

MISP feeds - A simple and secure approach to generate, select and collect intelligence

Providing ready-to-use threat intelligence in MISP standard format



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MISP Feed - Basics

MISP Feeds provide a way to

- **Exchange information via any transports** (e.g. HTTP, TLS, USB keys)
- Preview events along with their attributes, objects
- Select and import events
- **Correlate attributes using caching**

MISP Feeds have the following advantages

- Feeds work without the need of MISP synchronisation (reducing attack surface and complexity to a static directory with the events)
- **Feeds can be produced without a MISP instance** (e.g. security devices, honeypot sensors)

Feed - Overview

- By default, MISP is bundled with ~50 default feeds (MISP feeds, CSV or freetext feeds) which are not enabled by default and described in a simple JSON file¹.
- The feeds include CIRCL OSINT feed but also feeds like abuse.ch, Tor exit nodes or many more².

Feeds

Generate feed lookup caches or fetch feed data (enabled feeds only)

Cache all feeds Cache freetext/CSV feeds Cache MISP feeds Fetch and store all feed data

- previous next -

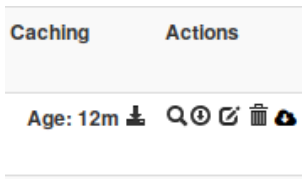
Default feeds		Custom Feeds		All Feeds	Enabled Feeds											
Id	Enabled	Name	Feed Format	Provider	Input	Uri	Headers	Target	Publish	Delta Merge	Override IDS	Distribution	Tag	Lookup Visible	Caching	Actions
1	✓	CIRCL OSINT Feed MISP	MISP Feed	CIRCL	network	https://www.circl.lu/doc/misp/feed-osint						All communities	CIRCL OSINT Feed	✗	Age: 3m	🔍 🗑️ 🔄 🛑
2	✓	The Botvrij.eu Data MISP	MISP Feed	Botvrij.eu	network	http://www.botvrij.eu/data/feed-osint						All communities	FEED-KOEN	✗	Not cached	🔍 🗑️ 🔄 🛑
18	✗	InThreat OSINT Feed MISP	MISP Feed	InThreat	network	https://feeds.inthreat.com/osint/misp/						Your organisation only	osint-source-type="block-or-filter-list"	✗	Not cached	🔍 🗑️ 🔄 🛑

¹https:

//github.com/MISP/MISP/blob/2.4/app/files/feed-metadata/defaults.json

²http://www.misp-project.org/feeds/
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Feed - Operations



- Cache feed attributes for correlation (not imported but visible in MISP)
- Disable feed
- Explore remote events
- Fetch all events (imported in MISP as event)
- Edit the feed configuration (e.g. authentication, URL,...)
- Remove feed
- Download feed metadata (to share feed details)

Feed - Creation using PyMISP feed generator

feed generator fetches events (matching some filtering) from a MISP instance and construct the manifest (defined in *MISP core format*) needed to export data.

Particularly,

- Used to generate the **CIRCL OSINT feed**
- Export events as json based on tags, organisation, events, ...
- Automatically update the dumps and the metadata file
- Comparable to a lightweight **TAXII interface**

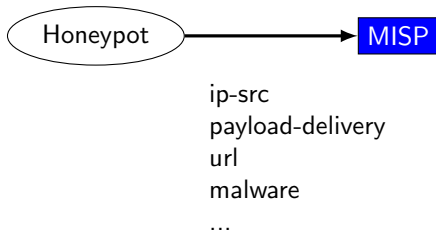
Feed generator - configuration file

```
1 url = 'your/misp/url'
2 key = 'YourAPIKey'
3 ssl = True
4 outputdir = 'output_directory'
5
6 filters = {
7     'tag': 'tlp:white|feed-export|!privint',
8     'org': 'CIRCL'
9 }
10 # the above would generate a feed for all events created by
11     CIRCL, tagged tlp:white and/or feed-export but exclude
12     anything tagged privint
13
14 valid_attribute_distribution_levels = ['0', '1', '2', '3', '4',
15     '5']
16
17 # 0: Your Organisation Only
18 # 4: Sharing Group
19 # 5: Inherit Event
```

Real-time Feed generator - Purpose

The PyMISP feed generator is great but may be inadequate or inefficient:

- Batch import of attributes/objects
- Data producer doesn't have a MISP instance at hand and only wants to **produce a directly consumable feed**:



Real-time Feed generator - Usage

- `generator.py` exposes a class allowing to generate a MISP feed in real-time
- Each items can be appended on daily generated events

Example:

```
1 # Init generator
2 generator = FeedGenerator()
3
4 # Adding an attribute to the daily event
5 attr_type = "ip-src"
6 attr_value = "8.8.8.8"
7 additional_data = {}
8 generator.add_attribute_to_event(attr_type,
9                                 attr_value,
10                                **additional_data)
```


Real-time Feed generator - Usage (2)

```
1 # Adding a MISP object (cowrie) to the daily event
2 obj_name = "cowrie"
3 obj_data = {
4     "session": "session_id",
5     "username": "admin",
6     "password": "admin",
7     "protocol": "telnet"
8 }
9 generator.add_object_to_event(obj_name, **obj_data)
```

Adding custom feed to MISP

List Feeds
Add Feed
Import Feeds from JSON
Feed overlap analysis matrix
Export Feed settings

Add MISP Feed

Add a new MISP feed source.

Enabled
 Lookup Visible

Name

Provider

Source Format

Url

Source Format

Any headers to be passed with requests (for example: Authorization)

Add Basic Auth

Distribution

Default Tag

Filter rules:
Modify

Add

- Enabled
- Lookup visible
- Name
- Provider
- Source Format
- Url
- Source Format
- Headers
- Distribution
- Default Tag
- Filter rules

Q&A



- <https://github.com/MISP/PyMISP>
- <https://github.com/MISP/>
- We welcome new functionalities and pull requests.