: The **Test Protocol Parameters** page opens.

16. To make sure that the parameters of the log source configuration are correct, select **Start Test**.

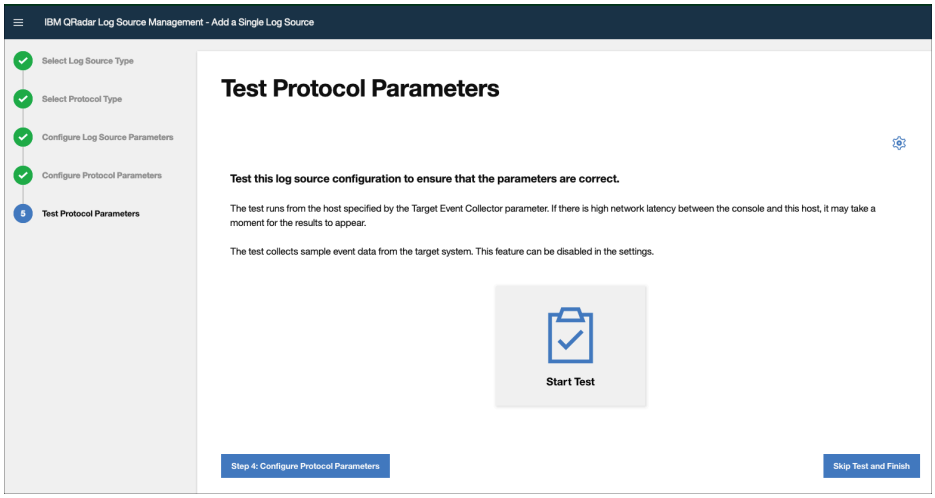


Figure 1. Test protocol parameters page

17. If the configuration is correct, a positive result will show.

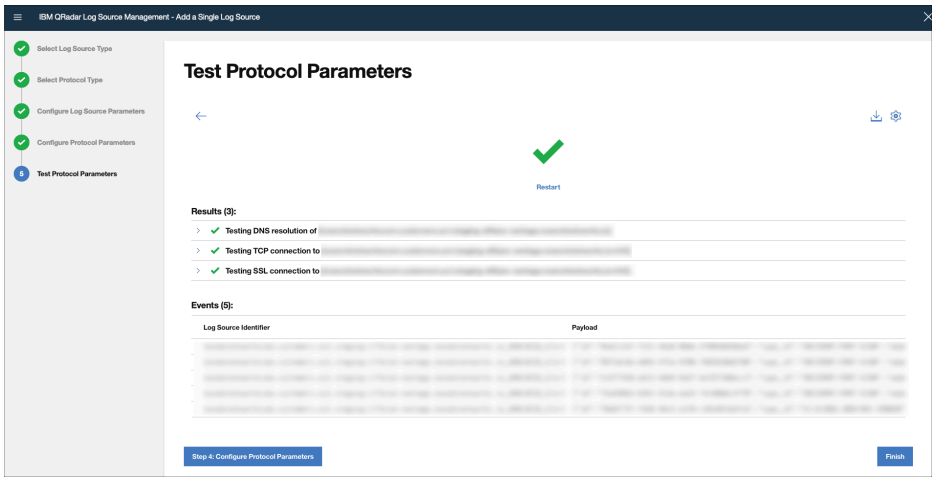


Figure 2. Successful result

18. If the configuration is not correct, a negative result will show.

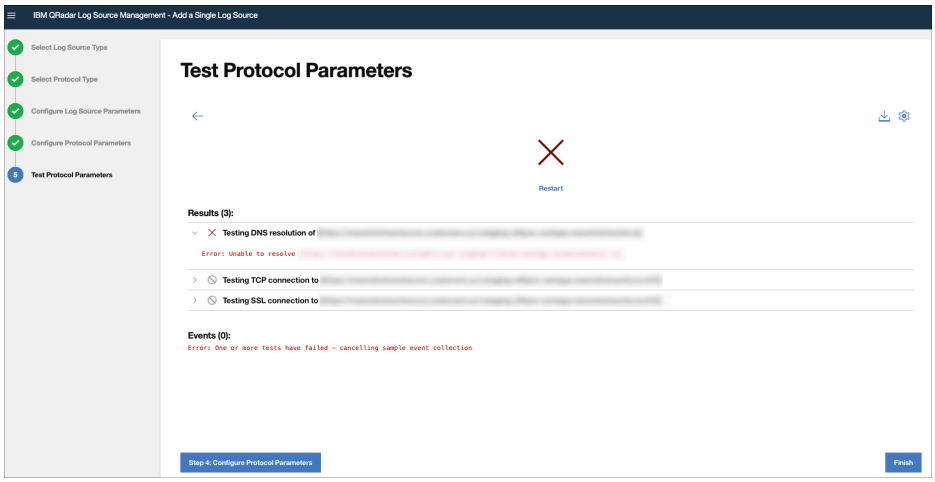


Figure 3. Unsuccessful result

19. If there is an authentication error, the **Error 401** page will show.
    This might be because the `key_name` and/or the `key_token` are not valid (incorrect or expired).

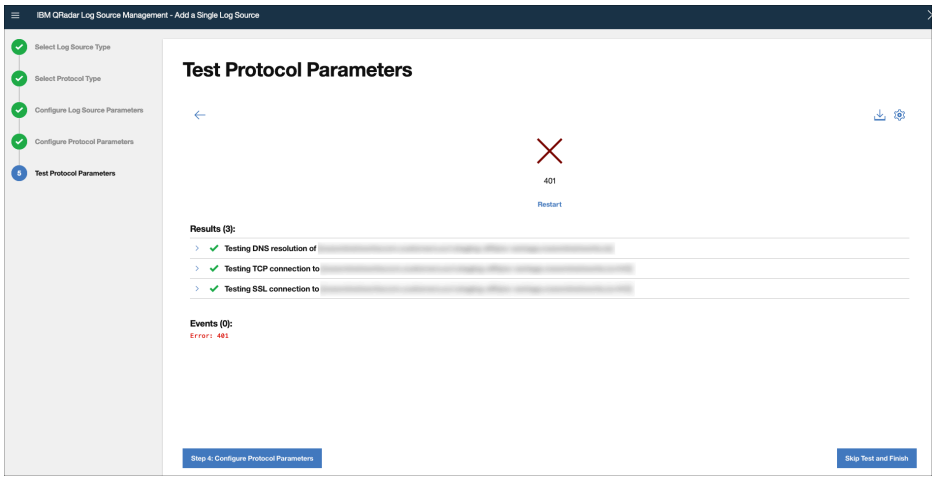


Figure 4. Error 401

20. Select **Finish**.

Generate an API key

Before you can use an API key, you must generate one.

Before you begin

Before you do this procedure, make sure that you have:

- Created a user to associate with your third-party application
- Assigned the user a role that grants the necessary permissions and scope within Vantage

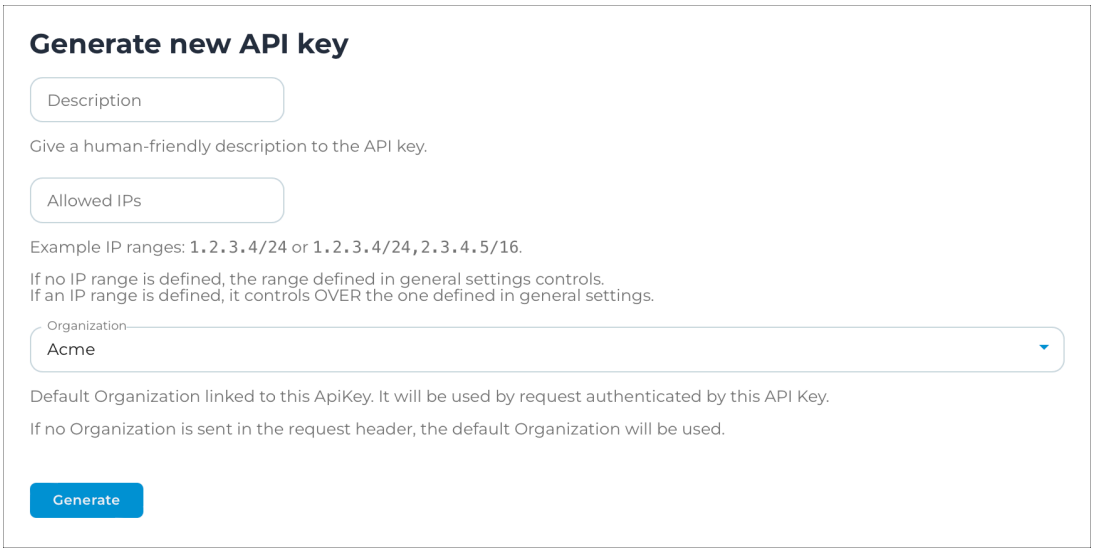
About this task

Once an *application programming interface (API)* key has been created, you cannot edit it. You can only revoke it.

Procedure

1. Log into Vantage as the user who will own the *API* key.
2. In the top navigation bar, select > **Profile**.
3. Select **API Keys**.

   Result: The **API Keys** page opens.
4. In the **Description** field, enter a description for the *API* key.



Note:
Nozomi Networks recommends that the description includes the name of the application that will connect with the *API* key.

5. **Optional:** Enter a range of allowed *internet protocol (IP)* addresses in the **Allowed IPs** field. Only applications within this range will be permitted to connect with this key.

   Note:
   For these settings, you must use comma-delimited entries, in format. Values here will override the values in the **SECURITY** section on the **General** page.

6. In the **Organization** field, select the organization that will be the default for this *API* key.

   Note:
   If an *API* request that uses this key doesn't include an organization, the default organization is used.

7. Select **Generate**.

   Result: Vantage generates a key and displays its:

   - Key name
   - Key token
   - Allowed ips
   - Linked organization

8. **Important:**
   You will need some of these values when you configure your third-party application. While the name is shown in the Vantage after this point, the token is not shown again. If you lose this data, you must generate a new *API* key.

   Record these details:

   - Key name
   - Key token
   - Allowed ips

Generate an OpenAPI key

The profile settings menu lets you generate an OpenAPI key.

Procedure

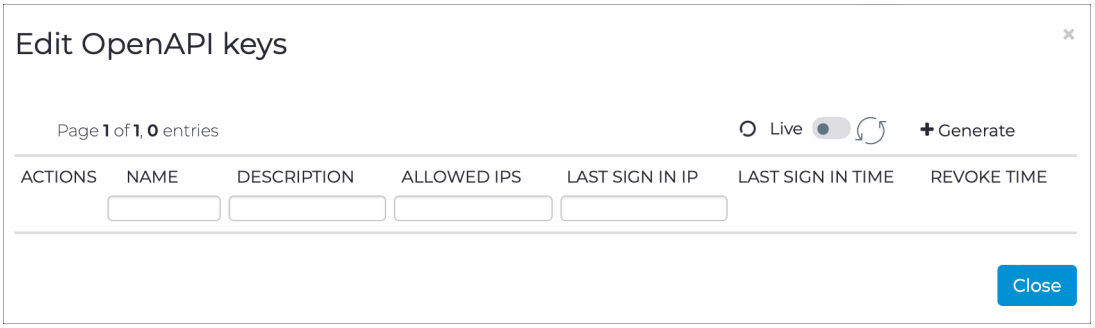
1. In the top navigation bar, select

   Result: A menu shows.

2. Select **Other actions**.
3. Select **Edit OpenAPI keys**.

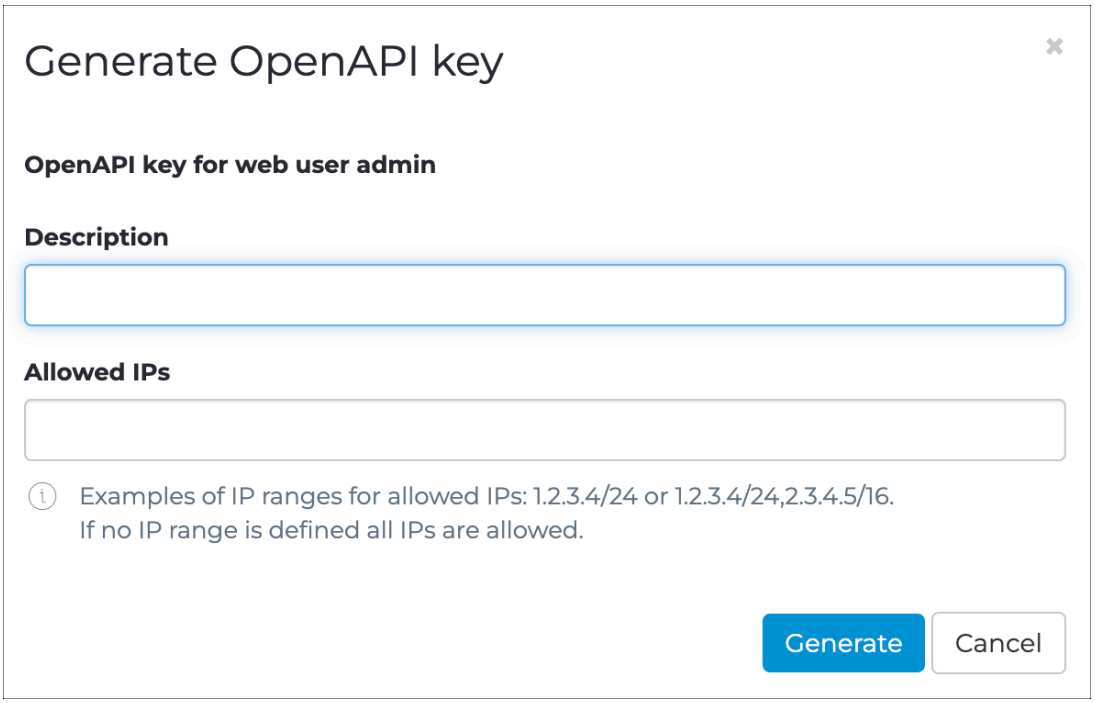
   Result: A dialog shows.

4. In the top right, select **+ Generate**.



   Result: A dialog shows.

5. In the **Description** field, enter a description for the OpenAPI key.



6. In the **Allowed IPs** field, enter the details of the allowed *IP* addresses.
7. Select **Generate**.

Results

Your OpenAPI key has been generated.

Chapter 4. Troubleshooting

Troubleshooting

A description of the best way to troubleshoot problems with your integration.

Logs

The QRadar logs are the best way to troubleshoot problems with the integration. You can find the applicable log files:

- `/var/log/qradar.log`
- `/var/log/qradar.error`

Glossary

Application Programming Interface

An API is a software interface that lets two or more computer programs communicate with each other.

Cyber threat intelligence

CTI collects and analyzes information on cyber threats and vulnerabilities, providing insights for organizations to proactively understand, prevent, and mitigate cyberattacks. To do this, it learns about the tactics, techniques, and procedures of attackers.

Graphical User Interface

A GUI is an interface that lets humans interact with electronic devices through graphical icons.

Hypertext Transfer Protocol

HTTP is an application layer protocol in the Internet protocol suite model for distributed, collaborative, hypermedia information systems. HTTP is the foundation of data communication for the World Wide Web, where hypertext documents include hyperlinks to other resources that the user can easily access, for example by a mouse click or by tapping the screen in a web browser.

Identifier

A label that identifies the related item.

Internet of Things

The IoT describes devices that connect and exchange information through the internet or other communication devices.

Internet Protocol

An Internet Protocol address, or IP address, identifies a node in a computer network that uses the Internet Protocol to communicate. The IP label is numerical.

Open Virtual Appliance

An OVA file is an open virtualization format (OVF) directory that is saved as an archive using the .tar archiving format. It contains files for distribution of software that runs on a virtual machine. An OVA package contains a .ovf descriptor file, certificate files, an optional .mf file along with other related files.

Operational Technology

OT is the software and hardware that controls and/or monitors industrial assets, devices and processes.

Security Information and Event Management

SIEM is a field within the computer security industry, where software products and services combine security event management (SEM) and security information management (SIM). SIEMs provide real-time analysis of security alerts.

Structured Threat Information Expression

STIX™ is a language and serialization format for the exchange of cyber threat intelligence (CTI). STIX is free and open source.

Tactics, techniques, and procedures

TTPs are the patterns of behavior that describe how cyber adversaries operate, encompassing their strategies (tactics), tools and methods (techniques), and specific procedures for executing attacks. Understanding TTPs aids in predicting and defending against future cyber threats.

Trusted Automated Exchange of Indicator Information

TAXII is a protocol for the exchange of cyber threat intelligence (CTI) online. It is often used with Structured Threat Information Expression (STIX) to share detailed threat information.

Uniform Resource Locator

An URL is a reference to a resource on the web that gives its location on a computer network and a mechanism to retrieving it.