ThreatQuotient

MISP Export Connector User Guide

Version 1.1.1

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Contents

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Integration Details

ThreatQuotient provides the following details for this integration:

Current Integration Version	1.1.1
Compatible with ThreatQ Versions	>= 4.34.0
Python Version	3.6
Support Tier	ThreatQ Supported

Introduction

The MISP Export connector is a uni-directional connector which will create a MISP Event and store indicators of compromise (IoCs) in the MISP Event for the current day.

Prerequisites

Review the following requirements before attempting to install the connector.

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
```

PHP Configuration

The following are the minimum settings required in order for MISP to store ThreatQ indicators:

```
max_execution_time = 300
memory_limit = 512M
upload_max_filesize = 50M
post_max_size = 50M
```

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	>=1.8.1	N/A
threatqcc	>=1.4.1	N/A
pymisp	>=2.4.51.1	N/A

Installation

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

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/tq_conn_misp_export-<version>-py3-none-any.whl
```

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

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-misp-export -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 of the user in the ThreatQ System for integrations.
ThreatQ Password	The password for the above ThreatQ account.
Status	This is the default status for objects that are created by this Integration.

Example Output

```
/opt/tqvenv/<environment_name>/bin/tq-conn-misp-export -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>
Status: Review
Connector configured. Set information in UI
```

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

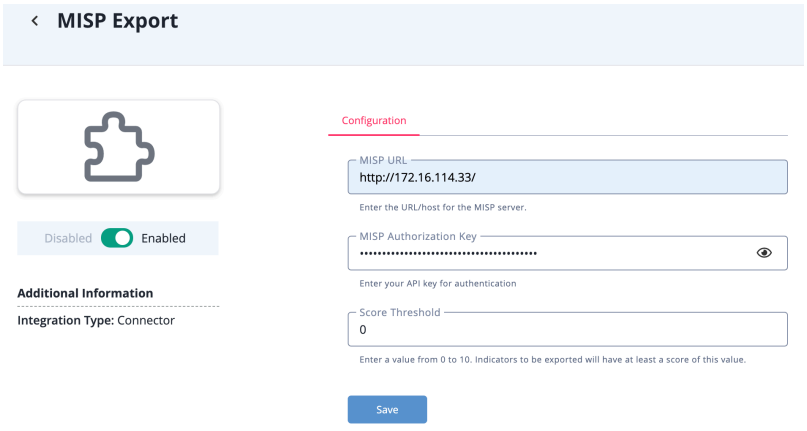
Configuration

> 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
MISP Host URL	The URL for the applicable MISP SIEM.
MISP Authorization Key	Provides authorization into the MISP API. The value can be found on the MISP server under **Administration/List Users/Authkey**.
Score Threshold	Active indicators to be exported will have at least a score of the value set in this field. The default setting is 0.



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-misp-export -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`	Shows this help message and exits.
`-n NAME, --name NAME`	This sets the name for this connector. In some cases, it is useful to have multiple connectors of the same type executing against a single TQ instance. For example, the Syslog Exporter can be run against multiple target and multiple exports, each with their own name and configuration
`-d, --no-differential`	If exports are used in this connector, this will turn 'off' the differential flag for the execution. This allows debugging and testing to be done on export endpoints without having to rebuild the exports after the test. ⚠ This should never be used in production.
`-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 where **3** means everything. The default setting is **1** (Warning).
`-ep, --external-proxy`	This allows you to use the proxy that is specified in the ThreatQ UI. This specifies an internet facing proxy, NOT a proxy to the TQ instance.

ARGUMENT	DESCRIPTION
`-ds, --disable-ssl`	Adding this flag will disable SSL verification when contacting the MISP API.
`-md, --mispdebug`	Enable debug mode in MISP API.

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-misp-export -
   c /etc/tq_labs/ -ll /var/log/tq_labs/ -v3
   ```
4. Save and exit CRON.

Known Issues / Limitations

- There is a limitation in the number of attributes a MISP Event can hold. If there are more than 25,000 IoCs to be exported on a given day, the code will create a new MISP Event for each 25,000 IoC collection.
- The MISP server's php.ini file must be modified in order to store 25,000 indicators. See the PHP Configuration section in the Prerequisites chapter for more information.

Change Log

- **Version 1.1.1**
  - Fixed an issue with the name flag. The name flag will now properly populate the connector with the passed name.
- **Version 1.1.0**
  - Added Python 3 support.
- **Version 1.0.7**
  - Updated connector to use the ThreatQ Threat Library opposed to the legacy indicator search.
- **Version 1.0.6**
  - Improved support for Python 2.
  - Updated tqdriver.
- **Version 1.0.5**
  - Removed prompt for default status. Status ID is now set to a hard-coded value.
- **Version 1.0.4**
  - Fixed an issue where Score Threshold excluded scores of 10.
- **Version 1.0.3**
  - Added flags to disable SSL verify and enable MISP debug mode.
  - Fixed a bug with the Score Threshold configuration option.
- **Version 1.0.2**
  - Added proxy support.
- **Version 1.0.1**
  - Fixed a scoring storage issue.
- **Version 1.0.0**
  - Initial Release