ThreatQuotient

VirusTotal LiveHunt CDF Guide

Version 2.0.0

February 22, 2022

ThreatQuotient
11400 Commerce Park Dr., Suite 200
Reston, VA 20191

ThreatQ Supported

Support
Email: support@threatq.com
Web: support.threatq.com
Phone: 703.574.9893

Contents

Warning and Disclaimer

ThreatQuotient, Inc. provides this document “as is”, without representation or warranty of any kind, express or implied, including without limitation any warranty concerning the accuracy, adequacy, or completeness of such information contained herein. ThreatQuotient, Inc. does not assume responsibility for the use or inability to use the software product as a result of providing this information.

Versioning

- Current integration version: `2.0.0`
- Supported on ThreatQ versions >= `4.43.0`

Introduction

The VirusTotal LiveHunt CDF ingests and enriches Incident type Events and related indicators into your ThreatQ platform from your VirusTotal LiveHunt environment.

> ⚠ ThreatQ recommends using this integration in conjunction with VirusTotal LiveHunt Operation. The Operation will push YARA Signatures from ThreatQ to VirusTotal LiveHunt, and the CDF will ingest data related to each signature from VirusTotal LiveHunt back into ThreatQ.

The integration provides the following endpoint:

- **VirusTotal LiveHunt** - ingests incident type Events that can be enriched with attributes and related Indicators.

The integration ingests the following system object types:

- Events
  - Event Attributes
- Indicators

Installation

Perform the following steps to install the integration:

> The same steps can be used to upgrade the integration to a new version.

1. Log into https://marketplace.threatq.com/.
2. Locate and download the integration file.
3. Navigate to the integrations management page on your ThreatQ instance.
4. Click on the **Add New Integration** button.
5. Upload the integration file using one of the following methods:
   - Drag and drop the file into the dialog box
   - Select **Click to Browse** to locate the integration file on your local machine

   > ThreatQ will inform you if the feed already exists on the platform and will require user confirmation before proceeding. ThreatQ will also inform you if the new version of the feed contains changes to the user configuration. The new user configurations will overwrite the existing ones for the feed and will require user confirmation before proceeding.
6. If prompted, select the individual feeds to install and click **Install**. The feed will be added to the integrations page.

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

Configuration

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

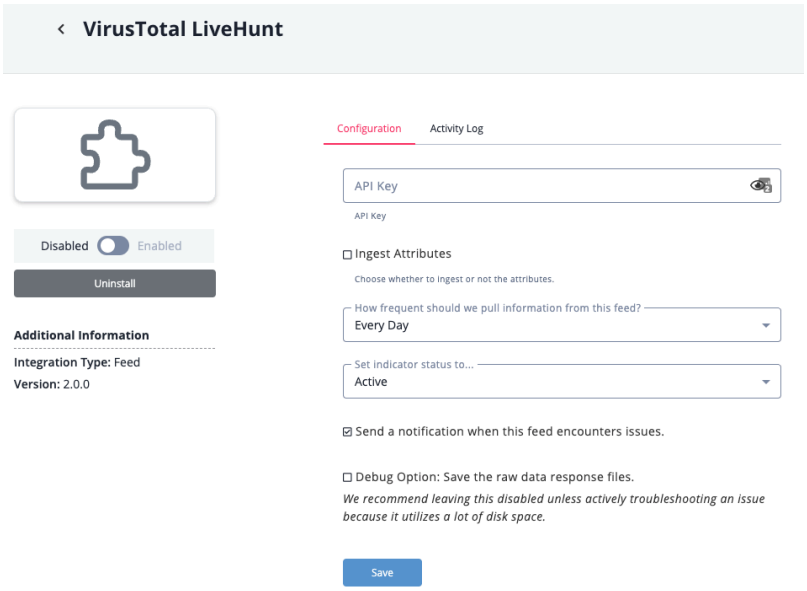
To configure the feed:

1. Navigate to your integrations management page in ThreatQ.
2. Select the **Commercial** tab (optional).

   > If you are installing the integration for the first time, it will be located under the **Disabled** tab.

3. Click on the integration to open its details page.
4. Enter the following parameter under the **Configuration** tab:

PARAMETER	DESCRIPTION
API Key	VirusTotal LiveHunt API Key to be used in HTTP headers for accessing feed data.
Ingest Attributes	Use this parameter to select whether to ingest attributes.



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

ThreatQ Mapping

VirusTotal LiveHunt

The VirusTotal LiveHunt feed creates abd enriches incident type events with attributes and related indicators.

`GET https://www.virustotal.com/api/v3/intelligence/hunting_notification_files`

JSON response sample:


```
{
    "data": [
        {
            "attributes": {
                "androguard": {
                    "Activities": [

                        "com.google.android.gms.auth.api.signin.internal.SignInHubActivity",
                        "com.google.android.gms.common.api.GoogleApiActivity"
                    ],
                    "AndroguardVersion": "3.0-dev",
                    "AndroidApplication": 1,
                    "AndroidApplicationError": false,
                    "AndroidApplicationInfo": "APK",
                    "AndroidVersionCode": "71000222",
                    "AndroidVersionName": "3.41.1",
                    "Libraries": [
                        "org.apache.http.legacy"
                    ],
                    "MinSdkVersion": "17",
                    "Package": "com.b2w.soubarato",
                    "Providers": [
                        "com.b2w.main.providers.SoubAutoCompleteSuggestionProvider",
                        "com.imagepicker.FileProvider"
                    ],
                    "Receivers": [
                        "com.facebook.CurrentAccessTokenExpirationBroadcastReceiver",
                        "com.google.android.gms.measurement.AppMeasurementReceiver",

"com.google.android.datatransport.runtime.scheduling.jobscheduling.AlarmManagerSchedulerBroadcastReceiver"
                    ],
                    "RiskIndicator": {
                        "APK": {
                            "DEX": 3
                        },
                        "PERM": {
                            "DANGEROUS": 3,
                            "INTERNET": 1,
                            "NORMAL": 9,
                            "PRIVACY": 3,
                            "SIGNATURE": 1
                        }
```

```
    },
    "Services": [
        "com.google.android.datatransport.runtime.backends.TransportBackendDiscovery",
        "com.google.android.datatransport.runtime.scheduling.jobscheduling.JobInfoSchedulerService"
    ],
    "StringsInformation": [
        "http://",

        "https://www.example.com/"
    ],
    "TargetSdkVersion": "29",
    "VTAndroidInfo": 1.41,
    "certificate": {
        "Issuer": {
            "C": "55",
            "CN": "Francisco Cavedon",
            "DN": "C:55, CN:Francisco Cavedon, L:Rio de Janeiro, O:Ideais, ST:RJ, OU:Mobile",
            "L": "Rio de Janeiro",
            "O": "Ideais",
            "OU": "Mobile",
            "ST": "RJ"
        },
        "Subject": {
            "C": "55",
            "CN": "Francisco Cavedon",
            "DN": "C:55, CN:Francisco Cavedon, L:Rio de Janeiro, O:Ideais, ST:RJ, OU:Mobile",
            "L": "Rio de Janeiro",
            "O": "Ideais",
            "OU": "Mobile",
            "ST": "RJ"
        },
        "serialnumber": "737736f4",
        "thumbprint": "486454815aa53bd3182797f507ed6f58fe9af772",
        "validfrom": "2014-02-05 13:37:21",
        "validto": "2039-01-30 13:37:21"
    },
    "intent_filters": {
        "Activities": {
            "com.b2w.main.activity.account.manager.MyAccountActivity": {
                "action": [
                    "android.intent.action.VIEW"
                ],
                "category": [
                    "android.intent.category.DEFAULT",
                    "android.intent.category.BROWSABLE"
                ]
            },
            "com.facebook.CustomTabActivity": {
                "action": [
                    "android.intent.action.VIEW"
                ],
                "category": [
                    "android.intent.category.DEFAULT",
                    "android.intent.category.BROWSABLE"
                ]
            }
        },
        "Receivers": {
            "com.pushio.manager.PushIOBroadcastReceiver": {
                "action": [
                    "com.google.android.c2dm.intent.RECEIVE",
```

```
                        "com.google.android.c2dm.intent.REGISTRATION"
                    ],
                    "category": [
                        "com.b2w.soubarato"
                    ]
                }
            },
            "Services": {
                "com.b2w.main.push.SoubaratoFCMService": {
                    "action": [
                        "com.google.firebase.MESSAGING_EVENT"
                    ]
                },
                "com.pushio.manager.PIOFCMIntentService": {
                    "action": [
                        "com.google.firebase.MESSAGING_EVENT",
                        "com.google.firebase.INSTANCE_ID_EVENT"
                    ]
                }
            }
        },
        "main_activity": "com.b2w.main.activity.MainActivity",
        "permission_details": {
            "me.everything.badger.permission.BADGE_COUNT_READ": {
                "full_description": "Unknown permission from android reference",
                "permission_type": "normal",
                "short_description": "Unknown permission from android reference"
            },
            "me.everything.badger.permission.BADGE_COUNT_WRITE": {
                "full_description": "Unknown permission from android reference",
                "permission_type": "normal",
                "short_description": "Unknown permission from android reference"
            }
        }
    },
    "bundle_info": {
        "extensions": {
            "bin": 1,
            "cer": 1,
            "crt": 1,
            "dex": 3,
            "gz": 1,
            "jpg": 3,
            "js": 1,
            "otf": 1,
            "png": 255,
            "ttf": 2,
            "txt": 1,
            "xml": 592
        },
        "file_types": {
            "DEX": 3,
            "JPG": 4,
            "Java Bytecode": 1,
            "PNG": 255,
            "XML": 592,
            "unknown": 145
        },
        "highest_datetime": "1980-00-00 00:00:00",
        "lowest_datetime": "1980-00-00 00:00:00",
        "num_children": 1238,
```

```
            "type": "APK",
            "uncompressed_size": 45875567
        },
        "capabilities_tags": [],
        "downloadable": true,
        "exiftool": {
            "FileType": "ZIP",
            "FileTypeExtension": "zip",
            "MIMEType": "application/zip",
            "ZipBitFlag": "0",
            "ZipCRC": "0x0f0d5329",
            "ZipCompressedSize": "11703",
            "ZipCompression": "Deflated",
            "ZipFileName": "AndroidManifest.xml",
            "ZipModifyDate": "1980:00:00 00:00:00",
            "ZipRequiredVersion": "0",
            "ZipUncompressedSize": "70984"
        },
        "first_submission_date": 1601777166,
        "last_analysis_date": 1604478567,
        "last_analysis_results": {
            "ALYac": {
                "category": "undetected",
                "engine_name": "ALYac",
                "engine_update": "20201104",
                "engine_version": "1.1.1.5",
                "method": "blacklist",
                "result": null
            },
            "APEX": {
                "category": "type-unsupported",
                "engine_name": "APEX",
                "engine_update": "20201104",
                "engine_version": "6.94",
                "method": "blacklist",
                "result": null
            },
            "eGambit": {
                "category": "type-unsupported",
                "engine_name": "eGambit",
                "engine_update": "20201104",
                "engine_version": null,
                "method": "blacklist",
                "result": null
            },
            "Bkav": {
                "category": "malicious",
                "engine_name": "Bkav",
                "engine_update": "20201117",
                "engine_version": "1.3.0.9899",
                "method": "blacklist",
                "result": "W32.AIDetectVM.malware2"
            },
            "Cylance": {
                "category": "malicious",
                "engine_name": "Cylance",
                "engine_update": "20201124",
                "engine_version": "2.3.1.101",
                "method": "blacklist",
                "result": "Unsafe"
            }
```

```
                },
                "last_analysis_stats": {
                    "confirmed-timeout": 0,
                    "failure": 1,
                    "harmless": 0,
                    "malicious": 0,
                    "suspicious": 0,
                    "timeout": 3,
                    "type-unsupported": 12,
                    "undetected": 60
                },
                "last_modification_date": 1604478749,
                "last_submission_date": 1604478567,
                "magic": "Zip archive data",
                "main_icon": {
                    "dhash": "d4c8e8e8e8e8b2cc",
                    "raw_md5": "76b13404cbc08c06a46cf6b1c1c9e937"
                },
                "md5": "0a33341ab24baddf443a890f8b815e0f",
                "meaningful_name": "com.b2w.soubarato",
                "names": [
                    "yMNMxqjSgnmm55zzyax120201004-118624-sxoqgo"
                ],
                "reputation": 0,
                "sha1": "f4b1f470b1cee686d97602e7d6e51d43d6bef1de",
                "sha256": "c3e6aa52d926d0d00e89d8ba09fa21ef95c63fba9cfbf3d4217891fa27230394",
                "size": 18080108,
                "ssdeep":
"393216:JaqZ7bmEMEtSf7AdB4KICa5ZicJZ6+HgDjvTYv5NBbRJSMqcg8gdv3JZh7:cqhmED8famCajicH6+HgDjvs5N4yg88j",
                "tags": [
                    "apk",
                    "android"
                ],
                "times_submitted": 2,
                "tlsh": "T15B073394F368E41BC9BBA43399A6036226421D8585C2EF532558F34CAEF7E844F59FCC",
                "total_votes": {
                    "harmless": 0,
                    "malicious": 0
                },
                "trid": [
                    {
                        "file_type": "VYM Mind Map",
                        "probability": 9.0
                    }
                ],
                "type_description": "Android",
                "type_tag": "android",
                "unique_sources": 2,
                "vhash": "edafd3c0e528684be1d6409852ab8eb3"
            },
            "context_attributes": {
                "match_in_subfile": false,
                "notification_date": 1604478761,
                "notification_id": "1695784045420398-5121460817657856-9ce413deb7042fede0817960b939fa4b",
                "notification_snippet": "16 41 4C 54 45 52 41 52 20 45 4D 41 49 4C 20 4F  .ALTERAR EMAIL",
                "notification_source_country": "LU",
                "notification_source_key": "83276777",
                "notification_tags": [
                    "c3e6aa52d926d0d00e89d8ba09fa21ef95c63fba9cfbf3d4217891fa27230394",
                    "banbra",
                    "banker"
```

```
                ],
                "rule_name": "banbra",
                "rule_tags": [
                    "banker"
                ],
                "ruleset_id": "5121460817657856",
                "ruleset_name": "banbra"
            },
            "id": "c3e6aa52d926d0d00e89d8ba09fa21ef95c63fba9cfbf3d4217891fa27230394",
            "links": {
                "self": "https://www.virustotal.com/api/v3/files/
c3e6aa52d926d0d00e89d8ba09fa21ef95c63fba9cfbf3d4217891fa27230394"
            },
            "type": "file"
        }
    ],
    "links": {
        "self": "https://www.virustotal.com/api/v3/users/tis.threatq/hunting_notification_files?limit=10"
    },
    "meta": {
        "count": 1
    }
}
```

ThreatQ provides the following default mapping for this feed:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.data[].context_attributes.ruleset_name	Event.Attribute	Ruleset Name	.data[].attributes.first_submission_date	'banker'	The attributes will only be ingested if the user select this option
.data[].context_attributes.notification_source_country	Event.Attribute	Source Country	.data[].attributes.first_submission_date	'US'	The attributes will only be ingested if the user select this option
.data[].attributes.magic	Event.Attribute	Magic	.data[].attributes.first_submission_date	'Dalvik dex file version 035'	The attributes will only be ingested if the user select this option
.data[].attributes.meaningful_name	Event.Attribute	Meaningful Name	.data[].attributes.first_submission_date	'classes.dex'	The attributes will only be ingested if the user select this option
.data[].attributes.reputation	Event.Attribute	Reputation	.data[].attributes.first_submission_date	'0'	The attributes will only be ingested if the user select this option
.data[].attributes.trid.file_type	Event.Attribute	File Type	.data[].attributes.first_submission_date	'Dalvik Dex class'	The attributes will only be ingested if the user select this option
.data[].attributes.trid.probability	Event.Attribute	Probability	.data[].attributes.first_submission_date	'100'	The attributes will only be ingested if the user select this option
.data[].attributes.type_description	Event.Attribute	Description Type	.data[].attributes.first_submission_date	'Android'	The attributes will only be ingested if the user select this option
.data[].attributes.type_tag	Event.Attribute	Tag Type	.data[].attributes.first_submission_date	'android'	The attributes will only be ingested if the user select this option
.data[].attributes.exiftool.FileTypeExtension	Event.Attribute	File Extension	.data[].attributes.first_submission_date	'DEX'	The attributes will only be ingested if the user select this option
.data[].attributes.last_analysis_results.(key).result	Event.Attribute	(key) Analysis Result	.data[].attributes.first_submission_date	'Unsafe'	The name of this attribute is dynamically set with the value found on (key). We only add this attribute if the value is not null.
.data[].attributes.md5	Related.Indicator	MD5	.data[].attributes.first_submission_date	'52c5d34ffcf797f5d8de9fb8ae9120c8'	N/A
.data[].attributes.sha1	Related.Indicator	SHA-1	.data[].attributes.first_submission_date	'552eb372553ee115b88714180513da44cce748da'	N/A
.data[].attributes.sha256	Related.Indicator	SHA-256	.data[].attributes.first_submission_date	'8775216e22c6501fc65042c8c3a984fce0c20b27bdd17c28493c2318d7bb5cc9'	N/A
.data[].attributes.ssdeep	Related.Indicator	Fuzzy Hash	.data[].attributes.first_submission_date	'49152:vaMqTZeWWZsKWQfg+sbwUt1pdV/eTETEmvHNgyjkGKeQU6/7knE5KS:iMooTsAmMoHe7beQES'	N/A

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.data[].context_attributes.rule_name	Event.Type	Incident	.data[].attributes.first_submission_date	'banbra'	N/A

Average Feed Run

Average Feed Run results for VirusTotal LiveHunt:

METRIC	RESULT
Run Time	2 minutes
Events	1
Event Attributes	333
Indicators	6

Object counts and Feed runtime are supplied as generalities only - objects returned by a provider can differ based on credential configurations and Feed runtime may vary based on system resources and load.

Change Log

- **Version 2.0.0**
  - The integration now ingests Incident type Events objects instead of Signatures. The ingestion of Malware types has also been removed from the integration.
  - Added a new configuration parameter that allows users to select whether or not to ingest attributes. See the Configuration chapter for more details.
- **Version 1.1.0**
  - Fixed issue for objects that were not being ingested.
- **Version 1.0.0**
  - Initial release