ThreatQuotient

Malpedia CDF Guide

Version 1.0.1

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Support Email: support@threatq.com
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Versioning

- Current integration version: `1.0.1`
- Compatible with ThreatQ versions >= `4.25.0`

Introduction

The Malpedia CDF for ThreatQ allows a user to ingest Malware, Actors, and YARA Rules from Malpedia.

The following endpoints are included in the CDF:

- **Malpedia Malware** - ingests malware and related actors and YARA rules into ThreatQ.
- **Malpedia Threat Actors** - ingests threat actors into ThreatQ.
- **Malpedia YARA Rules** - ingests YARA Signatures into ThreatQ.

The following system object types can be ingested by the integration:

- Adversaries
- Malware
- Signatures

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 integration-related credentials.

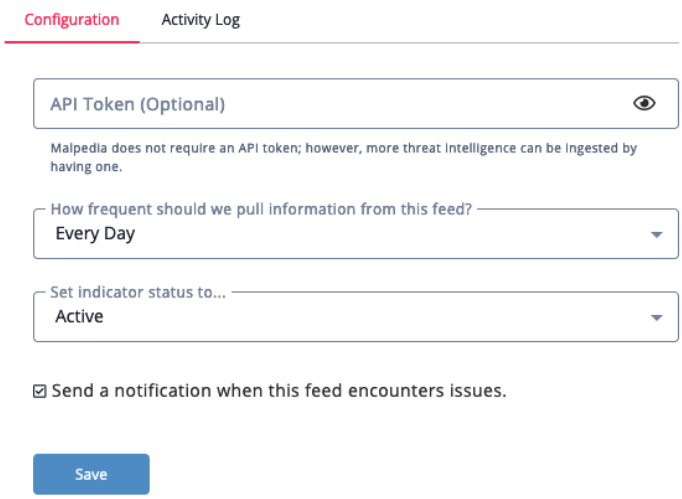
To configure the integration:

1. Navigate to your integrations management page in ThreatQ.
2. Select the **OSINT** option from the *Category* dropdown (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 Token	Optional - Your Malpedia API Token. While Malpedia does not require an API Token, using one will increase the amount of threat data that can be ingested.



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.

ThreatQ Mapping

Malpedia Malware (Feed)

This feed will ingest malware and related actors and YARA rules into ThreatQ.

`GET https://malpedia.caad.fkie.fraunhofer.de/api/get/families`


```
{
    "win.sparksrv": {
        "updated": "2020-01-23",
        "library_entries": [
            "team:20120326:luckycat:b7b4f63"
        ],
        "attribution": [],
        "description": "",
        "notes": [],
        "alt_names": [],
        "sources": [],
        "urls": [
            "https://www.trendmicro.com/vinfo/us/security/news/cyber-attacks/luckycat-redux-campaign-attacks-
multiple-targets-in-india-and-japan"
        ],
        "common_name": "Sparksrv",
        "uuid": "1937c3e0-569d-4eb4-b769-ae5d9cc27755"
    },
    "win.sslmm": {
        "updated": "",
        "library_entries": [
            "baumgartner:20150514:naikon:9edea2f",
            "baumgartner:201505:msnmm:13a9145",
            "fireeye:201504:apt30:0129bf7"
        ],
        "attribution": [
            "Naikon"
        ],
        "description": "",
        "notes": [],
        "alt_names": [],
        "sources": [],
        "urls": [
            "https://www2.fireeye.com/rs/fireye/images/rpt-apt30.pdf",
            "https://securelist.com/analysis/publications/69953/the-naikon-apt/",
            "https://paper.seebug.org/papers/APT/APT_CyberCriminal_Campagin/2015/TheNaikonAPT-MsnMM1.pdf"
        ],
        "common_name": "SslMM",
        "uuid": "009db412-762d-4256-8df9-eb213be01ffd"
    }
}
```


Enrichment data is polled from the following URL based on a date filter:

```
GET https://malpedia.caad.fkie.fraunhofer.de/api/get/yara/after/{{Last run}}
```


```
{
    "tlp_white": {
      "win.poulight_stealer_w0.yar": "rule win_poulight_w0 {\r\n    meta:\r\n        description = \"Poullight
stealer\"\r\n        author = \"James_inthe_box\"\r\n        reference = \"https://app.any.run/tasks/
d9e4933b-3229-4cb4-84e6-c45a336b15be/\"\r\n        date = \"2020/03\"\r\n        maltype = \"Stealer\"\r\n
malpedia_reference = \"https://malpedia.caad.fkie.fraunhofer.de/details/win.poulight_stealer\"\r\n
malpedia_version = \"20200325\"\r\n        malpedia_sharing = \"TLP:WHITE\"\r\n        \r\n    strings:\r\n
$string1 = \"[LOGS]\" wide\r\n        $string2 = \"Org.BouncyCastle.Crypto.Prng\" ascii\r\n        $string3 =
\"lookupPowX2\" ascii\r\n\r\n    condition:\r\n        uint16(0) == 0x5A4D and \r\n        all of ($string*) and
\r\n        filesize < 400KB\r\n}",
      "win.vidar_w0.yar": "rule win_vidar_w0 {\n    meta:\n        description = \"Yara rule for detecting Vidar
stealer\"\n        author = \"FumikO_\"\n        malpedia_reference = \"https://malpedia.caad.fkie.fraunhofer.de/
details/win.vidar\"\n        malpedia_version = \"2019-01-06\"\n        malpedia_license = \"CC BY-NC-SA 4.0\"\n
malpedia_sharing = \"TLP:WHITE\"\n\n    strings:\n        $s1 = { 56 69 64 61 72 }\n        $s2 = { 31 42 45 46 30
41 35 37 42 45 31 31 30 46 44 34 36 37 41 }\n        \n    condition:\n        all of them\n}"
    }
}
```


ThreatQ provides the following default mapping for this feed:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	EXAMPLES	NOTES
key.common_name	Malware	N/A	Trickbot	N/A
key.alt_names[]	Malware	N/A	NanoCore RAT	These are inter-related with the "common name"
key.attribution	Adversary	N/A	APT1	All APT names have spaces stripped from them for consistency
key.description	Malware.Attribute	Description	Some Text	N/A
key.notes	Malware.Attribute	Note	Some Note	N/A
key.urls	Malware.Attribute	Reference	N/A	N/A
key	Malware.Attribute	Malpedia Link	N/A	This key is formatted into a URL like `https://malpedia.caad.fkie.fraunhofer.de/details/{{data.name}}`
key.key	Signature	YARA	See rules above	Each returned YARA rule for the Malware in question will be parsed as a Signature
key.key.attributes	Signature.Attribute	<varies>	N/A	YARA metadata is converted to attributes

Malpedia Threat Actors (Feed)

This feed will ingest threat actors into ThreatQ.

`GET https://malpedia.caad.fkie.fraunhofer.de/api/list/actors`


```
[
    "[unnamed_group]",
    "[vault_7_8]",
    "_stealth_mango_and_tangelo_",
    "allanite",
    "anchor_panda",
    "andromeda_spider",
    "anthropoid_spider"
]
```


Enrichment data is then polled from:

`GET https://malpedia.caad.fkie.fraunhofer.de/api/get/actor/{{Actor Name}}`


```
{
   "uuid" : "9f133738-935f-11e9-aa5e-bbf8d91abb46",
   "families" :
      {
      },
   "description" : "An unnamed source leaked almost 10,000 documents describing a large number of 0-day
vulnerabilities, methodologies and tools that had been collected by the CIA. This leaking was done through
WikiLeaks, since March 2017. In weekly publications, the dumps were said to come from Vault 7 and later Vault 8,
until his arrest in 2018.\nMost of the published vulnerabilities have since been fixed by the respective vendors, by
many have been used by other threat actors. This actor turned out to be a former CIA software engineer.\n(WikiLeaks)
Today, Tuesday 7 March 2017, WikiLeaks begins its new series of leaks on the U.S. Central Intelligence Agency. Code-
named \"Vault 7\" by WikiLeaks, it is the largest ever publication of confidential documents on the agency.\nThe
first full part of the series, \"Year Zero\", comprises 8,761 documents and files from an isolated, high-security
network situated inside the CIA\"s Center for Cyber Intelligence in Langley, Virgina. It follows an introductory
disclosure last month of CIA targeting French political parties and candidates in the lead up to the 2012
presidential election.\nRecently, the CIA lost control of the majority of its hacking arsenal including malware,
viruses, trojans, weaponized \"zero day\" exploits, malware remote control systems and associated documentation.
This extraordinary collection, which amounts to more than several hundred million lines of code, gives its possessor
the entire hacking capacity of the CIA. The archive appears to have been circulated among former U.S. government
hackers and contractors in an unauthorized manner, one of whom has provided WikiLeaks with portions of the archive.
\n\"Year Zero\" introduces the scope and direction of the CIA\"s global covert hacking program, its malware arsenal
and dozens of \"zero day\" weaponized exploits against a wide range of U.S. and European company products, include
Apple\"s iPhone, Google\"s Android and Microsoft\"s Windows and even Samsung TVs, which are turned into covert
microphones.",
   "meta" :
      {
         "refs" :
            [
               "https://wikileaks.org/ciav7p1/",
               "https://www.justice.gov/opa/pr/joshua-adam-schulte-charged-unauthorized-disclosure-classified-
information-and-other-offenses"
            ],
         "victimology": "Government, Military",
         "mode-of-operation": "Discrete",
```

```
        "capabilities": "Control, Infiltration",
        "synonyms":
            [
              "Vault 7",
              "Vault 8"
            ],
        "cfr-suspected-victims": [],
        "country": "USA",
        "cfr-target-category": [],
        "cfr-type-of-incident": "",
        "attribution-confidence": "",
        "cfr-suspected-state-sponsor": ""
     },
   "value" : "[Vault 7/8]"
}
```


ThreatQ provides the following default mapping for this feed:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	EXAMPLES	NOTES
.value	Adversary	N/A	APT1	All APT names have spaces stripped from them for consistency
.meta.synonyms	Adversary	N/A	APT15	These are inter-related with the parent adversary
.meta.capabilities	Malware	N/A	Mimikatz	
.description	Adversary.Attribute	Description	An unnamed source leaked almost 10,000 documents describing a large number of 0-day ...	
.meta.victimology	Adversary.Attribute	Victimology	Europe	This is a comma-separated list, parsed
.meta.refs	Adversary.Attribute	Reference	https://wikileaks.org/ciav7p1/	
.meta.mode-of-operation	Adversary.Attribute	Mode of Operation	N/A	
.meta.cfr-suspected-victims	Adversary.Attribute	Suspected Victim	Sweden	
.meta.country	Adversary.Attribute	Country	CN	
.meta.cfr-target-category	Adversary.Attribute	Target Sector	Government	
.meta.cfr-type-of-incident	Adversary.Attribute	Incident Type	Espionage	
.meta.attribution-confidence	Adversary.Attribute	Confidence	N/A	
.meta.cfr-suspected-state-sponsor	Adversary.Attribute	Suspected State Sponsor	China	

Malpedia YARA Rules (Feed)

This feed will ingest YARA Signatures into ThreatQ.

```
GET https://malpedia.caad.fkie.fraunhofer.de/api/get/yara/after/{{Last run}}
```


```
{
    "tlp_white": {
      "win.poulight_stealer_w0.yar": "rule win_poulight_w0 {\r\n    meta:\r\n        description = \"Poullight
stealer\"\r\n        author = \"James_inthe_box\"\r\n        reference = \"https://app.any.run/tasks/
d9e4933b-3229-4cb4-84e6-c45a336b15be/\"\r\n        date = \"2020/03\"\r\n        maltype = \"Stealer\"\r\n
malpedia_reference = \"https://malpedia.caad.fkie.fraunhofer.de/details/win.poulight_stealer\"\r\n
malpedia_version = \"20200325\"\r\n        malpedia_sharing = \"TLP:WHITE\"\r\n        \r\n    strings:\r\n
$string1 = \"[LOGS]\" wide\r\n        $string2 = \"Org.BouncyCastle.Crypto.Prng\" ascii\r\n        $string3 =
\"lookupPowX2\" ascii\r\n\r\n    condition:\r\n        uint16(0) == 0x5A4D and \r\n        all of ($string*) and
\r\n        filesize < 400KB\r\n}",
      "win.vidar_w0.yar": "rule win_vidar_w0 {\n    meta:\n        description = \"Yara rule for detecting Vidar
stealer\"\n        author = \"FumikO_\"\n        malpedia_reference = \"https://malpedia.caad.fkie.fraunhofer.de/
details/win.vidar\"\n        malpedia_version = \"2019-01-06\"\n        malpedia_license = \"CC BY-NC-SA 4.0\"\n
malpedia_sharing = \"TLP:WHITE\"\n\n    strings:\n        $s1 = { 56 69 64 61 72 }\n        $s2 = { 31 42 45 46 30
41 35 37 42 45 31 31 30 46 44 34 36 37 41 }\n        \n    condition:\n        all of them\n}"
    }
}
```


ThreatQ provides the following default mapping for this feed:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	EXAMPLES	NOTES
key.key	Signature	YARA	See rules above	
key.key.attributes	Signature.Attribute	<varies>	N/A	YARA metadata is converted to attributes

Average Feed Run

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.

Malpedia Malware

METRIC	RESULT
Run Time	5 minutes
Adversaries	183
Malware	2,988
Malware Attributes	28,155
Signatures	2
Signature Attributes	14

Malpedia Threat Actors

METRIC	RESULT
Run Time	15 minutes
Adversaries	934
Adversary Attributes	17,958
Malware	18

Malpedia YARA Rules

METRIC	RESULT
Run Time	1 minute
Signatures	2
Signature Attributes	14

Known Issues / Limitations

- `Malpedia Threat Actors` feed ingests the entire dataset each time. This is due to a Malpedia API limitation. It is advised you schedule this to run daily, not hourly.
- `Malpedia Malware` feed ingests the Malware and Adversary data each time, while the Signatures are ingested based on a date filter. Still it is advised you schedule this to run daily, not hourly. Also, in order to ingest older Signatures, a manual run is necessary, having the start date in the past, for example year 2000.
- `Malpedia YARA Rules` feed ingests the Signatures based on a date filter. In order to ingest older Signatures, a manual run is necessary, having the start date in the past, for example year 2000.

Change Log

- **Version 1.0.1**
  - Replaced the `/api/get/yara/{{Malware Name}}` endpoint with `/api/get/yara/after/{{Last Import Date}}` for the Malpedia Malware feed in order to decrease the number of API calls.
  - Added the option for users to trigger manual runs for `Malpedia YARA Rules` and `Malpedia Malware` Feeds.
  - Increased the delay between the API calls for `Malpedia Threat Actors` in order to avoid `Too many requests` error in case of multiple parallel runs. See the Known Issues / Limitations chapter for more information.
- **Version 1.0.0**
  - Initial release