# PRACTICAL INFORMATION SHARING BETWEEN LAW ENFORCEMENT AND CSIRT COMMUNITIES USING MISP

E.101

CIRCL COMPUTER INCIDENT RESPONSE CENTER LUXEMBOURG



MISP PROJECT https://www.misp-project.org/

MARCH 25, 2022 - VO.7

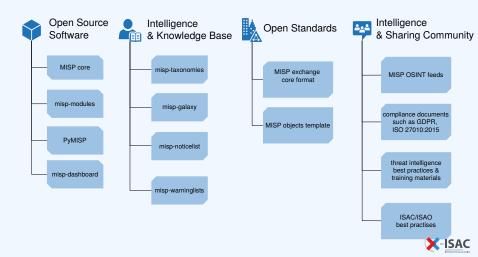
### **OBJECTIVES**

- The 2-day session objective is to show and practice **structured information-exchange** and sharing among team members, SOCs, CSIRT and LEA partners.
- The main objective is to be able to map real cases (based on practices from the previous modules) into structured and shareable information.
- The session will be interactive and access will be given to a MISP training instance.
- At the end of the 2-day module, you will be able to use MISP and **better undertand sharing practices** among different actors.

# MISP - OPEN SOURCE THREAT INTELLIGENCE PLATFORM

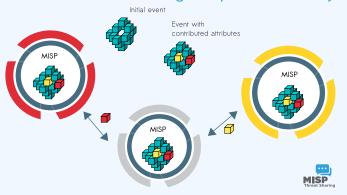
- MISP is an open source software (can be self-hosted or cloud-based) **information sharing and exchange platform**
- It enables analysts from different sectors/orgs to create, collaborate on and share information
- The information shared can then be used to find correlations as well as automatically be fed into **protective tools or processes**
- The software is widely used by CERTs, ISACs, Intelligence Community, military organisations, private sector organisations and researchers since 2012
- CIRCL is both the main driving force behind the tool's **development** as well as some of the largest information **sharing communities** worldwide

## MISP PROJECT OVERVIEW



#### MISP CORE DISTRIBUTED SHARING FUNCTIONALITY

- Everyone can be a consumer and/or a contributor/producer.
- Quick benefit without the obligation to contribute.
- Low barrier access to get acquainted to the system.



#### DFIR AND MISP DIGITAL EVIDENCES

- Share analysis and report of digital forensic evidences.
- **Propose changes** to existing analysis or report.
- Extending existing event with additional evidences for local or limited use (sharing can be defined at event level or attribute level).
- Evaluate correlations¹ of evidences against external or existing attributes.
- **Report sighting** such as false-positive or true-positive (e.g. a partner/analyst has seen a similar indicator).

<sup>&</sup>lt;sup>1</sup>MISP has a flexible correlation engine which can correlate on 1-to-1 value but also fuzzy hashing (e.g. ssdeep) or CIDR block matching.

#### LEA BENEFITS OF USING MISP

- Leverage the long-standing experience in information sharing
- **Bridge their use-cases** with MISP's information sharing mechanisms
- Accessing existing MISP information sharing communities by getting actionable information from CSIRTs/CERTs networks or security researchers.
  - ► Access to **actionable intelligence** by CSIRT networks
  - Data-sets can be used to support forensic cases
- Bridging LE communities with other communities
  - Use sharing groups to manage distribution across the communities
  - Safety nets via synchronisation filters
  - Possibility to use certain communities as correlation sources only

#### LEA BENEFITS OF USING MISP

- MISP handles a host of additional tasks around the data received and shared by LEAs:
  - ► Normalisation to ensure reusability
  - ► **Enrichment** using other services
  - Correlation of own cases against community data
  - Conversion to other formats
- The MISP standard format is extremely flexible
  - ► Create a new **object template** in under 30 minutes
  - Shared data using custom templates immediately understood by other communities
  - ▶ Tight validation and conversions for building blocks of the custom templates

#### **FUTURE OF INFORMATION SHARING**

- MISP is a long-term project (started in 2012)
- Information sharing is becoming more essential than ever to thwart threats
- Heavy focus on cross-sectorial sharing
- Support emerging threats, such as hybrid threats
- Open tools and standards along with interoperable software (e.g. DFIR tools) are driving forces behind resilient information exchange communities
- Getting ideas and practical use-cases from LE community is vital
- Reach out to influence how it evolves!