ThreatQuotient

Palo Alto Prisma Cloud Connector User Guide

Version 1.1.0

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Integration Details

ThreatQuotient provides the following details for this integration:

Current Integration Version	1.1.0
Compatible with ThreatQ Versions	>= 4.57.3
Python Version	3.6
Support Tier	ThreatQ Supported

Introduction

The Palo Alto Prisma Cloud Connector integration provides you with the ability to import CVE data for hosts into ThreatQ from Prisma Cloud.

Prerequisites

Review the following requirements before attempting to install the connector.

API Token

To obtain the API Key and Secret.

1. Log into the Prisma user interface (UI).
2. Navigate to the User Management panel under Settings.
3. Select a user, click the dropdown action wheel on the right side and select **generate an api key**. The UI will guide you through the process.
4. A download link for a CSV file with the API Key and Secret is provided at the end of key generation. You must download this file as the secret is never displayed in the user interface.

   > ⚠ The download link will not be provided again, it must be downloaded at this specific point of the process.

   You now have the API Key and Secret and can enter them as credentials in ThreatQ.

Console Address

Log into the Prisma console and navigate to **Compute** > **Manage** > **System** > **Downloads** to view your console address listed in the **Path to Console** section.

See the Prisma documentation site for more information on retrieving your console address, or path to console.

Time Zone

You should ensure all ThreatQ devices are set to the correct time, time zone, and date (UTC is recommended), and using a clock source available to all.

To identify which time zone is closest to your present location, use the `timedatectl` command with the list-`timezones` command line option.

For example, enter the following command to list all available time zones in Europe:

```
timedatectl list-timezones | grep Europe
Europe/Amsterdam
Europe/Athens
Europe/Belgrade
Europe/Berlin
```

Enter the following command, as root, to change the time zone to UTC:

```
timedatectl set-timezone UTC
```

PIP.conf

Prior to ThreatQ version 4.10, you were required to modify your system's pip.conf to use the ThreatQ integrations python repo, also known as DevPi. This functionality was made available upon an initial install of 4.10. If you have upgraded to 4.10 from a previous version, you will need to modify the pip.conf on your environment to the following (replacing username and password with your information).

```
[global]
   index-url = https://system-updates.threatq.com/pypi
   extra-index-url = https://<username>:<password>@extensions.threatq.com/
threatq/integrations
                     https://<username>:<password>@extensions.threatq.com/
threatq/sdk
```

Asset Custom Object

The integration requires the Asset object. The Asset installation files are included with the integration download on the ThreatQ Marketplace. The Asset object must be installed prior to installing the integration.

> ⚠ You do not have to install the Asset object if you are running ThreatQ version 5.10.0 or greater as the object has been seeded as a default system object.

Use the steps provided to install the Asset custom object.

> ⚠ When installing the custom objects, be aware that any in-progress feed runs will be cancelled, and the API will be in maintenance mode.

1. Download the integration zip file from the ThreatQ Marketplace and unzip its contents.
2. SSH into your ThreatQ instance.
3. Navigate to tmp directory:

   ```
   cd /tmp/
   ```

4. Create a new directory:

   ```
   mkdir prisma_cloud
   ```

5. Upload the **asset.json** and **install.sh** script into this new directory.
6. Create a new directory called **images** within the prima_cloud directory.

   ```
   mkdir images
   ```

7. Upload the asset.svg
8. Navigate to the **/tmp/prisma_cloud**.

   The directory should resemble the following:

   - tmp
     - **prisma_cloud**
       - **asset.json**
       - **install.sh**
       - **images**
         - **asset.svg**

9. Run the following command to ensure that you have the proper permissions to install the custom object:

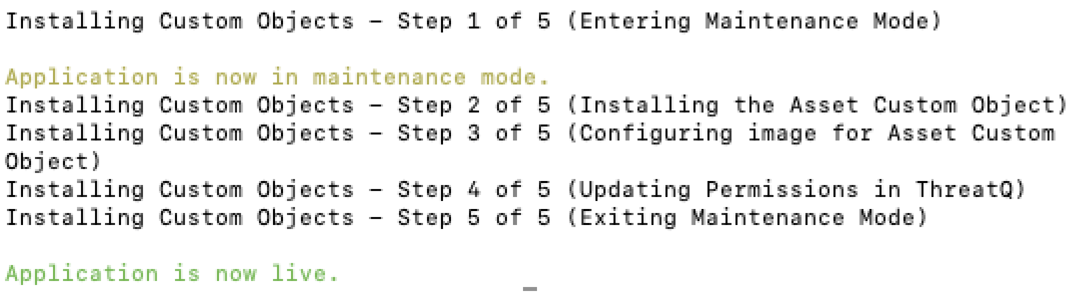
   ```
   chmod +x install.sh
   ```

10. Run the following command:

    ```
    sudo ./install.sh
    ```

> You must be in the directory level that houses the install.sh and json files when running this command.

The installation script will automatically put the application into maintenance mode, move the files to their required directories, install the custom object, update permissions, bring the application out of maintenance mode, and restart dynamo.



```
Installing Custom Objects - Step 1 of 5 (Entering Maintenance Mode)

Application is now in maintenance mode.
Installing Custom Objects - Step 2 of 5 (Installing the Asset Custom Object)
Installing Custom Objects - Step 3 of 5 (Configuring image for Asset Custom
Object)
Installing Custom Objects - Step 4 of 5 (Updating Permissions in ThreatQ)
Installing Custom Objects - Step 5 of 5 (Exiting Maintenance Mode)

Application is now live.
```

11. Remove the temporary directory, after the custom object has been installed, as the files are no longer needed:

```
rm -rf prisma_cloud
```

Integration Dependencies

⚠ The integration must be installed in a python 3.6 environment.

The following is a list of required dependencies for the integration. These dependencies are downloaded and installed during the installation process. If you are an Air Gapped Data Sync (AGDS) user, or run an instance that cannot connect to network services outside of your infrastructure, you will need to download and install these dependencies separately as the integration will not be able to download them during the install process.

Items listed in bold are pinned to a specific version. In these cases, you should download the version specified to ensure proper function of the integration.

DEPENDENCY	VERSION	NOTES
threatqsdk	>=1.8.2	N/A
threatqcc	>=1.4.1	N/A

Installation

The following provides you with steps on installing a Python 3 Virtual Environment and installing the connector.

> ⚠ This integration requires that the Asset custom object be installed on your ThreatQ instance if your are on ThreatQ version 5.9.0 or earlier. Failing to install the custom object prior to installing the connector will result in the connector failing. See the Prerequisites chapter for more details.

Creating a Python 3.6 Virtual Environment

Run the following commands to create the virtual environment:

```
mkdir /opt/tqvenv/
sudo yum install -y python36 python36-libs python36-devel python36-pip
python3.6 -m venv /opt/tqvenv/<environment_name>
source /opt/tqvenv/<environment_name>/bin/activate
pip install --upgrade pip
pip install threatqsdk threatqcc setuptools==59.6.0
```

Proceed to Installing the Connector.

Installing the Connector

⚠ **Upgrading Users** - Review the Change Log for updates to configuration parameters before updating. If there are changes to the configuration file (new/removed parameters), you must first delete the previous version's configuration file before proceeding with the install steps listed below. Failure to delete the previous configuration file will result in the connector failing.

1. Navigate to the ThreatQ Marketplace and download the .whl file for the integration.
2. Activate the virtual environment if you haven't already:

```
source /opt/tqvenv/<environment_name>/bin/activate
```

3. Transfer the whl file to the `/tmp` directory on your ThreatQ instance.
4. Install the connector on your ThreatQ instance:

```
pip install /tmp/conn_tq_conn_prisma_cloud-<version>-py3-none-any.whl
```

> A driver called `tq-conn-prisma-cloud` will be installed. After installing, a script stub will appear in `/opt/tqvenv/<environment_name>/bin/tq-conn-prisma-cloud`.

5. Once the application has been installed, a directory structure must be created for all configuration, logs and files, using the `mkdir -p` command. Use the commands below to create the required directories:

```
mkdir -p /etc/tq_labs/
mkdir -p /var/log/tq_labs/
```

6. Perform an initial run using the following command:

```
/opt/tqvenv/<environment_name>/bin/tq-conn-prisma-cloud -ll /var/log/
tq_labs/ -c /etc/tq_labs/ -v3
```

7. Enter the following parameters when prompted:

PARAMETER	DESCRIPTION
ThreatQ Host	This is the host of the ThreatQ instance, either the IP Address or Hostname as resolvable by ThreatQ.
ThreatQ Client ID	This is the OAuth id that can be found at Settings Gear → User Management → API details within the user's details.

PARAMETER	DESCRIPTION
ThreatQ Username	This is the Email Address doe the user in the ThreatQ System for integrations.
ThreatQ Password	The password for the above ThreatQ account.

Example Output

```
/opt/tqvenv/<environment_name>/bin/tq-conn-prisma-cloud -ll /var/log/
tq_labs/ -c /etc/tq_labs/ -v3
ThreatQ Host: <ThreatQ Host IP or Hostname>
ThreatQ Client ID: <ClientID>
ThreatQ Username: <EMAIL ADDRESS>
ThreatQ Password: <PASSWORD>
Connector configured. Set information in UI
```

You will still need to configure and then enable the connector.

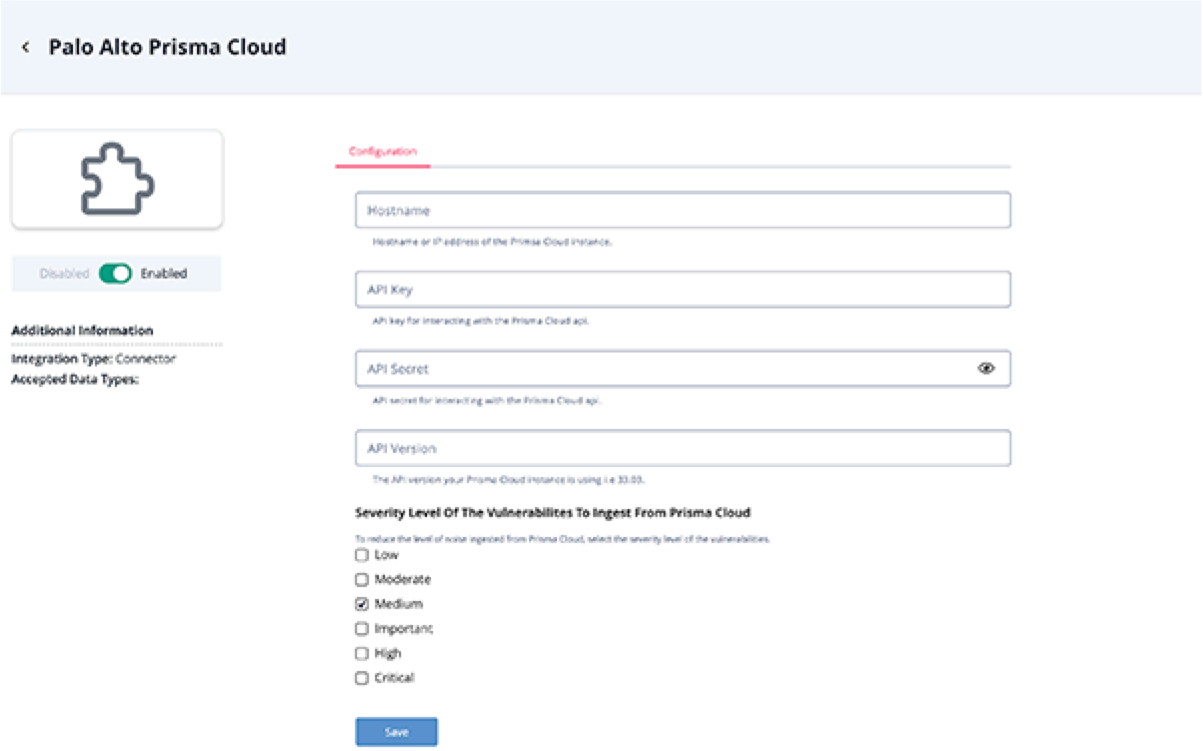
Configuration

> ThreatQuotient does not issue API keys for third-party vendors. Contact the specific vendor to obtain API keys and other integration-related credentials.

To configure the integration:

1. Navigate to your integrations management page in ThreatQ.
2. Select the **Labs** option from the *Category* dropdown (optional).
3. Click on the integration entry to open its details page.
4. Enter the following parameters under the **Configuration** tab:

PARAMETER	DESCRIPTION
Hostname	The hostname for communicating with the Prisma Cloud API. **Example:** https://us-west1.cloud.twistlock.com/
API Key	The API key for interacting with the Prisma Cloud API.
API Secret	The API secret for interacting with the Prisma Cloud api.
API Version	Enter the API version for your Prisma Cloud instance.



Additional Information

Integration Type: Connector

Accepted Data Types:

Hostname

Hostname or IP address of the Prisma Cloud instance.

API Key

API key for interacting with the Prisma Cloud api.

API Secret

API secret for interacting with the Prisma Cloud api.

API Version

The API version your Prisma Cloud instance is using i.e 33.03.

Severity Level Of The Vulnerabilites To Ingest From Prisma Cloud

To reduce the level of noise ingested from Prisma Cloud, select the severity level of the vulnerabilities.

- ☐ Low
- ☐ Moderate
- ☑ Medium
- ☐ Important
- ☐ High
- ☐ Critical

5. Review any additional settings, make any changes if needed, and click on **Save**.
6. Click on the toggle switch, located above the *Additional Information* section, to enable it.

Usage

Use the following command to execute the driver:

```
/opt/tqvenv/<environment_name>/bin/tq-conn-prisma-cloud -v3 -ll /var/log/
tq_labs/ -c /etc/tq_labs/
```

Command Line Arguments

This connector supports the following custom command line arguments:

ARGUMENT	DESCRIPTION
`-h`, `--help`	Review all additional options and their descriptions.
`-ll LOGLOCATION`, `--loglocation LOGLOCATION`	Sets the logging location for the connector. The location should exist and be writable by the current. A special value of 'stdout' means to log to the console (this happens by default).
`-c CONFIG`, `--config CONFIG`	This is the location of the configuration file for the connector. This location must be readable and writable by the current user. If no config file path is given, the current directory will be used. This file is also where some information from each run of the connector may be put (last run time, private oauth, etc.)
`-v {1,2,3}`, `--verbosity {1,2,3}`	This is the logging verbosity level. The default setting is 1 (Warning).
`-n, --name`	Optional - Name of the connector (Option used in order to allow users to configure multiple connector instances on the same TQ box).

CRON

Automatic CRON configuration has been removed from this script. To run this script on a recurring basis, use CRON or some other jobs scheduler. The argument in the CRON script must specify the config and log locations.

Add an entry to your Linux crontab to execute the connector at a recurring interval. Depending on how quickly you need updates, this can be run multiple times a day (no more than once an hour) or a few times a week.

In the example below, the command will execute the connector every two hours.

1. Log into your ThreatQ host via a CLI terminal session.
2. Enter the following command:

   ```
   crontab -e
   ```

   This will enable the editing of the crontab, using vi. Depending on how often you wish the cronjob to run, you will need to adjust the time to suit the environment.
3. Enter the commands below:

   Every 2 Hours Example

   ```
   0 */2 * * * /opt/tqvenv/<environment_name>/bin/tq-conn-prisma-cloud -
   c /etc/tq_labs/ -ll /var/log/tq_labs/ -v3
   ```
4. Save and exit CRON.

Change Log

- **Version 1.1.0**
  - Added new configuration field: **API Version**.
- **Version 1.0.0 rev-a (Guide Update)**
  - Updated the Prerequisites chapter regarding the Asset object. ThreatQ version 5.10.0 introduced the Asset object as a seeded default system object. Users on ThreatQ 5.10.0 or later do not have to install the Asset custom object prior to installing the integration.
- **Version 1.0.0**
  - Initial release