

MISP TRAINING: MISP DEPLOYMENT AND INTEGRATION

CIRCL / TEAM MISP PROJECT

[HTTP://WWW.MISP-PROJECT.ORG/](http://www.misp-project.org/)
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NSPA



2022-08-03

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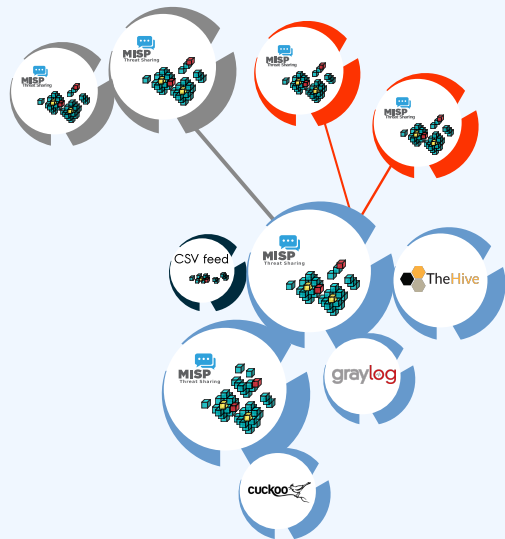
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A COMMON INTEGRATION



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└ A Common Integration

A COMMON INTEGRATION



- Provisioning your MISP infrastructure depends heavily on the **number of attributes/events** (whether your dataset is below or above 50 million attributes).
- Number of MISP instances and the overall design depends on the following factors:
 - ▶ Is your community private? Are you gathering MISP events from other communities? Are you **publishing events to external** (trusted/untrusted) communities.
 - ▶ Do you plan to have **automatic tools** (e.g. sandbox analysis or low-value information needing correlation or an analyst workbench) feeding MISP?

Recommended MISP Setup

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- There is a **jungle of formats** with some vendors having little to no interest in keeping their users autonomous.
- Attacks and threats require a **dynamic format** to be efficiently shared (e.g. from financial indicators to personal information).
- **Review your current list of formats/vendors** to ensure a limited loss of information, especially when exporting from MISP to other formats (e.g. STIX not supporting financial indicators or taxonomies/galaxies).

└ Vendors and Formats

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- Normalizing external input and feed into MISP (e.g. feed importer).
- Comparing feeds before import (how many similarities? false-positives?).
- Evaluating quality of information before import (warning-list lookup at feed evaluation).

└ Use case: Normalizing OSINT and Private Feeds

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- One of the main goals of MISP is to feed protective or detection tools with data
 - ▶ IDSes / IPSes (e.g. Suricata, Bro, Snort format as included in Cisco products)
 - ▶ SIEMs (e.g. CEF, CSV or real-time ZMQ pub-sub or Sigma)
 - ▶ Host scanners (e.g. OpenIOC, STIX, yara rule-set, CSV)
 - ▶ Various analysis tools (e.g. Maltego)
 - ▶ DNS policies (e.g. RPZ)
- Various ways of exporting this data (downloads of the selected data, full exports, APIs)
- The idea was to leave the selection process of the subset of data to be pushed to these up to the user using APIs.

Connecting Devices and Tools to MISP

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- SIEMs and MISP can be integrated with different techniques depending on the processes at your SOC or IR:
 - ▶ Pulling events (via the API) or indicator lists at **regular intervals** in a given time frame to perform lookups.
 - ▶ Subscribing to the MISP ZMQ **pub-sub channel** to directly get the published events and use these in a lookup process.
 - ▶ **Lookup expansion module** in MISP towards the SIEM to have a direct view of the attributes matched against the SIEM.
- The above options can be combined, depending on your organisation or requirements to increase coverage and detection.

└ SIEM and MISP Integration

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- A dashboard showing live data and statistics from the ZMQ pub-sub of one or more MISP instances.
- Building **low-latency software** by consuming pub-sub channel provides significant advantages over standard API use.
- Process information in **real-time** when it's updated, created, published or gathered in MISP.
- Demo!

└─ ZMQ integration: misp-dashboard

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NEW INTEGRATIONS: IR AND THREAT HUNTING USING MISP

- Close co-operation with **the Hive project** for IR
 - ▶ Interact with MISP directly from the Hive
 - ▶ Use both the MISP modules and the **Cortex** analysers in MISP or the Hive directly
- Using MISP to support your threat hunting via **McAfee OpenDXL**
- (<https://securingtomorrow.mcafee.com/business/optimize-operations/expanding-automated-threat-hunting-response-open->

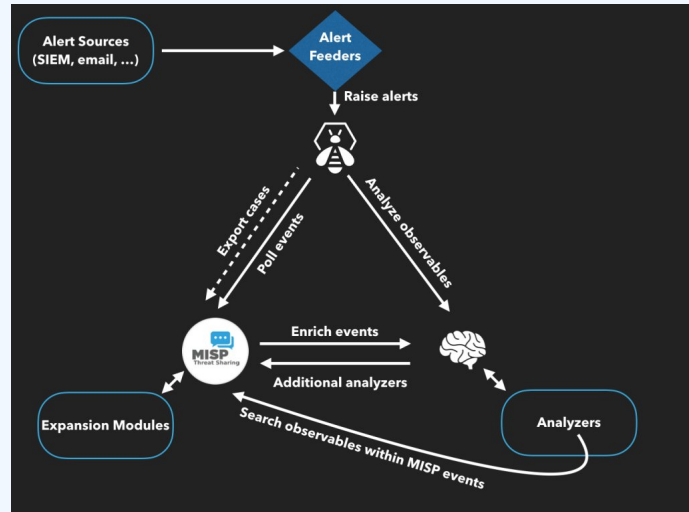
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THE HIVE INTEGRATION



The Hive integration



REPORTING BACK FROM YOUR DEVICES, TOOLS OR PROCESSES

As **Sightings** can be positive, negative or even based on expiration, different use cases are possible:

- **Sightings** allow users to notify a MISP instance about the activities related to an indicator.
- Activities can be from a SIEM (e.g. Splunk lookup validation or **false-positive feedback**), a NIDS or honeypot devices¹.
- Sighting can affect the API to limit the NIDS exports and improve the NIDS rule-set directly.

¹<https://www.github.com/MISP/misp-sighting-tools>

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- We welcome any contributions to the project, be it pull requests, ideas, github issues,...

Q&A

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