

ThreatQuotient



ThreatQuotient for Snort Subscription Rules

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1 Introduction

1.1 Application Function

The ThreatQuotient for Snort Subscription Rules Connector allows a ThreatQ and Snort user to import signatures and indicators from the Snort registered/subscription rulesets.

1.2 Preface

This guide provides the information necessary to implement the ThreatQuotient for Snort Subscription Rules Application. 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 and Snort Engineers.
2. ThreatQuotient Professional Services Project Team & Engineers.

1.4 Scope

This document covers the implementation of the ThreatQuotient for Snort Subscription Rules Connector only.

Table 1: ThreatQuotient Software & App Version Information

Software/App Name	File Name	Version
ThreatQ	Version 3.6.x or greater	
ThreatQuotient for Snort Subscription Rules Connector	1.0.1	

1.5 Assumptions

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

1. All ThreatQuotient equipment is online and in service.

2 Implementation Overview

This document explains how to install the ThreatQuotient for Snort Subscription Rules 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 (UTC recommended), 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
Europe/Belgrade
Europe/Berlin
```

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.

All engineers are reminded that all data belonging and pertaining to the business is strictly 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 Snort Subscription Rules Application Installation

3.1 Setting up the Integration

From the ThreatQuotient Repository

To install the ThreatQuotient for Snort Subscription Rules Application from the ThreatQuotient repository with YUM credentials.

1. Install the ThreatQuotient for Snort Subscription Rules Connector by using the following commands:

Figure 3: Installing from the ThreatQuotient Repository (Example Output)

```
$> pip install tq-conn-snort-subscription-rules
Collecting tq-conn-snort-subscription-rules
  Downloading https://extensions.threatq.com/threatq/integrations-dev/+f/e7b/7112897638161/ tq-conn-snort-subscription-rules-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-snort-subscription-rules) (2.8)
Collecting pyasn1>=0.3.7 (from python-ldap==3.2.0-> tq-conn-snort-subscription-rules)
  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-snort-subscription-rules)
  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-snort-subscription-rules-1.0.1
```

Offline from the .whl File

To install this ThreatQuotient for Snort Subscription Rules Connector from a wheel file, the wheel file (.whl) file `tq-conn-snort-subscription-rules-<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-snort-subscription-rules-<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-snort-subscription-rules)
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-snort-subscription-rules)
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-snort-subscription-rules)
Installing collected packages: tq-conn-snort-subscription-rules
Successfully installed tq-conn-snort-subscription-rules-1.0.1
```

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-snort-subscription-rules` 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-snort-subscription-rules -c /file/path/to/config/ -ll  
/file/path/to/logs/ -v3  
ThreatQ Host: <IP ADDRESS>  
Client ID: <ClientID>  
E-Mail Address: <EMAIL ADDRESS>  
Password: <PASSWORD>  
Status: Active  
Connector configured. Set information in UI. please use UI for final  
configuration
```

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

3.2 Configuring the Connector

Once the steps from the previous section are complete, access the ThreatQ user interface and navigate to the **Settings icon > Incoming Feeds > Labs** and find the *Snort Community Rules* feed. The configuration is auto-completed but can be changed if required.

The following information will need to be entered as described below:

1. API Key (Oinkcode): Enter your Snort API Key (aka Oinkcode).
2. Include Non-Standard Rules: Whether or not to import non-standard rules
 - This is in addition to the standard rules
3. Standard Rule Status: The status you want to give to the Snort standard rules.
4. Non-Standard Rule Status: The status you want to give to the Snort non-standard rules.

Figure 7: ThreatQ UI Configuration

The screenshot shows the 'Snort Subscription Rules' configuration page in the ThreatQ UI. The page has a header with a toggle switch for 'Snort Subscription Rules' and a 'Feed Settings' dropdown. Below the header, there are two tabs: 'Connection' (active) and 'Settings'. The 'Connection' tab contains a 'Password' field with a masked input and a 'Save' icon. Below the password field is a label 'Enter your Snort API Key (aka Oinkcode)'. The 'Settings' tab contains three sections: 'Include Non-Standard Rules' with radio buttons for 'Yes' and 'No' (selected), and a label 'Whether or not to import non-standard rules (in addition to standard rules)'; 'Standard Rule Status' with a dropdown menu set to 'Active' and a label 'What status do you want standard Snort Rules to have?'; and 'Non-Standard Rule Status' with a dropdown menu set to 'Review' and a label 'What status do you want non-standard Snort Rules to have?'. At the bottom of the page is a green 'Save Changes' button.

Once completed, the integration is 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 connector is slightly different from other connectors as it uses some custom command line arguments.

The connector can be run multiple times a day and should not be run more often than once per hour.

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 tq-conn-snort-subscription-rules Command

```
0 */4 * * * tq-conn-snort-subscription-rules -c /path/to/config/directory/ -  
ll /path/to/log/directory/ -f /path/to/files/directory --files files/
```

To run this script on a reoccurring basis use CRON or some other on system schedule. CRON is shown here.



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



The connector can be run multiple times a day and should **not** be run more often than once per hour.

For further reference, see the [ThreatQ Help Center](#).

Appendix A: Supplementary Information

Uninstalling the Connector

```
sudo pip uninstall tq-conn-snort-subscription-rules
```

Command line options

The `tq-conn-snort-subscription-rules` driver has several command line arguments that will help you and your customers execute it. They are listed below. You can see these by executing `/usr/bin/tq-conn-snort-subscription-rules --help`.

```
usage: tq-conn-snort-subscription-rules Connector [-h] [-ll LOGLOCATION] [-c CONFIG]
[-v VERBOSITY]
```

`tq-conn-snort-subscription-rules`

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 put (e.g. last run time, private OAuth, etc)

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

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

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