

# MISP Objects

# MISP Objects

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MISP objects to be used in MISP (2.4.80 (TBC)) system and can be used by other information sharing tool. MISP objects are in addition to MISP attributes to allow advanced combinations of attributes. The creation of these objects and their associated attributes are based on real cyber security use-cases and existing practices in information sharing.

## ail-leak

An information leak as defined by the AIL Analysis Information Leak framework..



ail-leak is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---|---------------------|
| last-seen        | datetime            | When the leak has been accessible or seen for the last time.                                      | ✓                   |
| text             | text                | A description of the leak which could include the potential victim(s) or description of the leak. | ✓                   |
| original-date    | datetime            | When the information available in the leak was created. It's usually before the first-seen.       | ✓                   |
| first-seen       | datetime            | When the leak has been accessible or seen for the first time.                                     | ✓                   |

| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---|---------------------|
| origin           | url                 | The link where the leak is (or was) accessible at first-seen.           | —                   |
| type             | text                | Type of information leak as discovered and classified by an AIL module. | —                   |
| sensor           | text                | The AIL sensor uuid where the leak was processed and analysed.          | —                   |

## cookie

An HTTP cookie (web cookie, browser cookie) is a small piece of data that a server sends to the user's web browser. The browser may store it and send it back with the next request to the same server. Typically, it's used to tell if two requests came from the same browser — keeping a user logged-in, for example. It remembers stateful information for the stateless HTTP protocol. (as defined by the Mozilla foundation..)



cookie is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---|---------------------|
| cookie-name      | text                | Name of the cookie (if splitted)                          | —                   |
| type             | text                | Type of cookie and how it's used in this specific object. | —                   |
| cookie-value     | text                | Value of the cookie (if splitted)                         | —                   |
| cookie           | cookie              | Full cookie   | —                   |
| text             | text                | A description of the cookie.                              | ✓                   |

# ddos

DDoS object describes a current DDoS activity from a specific or/and to a specific target. Type of DDoS can be attached to the object as a taxonomy.



ddos is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description                       | Disable correlation |
|------------------|---------------------|-----------------------------------|---------------------|
| ip-dst           | ip-dst              | Destination ID (victim)           | —                   |
| last-seen        | datetime            | End of the attack                 | —                   |
| total-bps        | counter             | Bits per second                   | —                   |
| dst-port         | port                | Destination port of the attack    | —                   |
| text             | text                | Description of the DDoS           | —                   |
| protocol         | text                | Protocol used for the attack      | —                   |
| ip-src           | ip-src              | IP address originating the attack | —                   |
| first-seen       | datetime            | Beginning of the attack           | —                   |
| total-pps        | counter             | Packets per second                | —                   |
| src-port         | port                | Port originating the attack       | —                   |

# domain | ip

A domain and IP address seen as a tuple in a specific time frame..



domain|ip is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description                        | Disable correlation |
|------------------|---------------------|------------------------------------|---------------------|
| first-seen       | datetime            | First time the tuple has been seen | —                   |
| domain           | domain              | Domain name                        | —                   |
| last-seen        | datetime            | Last time the tuple has been seen  | —                   |
| text             | text                | A description of the tuple         | —                   |
| ip               | ip-dst              | IP Address                         | —                   |

## elf

Object describing a Executable and Linkable Format.



elf is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute   | MISP attribute type | Description  | Disable correlation |
|--------------------|---------------------|--|---------------------|
| os_abi             | text                | Header operating system application binary interface (ABI) | —                   |
| number-sections    | counter             | Number of sections   | ✓                   |
| text               | text                | Free text value to attach to the ELF                       | ✓                   |
| entrypoint-address | text                | Address of the entry point                                 | ✓                   |
| arch               | text                | Architecture of the ELF file                               | —                   |
| type               | text                | Type of ELF  | —                   |

## elf-section

Object describing a section of an Executable and Linkable Format.



elf-section is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description                                   | Disable correlation |
|------------------|---------------------|---|---------------------|
| md5              | md5                 | [Insecure] MD5 hash (128 bits)                | —                   |
| sha512           | sha512              | Secure Hash Algorithm 2 (512 bits)            | —                   |
| text             | text                | Free text value to attach to the section      | ✓                   |
| sha1             | sha1                | [Insecure] Secure Hash Algorithm 1 (160 bits) | —                   |
| sha256           | sha256              | Secure Hash Algorithm 2 (256 bits)            | —                   |
| entropy          | float               | Entropy of the whole section                  | ✓                   |
| sha384           | sha384              | Secure Hash Algorithm 2 (384 bits)            | —                   |
| sha224           | sha224              | Secure Hash Algorithm 2 (224 bits)            | —                   |
| size-in-bytes    | size-in-bytes       | Size of the section, in bytes                 | ✓                   |
| sha512/256       | sha512/256          | Secure Hash Algorithm 2 (256 bits)            | —                   |
| name             | text                | Name of the section                           | ✓                   |
| sha512/224       | sha512/224          | Secure Hash Algorithm 2 (224 bits)            | —                   |
| type             | text                | Type of the section                           | —                   |
| flag             | text                | Flag of the section                           | —                   |

| Object attribute | MISP attribute type | Description  | Disable correlation |
|------------------|---------------------|--|---------------------|
| ssdeep           | ssdeep              | Fuzzy hash using context triggered piecewise hashes (CTPH) | —                   |

## email

Email object describing an email with meta-information.



email is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute  | MISP attribute type    | Description   | Disable correlation |
|-------------------|------------------------|---|---------------------|
| attachment        | email-attachment       | Attachment  | —                   |
| from              | email-src              | Sender email address  | —                   |
| reply-to          | email-reply-to         | Email address the reply will be sent to   | —                   |
| from-display-name | email-src-display-name | Display name of the sender  | —                   |
| x-mailer          | email-x-mailer         | X-Mailer generally tells the program that was used to draft and send the original email | —                   |
| header            | email-header           | Full headers  | —                   |
| thread-index      | email-thread-index     | Identifies a particular conversation thread   | —                   |
| send-date         | datetime               | Date the email has been sent  | ✓                   |
| to                | email-dst              | Destination email address   | —                   |
| to-display-name   | email-dst-display-name | Display name of the receiver  | —                   |



| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---------------|---------------------|
| message-id       | email-message-id    | Message ID    | —                   |
| subject          | email-subject       | Subject       | —                   |
| mime-boundary    | email-mime-boundary | MIME Boundary | —                   |

## file

File object describing a file with meta-information.



file is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description                                   | Disable correlation |
|------------------|---------------------|---|---------------------|
| md5              | md5                 | [Insecure] MD5 hash (128 bits)                | —                   |
| sha512           | sha512              | Secure Hash Algorithm 2 (512 bits)            | —                   |
| authentihash     | authentihash        | Authenticode executable signature hash        | —                   |
| text             | text                | Free text value to attach to the file         | ✓                   |
| entropy          | float               | Entropy of the whole file                     | ✓                   |
| sha1             | sha1                | [Insecure] Secure Hash Algorithm 1 (160 bits) | —                   |
| sha384           | sha384              | Secure Hash Algorithm 2 (384 bits)            | —                   |
| malware-sample   | malware-sample      | The file itself (binary)                      | —                   |
| sha256           | sha256              | Secure Hash Algorithm 2 (256 bits)            | —                   |

| Object attribute | MISP attribute type | Description  | Disable correlation |
|------------------|---------------------|--|---------------------|
| sha224           | sha224              | Secure Hash Algorithm 2 (224 bits)                         | —                   |
| size-in-bytes    | size-in-bytes       | Size of the file, in bytes                                 | ✓                   |
| pattern-in-file  | pattern-in-file     | Pattern that can be found in the file                      | —                   |
| tlsh             | tlsh                | Fuzzy hash by Trend Micro: Locality Sensitive Hash         | —                   |
| sha512/256       | sha512/256          | Secure Hash Algorithm 2 (256 bits)                         | —                   |
| mimetype         | text                | Mime type  | ✓                   |
| sha512/224       | sha512/224          | Secure Hash Algorithm 2 (224 bits)                         | —                   |
| filename         | filename            | Filename on disk   | —                   |
| ssdeep           | ssdeep              | Fuzzy hash using context triggered piecewise hashes (CTPH) | —                   |

## geolocation

An object to describe a geographic location..



geolocation is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description  | Disable correlation |
|------------------|---------------------|--|---------------------|
| city             | text                | City.  | —                   |
| latitude         | float               | The latitude is the decimal value of the latitude in the World Geodetic System 84 (WGS84) reference. | ✓                   |

| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---|---------------------|
| altitude         | float               | The altitude is the decimal value of the altitude in the World Geodetic System 84 (WGS84) reference.  | —                   |
| last-seen        | datetime            | When the location was seen for the last time.   | ✓                   |
| text             | text                | A generic description of the location.  | ✓                   |
| first-seen       | datetime            | When the location was seen for the first time.  | ✓                   |
| longitude        | float               | The longitude is the decimal value of the longitude in the World Geodetic System 84 (WGS84) reference | ✓                   |
| region           | text                | Region.   | —                   |
| country          | text                | Country.  | —                   |

## http-request

A single HTTP request header.



http-request is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description                              | Disable correlation |
|------------------|---------------------|--|---------------------|
| content-type     | other               | The MIME type of the body of the request | —                   |
| text             | text                | HTTP Request comment                     | ✓                   |
| basicauth-user   | text                | HTTP Basic Authentication Username       | —                   |

| Object attribute   | MISP attribute type | Description   | Disable correlation |
|--------------------|---------------------|---|---------------------|
| user-agent         | user-agent          | The user agent string of the user agent   | —                   |
| proxy-user         | text                | HTTP Proxy Username   | —                   |
| method             | http-method         | HTTP Method invoked (one of GET, POST, PUT, HEAD, DELETE, OPTIONS, CONNECT)                                 | ✓                   |
| host               | hostname            | The domain name of the server   | —                   |
| proxy-password     | text                | HTTP Proxy Password   | —                   |
| basicauth-password | text                | HTTP Basic Authentication Password  | —                   |
| referer            | referer             | This is the address of the previous web page from which a link to the currently requested page was followed | —                   |
| cookie             | text                | An HTTP cookie previously sent by the server with Set-Cookie  | —                   |
| url                | url                 | Full HTTP Request URL   | —                   |
| uri                | uri                 | Request URI   | —                   |

## ip | port

An IP address and a port seen as a tuple (or as a triple) in a specific time frame..



ip|port is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description | Disable correlation |
|------------------|---------------------|-------------|---------------------|
| ip               | ip-dst              | IP Address  | —                   |

| Object attribute | MISP attribute type | Description                        | Disable correlation |
|------------------|---------------------|------------------------------------|---------------------|
| text             | text                | Description of the tuple           | —                   |
| last-seen        | datetime            | Last time the tuple has been seen  | —                   |
| first-seen       | datetime            | First time the tuple has been seen | —                   |
| src-port         | text                | Source port                        | —                   |
| dst-port         | text                | Destination port                   | —                   |

## macho

Object describing a file in Mach-O format..



macho is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute   | MISP attribute type | Description                                  | Disable correlation |
|--------------------|---------------------|--|---------------------|
| name               | text                | Binary's name                                | —                   |
| number-sections    | counter             | Number of sections                           | ✓                   |
| type               | text                | Type of Mach-O                               | —                   |
| text               | text                | Free text value to attach to the Mach-O file | ✓                   |
| entrypoint-address | text                | Address of the entry point                   | ✓                   |

## macho-section

Object describing a section of a file in Mach-O format..



macho-section is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description  | Disable correlation |
|------------------|---------------------|--|---------------------|
| md5              | md5                 | [Insecure] MD5 hash (128 bits)                             | —                   |
| sha512           | sha512              | Secure Hash Algorithm 2 (512 bits)                         | —                   |
| text             | text                | Free text value to attach to the section                   | ✓                   |
| sha1             | sha1                | [Insecure] Secure Hash Algorithm 1 (160 bits)              | —                   |
| sha256           | sha256              | Secure Hash Algorithm 2 (256 bits)                         | —                   |
| entropy          | float               | Entropy of the whole section                               | ✓                   |
| sha384           | sha384              | Secure Hash Algorithm 2 (384 bits)                         | —                   |
| sha224           | sha224              | Secure Hash Algorithm 2 (224 bits)                         | —                   |
| size-in-bytes    | size-in-bytes       | Size of the section, in bytes                              | ✓                   |
| sha512/256       | sha512/256          | Secure Hash Algorithm 2 (256 bits)                         | —                   |
| name             | text                | Name of the section  | ✓                   |
| sha512/224       | sha512/224          | Secure Hash Algorithm 2 (224 bits)                         | —                   |
| ssdeep           | ssdeep              | Fuzzy hash using context triggered piecewise hashes (CTPH) | —                   |

## passive-dns

Passive DNS records as expressed in draft-dulaunoy-dnsop-passive-dns-cof-01.



passive-dns is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---|---------------------|
| zone_time_first  | datetime            | First time that the unique tuple (rrname, rrtype, rdata) record has been seen via master file import                                    | —                   |
| rrname           | text                | Resource Record name of the queried resource  | —                   |
| rrtype           | text                | Resource Record type as seen by the passive DNS   | —                   |
| rdata            | text                | Resource records of the queried resource  | —                   |
| zone_time_last   | datetime            | Last time that the unique tuple (rrname, rrtype, rdata) record has been seen via master file import                                     | —                   |
| bailiwick        | text                | Best estimate of the apex of the zone where this data is authoritative  | —                   |
| count            | counter             | How many authoritative DNS answers were received at the Passive DNS Server's collectors with exactly the given set of values as answers | —                   |
| time_first       | datetime            | First time that the unique tuple (rrname, rrtype, rdata) has been seen by the passive DNS   | —                   |

| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---|---------------------|
| sensor_id        | text                | Sensor information where the record was seen  | —                   |
| origin           | text                | Origin of the Passive DNS response  | —                   |
| text             | text                | —   | —                   |
| time_last        | datetime            | Last time that the unique tuple (rrname, rrtype, rdata) record has been seen by the passive DNS | —                   |

## pe

Object describing a Portable Executable.



pe is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description  | Disable correlation |
|------------------|---------------------|--|---------------------|
| imphash          | imphash             | Hash (md5) calculated from the import table  | —                   |
| pehash           | pehash              | Hash of the structural information about a sample. See <a href="https://www.usenix.org/legacy/event/leet09/tech/full_papers/wicherski/wicherski_html/">https://www.usenix.org/legacy/event/leet09/tech/full_papers/wicherski/wicherski_html/</a> | —                   |
| text             | text                | Free text value to attach to the PE  | ✓                   |
| file-description | text                | FileDescription in the resources   | ✓                   |



| Object attribute               | MISP attribute type | Description   | Disable correlation |
|--------------------------------|---------------------|---|---------------------|
| original-filename              | filename            | OriginalFilename in the resources                         | —                   |
| internal-filename              | filename            | InternalFilename in the resources                         | —                   |
| product-version                | text                | ProductVersion in the resources                           | ✓                   |
| company-name                   | text                | CompanyName in the resources                              | ✓                   |
| compilation-timestamp          | datetime            | Compilation timestamp defined in the PE header            | —                   |
| lang-id                        | text                | Lang ID in the resources                                  | ✓                   |
| product-name                   | text                | ProductName in the resources                              | ✓                   |
| number-sections                | counter             | Number of sections  | ✓                   |
| entrypoint-section-at-position | text                | Name of the section and position of the section in the PE | ✓                   |
| entrypoint-address             | text                | Address of the entry point                                | ✓                   |
| file-version                   | text                | FileVersion in the resources                              | ✓                   |
| type                           | text                | Type of PE  | ✓                   |
| impfuzzy                       | impfuzzy            | Fuzzy Hash (ssdeep) calculated from the import table      | —                   |
| legal-copyright                | text                | LegalCopyright in the resources                           | ✓                   |

# pe-section

Object describing a section of a Portable Executable.



pe-section is a MISP object available in JSON format at [this location](#). The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description                                   | Disable correlation |
|------------------|---------------------|---|---------------------|
| md5              | md5                 | [Insecure] MD5 hash (128 bits)                | —                   |
| sha512           | sha512              | Secure Hash Algorithm 2 (512 bits)            | —                   |
| text             | text                | Free text value to attach to the section      | ✓                   |
| sha1             | sha1                | [Insecure] Secure Hash Algorithm 1 (160 bits) | —                   |
| characteristic   | text                | Characteristic of the section                 | —                   |
| sha256           | sha256              | Secure Hash Algorithm 2 (256 bits)            | —                   |
| entropy          | float               | Entropy of the whole section                  | ✓                   |
| sha384           | sha384              | Secure Hash Algorithm 2 (384 bits)            | —                   |
| sha224           | sha224              | Secure Hash Algorithm 2 (224 bits)            | —                   |
| size-in-bytes    | size-in-bytes       | Size of the section, in bytes                 | ✓                   |
| sha512/256       | sha512/256          | Secure Hash Algorithm 2 (256 bits)            | —                   |
| name             | text                | Name of the section                           | ✓                   |

| Object attribute | MISP attribute type | Description  | Disable correlation |
|------------------|---------------------|--|---------------------|
| sha512/224       | sha512/224          | Secure Hash Algorithm 2 (224 bits)                         | —                   |
| ssdeep           | ssdeep              | Fuzzy hash using context triggered piecewise hashes (CTPH) | —                   |

## phone

A phone or mobile phone object which describe a phone..



phone is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---|---------------------|
| imsi             | text                | A usually unique International Mobile Subscriber Identity (IMSI) is allocated to each mobile subscriber in the GSM/UMTS/EPS system. IMSI can also refer to International Mobile Station Identity in the ITU nomenclature. | —                   |
| guti             | text                | Globally Unique Temporary UE Identity (GUTI) is a temporary identification to not reveal the phone (user equipment in 3GPP jargon) composed of GUMMEI and the M-TMSI.   | —                   |
| gummei           | text                | Globally Unique MME Identifier (GUMMEI) is composed from MCC, MNC and MME Identifier (MMEI).  | —                   |

| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---|---------------------|
| msisdn           | text                | MSISDN (pronounced as /'em es ai es di en/ or misden) is a number uniquely identifying a subscription in a GSM or a UMTS mobile network. Simply put, it is the mapping of the telephone number to the SIM card in a mobile/cellular phone. This abbreviation has a several interpretations, the most common one being Mobile Station International Subscriber Directory Number. | —                   |
| text             | text                | A description of the phone.   | ✓                   |
| last-seen        | datetime            | When the phone has been accessible or seen for the last time.   | ✓                   |
| tmsi             | text                | Temporary Mobile Subscriber Identities (TMSI) to visiting mobile subscribers can be allocated.  | —                   |
| serial-number    | text                | Serial Number.  | —                   |
| first-seen       | datetime            | When the phone has been accessible or seen for the first time.  | ✓                   |

| Object attribute | MISP attribute type | Description  | Disable correlation |
|------------------|---------------------|--|---------------------|
| imei             | text                | International Mobile Equipment Identity (IMEI) is a number, usually unique, to identify 3GPP and iDEN mobile phones, as well as some satellite phones. | —                   |

## r2graphity

Indicators extracted from files using radare2 and graphml.



r2graphity is a MISP object available in JSON format at [this location](#). The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute   | MISP attribute type | Description   | Disable correlation |
|--------------------|---------------------|---|---------------------|
| dangling-strings   | counter             | Amount of dangling strings (string with a code cross reference, that is not within a function. Radare2 failed to detect that function.) | ✓                   |
| text               | text                | Description of the r2graphity object  | ✓                   |
| ratio-string       | float               | Ratio: amount of referenced strings per kilobyte of code section  | ✓                   |
| referenced-strings | counter             | Amount of referenced strings  | ✓                   |
| refsglobalvar      | counter             | Amount of API calls outside of code section (glob var, dynamic API)   | ✓                   |
| ratio-api          | float               | Ratio: amount of API calls per kilobyte of code section   | ✓                   |

| Object attribute       | MISP attribute type | Description   | Disable correlation |
|------------------------|---------------------|---|---------------------|
| get-proc-address       | counter             | Amount of calls to GetProcAddress                                       | ✓                   |
| memory-allocations     | counter             | Amount of memory allocations  | ✓                   |
| r2-commit-version      | text                | Radare2 commit ID used to generate this object                          | ✓                   |
| gml                    | attachment          | Graph export in Graph Modelling Language format                         | ✓                   |
| callback-average       | counter             | Average size of a callback  | ✓                   |
| create-thread          | counter             | Amount of calls to CreateThread   | ✓                   |
| callbacks              | counter             | Amount of callbacks (functions started as thread)                       | ✓                   |
| not-referenced-strings | counter             | Amount of not referenced strings  | ✓                   |
| local-references       | counter             | Amount of API calls inside a code section                               | ✓                   |
| callback-largest       | counter             | Largest callback  | ✓                   |
| ratio-functions        | float               | Ratio: amount of functions per kilobyte of code section                 | ✓                   |
| miss-api               | counter             | Amount of API call reference that does not resolve to a function offset | ✓                   |

| Object attribute               | MISP attribute type | Description  | Disable correlation |
|--------------------------------|---------------------|--|---------------------|
| unknown-references             | counter             | Amount of API calls not ending in a function (Radare2 bug, probalby) | ✓                   |
| shortest-path-to-create-thread | counter             | Shortest path to the first time the binary calls CreateThread        | ✓                   |
| total-api                      | counter             | Total amount of API calls  | ✓                   |
| total-functions                | counter             | Total amount of functions in the file.                               | ✓                   |

## registry-key

Registry key object describing a Windows registry key with value and last-modified timestamp.



registry-key is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description  | Disable correlation |
|------------------|---------------------|--|---------------------|
| hive             | reg-hive            | Hive used to store the registry key (file on disk) | —                   |
| data-type        | reg-datatype        | Registry value type                                | —                   |
| name             | reg-name            | Name of the registry key                           | —                   |
| data             | reg-data            | Data stored in the registry key                    | —                   |
| key              | reg-key             | Full key path                                      | —                   |
| last-modified    | datetime            | Last time the registry key has been modified       | —                   |

# tor-node

Tor node (which protects your privacy on the internet by hiding the connection between users Internet address and the services used by the users) description which are part of the Tor network at a time..



tor-node is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute | MISP attribute type | Description   | Disable correlation |
|------------------|---------------------|---|---------------------|
| nickname         | text                | router's nickname.  | —                   |
| published        | datetime            | router's publication time. This can be different from first-seen and last-seen.   | ✓                   |
| text             | text                | Tor node comment.   | ✓                   |
| flags            | text                | list of flag associated with the node.  | —                   |
| first-seen       | datetime            | When the Tor node designed by the IP address has been seen for the first time.    | ✓                   |
| version          | text                | parsed version of tor, this is None if the relay's using a new versioning scheme. | —                   |
| description      | text                | Tor node description.   | ✓                   |
| address          | ip-src              | IP address of the Tor node seen.  | —                   |
| last-seen        | datetime            | When the Tor node designed by the IP address has been seen for the last time.     | ✓                   |
| fingerprint      | text                | router's fingerprint.   | —                   |



| Object attribute | MISP attribute type | Description                                  | Disable correlation |
|------------------|---------------------|--|---------------------|
| version_line     | text                | versioning information reported by the node. | —                   |
| document         | text                | Raw document from the consensus.             | ✓                   |

## url

url object describes an url along with its normalized field (like extracted using faup parsing library) and its metadata..



url is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute   | MISP attribute type | Description   | Disable correlation |
|--------------------|---------------------|---|---------------------|
| query_string       | text                | Query (after path, preceded by '?')   | —                   |
| port               | text                | Port number   | —                   |
| first-seen         | datetime            | First time this URL has been seen   | —                   |
| host               | hostname            | Full hostname   | —                   |
| tld                | text                | Top-Level Domain  | —                   |
| credential         | text                | Credential (username, password)   | —                   |
| domain_without_tld | text                | Domain without Top-Level Domain   | —                   |
| fragment           | text                | Fragment identifier is a short string of characters that refers to a resource that is subordinate to another, primary resource. | —                   |
| last-seen          | datetime            | Last time this URL has been seen  | —                   |

| Object attribute | MISP attribute type | Description                            | Disable correlation |
|------------------|---------------------|--|---------------------|
| resource_path    | text                | Path (between hostname:port and query) | -                   |
| domain           | domain              | Full domain                            | -                   |
| text             | text                | Description of the URL                 | -                   |
| url              | url                 | Full URL                               | -                   |
| subdomain        | text                | Subdomain                              | -                   |
| scheme           | text                | Scheme                                 | -                   |

## vulnerability

Vulnerability object describing common vulnerability enumeration.



vulnerability is a MISP object available in JSON format at [this location](#). The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute         | MISP attribute type | Description   | Disable correlation |
|--------------------------|---------------------|---|---------------------|
| published                | datetime            | Initial publication date                                | -                   |
| modified                 | datetime            | Last modification date                                  | -                   |
| text                     | text                | Description of the vulnerability                        | -                   |
| vulnerable_configuration | text                | The vulnerable configuration is described in CPE format | -                   |
| id                       | vulnerability       | Vulnerability ID (generally CVE, but not necessarily)   | -                   |
| summary                  | text                | Summary of the vulnerability                            | -                   |

| Object attribute | MISP attribute type | Description         | Disable correlation |
|------------------|---------------------|---------------------|---------------------|
| references       | link                | External references | —                   |

## whois

Whois records information for a domain name..



whois is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute  | MISP attribute type    | Description                         | Disable correlation |
|-------------------|------------------------|-------------------------------------|---------------------|
| creation-date     | datetime               | Initial creation of the whois entry | —                   |
| expiration-date   | datetime               | Expiration of the whois entry       | —                   |
| registrar         | whois-registrar        | Registrar of the whois entry        | —                   |
| text              | text                   | Full whois entry                    | —                   |
| registrant-name   | whois-registrant-name  | Registrant name                     | —                   |
| domain            | domain                 | Domain of the whois entry           | —                   |
| registrant-email  | whois-registrant-email | Registrant email address            | —                   |
| registrant-phone  | whois-registrant-phone | Registrant phone number             | —                   |
| modification-date | datetime               | Last update of the whois entry      | —                   |

## x509

x509 object describing a X.509 certificate.



x509 is a MISP object available in JSON format at [this location](#) The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Object attribute        | MISP attribute type | Description                                   | Disable correlation |
|-------------------------|---------------------|---|---------------------|
| validity-not-before     | datetime            | Certificate invalid before that date          | —                   |
| validity-not-after      | datetime            | Certificate invalid after that date           | —                   |
| pubkey-info-algorithm   | text                | Algorithm of the public key                   | —                   |
| text                    | text                | Free text description of the certificate      | —                   |
| x509-fingerprint-sha1   | sha1                | [Insecure] Secure Hash Algorithm 1 (160 bits) | —                   |
| pubkey-info-size        | text                | Length of the public key (in bits)            | —                   |
| issuer                  | text                | Issuer of the certificate                     | —                   |
| serial-number           | text                | Serial number of the certificate              | —                   |
| version                 | text                | Version of the certificate                    | —                   |
| x509-fingerprint-md5    | md5                 | [Insecure] MD5 hash (128 bits)                | —                   |
| pubkey-info-exponent    | text                | Exponent of the public key                    | —                   |
| subject                 | text                | Subject of the certificate                    | —                   |
| x509-fingerprint-sha256 | sha256              | Secure Hash Algorithm 2 (256 bits)            | —                   |
| pubkey-info-modulus     | text                | Modulus of the public key                     | —                   |
| raw-base64              | text                | Raw certificate base64 encoded                | —                   |

# Relationships

Default type of relationships in MISP objects.

Relationships are part of MISP object and available in JSON format at [this location](#). The JSON format can be freely reused in your application or automatically enabled in [MISP](#).

| Name of relationship | Description  | Format               |
|----------------------|--|----------------------|
| derived-from         | The information in the target object is based on information from the source object. | ['misp', 'stix-2.0'] |
| duplicate-of         | The referenced source and target objects are semantically duplicates of each other.  | ['misp', 'stix-2.0'] |
| related-to           | The referenced source is related to the target object.                               | ['misp', 'stix-2.0'] |
| attributed-to        | This referenced source is attributed to the target object.                           | ['misp', 'stix-2.0'] |
| targets              | This relationship describes that the source object targets the target object.        | ['misp', 'stix-2.0'] |
| uses                 | This relationship describes the use by the source object of the target object.       | ['misp', 'stix-2.0'] |
| indicates            | This relationships describes that the source object indicates the target object.     | ['misp', 'stix-2.0'] |
| mitigates            | This relationship describes a source object which mitigates the target object.       | ['misp', 'stix-2.0'] |
| variant-of           | This relationship describes a source object which is a variant of the target object  | ['misp', 'stix-2.0'] |
| impersonates         | This relationship describe a source object which impersonates the target object      | ['misp', 'stix-2.0'] |
| authored-by          | This relationship describes the author of a specific object.                         | ['misp']             |
| located              | This relationship describes the location (of any type) of a specific object.         | ['misp']             |
| included-in          | This relationship describes an object included in another object.                    | ['misp']             |

| <b>Name of relationship</b> | <b>Description</b>   | <b>Format</b> |
|-----------------------------|--|---------------|
| analysed-with               | This relationship describes an object analysed by another object.        | ['misp']      |
| claimed-by                  | This relationship describes an object claimed by another object.         | ['misp']      |
| communicates-with           | This relationship describes an object communicating with another object. | ['misp']      |
| dropped-by                  | This relationship describes an object dropped by another object.         | ['misp']      |
| executed-by                 | This relationship describes an object executed by another object.        | ['misp']      |
| affects                     | This relationship describes an object affected by another object.        | ['misp']      |
| beacons_to                  | This relationship describes an object beaconing to another object.       | ['misp']      |
| abuses                      | This relationship describes an object which abuses another object.       | ['misp']      |
| exfiltrates_to              | This relationship describes an object exfiltrating to another object.    | ['misp']      |
| identifies                  | This relationship describes an object which identifies another object.   | ['misp']      |
| intercepts                  | This relationship describes an object which intercepts another object.   | ['misp']      |
| calls                       | This relationship describes an object which calls another objects.       | ['misp']      |