ThreatQuotient

MISP Import CDF

Version 2.4.0

September 10, 2024

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ThreatQ Supported

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Contents

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This integration is designated as **ThreatQ Supported**.

Support Email: support@threatq.com
Support Web: https://support.threatq.com
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Integration Details

ThreatQuotient provides the following details for this integration:

Current Integration Version	2.4.0
Compatible with ThreatQ Versions	>= 5.20.0
Support Tier	ThreatQ Supported

Introduction

The MISP threat sharing platform is free and open source software that enables sharing of threat intelligence represented in the MISP data model format. The MISP Import integration ingests published MISP events from a user-provided, self-hosted MISP server instance via its `POST {{user_fields.domain_name}}/events/restSearch` endpoint (note: `{{user_fields.domain_name}}` must contain the protocol, like `https://`).

The integration will fetch MIPS events and return the following system objects:

- Events
- Indicators
- Attachments
- Signatures
- Adversaries
- Attack Patterns
- Course of actions
- Malware
- Tools

Prerequisites

If the user intends to ingest MISP events that are related to any MITRE MISP galaxies, make sure the following feeds successfully run prior to running the MISP Import feed:

- MITRE Enterprise ATT&CK
- MITRE Mobile ATT&CK
- MITRE PRE-ATT&CK

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.

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).

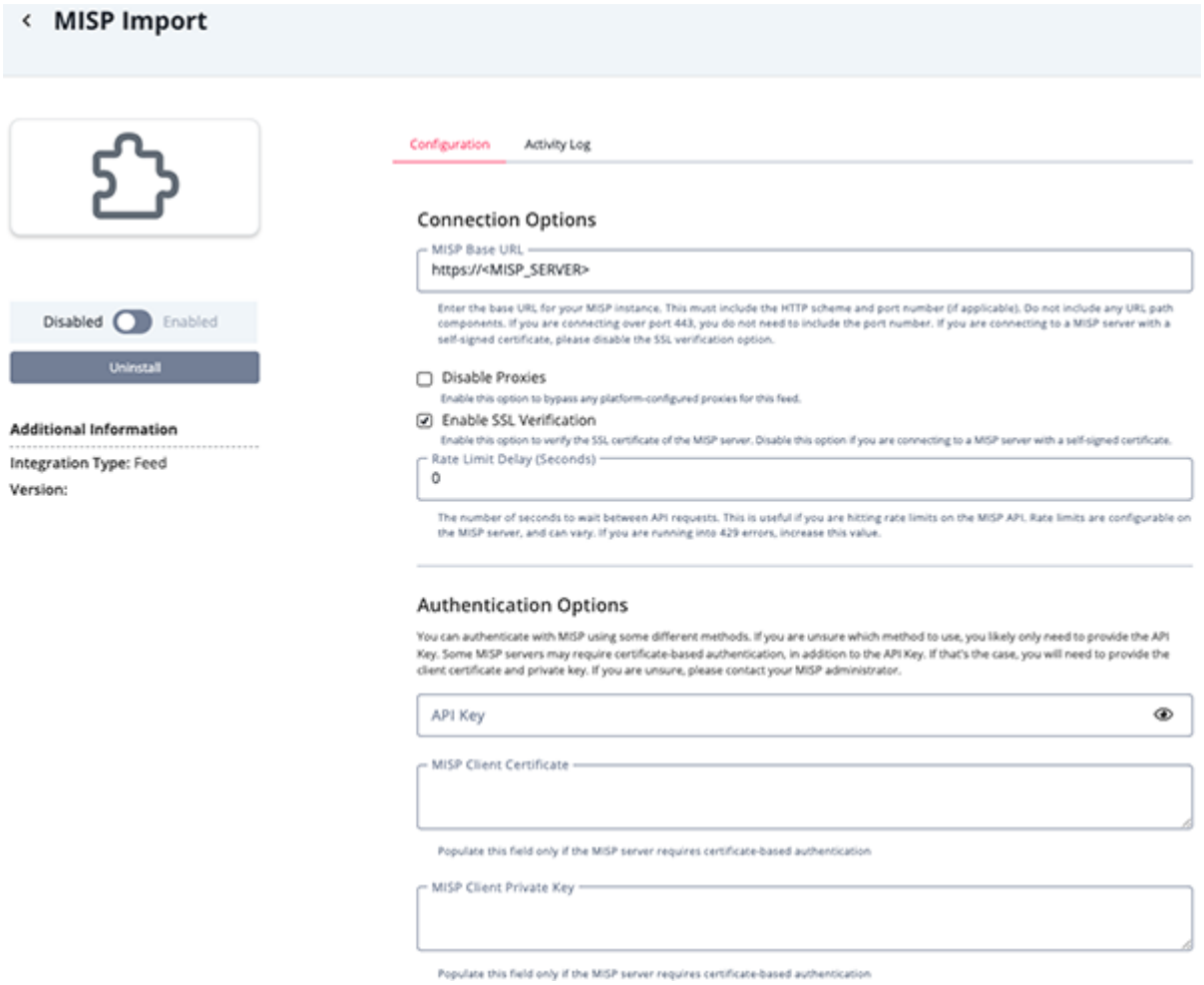
   > If you are installing the integration for the first time, it will be located under the **Disabled** tab.

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

PARAMETER	DESCRIPTION
MISP Domain Name	The MISP server instance domain name (or IP address) preceded by the protocol it uses, such as `https://my-misp-server.org`. The provided domain name or IP address must be reachable from the ThreatQ instance.
Disable Proxies	If enabled, specifies that this feed should not honor any proxies setup in ThreatQuotient. The default setting is **disabled**.
Enable SSL Verification	If enabled, specifies that this feed should verify SSL connections with the provider. The default setting is **enabled**.
Rate Limit Delay	The number of seconds to wait between API requests. This is useful if you are hitting rate limits on the MISP API. Rate limits are configurable on the MISP server, and can vary. > Increase this value if you are running into 429 errors.
API Key	The MISP account API key.

PARAMETER	DESCRIPTION
MISP Client Certificate	Enter your MISP Client Certificate if the MISP server requires certificate-based authentication. Otherwise, leave this field blank.
MISP Client Private Key	Enter your MISP Client Private Key if the MISP server requires certificate-based authentication. Otherwise, leave this field blank.
Query Filter Characteristics	Set which parameters that decide which events to retrieve at run-time. Options include: ◦ **Modified Events** - ingest contents of any modified event since the last run. ◦ **New Events** - ingest events having a newer date than configured start date together with their full context.
Threat Level Filter	Select the Threat Levels to filter events. Option include: ◦ High (default) ◦ Medium (default) ◦ Low (default) ◦ ndefined (default)
Organization Filter	Optional - enter a line-separated list of organization names to filter events by. If left blank, all events will be imported. If populated, only events from the specified organizations will be imported. If both Organization and Community filters are populated, events that match **either** filter will be imported.
Community Filter	Optional - enter a line-separated list of community names to filter events by. If left blank, all events will be imported. If populated, only events from the specified communities will be imported. If both Organization and Community filters are populated, events that match **either** filter will be imported.
Only Import Published Events	Enable this option to only import events that are marked as published in MISP.
Inherited Context	Select the pieces of context to inherit from the event to the related IOCs. Options include: ◦ Related Malware

PARAMETER	DESCRIPTION
	◦ Related Adversaries ◦ Source Organization ◦ Member Organization ◦ ID ◦ MISP Threat Level ◦ Analysis ◦ Tags
Save Tags As	Select how to add Tags to the ThreatQ platform. Options include **Tags** and **Attributes**.



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

restSearch

`POST {{user_fields.domain_name}}/events/restSearch`

Sample Response:


```
{
   "response": [
      {
         "Event": {
            "id": "1",
            "orgc_id": "1",
            "org_id": "1",
            "date": "2018-12-14",
            "threat_level_id": "2",
            "info": "EVENT1",
            "published": false,
            "uuid": "5c142f52-5ad0-4c04-8069-03c8ac107221",
            "attribute_count": "4",
            "analysis": "1",
            "timestamp": "1545256410",
            "distribution": "1",
            "proposal_email_lock": false,
            "locked": false,
            "publish_timestamp": "1544827221",
            "sharing_group_id": "0",
            "disable_correlation": false,
            "extends_uuid": "",
            "event_creator_email": "admin@admin.test",
            "Org": {
               "id": "1",
               "name": "ORGNAME",
               "uuid": "5bd7a775-1d18-4fd7-b2f4-08b52dc69e54"
            },
            "Orgc": {
               "id": "1",
               "name": "ORGNAME",
               "uuid": "5bd7a775-1d18-4fd7-b2f4-08b52dc69e54"
            },
            "Attribute": [
                {
                  "id": "1",
                  "type": "link",
                  "category": "Antivirus detection",
                  "to_ids": false,
                  "uuid": "5c17ccfe-3c1c-4f47-9a9f-38f6ac107221",
```

```
                "event_id": "1",
                "distribution": "3",
                "timestamp": "1545063678",
                "comment": "",
                "sharing_group_id": "0",
                "deleted": false,
                "disable_correlation": false,
                "object_id": "0",
                "object_relation": null,
                "value": "https:\/\/www.virustotal.com\/#\/file\/
17a0d59255046ed2cff22cd5980fcc86c69e059839fec07d705051ac2e178693\/details",
                "Galaxy": [],
                "ShadowAttribute": []
            },
            {
                "id": "1259319",
                "type": "filename|md5",
                "category": "Payload installation",
                "to_ids": false,
                "uuid": "5ffc9a4f-7ef0-4077-b278-30a5ac107221",
                "event_id": "104",
                "distribution": "5",
                "timestamp": "1610390095",
                "comment": "",
                "sharing_group_id": "0",
                "deleted": false,
                "disable_correlation": false,
                "object_id": "0",
                "object_relation": null,
                "value": "bunnyhop.exe|31f3720bef6bb3e2953d9ea2238e0580",
                "Galaxy": [],
                "ShadowAttribute": []
            },
            {
                "id": "477506",
                "type": "attachment",
                "category": "Payload delivery",
                "to_ids": false,
                "uuid": "5dde5554-6320-4647-baa8-26d3ac107221",
                "event_id": "75",
                "distribution": "5",
                "timestamp": "1574851924",
                "comment": "sample.pdf",
                "sharing_group_id": "0",
                "deleted": false,
                "disable_correlation": false,
                "object_id": "0",
                "object_relation": null,
                "value": "sample.pdf",
                "Galaxy": [],
```

```
                "data": "JVBERi0xLjMNCiXi48TDQoNCjEgMCBvYmo8DQovVHlwZS..."
            },
            {
                "id": "1",
                "type": "comment",
                "category": "Payload delivery",
                "to_ids": false,
                "uuid": "5e81aec6-5af0-498c-9826-7a63ac107122",
                "event_id": "1",
                "distribution": "5",
                "timestamp": "1585562438",
                "comment": "not applicable",
                "sharing_group_id": "0",
                "deleted": false,
                "disable_correlation": false,
                "object_id": "0",
                "object_relation": null,
                "first_seen": null,
                "last_seen": null,
                "value": "sample comment",
                "Galaxy": [],
                "ShadowAttribute": []
            },
            {
                "id": "3",
                "type": "snort",
                "category": "Network activity",
                "to_ids": false,
                "uuid": "5e81c3d7-d310-4344-bfe9-7805ac107122",
                "event_id": "1",
                "distribution": "5",
                "timestamp": "1585562583",
                "comment": "",
                "sharing_group_id": "0",
                "deleted": false,
                "disable_correlation": false,
                "object_id": "0",
                "object_relation": null,
                "first_seen": null,
                "last_seen": null,
                "value": "alert tcp $HOME_NET any -> any 3306 (msg: \"mysql
general_log write file\"; ...)"
            }
        ],
        "Object": [
            {
                "id": "1",
                "name": "file",
                "meta-category": "file",
                "description": "File object describing a file with meta-
```

```
information",
                    "template_uuid": "688c46fb-5edb-40a3-8273-1af7923e2215",
                    "template_version": "15",
                    "event_id": "1",
                    "uuid": "5c1abdda-4cb8-427c-97d5-71c9ac107221",
                    "timestamp": "1545256410",
                    "distribution": "5",
                    "sharing_group_id": "0",
                    "comment": "dnsrslvr.dll",
                    "deleted": false,
                    "ObjectReference": [],
                    "Attribute": [
                       {
                          "id": "26131",
                          "type": "md5",
                          "category": "Payload delivery",
                          "to_ids": true,
                          "uuid": "5c1abdda-0960-4530-a4e4-71c9ac107221",
                          "event_id": "1",
                          "distribution": "5",
                          "timestamp": "1545256410",
                          "comment": "",
                          "sharing_group_id": "0",
                          "deleted": false,
                          "disable_correlation": false,
                          "object_id": "1",
                          "object_relation": "md5",
                          "value": "44d88612fea8a8f36de82e1278abb02f"
                       }
                    ]
                },
                {
                     "id": "1",
                     "name": "yara",
                     "meta-category": "misc",
                     "description": "An object describing a YARA rule (or a YARA
rule name) along with its version.",
                     "template_uuid": "b5acf82e-ecca-4868-82fe-9dbdf4d808c3",
                     "template_version": "4",
                     "event_id": "1",
                     "uuid": "5e81cab1-5f2c-4350-8ed0-7b28ac107122",
                     "timestamp": "1585564479",
                     "distribution": "5",
                     "sharing_group_id": "0",
                     "comment": "",
                     "deleted": false,
                     "first_seen": null,
                     "last_seen": null,
                     "ObjectReference": [],
                     "Attribute": [
                        {
```

```
                        "id": "4",
                        "type": "yara",
                        "category": "Payload installation",
                        "to_ids": true,
                        "uuid": "5e81cab1-58d4-4155-a691-7b28ac107122",
                        "event_id": "1",
                        "distribution": "5",
                        "timestamp": "1585564470",
                        "comment": "",
                        "sharing_group_id": "0",
                        "deleted": false,
                        "disable_correlation": false,
                        "object_id": "1",
                        "object_relation": "yara",
                        "first_seen": null,
                        "last_seen": null,
                        "value": "rule Contains_VBA_macro_code\r\n{\r\n\tmeta:
\r\n\t\tauthor = ..."
                     }
                  ]
               }
            ],
            "Galaxy": [
               {
                  "id": "3",
                  "uuid": "698774c7-8022-42c4-917f-8d6e4f06ada3",
                  "name": "Threat Actor",
                  "type": "threat-actor",
                  "description": "Threat actors are characteristics of
malicious actors (or adversaries) representing a cyber attack threat including
presumed intent and historically observed behaviour.",
                  "version": "3",
                  "icon": "user-secret",
                  "namespace": "misp",
                  "GalaxyCluster": [
                     {
                        "id": "5401",
                        "collection_uuid": "7cdff317-
a673-4474-84ec-4f1754947823",
                        "type": "threat-actor",
                        "value": "Keyhole Panda",
                        "tag_name": "misp-galaxy: threat-actor=\"Keyhole
Panda\"",
                        "description": "no description",
                        "galaxy_id": "3",
                        "source": "MISP Project",
                        "authors": [
                           "Alexandre Dulaunoy",
                           "Florian Roth",
                           "Thomas Schreck",
```

```
                        "Timo Steffens",
                        "Various"
                     ],
                     "version": "75",
                     "uuid": "ad022538-b457-4839-8ebd-3fdcc807a820",
                     "tag_id": "77",
                     "meta": {
                        "country": [
                           "CN"
                        ],
                        "synonyms": [
                           "temp.bottle"
                        ]
                     }
                  }
               ]
            },
            {
               "id": "4",
               "uuid": "1fb6d5b4-1708-11e8-9836-8bbc8ce6866e",
               "name": "Pre Attack - Intrusion Set",
               "type": "mitre-pre-attack-intrusion-set",
               "description": "Name of ATT&CK Group",
               "version": "4",
               "icon": "user-secret",
               "namespace": "mitre-attack",
               "GalaxyCluster": [
                  {
                     "id": "5614",
                     "collection_uuid":
"1fdc8fa2-1708-11e8-99a3-67b4efc13c4f",
                     "type": "mitre-pre-attack-intrusion-set",
                     "value": "APT16 - G0023",
                     "tag_name": "misp-galaxy:mitre-pre-attack-intrusion-
set=\"APT16 - G0023\"",
                     "description": "APT16 is a China-based threat group
that has launched spearphishing campaigns targeting Japanese and Taiwanese
organizations. (Citation: FireEye EPS Awakens Part 2)",
                     "galaxy_id": "4",
                     "source": "https:\/\/github.com\/mitre\/cti",
                     "authors": [
                        "MITRE"
                     ],
                     "version": "6",
                     "uuid": "d6e88e18-81e8-4709-82d8-973095da1e70",
                     "tag_id": "97",
                     "meta": {
                        "external_id": [
                           "G0023"
                        ],
```

```
                           "refs": [
                              "https:\/\/attack.mitre.org\/wiki\/Group\/G0023",
                              "https:\/\/www.fireeye.com\/blog\/threat-
research\/2015\/12\/the-eps-awakens-part-two.html"
                           ],
                           "synonyms": [
                              "APT16"
                           ]
                        }
                     }
                  ]
               }
            ],
            "Tag": [
               {
                  "id": "11",
                  "name": "tlp:red",
                  "colour": "#CC0033",
                  "exportable": true,
                  "user_id": "0",
                  "hide_tag": false,
                  "numerical_value": null
               },
               {
                  "id": "394",
                  "name": "ms-caro-malware:malware-type=\"DDoS\"",
                  "colour": "#32003e",
                  "exportable": true,
                  "user_id": "0",
                  "hide_tag": false,
                  "numerical_value": null
               }
            ]
         }
      }
   ]
}
```

ThreatQuotient provides the following default mapping for this feed:

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.response[].Event.info	Event.Title / Event.Description	MISP	.response[].Event.publish_timestamp	EVENT1	N/A
.response[].Event.date	Event.Happened At	N/A	N/A	2018-12-14T00:00:00	N/A
.response[].Event.Orgc.name	Event.Attribute / Related Indicator.Attribute	Source Organization	.response[].Event.publish_timestamp	ORGNAME	Attribute inherit by related indicators if `Inherited Context` includes `Source Organization`.
.response[].Event.Org.name	Event.Attribute / Related Indicator.Attribute	Member Organization	.response[].Event.publish_timestamp	ORGNAME	Attribute inherit by related indicators if `Inherited Context` includes `Member Organization`.
.response[].Event.id	Event.Attribute / Related Indicator.Attribute	ID	.response[].Event.publish_timestamp	1	Attribute inherit by related indicators if `Inherited Context` includes `ID`.
.response[].Event.uuid	Event.Attribute	UUID	.response[].Event.publish_timestamp	5c142f52-5ad0-4c04-8069-03c8ac107221	N/A
.response[].Event.threat_level_id	Event.Attribute / Related Indicator.Attribute	MISP Threat Level	.response[].Event.publish_timestamp	Medium	Maps an integer ID to a string based on the Threat Level Mapping below. If no match is found, this attribute is not ingested. Attribute inherit by related indicators if `Inherited Context` includes `MISP Threat Level`.
.response[].Event.analysis	Event.Attribute / Related Indicator.Attribute	Analysis	.response[].Event.publish_timestamp	Ongoing	Maps an integer ID to a string based on the Analysis Mapping below. If no match is found, this attribute is not ingested. Attribute inherit by related indicators if `Inherited Context` includes `Analysis`.
.response[].Event.distribution	Event.Attribute	Distribution	.response[].Event.publish_timestamp	This community only	Maps an integer ID to a string based on the Distribution Mapping below. If no match is found, this attribute is not ingested.
.response[].Event.sharing_group_id	Event.Attribute	Sharing Group	.response[].Event.publish_timestamp	0	N/A
.response[].Event.disable_correlation	Event.Attribute	Disable Correlation	.response[].Event.publish_timestamp	False	Title-cased
.response[].Event.id	Event.Attribute	External MISP	.response[].Event.	`{{user_fields.domain_name}}/events/view/1`	Value created from the template: `{{user_fields.domain_name}}/events/view/{{id}}`

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
			publish_ timestamp		
.response[]. Event. Object[]. Attribute[]. value	Event. Attribute	YARA Rule Name	.response[]. Event. publish_ timestamp	My YARA Rule	Based on the jq expression: `.response[].Event.Object[] | select(.name == "yara") | .Attribute[] | select(.type == "yara-rule-name") | .value`
.response[]. Event. Tag[].name	Event. Attribute / Related Indicator. Attribute	Tag	.response[]. Event. publish_ timestamp	tlp:red	N/A
.response[]. Event. Tag[].name	Event.TLP / Related Indicator. TLP	N/A	N/A	RED	TLP value is extracted from MISP tags whose `name` starts with either `tlp:` or `iep:traffic-light-protocol=`.
.response[]. Event. Tag[].name	Event.Tag / Related Indicator. Tag	N/A	N/A	DDoS	Tags are extracted from MISP tags whose `name` starts with: `ms-caro-malware:`, `ecsirt:`, `veris:`, `circl:`, `europol-event:`, `malware_classification:`, `enisa:`. Tags inherited if `Inherited Context` includes `Tags`.
.response[]. Event. Attribute[]. value	Event. Attribute	Category	.response[]. Event. publish_ timestamp	https:// www.virustotal.com/ #/file/ 17a0d59255046ed2cff 22cd5980fcc86c69e059839f ec07d705051ac2e178693/ details	Based on the jq expression: `.response[].Event.Attribute[] | select(.type == "link") | .value`
.response[]. Event. Attribute[]. value	Event. Attribute	Comment	.response[]. Event. publish_ timestamp	sample comment	Based on the jq expression: `.response[].Event.Attribute[] | select(.type == "comment") | .value`
.response[]. Event. Attribute[]. value	Related Indicator. Value	The indicator's type is derived from .response[].Event. Attribute[].type (see MISP Attribute Type to ThreatQ Indicator Type Mapping below)	.response[]. Event. Attribute[] .timestamp	`bunnyhop.exe | 31f3720be f6bb3e2953d9ea2 238e0580` (creates two indicators: the Filename `bunnyhop.exe` and the MD5 `31f3720be f6bb3 e2953d9 ea2238e0580`)	MISP composite attributes have a `value` and `type` that are pipe-separated ("|"); an indicator is created for each element in the split list. Only applicable if .response[].Event.Attribute[].type has a match in the MISP Attribute Type to ThreatQ Indicator Type Mapping below.
.response[]. Event. Attribute[]. category	Related Indicator.Attribute	Category	.response[]. Event. Attribute[]. timestamp	Payload installation	N/A
.response[]. Event. Attribute[]. to_ids	Related Indicator.Attribute	To IDS	.response[]. Event. Attribute[]. timestamp	False	Title-cased

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.response[].Event.Attribute[].distribution	Related Indicator.Attribute	Distribution	.response[].Event.Attribute[].timestamp	All communities	Maps an integer ID to a string based on the Attribute Distribution Mapping below. If no match is found, this attribute is not ingested.
.response[].Event.Attribute[].timestamp	Related Indicator.Attribute	Timestamp	.response[].Event.Attribute[].timestamp	2019-04-08 09:27:58-00:00	N/A
.response[].Event.Attribute[].comment	Related Indicator.Attribute	Comment	.response[].Event.Attribute[].timestamp	sample comment	This attribute is created only if the `comment` does not contain the substring `"Pertinence"`.
.response[].Event.Attribute[].comment	Related Indicator.Attribute	Pertinence	.response[].Event.Attribute[].timestamp	sample comment	This attribute is created only if `"Pertinence"` appears in the `comment` value. The attribute's value is the text after `"Pertinence:"`.
.response[].Event.Attribute[].sharing_group_id	Related Indicator.Attribute	Sharing Group	.response[].Event.Attribute[].timestamp	0	N/A
.response[].Event.Attribute[].deleted	Related Indicator.Attribute	Deleted	.response[].Event.Attribute[].timestamp	False	Title-cased
.response[].Event.Attribute[].disable_correlation	Related Indicator.Attribute	Disable Correlation	.response[].Event.Attribute[].timestamp	False	Title-cased
.response[].Event.Attribute[].object_relation	Related Indicator.Attribute	Object Relation	.response[].Event.Attribute[].timestamp	N/A	Title-cased
.response[].Event.Attribute[].Tag[].name	Related Indicator.Attribute	Tag	.response[].Event.Attribute[].timestamp	N/A	N/A
.response[].Event.Attribute[].type	Related Indicator.Attribute	IP Type	.response[].Event.Attribute[].timestamp	ip-dst	The attribute value is `"ip-dst"` if `"ip-dst"` is in the `type` value. Else, the attribute value is `"ip-src"` if `"ip-src"` is in the `type` value. If neither of the aforementioned cases are true, this attribute is not created.
.response[].Event.Object[].Attribute[].value	Related Indicator.Value	The indicator's type is derived from .response[].Event.Object[].Attribute[].type (see	N/A	44d88612fea8a8f36de82e1278abb02f	All indicators created from a MISP Object's Attributes are inter-related. Only applicable if .response[].Event.Object[].Attribute[].type has a match in the

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
		MISP Attribute Type to ThreatQ Indicator Type Mapping below)			MISP Attribute Type to ThreatQ Indicator Type Mapping below.
.response[].Event.Object[].Attribute[].category	Related Indicator.Attribute	Category	N/A	Payload delivery	N/A
.response[].Event.Object[].Attribute[].to_ids	Related Indicator.Attribute	To IDS	N/A	False	Title-cased
.response[].Event.Object[].Attribute[].distribution	Related Indicator.Attribute	Distribution	N/A	All communities	Maps an integer ID to a string based on the Attribute Distribution Mapping below. If no match is found, this attribute is not ingested.
.response[].Event.Object[].Attribute[].sharing_group_id	Related Indicator.Attribute	Sharing Group	N/A	0	N/A
.response[].Event.Object[].Attribute[].comment	Related Indicator.Attribute	Comment	N/A	sample comment	N/A
.response[].Event.Object[].Attribute[].type	Related Indicator.Attribute	IP Type	N/A	ip-dst	The attribute value is `"ip-dst"` if `"ip-dst"` is in the `type` value. Else, the attribute value is `"ip-src"` if `"ip-src"` is in the `type` value. If neither of the aforementioned cases are true, this attribute is not created.
.response[].Event.Galaxy[].Galaxy Cluster[].value / .response[].Event.Galaxy[].Galaxy Cluster[].meta.synonyms[]	Related Indicator.Attribute	Related Adversary	N/A	Keyhole Panda	If `Inherited Context` includes `Related Adversaries`.
.response[].Event.Galaxy[].Galaxy Cluster[].value	Related Indicator.Attribute	Malware Family	N/A	Pegasus	If `Inherited Context` includes `Related Malware`.

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.response[].Event.Attribute[].value	Related Attachment.Name / Related Attachment.Title	MISP Attachment	.response[].Event.Attribute[].timestamp	sample.pdf	Based on the jq expression: `.response[].Event.Attribute[] | select(.type == "attachment") | .value`
.response[].Event.Attribute[].data	Related Attachment.Content	N/A	N/A	JVBERi0xLjMNCiXi48T DQoNCjEgMCBvYmo8 DQovVHlwZS...	N/A
.response[].Event.Attribute[].id	Related Attachment.Attribute	ID	.response[].Event.Attribute[].timestamp	477506	N/A
.response[].Event.Attribute[].category	Related Attachment.Attribute	Category	.response[].Event.Attribute[].timestamp	Payload delivery	N/A
.response[].Event.Attribute[].to_ids	Related Attachment.Attribute	To IDS	.response[].Event.Attribute[].timestamp	True	Title-cased
.response[].Event.Attribute[].uuid	Related Attachment.Attribute	UUID	.response[].Event.Attribute[].timestamp	5dde5554-6320-4647-baa8-26d3 ac107221	N/A
.response[].Event.Attribute[].distribution	Related Attachment.Attribute	Distribution	.response[].Event.Attribute[].timestamp	All communities	Maps an integer ID to a string based on the Attribute Distribution Mapping below. If no match is found, this attribute is not ingested.
.response[].Event.Attribute[].comment	Related Attachment.Attribute	Comment	.response[].Event.Attribute[].timestamp	sample comment	N/A
.response[].Event.Attribute[].sharing_group_id	Related Attachment.Attribute	Sharing Group	.response[].Event.Attribute[].timestamp	0	N/A
.response[].Event.Attribute[].deleted	Related Attachment.Attribute	Deleted	.response[].Event.Attribute[].timestamp	False	Title-cased
.response[].Event.Attribute[].disable_correlation	Related Attachment.Attribute	Disable Correlation	.response[].Event.Attribute[].timestamp	False	Title-cased
.response[].Event.Attribute[].value	Related Signature.Value	YARA	N/A	import "pe"\n\nrule Ocean Lotus_Steganography_ Loader {\n\n\tmeta:...	Based on the jq expression: `.response[].Event.Attribute[] | select(.type == "yara") | .value`. Unicode characters "LEFT DOUBLE QUOTATION MARK" (`\u201c`) and "RIGHT

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
					DOUBLE QUOTATION MARK" (\u201d) are normalized to ASCII double quotations ("). Unicode character "HYPHEN" (\u2010) is normalized to the ASCII hyphen (-).
.response[]. Event. Attribute[]. value	Related Signature. Name	N/A	N/A	OceanLotus_Steganography_Loader	Rule name extracted from the YARA parser.
.response[]. Event. Object[]. Attribute[]. value	Related Signature. Value	YARA	N/A	rule Contains_VBA_macro_code {\n\n\tmeta:...	Based on the jq expression: `.response[].Event.Object[] | select(.name == "yara") | .Attribute[] | select(.type == "yara") | .value`. Unicode characters "LEFT DOUBLE QUOTATION MARK" (\u201c) and "RIGHT DOUBLE QUOTATION MARK" (\u201d) are normalized to ASCII double quotations ("). Unicode character "HYPHEN" (\u2010) is normalized to the ASCII hyphen (-).
.response[]. Event. Object[]. Attribute[]. value	Related Signature. Name	N/A	N/A	Contains_VBA_macro_code	Rule name extracted from the YARA parser.
.response[]. Event. Attribute[]. value	Related Signature. Value	Snort	N/A	alert tcp $HOME_NET any -> any 3306 (msg: "mysql general_log write file"; ...)	Based on the jq expression: `.response[].Event.Attribute[] | select(.type == "snort") | .value`. Unicode characters "LEFT DOUBLE QUOTATION MARK" (\u201c) and "RIGHT DOUBLE QUOTATION MARK" (\u201d) are normalized to ASCII double quotations ("). Unicode character "HYPHEN" (\u2010) is normalized to the ASCII hyphen (-).
.response[]. Event. Attribute[]. value	Related Signature. Name	N/A	N/A	mysql general_log write file	Name extracted from Snort `msg` option if available; else, defaults to "Snort Rule". Leading or trailing whitespace is trimmed.
.response[]. Event. Object[]. Attribute[]. value	Related Signature. Value	Snort	N/A	alert tcp $HOME_NET any -> any 3306 (msg: "mysql general_log write file"; ...)	Based on the jq expression: `.response[].Event.Object[] | select(.name == "suricata") | .Attribute[] | select(.type == "snort") | .value`. Unicode characters "LEFT DOUBLE QUOTATION MARK" (\u201c) and "RIGHT DOUBLE QUOTATION MARK" (\u201d) are normalized to ASCII double quotations (").

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
					Unicode character "HYPHEN" (`\u2010`) is normalized to the ASCII hyphen (-).
.response[].Event.Object[].Attribute[].value	Related Signature.Name	N/A	N/A	mysql general_log write file	Name extracted from Snort `msg` option if available; else, defaults to "Snort Rule". Leading or trailing whitespace is trimmed.
.response[].Event.Galaxy[].GalaxyCluster[].value / .response[].Event.Galaxy[].GalaxyCluster[].meta.synonyms[]	Related Adversary.Name	N/A	`Keyhole Panda, temp.bottle`	N/A	Based on the jq expression: `.response[].Event.Galaxy[] | select(.type == "threat-actor") | (.GalaxyCluster[].value, .GalaxyCluster[].meta.synonyms[])`
.response[].Event.Galaxy[].GalaxyCluster[].id	Related Adversary.Attribute	ID	N/A	5401	N/A
.response[].Event.Galaxy[].GalaxyCluster[].type	Related Adversary.Attribute	Type	N/A	threat-actor	N/A
.response[].Event.Galaxy[].GalaxyCluster[].description	Related Adversary.Attribute	Description	N/A	no description	N/A
.response[].Event.Galaxy[].GalaxyCluster[].galaxy_id	Related Adversary.Attribute	Galaxy ID	N/A	3	N/A
.response[].Event.Galaxy[].GalaxyCluster[].version	Related Adversary.Attribute	Version	N/A	75	N/A
.response[].Event.Galaxy[].GalaxyCluster[].tag_id	Related Adversary.Attribute	Tag ID	N/A	77	N/A

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
.response[].Event.Galaxy[].Galaxy Cluster[].meta."cfr-suspected-state-sponsor"[]	Related Adversary.Attribute	Suspected State Sponsor	N/A	China	N/A
.response[].Event.Galaxy[].Galaxy Cluster[].meta."cfr-suspected-victims"[]	Related Adversary.Attribute	Suspected Victims	N/A	Japan	N/A
.response[].Event.Galaxy[].Galaxy Cluster[].meta."cfr-target-category"[]	Related Adversary.Attribute	Target Category	N/A	Private sector	N/A
.response[].Event.Galaxy[].Galaxy Cluster[].meta."cfr-type-of-incident"[]	Related Adversary.Attribute	Type of Incident	N/A	Espionage	N/A
.response[].Event.Galaxy[].Galaxy Cluster[].meta.country[]	Related Adversary.Attribute	Country	N/A	CN	N/A
.response[].Event.Galaxy[].Galaxy Cluster[].meta.refs[]	Related Adversary.Attribute	References	N/A	http://intelreport.mandiant.com/Mandiant_APT1_Report.pdf	N/A
.response[].Event.Galaxy[].Galaxy Cluster[].value	Related Adversary.Name / Related Attack Pattern.Value / Related Course of Action.Value / Related Malware.Value /	N/A	N/A	N/A	Attempts to map `.response[].Event.Galaxy[].GalaxyCluster[].type` to a ThreatQ Object Type based on the MISP Galaxy Cluster Type to ThreatQ Object Type Mapping below.

FEED DATA PATH	THREATQ ENTITY	THREATQ OBJECT TYPE OR ATTRIBUTE KEY	PUBLISHED DATE	EXAMPLES	NOTES
	Related Tool.Value				

Threat Level Mapping

MISP THREAT LEVEL ID	THREATQ ATTRIBUTE VALUE
1	High
2	Medium
3	Low
4	Undefined

Distribution Mapping

MISP DISTRIBUTION ID	THREATQ ATTRIBUTE VALUE
0	Your organization only
1	This community only
2	Connected communities
3	All communities
4	Sharing Group

Attribute Distribution Mapping

MISP ATTRIBUTE DISTRIBUTION ID	THREATQ ATTRIBUTE VALUE
0	Your organization only
1	This community only
2	Connected communities
3	All communities
4	Sharing Group
5	Inherit event

Analysis Mapping

MISP ANALYSIS ID	THREATQ ATTRIBUTE VALUE
0	Initial
1	Ongoing
2	Completed

MISP Attribute Type to ThreatQ Indicator Type Mapping

MISP ATTRIBUTE TYPE	THREATQ INDICATOR TYPE
md5	MD5
sha1	SHA-1
sha256	SHA-256
sha384	SHA-384
sha512	SHA-512
filename	Filename
ip	IP Address
ip-src	IP Address
ip-dst	IP Address
hostname	FQDN
domain	FQDN
email-subject	Email Subject
email-attachment	Email Attachment
email-src	Email Address
email-x-mailer	X-Mailer

MISP ATTRIBUTE TYPE	THREATQ INDICATOR TYPE
ssdeep	Fuzzy Hash
regkey	Registry Key
user-agent	User-Agent
mutex	Mutex
url	URL
vulnerability	CVE
uri	URL Path

MISP Galaxy Cluster Type to ThreatQ Object Type Mapping

MISP GALAXY CLUSTER TYPE	THREATQ OBJECT TYPE
mitre-mobile-attack-malware	Malware
mitre-enterprise-attack-malware	Malware
mitre-malware	Malware
mitre-enterprise-attack-tool	Tool
mitre-mobile-attack-tool	Tool
mitre-tool	Tool
mitre-enterprise-attack-course-of-action	Course of Action
mitre-mobile-attack-course-of-action	Course of Action
mitre-course-of-action	Course of Action
mitre-pre-attack-intrusion-set	Adversary
mitre-intrusion-set	Adversary
mitre-enterprise-attack-intrusion-set	Adversary
mitre-mobile-attack-intrusion-set	Adversary
mitre-enterprise-attack-attack-pattern	Attack Pattern
mitre-attack-pattern	Attack Pattern

MISP GALAXY CLUSTER TYPE	THREATQ OBJECT TYPE
mitre-mobile-attack-attack-pattern	Attack Pattern
mitre-pre-attack-attack-pattern	Attack Pattern

Average Feed Run

MISP server instances vary widely in their setup and the data stored within them. Due to this, average feed run results cannot be confidently provided.

Known Issues / Limitations

- Authentication - users should not mix authentication methods when configuring the integration. The MISP Client Certificate and MISP Client Private Key configuration fields should only be used if required by the MISP server.
- MISP does not verify whether a Snort or YARA rule entered into it is valid. However, the Snort and YARA parsers used by this feed depend on the Snort or YARA rules being well-formed. Please refer to the following non-comprehensive list to aid in making sure that the Snort or YARA rules stored in your MISP server instance are valid so that they can be properly ingested by this feed.
- Snort:
  - Each rule option must be terminated with a semicolon (`;`).
  - Offending Snort rule: `alert tcp $HOME_NET any -> $EXTERNAL_NET [80,443,8080,7080,21,50000,995](msg:"BDS MALICIOUS Emotet Worming Traffic Likely";content:"d29ybSBzdGFydGVk";content:"POST";http_method;classtype:spreader;sid:7;rev:1)`
    - Correction needed: `rev:1` should be `rev:1;`
  - Rule option values must be valid. For instance, options like `rev`, `sid`, and `gid` must have base 10 integers as their value.
  - Offending Snort option: `sid:#########;`
    - Correction needed: Either remove `sid` if the value is not known or replace the value with a valid ID, like `sid:7;`.
  - The value of the `snort` MISP attribute must contain at least one entire Snort rule. Multiple Snort rules can be provided in a single value if separated by newlines. The value must not contain any excess text, such as a header like `Snort rule:`.
- YARA:
  - The value of the `yara` MISP attribute must contain at least one entire YARA rule. Multiple YARA rules can be provided in a single value if separated by newlines. The value must not contain any excess text, such as a header like `YARA rule:`.
  - Make sure that any text that is not valid YARA syntax is either removed or commented out.

Change Log

- **Version 2.4.0**
  - Added new configuration parameters:
    - **Organization Filter** - filter out events based on the organization that published it.
    - **Community Filter** - filter out events based on the community that published it.
    - **Only Import Published Events** - filter out events based on whether or not they are published.
    - **Threat Level Filter** - filter out events based on their threat level.
  - Reorganized user field interface order to improve consistency.
- **Version 2.3.2**
  - Added the ability to select how Tags are ingested via a new configuration parameter: **Save Tags As**.
  - Added two new certificate configuration parameters:
    - **MISP Client Certificate**
    - **MISP Client Private Key**
  - Added events pagination improvements.
  - Added new **Known Issue / Limitation** entry in the user guide regarding authentication - users should only use the MISP Client Certificate and Private Key fields if required by the MISP server.
- **Version 2.3.1**
  - Resolved an issue where uploading attachments with empty attributes would cause an error.
  - Updated minimum ThreatQ version to 5.20.0
- **Version 2.3.0**
  - Added the ability to inherit meaningful event attributes and related indicators. See the **Inherited Context** parameter in the Configuration chapter for more details.
  - Fixed parsing of YARA and Snort rules that contain unicode special space separators.
  - Removed inter-relation of domains from the **domain-ip** object types.
  - Removed the **Save Intrusion Sets As** parameter.
  - Updated **MISP Galaxy Cluster Type to ThreatQ Object Type Mapping** table**.**
  - Updated minimum ThreatQ version to 5.19.0
- **Version 2.2.0**
  - Added new configuration option, **Inherited Context**, to inherit context from top-level events to related IOCs.
  - Added new configuration option, **Rate Limit Delay**, to set a delay to prevent rate limiting (429 errors).
- **Version 2.1.5**
  - Updated the python implementation of the MISP filter to improve feed efficiency.
  - Updated the minimum ThreatQ version to 4.50.0.
- **Version 2.1.4**
  - Removed the **Use the Event Data as Query Parameter** UI configuration parameter.

  - Added new UI configuration parameter: **Query Filter Characteristics**. Time constrained data fetching for both schedule and manual runs are now user configurable via this new field.
- **Version 2.1.3**
  - Added new configuration parameter - **Use Event Date as Query Parameter**.
  - Performed updates on time constrained data fetching for both scheduled and manual runs. **Scheduled Runs** retrieve MISP events and event attributes from events that have received a modification using the start date only. **Manual Runs** can retrieve MISP events and attributes using the start date only or the start and end dates depending on configuration options. See the **Use the Event Date as Query Parameter** option in the Configuration chapter of this guide.
- **Version 2.1.2**
  - Updated the timing query parameters used for pulling data.
- **Version 2.1.1**
  - Added the ability to Normalize more Unicode quotations and hyphens
  - Add the ability to parse the YARA Rule Name ThreatQ Event Attribute from MISP Object Attributes that contain the key-value pair `object_relation: "yara-rule-name"` in addition to the parsing logic added in 2.1.0, in which the YARA Rule Name
    ThreatQ Attribute is parsed from MISP Object Attributes that contain the key-value pair `type: "yara-rule-name"`
- **Version 2.1.0**
  - Normalized Unicode double quotations to ASCII double quotations in YARA and Snort signature values
  - Normalized Unicode hyphens to ASCII hyphens in YARA and Snort signature values
  - Adjusted logic used to derive a YARA rule from MISP Object Attributes. Previously, the logic depended on a MISP YARA Object having both `yara` and `yara-rule-name` attributes, in which it derived a YARA rule based on the template `rule {{yara_rule_name}} {{yara}}` before passing the derived rule through the YARA parser. This was not often seen in the wild; the MISP `yara` attribute usually contains the entire YARA rule. Even the documentation for the MISP YARA Object suggests that these attributes be used in a mutually exclusive manner: use the `yara` attribute if the user has the entire YARA rule to provide to MISP; else, reference a YARA rule using the `yara-rule-name` attribute. As a result, the following changes are in this version of the CDF:
    - Ingest the `yara-rule-name` MISP Object Attribute as a ThreatQ Attribute of the MISP Event object
    - Ingest the `yara` MISP Object Attribute as a ThreatQ YARA Signature
  - Parse MISP Suricata Objects in order to ingest its Snort Object Attributes as ThreatQ Snort Signatures.
  - Although well-formed Snort rules should contain a `msg` option, which is used to derive the ThreatQ Snort Signature's Name, account for a Snort rule not containing a `msg` option by defaulting the ThreatQ Snort Signature's Name to "Snort Rule".
- **Version 2.0.0**
  - Add configuration parameter "Enable SSL Verification"
  - Change behavior of scheduled feed runs such that it only fetches data published within the last day
  - Add support for parsing MISP YARA Objects

  - Add support for parsing MISP Snort Attributes
  - Add additional key-value pairs to the MISP Galaxy Cluster Type to ThreatQ Object Type Mapping
  - Change the value of `happened_at` for ingested events by using `date` instead of `timestamp`
- **Version 1.0.4**
  - Ingest MISP Attachment Attributes as ThreatQ Attachments
- **Version 1.0.3**
  - Add configuration parameter "Disable Proxies"
- **Version 1.0.0**
  - Initial release