MISP Dashboard

Real-time overview of threat intelligence from

CIRCL / Team MISP Project

info@circl.lu

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MISP
Threat Sharing

MISP ZeroMQ

MISP includes a flexible publish-subscribe model to allow real-time integration of the MISP activities:

- Event publication
- Attribute creation or removal
- Sighting
- User login

$\rightarrow$ Operates at global level in MISP

MISP ZeroMQ functionality can be used for various model of integration or to extend MISP functionalities:
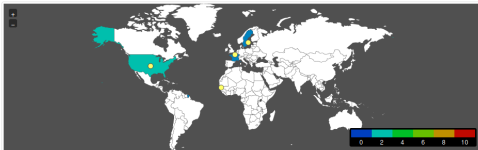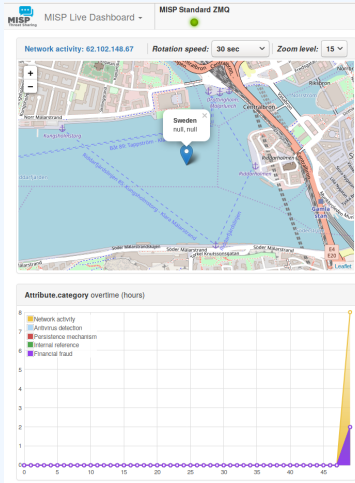
- Real-time search of indicators into a SIEM[1]
- Dashboard activities
- Logging mechanisms
- Continuous indexing
- Custom software or scripting

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[1]Security Information & Event Management
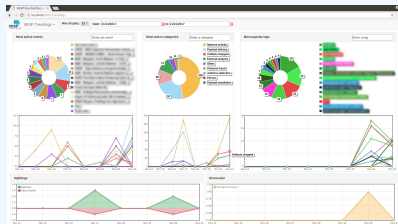
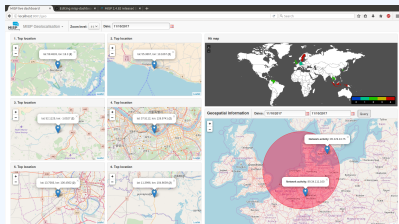# MISP-Dashboard: An Introduction

MISP-Dashboard - Realtime activities and threat intelligence

MISP-Dashboard - Features

- Subscribe to multiple **ZMQ** MISP instances
- Provides historical geolocalised information
- Present an experimental **Gamification of the platform**
- Shows when and how MISP is used
- Provides real time information showing current threats and activity

MISP-Dashboard: Architecture and development

SETTING UP THE DASHBOARD

1. Be sure to have a running redis server: e.g.
   - ▶ `redis-server -p 6250`
2. Update your configuration in `config.cfg`
3. Activate your virtualenv:
   - ▶ `. ./DASHENV/bin/activate`
4. Listen to the MISP feed by starting the zmq_subscriber:
   - ▶ `./zmq_subscriber.py`
5. Start the dispatcher to process received messages:
   - ▶ `./zmq_dispatcher.py`
6. Start the Flask server:
   - ▶ `./server.py`
7. Access the interface at `http://localhost:8001/`

MISP-Dashboard architecture
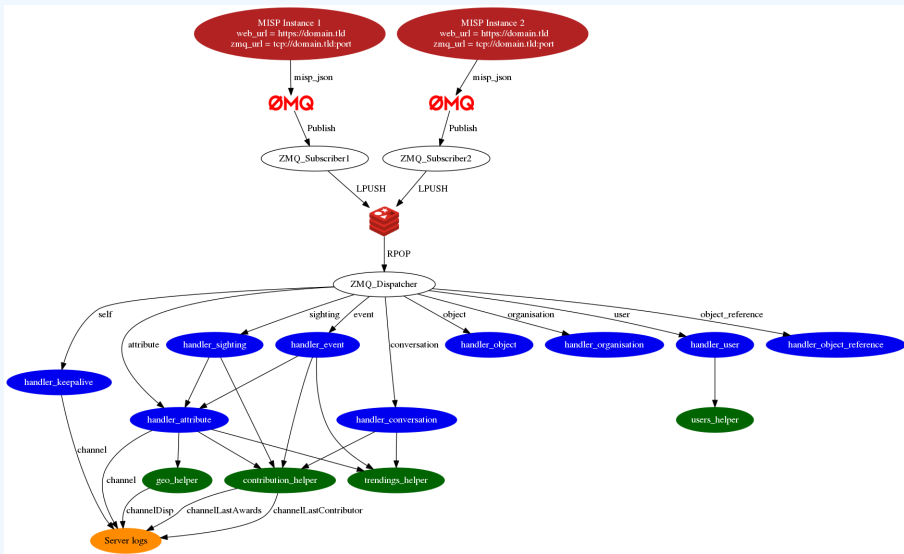
```
1  # Register your handler
2  dico_action = {
3          "misp_json":                  handler_dispatcher,
4          "misp_json_event":            handler_event,
5          "misp_json_self":             handler_keepalive,
6          "misp_json_attribute":        handler_attribute,
7          "misp_json_object":           handler_object,
8          "misp_json_sighting":         YOUR_CUSTOM_SIGHTINGS_HANDLER,
9          "misp_json_organisation":     handler_log,
10         "misp_json_user":             handler_user,
11         "misp_json_conversation":     handler_conversation,
12         "misp_json_object_reference": handler_log,
13 }
14
```

```python
# Implement your handler

# e.g. user handler
def handler_user(zmq_name, jsondata):
    # json action performed by the user
    action = jsondata['action']
    # user json data
    json_user = jsondata['User']
    # organisation json data
    json_org = jsondata['Organisation']
    # organisation name
    org = json_org['name']
    # only consider user login
    if action == 'login':
        timestamp = time.time()
        # users_helper is a class to interact with the DB
        users_helper.add_user_login(timestamp, org)
```

- MISP authentication can now be used in the misp-dashboard
- Improved TLS/SSL support in the default misp-dashboard
- Self-test tool to debug and test ZMQ connectivity

FUTURE DEVELOPMENT

Optimizing contribution scoring and model to encourage sharing and contributions enrichment

Increasing geolocation coverage

Global filtering capabilities
- Geolocation: Showing wanted attribute or only on specific region
- Trendings: Showing only specified taxonomies

Tighter integration with MISP
- Present in MISP by default
- ACL enabled version

Conclusion

MISP-Dashboard can provides realtime information to support security teams, CSIRTs or SOC showing current threats and activity by providing:

- Historical geolocalised information
- Geospatial information from specific regions
- The most active events, categories, tags, attributes, ...

It also propose a prototype of gamification of the platform providing incentive to share and contribute to the community