ThreatQuotient

ThreatQuotient for HCP Connector

Version 1.1.0

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1 Introduction

1.1 Application Function

The ThreatQuotient for HCP Connector integrates ThreatQ with the Kafka brokers installed in HCP. Kafka is a messaging service which is used for handling high volume real-time data feeds, and is one of the entry points for data into HCP.

The connector runs a saved search in ThreatQ, parses the indicators from the search, and then sends them as individual messages to a Kafka endpoint in the Metron API that is installed as part of HCP.

1.2 Preface

This guide provides the information necessary to implement the ThreatQuotient for HCP Connector. This document is not specifically intended as a site reference guide. It is assumed that the implementation engineer has experience installing and commissioning the ThreatQuotient Apps and integrations covered within the document, as well as the experience necessary to troubleshoot at a basic level.

1.3 Audience

This document is intended for use by the following parties:

1. ThreatQ Security/Engineers.
2. ThreatQuotient Professional Services Project Team & Engineers.

1.4 Scope

This document covers the implementation of the ThreatQuotient for HCP Connector only.

Table 1: ThreatQuotient Software & App Version Information

Software/App Name	File Name	Version
ThreatQ	Version 4.20.x or greater	
ThreatQuotient for HCP Connector	1.1.0	

1.5 Assumptions

The following criteria is assumed to be in place and functional to allow the implementation of the ThreatQuotient for HCP Connector into the managed estate:

- All ThreatQuotient equipment is online and in service.
- All required firewall ports have been opened.

2 Implementation Overview

This document explains how to install and execute the ThreatQuotient for HCP Connector.

2.1 Prerequisites

Throughout this implementation document, we will refer to several files and directories, some of which will be symbolic, and others may change, depending on specifics of the environmental setup.

Ensure all ThreatQ devices are set to the correct time, time zone and date, 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, to list all available time zones in Europe, type:

Figure 1: Time Zone List Example

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

To change the time zone to UTC, type as root:

Figure 2: Time Zone Change Example

```
timedatectl set-timezone UTC
```

2.2 Security and Privacy

For ThreatQuotient Professional Services engineers to configure the system, local network access is required to connect to the managed estate. Therefore, the implementation must occur at an office or data center location.

Passwords have not been provided in this document. Please contact your project team for this information, if required or applicable.

All engineers are reminded that all data belonging and pertaining to the business is confidential and should not be disclosed to any unauthorized parties.

The data held within this document is classed as confidential due to its nature.

3 ThreatQuotient for HCP Connector Installation

3.1 Setting up the Integration

From The ThreatQuotient Repository

To install this ThreatQuotient for HCP Connector from the ThreatQuotient repository with YUM credentials:

1. Install the ThreatQuotient for HCP Connector by using the following commands:

Figure 3: Installing From The ThreatQuotient Repository (Example Output)

```
$> pip install tq-conn-hcp-kafka
Collecting tq-conn-hcp-kafka
  Downloading https://extensions.threatq.com/threatq/integrations-
dev/+f/e7b/7112897638161/ tq-conn-hcp-kafka-1.0.0-py2-none-any.whl
Requirement already satisfied: jinja2==2.8 in /usr/lib/python2.7/site-packages
(from threatqcc>=1.3.0-> tq-conn-hcp-kafka) (2.8)
Collecting pyasn1>=0.3.7 (from python-ldap==3.2.0-> tq-conn-hcp-kafka)
  Downloading https://extensions.threatq.com/root/pypi/+f/da6/b43a8c9ae93bc/pyasn1-
0.4.5-py2.py3-none-any.whl (73kB)
    100% |████████████████████████████████| 81kB 1.0MB/s
Collecting pyasn1_modules>=0.1.5 (from python-ldap==3.2.0-> tq-conn-hcp-kafka)
  Downloading
  Running setup.py install for python-ldap ... done
Successfully installed pyasn1-0.4.5 pyasn1-modules-0.2.5 python-ldap-3.2.0 tq-conn-
hcp-kafka-1.1.0
```

Offline from the .whl File

To install this ThreatQuotient for HCP Connector from a wheel file, the wheel file (.whl) file `tq-conn-hcp-kafka-<version>-py2-none-any.whl` will need to be copied via SCP into your ThreatQ instance.

1. Install the .whl file using the following command.

Figure 4: Installing .whl File (Inc Example Output)

```
$> sudo pip install /file/path/to/app/tq-conn-hcp-kafka-<version>-py2-none-any.whl
Requirement already satisfied (use --upgrade to upgrade): urllib3<1.25,>=1.21.1 in
/usr/lib/python2.7/site-packages (from requests>=2.9.1->threatqsdk>=1.6.7-> tq-conn-
hcp-kafka)
Requirement already satisfied (use --upgrade to upgrade): chardet<3.1.0,>=3.0.2 in
/usr/lib/python2.7/site-packages (from requests>=2.9.1->threatqsdk>=1.6.7-> tq-
conn-hcp-kafka)
Requirement already satisfied (use --upgrade to upgrade): idna<2.9,>=2.5 in
/usr/lib/python2.7/site-packages (from requests>=2.9.1->threatqsdk>=1.6.7-> tq-
conn-hcp-kafka)
Installing collected packages: tq-conn-hcp-kafka
Successfully installed tq-conn-hcp-kafka-1.1.0
```

Once the application has been installed, you must create a directory structure for all configuration, logs and files, using the `mkdir -p` command. See the example below:

Figure 5: Creating Integration Directories (Example)

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

A driver called **`tq-conn-hcp-kafka`** is installed.

2. Issue the following commands to initialize the integration.

   You will be asked the following questions:

   a. **ThreatQ Host:** This is the host of the ThreatQ instance, either the IP Address or Hostname as resolvable by ThreatQ.
   b. **Client ID:** This refers to the API credentials that can be found at the **User icon** > **My Account**.
   c. **E-mail Address:** This is the *User in the ThreatQ System* for integrations.
   d. **Password:** The password for the above ThreatQ account
   e. **Status:** This is the default status for IoCs that are created by this integration. It is common to set this to "Review", but Organization SOPs should be respected when setting this status.

Figure 6: Running the Integration

```
$> tq-conn-hcp-kafka -v 3 -ll /path/to/log/dir -c /path/to/config/dir
ThreatQ Host: <ThreatQ Host IP or Hostnme >
Client ID: <ClientID>
E-Mail Address: <EMAIL ADDRESS>
Password: <PASSWORD>
Status: Review
Connector configured.  Set information in UI
```

The driver will run once, where it will connect to the ThreatQ instance and install the user interface component of the connector.

```
Connector configured.  Set information in UI
```

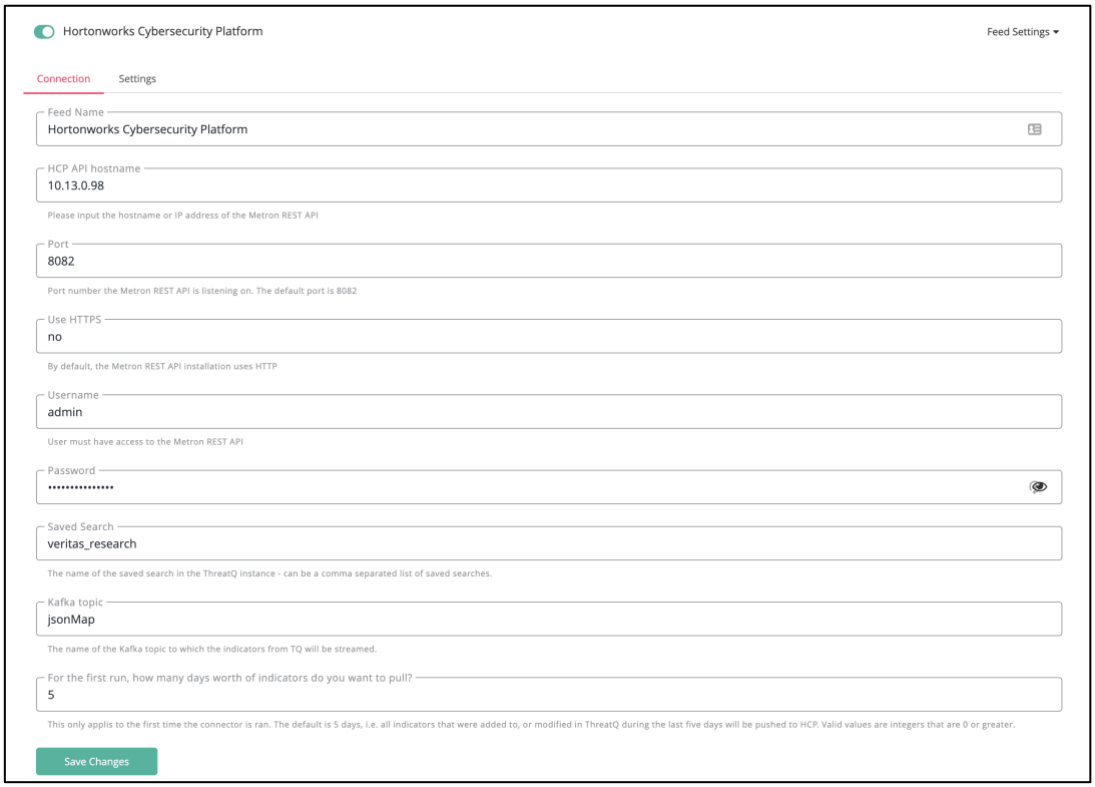
3.2 Configuring the connector

To configure the application, navigate in the ThreatQ user interface to the **Settings icon** > **Incoming Feeds** > **Labs** and find the Hortonworks Cybersecurity Platform feed.

1. Expand the Feed Settings for the **Hortonworks Cybersecurity Platform** section.
    - **HCP API hostname**: Hostname or IP address of the Metron REST API
    - **Port**: Port number the Metron REST API is listening on. The default port is 8082.
    - **Use HTTPS**: By default, the Metron REST API installation uses HTTP.
    - **Username**: The provided username for the Metron API
    - **Password**: The password for logging into the Metron API
    - **Saved Search**: The name of the saved search in the ThreatQ instance. This can be a comma separated list of saved searches.
    - **Kafka topic**: The name of the Kafka topic to which the indicators from ThreatQ will be streamed.
    - **For the first run, how many days worth of indicators do you want to pull?**: The default is 5 days. For example:
        - All indicators that were added to, or modified in ThreatQ during the last five days will be pushed to HCP. Valid values are integers that are 0 or greater.
        - This only applies to the first time the connector is run.

    Once all the relevant information has been entered, click **Save Changes.**

Figure 7: UI Configuration



Once completed, the integration is now ready for operation.

3.3 CRON

To run this script on a reoccurring basis use CRON or some other system schedule. The argument in the cron script ***must*** specify the config and log locations.

This can be run multiple times a day and can be run as often as required.

3.3.1 Setting Up the CRONJOB

1. Login via a CLI terminal session to your ThreatQ host.
2. Input the commands below.

Figure 8: Command Line Crontab 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. Input the commands below – this example shows every **4 Hours.**

Figure 9: Command Line Crontab Command

```
0 */4 * * * tq-conn-hcp-kafka -v 3 -ll /path/to/log/dir -c
/path/to/config/dir --cache /path/to/cache/dir
```

Figure 10: Command Line Crontab Command (Bespoke Name)

```
0 */4 * * * tq-conn-hcp-kafka -n <Bespoke_Name> -v 3 -ll /path/to/log/dir
-c /path/to/config/dir --cache /path/to/cache/dir
```

To run this script on a re-occurring basis, use CRON or some other on system schedule. CRON is displayed here.

The argument in the cron script ***must*** specify the config and log locations.

For further reference, see the ThreatQ Help Center.

Appendix A: Supplementary Information

Uninstalling the Connector

```
sudo pip uninstall tq-conn-hcp-kafka
```

Driver command line options

The **tq-conn-hcp-kafka** driver has several command line arguments that will help you and your customers execute it. They are listed below. You can view these arguments by executing: `/usr/bin/tq-conn-hcp-kafka --help.`

```
usage: tq-conn-hcp-kafka [-h] [-ll LOGLOCATION][-c CONFIG] [-v VERBOSITY]
```

optional arguments:

```
  -h, --help
```

Shows the help message and exit

```
  -ll LOGLOCATION, --loglocation LOGLOCATION
```

This sets the logging location for this connector. The location should exist and be writable by the current user. 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 have read and write permissions for the current user. If no config file is given, the current directory will be used. This file is also where some information from each run of the connector may be stored (e.g. last run time, private OAuth, etc).

```
  -cache, --cache
```

(required): The path to the directory where you want to store your cache.

```
  -v {1,2,3}, --verbosity {1,2,3}
```

This is the logging verbosity level. The Default is 1 (Warning).

```
  -ds, --disable-ssl
```

Adding this flag will disable SSL verification when contacting the Metron API.

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