MISP Objects

MISP Objects

ln	troduction	1
	Funding and Support	2
M	ISP objects	3
	ail-leak	3
	android-permission	4
	asn	6
	av-signature.	7
	cookie	8
	credential	9
	credit-card	. 10
	ddos	. 10
	domain-ip.	. 11
	elf	. 12
	elf-section.	. 15
	email	. 17
	file	. 18
	geolocation	. 20
	http-request	. 21
	ip-port	. 22
	ja3	. 23
	macho	. 23
	macho-section.	. 24
	microblog	. 25
	netflow	. 26
	passive-dns	. 28
	paste	. 29
	pe	. 30
	pe-section	. 32
	person	. 33
	phone	. 35
	r2graphity	. 36
	regexp	. 38
	registry-key	. 39
	report	. 40
	rtir	. 40
	tor-node	. 41
	url	. 42
	victim	. 44

irustotal-report4	5
ulnerability	6
vhois4	6
5094	7
abin	8
elationships4	9

Introduction

[MISP logo] | https://raw.githubusercontent.com/MISP/MISP/2.4/INSTALL/logos/misp-logo.png

The MISP threat sharing platform is a free and open source software helping information sharing of threat intelligence including cyber security indicators, financial fraud or counter-terrorism information. The MISP project includes multiple sub-projects to support the operational requirements of analysts and improve the overall quality of information shared.

MISP objects are used in MISP (starting from version 2.4.80) 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. The objects are just shared like any other attributes in MISP even if the other MISP instances don't have the template of the object. The following document is generated from the machine-readable JSON describing the MISP objects.

Funding and Support

The MISP project is financially and resource supported by CIRCL Computer Incident Response Center Luxembourg.



A CEF (Connecting Europe Facility) funding under CEF-TC-2016-3 - Cyber Security has been granted from 1st September 2017 until 31th August 2019 as **Improving MISP as building blocks for next-generation information sharing**.



If you are interested to co-fund projects around MISP, feel free to get in touch with us.

MISP objects

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
sensor	text	The AIL sensor uuid where the leak was processed and analysed.	
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.	•
type	text	Type of information leak as discovered and classified by an AIL module. ['Credential', 'CreditCards', 'Mail', 'Onion', 'Phone', 'Keys']	
duplicate_number	counter	Number of known duplicates.	_
raw-data	attachment	Raw data as received by the AIL sensor compressed and encoded in Base64.	✓

Object attribute	MISP attribute type	Description	Disable correlation
last-seen	datetime	When the leak has been accessible or seen for the last time.	•
origin	text	The link where the leak is (or was) accessible at first-seen.	
duplicate	text	Duplicate of the existing leaks.	_
first-seen	datetime	When the leak has been accessible or seen for the first time.	•

android-permission

A set of android permissions - one or more permission(s) which can be linked to other objects (e.g. malware, app)..



android-permission 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
comment	comment	Comment about the set of android permission(s)	

permission text Android permission ['ACCESS_CHECKIN_PR OPERTIES', 'ACCESS_COARSE_LOC ATION', 'ACCESS_FINE_LOCATI ON', 'ACCESS_LOCATION_EX TRA_COMMANDS', 'ACCESS_NETWORK_ST ATE', 'ACCESS_NOTIFICATIO N_POLICY', N_CORROLL MANUS CHARTEL
'ACCESS_WIFI_STATE', 'ACCOUNT_MANAGER', 'ADD_VOICEMAIL', 'ANSWER_PHONE_CAL LLS', 'BATTERY_STATS', 'BIND_ACCESSIBILITY_ SERVICE', 'BIND_APPWIDGET', 'BIND_AUTOFILL_SERV ICE', 'BIND_CARRIER_MESSA GING_SERVICE', 'BIND_CHOOSER_TARG ET_SERVICE', 'BIND_CONDITION_PR OVIDER_SERVICE', 'BIND_DEVICE_ADMIN', 'BIND_DREAM_SERVIC E', 'BIND_INCALL_SERVIC E', 'BIND_INCALL_SERVIC E', 'BIND_INPUT_METHOD ', 'BIND_MIDI_DEVICE_SE RVICE', 'BIND_NOTIFICATION_ LISTENER_SERVICE', 'BIND_PRINT_SERVICE', 'BIND_PRINT_SERVICE', 'BIND_PRINT_SERVICE', 'BIND_PRINT_SERVICE', 'BIND_PRINT_SERVICE', 'BIND_PRINT_SERVICE', 'BIND_OUICK_SETTING

asn

ECTION_SERVICE',

Autonomous system object describing an autonomous system of the system network operators management an entity (e.g. ISP) BIND WITH The routing policy, routing prefixes 'BIND_VISUAL_VOICEM or alike..

AIL_SERVICE',



asn is a MISP object available in JSON PARA TERASON The JSON format can be freely reused in your application of the tomatically enabled in MISP.

		_	
רואומי	TIDAT	CEDIMCE	
עועום	VPIV	SERVICE'	_

	7	'BIND_VPN_SERVICE',	
Object attribute	MISP attribute type	Description	Disable correlation
country	text	Country code of the main location of the autonomous system	
last-seen	datetime	Last time the ASN was seen	_
subnet-announced	ip-src	Subnet announced	_
first-seen	datetime	First time the ASN was seen	_
import	text	The inbound IPv4 routing policy of the AS in RFC 2622 – Routing Policy Specification Language (RPSL) format	
description	text	Description of the autonomous system	_
		'CHANGE_NETWORK_S TATE', 'CHANGE_WIFI_MULTI CAST_STATE', 'CHANGE_WIFI_STATE', 'CLEAR_APP_CACHE', 'CONTROL_LOCATION_ UPDATES', 'DELETE_CACHE_FILES' , 'DELETE_PACKAGES', 'DIAGNOSTIC', 'DISABLE_KEYGUARD', 'DUMP', 'EXPAND_STATUS_BAR', 'FACTORY_TEST',	

performs nction as attribute difference	
np-export IPv4 and families fied. The cribed in Routing ecification next (RPSLng), rmat	
IPv4 or policy of C 4012 – Policy Language eneration 4.5.	
System	_
d routing AS in RFC ng Policy Language	
A: n, L	routing S in RFC g Policy

av-signature

Antivirus detection signature.

'PROCESS_OUTGOING_

CALLS',

'READ_CALENDAR',

 $'READ_CALL_LOG',$



av-signature is a MISP object availa **REAID_ISONTAGTS** at at **this location** The JSON format can be freely reused in your **REAID_ENTITY NATIONAL OF TABLES**. RAGE',

Object attribute	MISP attribute type	Description	Disable correlation
signature	text	Name of detection signature	_

'READ_PHONE_STATE',

Object attribute	MISP attribute type	Description	Disable correlation
software	text	Name of antivirus software	~
datetime	datetime	Datetime	✓
text	text	Free text value to attach to the file	~

cookie

'RECEIVE_SMS',
'RECEIVE_WAP_PUSH',
'RECORD_AUDIO',
'REORDER_TASKS',

An HTTP cookie (web cookie, browser cookie) is **REQUESTICOMPANTO** that a server sends to the user's web browser. The browser may store it and **SRIVALIDARACKICROTE** next request to the same server. Typically, it's used to tell if two requests **CADI** from the same browser — keeping a user logged-in, for example. It remembers stateful in **EXAMPLE TO METANNIC** (as defined by the Mozilla foundation..

N_USE_DATA_IN_BACK



cookie is a MISP object available in **ISEQUESTINETESPACATION** The JSON format can be freely reused in your application application of the property of the prop

GROUND',

'REQUEST IGNORE BA

Ohioot attributa	MICD otto:buto topo	'REQUEST_IGNORE_BA Description Disable correlation		
Object attribute	MISP attribute type	Description	Disable correlation	
cookie	cookie	Full cookie	_	
cookie-name	text	Name of the cookie (if splitted)	_	
type	text	Type of cookie and how it's used in this specific object. ['Session management', 'Personalization', 'Tracking', 'Exfiltration', 'Malicious Payload', 'Beaconing']		
cookie-value	text	Value of the cookie (if splitted)	_	
text	text	A description of the cookie.	✓	
		'SYSTEM_ALERT_WIND OW', 'TRANSMIT_IR', 'UNINSTALL_SHORTCU T', 'UPDATE_DEVICE_STAT		

credential

Credential describes one or more credential(s) including password(s), api key(s) or decryption key(s)..



credential 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
text	text	A description of the credential(s)	✓
password	text	Password	_
notification	text	Mention of any notification(s) towards the potential owner(s) of the credential(s) ['victim-notified', 'service-notified', 'none']	
username	text	Username related to the password(s)	_
type	text	Type of password(s) ['password', 'api-key', 'encryption-key', 'unknown']	_
origin	text	Origin of the credential(s) ['bruteforce-scanning', 'malware-analysis', 'memory-analysis', 'network-analysis', 'leak', 'unknown']	
format	text	Format of the password(s) ['clear-text', 'hashed', 'encrypted', 'unknown']	_

credit-card

A payment card like credit card, debit card or any similar cards which can be used for financial transactions..



credit-card 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
version	text	Version of the card.	_
comment	comment	A description of the card.	_
name	text	Name of the card owner.	_
card-security-code	text	Card security code (CSC, CVD, CVV, CVC and SPC) as embossed or printed on the card.	
expiration	datetime	Maximum date of validity	_
cc-number	cc-number	credit-card number as encoded on the card.	_
issued	datetime	Initial date of validity or issued date.	_

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 IP (victim)	_

Object attribute	MISP attribute type	Description	Disable correlation
total-bps	counter	Bits per second	_
dst-port	port	Destination port of the attack	_
first-seen	datetime	Beginning of the attack	-
protocol	text	Protocol used for the attack ['TCP', 'UDP', 'ICMP', 'IP']	_
ip-src	ip-src	IP address originating the attack	_
src-port	port	Port originating the attack	_
last-seen	datetime	End of the attack	_
text	text	Description of the DDoS	_
domain-dst	domain	Destination domain (victim)	-
total-pps	counter	Packets per second	_

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
text	text	A description of the tuple	_
ip	ip-dst	IP Address	_

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	_

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
number-sections	counter	Number of sections	✓
text	text	Free text value to attach to the ELF	~
os_abi	text	Header operating system application binary interface (ABI) ['AIX', 'ARM', 'AROS', 'C6000_ELFABI', 'C6000_LINUX', 'CLOUDABI', 'FENIXOS', 'FREEBSD', 'GNU', 'HPUX', 'HURD', 'IRIX', 'MODESTO', 'NETBSD', 'OPENVMS', 'SOLARIS', 'STANDALONE', 'SYSTEMV', 'TRU64']	
type	text	Type of ELF ['CORE', 'DYNAMIC', 'EXECUTABLE', 'HIPROC', 'LOPROC', 'NONE', 'RELOCATABLE']	

Object attribute	MISP attribute type	Description	Disable correlation
entrypoint-address	text	Address of the entry point	~

Object attribute	MISP attribute type	Description	Disable correlation
arch	text	Architecture of the ELF	_
		file ['None', 'M32',	
		'SPARC', 'i386',	
		'ARCH_68K',	
		'ARCH_88K', 'IAMCU',	
		'ARCH_860', 'MIPS',	
		'S370', 'MIPS_RS3_LE',	
		'PARISC', 'VPP500',	
		'SPARC32PLUS',	
		'ARCH_960', 'PPC',	
		'PPC64', 'S390', 'SPU',	
		'V800', 'FR20', 'RH32',	
		'RCE', 'ARM', 'ALPHA',	
		'SH', 'SPARCV9',	
		'TRICORE', 'ARC',	
		'H8_300', 'H8_300H',	
		'H8S', 'H8_500', 'IA_64',	
		'MIPS_X', 'COLDFIRE',	
		'ARCH_68HC12', 'MMA',	
		'PCP', 'NCPU', 'NDR1',	
		'STARCORE', 'ME16',	
		'ST100', 'TINYJ',	
		'x86_64', 'PDSP',	
		'PDP10', 'PDP11', 'FX66',	
		'ST9PLUS', 'ST7',	
		'ARCH_68HC16',	
		'ARCH_68HC11',	
		'ARCH_68HC08',	
		'ARCH_68HC05', 'SVX',	
		'ST19', 'VAX', 'CRIS',	
		'JAVELIN', 'FIREPATH',	
		'ZSP', 'MMIX', 'HUANY',	
		'PRISM', 'AVR', 'FR30',	
		'D10V', 'D30V', 'V850',	
		'M32R', 'MN10300',	
		'MN10200', 'PJ',	
		'OPENRISC',	
		'ARC_COMPACT',	
		'XTENSA', 'VIDEOCORE',	
		'TMM_GPP', 'NS32K',	
		'TPC', 'SNP1K', 'ST200',	
		'IP2K', 'MAX', 'CR',	
		'F2MC16', 'MSP430',	
		'BLACKFIN', 'SE_C33',	
		'SEP', 'ARCA',	
		'UNICORE', 'EXCESS',	
		'DXP', 'ALTERA_NIOS2',	
		'CRX', 'XGATE', 'C166',	

elf-section

'M16C', 'DSPIC30F', 'CE',

Object describing a section of an Executable and LiMable FormatSK3000', 'RS08', 'SHARC',



elf-section is a MISP object available Orgiston for a large of this location. The JSON format can be freely reused in your application of the location of the

Object attribute	MISP attribute type	Description	Disable correlation
text	text	Free text value to attach to the section	✓
sha1	sha1	[Insecure] Secure Hash Algorithm 1 (160 bits)	_
sha384	sha384	Secure Hash Algorithm 2 (384 bits)	_
sha512/224	sha512/224	Secure Hash Algorithm 2 (224 bits)	_
sha224	sha224	Secure Hash Algorithm 2 (224 bits)	_
sha256	sha256	Secure Hash Algorithm 2 (256 bits)	_

'COREA_1ST',

'COREA_2ND',

'ARC_COMPACT2',

'OPEN8', 'RL78',

'VIDEOCORE5',

'ARCH_78KOR',

'ARCH_56800EX', 'BA1',

'BA2', 'XCORE',

'MCHP_PIC', 'INTEL205',

'INTEL206', 'INTEL207',

'INTEL208', 'INTEL209',

'KM32', 'KMX32',

'KMX16', 'KMX8',

'KVARC', 'CDP', 'COGE',

'COOL', 'NORC',

'CSR_KALIMBA',

'AMDGPU']

Object attribute	MISP attribute type	Description	Disable correlation
type	text	Type of the section ['NULL', 'PROGBITS', 'SYMTAB', 'STRTAB', 'RELA', 'HASH', 'DYNAMIC', 'NOTE', 'NOBITS', 'REL', 'SHLIB', 'DYNSYM', 'INIT_ARRAY', 'FINI_ARRAY', 'FREINIT_ARRAY', 'FREINIT_ARRAY', 'GROUP', 'SYMTAB_SHNDX', 'LOOS', 'GNU_ATTRIBUTES', 'GNU_VERDEF', 'GNU_VERSYM', 'HIOS', 'LOPROC', 'ARM_EXIDX', 'ARM_PREEMPTMAP', 'HEX_ORDERED', 'X86_64_UNWIND', 'MIPS_REGINFO', 'MIPS_ABIFLAGS', 'HIPROC', 'LOUSER', 'HIUSER']	
sha512	sha512	Secure Hash Algorithm 2 (512 bits)	
entropy	float	Entropy of the whole section	•
md5	md5	[Insecure] MD5 hash (128 bits)	_
ssdeep	ssdeep	Fuzzy hash using context triggered piecewise hashes (CTPH)	
name	text	Name of the section	✓

Object attribute	MISP attribute type	Description	Disable correlation
flag	text	Flag of the section ['ALLOC', 'EXCLUDE', 'EXECINSTR', 'GROUP', 'HEX_GPREL', 'INFO_LINK', 'LINK_ORDER', 'MASKOS', 'MASKPROC', 'MERGE', 'MIPS_ADDR', 'MIPS_LOCAL', 'MIPS_MERGE', 'MIPS_NAMES', 'MIPS_NODUPES', 'MIPS_NOSTRIP', 'NONE', 'OS_NONCONFORMING ', 'STRINGS', 'TLS', 'WRITE', 'XCORE_SHF_CP_SECTION']	
size-in-bytes	size-in-bytes	Size of the section, in bytes	•
sha512/256	sha512/256	Secure Hash Algorithm 2 (256 bits)	_

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
thread-index	email-thread-index	Identifies a particular conversation thread	_
header	email-header	Full headers	_
mime-boundary	email-mime-boundary	MIME Boundary	_
message-id	email-message-id	Message ID	_

Object attribute	MISP attribute type	Description	Disable correlation
from-display-name	email-src-display-name	Display name of the sender	_
СС	email-dst	Carbon copy	_
to	email-dst	Destination email address	_
x-mailer	email-x-mailer	X-Mailer generally tells the program that was used to draft and send the original email	
attachment	email-attachment	Attachment	_
return-path	text	Message return path	_
send-date	datetime	Date the email has been sent	✓
reply-to	email-reply-to	Email address the reply will be sent to	_
to-display-name	email-dst-display-name	Display name of the receiver	_
from	email-src	Sender email address	_
screenshot	attachment	Screenshot of email	_
subject	email-subject	Subject	_

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
text	text	Free text value to attach to the file	✓
sha1	sha1	[Insecure] Secure Hash Algorithm 1 (160 bits)	_
sha384	sha384	Secure Hash Algorithm 2 (384 bits)	_
tlsh	tlsh	Fuzzy hash by Trend Micro: Locality Sensitive Hash	
sha512/224	sha512/224	Secure Hash Algorithm 2 (224 bits)	_
sha224	sha224	Secure Hash Algorithm 2 (224 bits)	_
sha256	sha256	Secure Hash Algorithm 2 (256 bits)	_
mimetype	text	Mime type	~
authentihash	authentihash	Authenticode executable signature hash	_
sha512	sha512	Secure Hash Algorithm 2 (512 bits)	_
entropy	float	Entropy of the whole file	✓
md5	md5	[Insecure] MD5 hash (128 bits)	_
pattern-in-file	pattern-in-file	Pattern that can be found in the file	

Object attribute	MISP attribute type	Description	Disable correlation
ssdeep	ssdeep	Fuzzy hash using context triggered piecewise hashes (CTPH)	
malware-sample	malware-sample	The file itself (binary)	_
size-in-bytes	size-in-bytes	Size of the file, in bytes	~
filename	filename	Filename on disk	_
sha512/256	sha512/256	Secure Hash Algorithm 2 (256 bits)	_
state	text	State of the file ['Harmless', 'Signed', 'Revoked', 'Expired', 'Trusted']	

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
country	text	Country.	_
last-seen	datetime	When the location was seen for the last time.	✓
altitude	float	The altitude is the decimal value of the altitude in the World Geodetic System 84 (WGS84) reference.	
city	text	City.	_
first-seen	datetime	When the location was seen for the first time.	✓

Object attribute	MISP attribute type	Description	Disable correlation
longitude	float	The longitude is the decimal value of the longitude in the World Geodetic System 84 (WGS84) reference	
region	text	Region.	_
latitude	float	The latitude is the decimal value of the latitude in the World Geodetic System 84 (WGS84) reference.	
text	text	A generic description of the location.	✓

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
text	text	HTTP Request comment	~
basicauth-password	text	HTTP Basic Authentication Password	_
user-agent	user-agent	The user agent string of the user agent	_
host	hostname	The domain name of the server	_
content-type	other	The MIME type of the body of the request	_
proxy-password	text	HTTP Proxy Password	_

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

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
text	text	Description of the tuple	_
dst-port	port	Destination port	_
first-seen	datetime	First time the tuple has been seen	_
last-seen	datetime	Last time the tuple has been seen	_

Object attribute	MISP attribute type	Description	Disable correlation
src-port	port	Source port	_
ip	ip-dst	IP Address	_

ja3

JA3 is a new technique for creating SSL client fingerprints that are easy to produce and can be easily shared for threat intelligence. Fingerprints are composed of Client Hello packet; SSL Version, Accepted Ciphers, List of Extensions, Elliptic Curves, and Elliptic Curve Formats. https://github.com/salesforce/ja3.



ja3 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 IP address	_
ip-src	ip-src	Source IP Address	_
last-seen	datetime	Last seen of the SSL/TLS handshake	_
first-seen	datetime	First seen of the SSL/TLS handshake	_
ja3-fingerprint-md5	md5	Hash identifying source	_
description	text	Type of detected software ie software, malware	_

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
entrypoint-address	text	Address of the entry point	✓
number-sections	counter	Number of sections	~
text	text	Free text value to attach to the Mach-O file	•
name	text	Binary's name	_
type	text	Type of Mach-O ['BUNDLE', 'CORE', 'DSYM', 'DYLIB', 'DYLIB_STUB', 'DYLINKER', 'EXECUTE', 'FVMLIB', 'KEXT_BUNDLE', 'OBJECT', 'PRELOAD']	

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
text	text	Free text value to attach to the section	✓
sha1	sha1	[Insecure] Secure Hash Algorithm 1 (160 bits)	_
sha384	sha384	Secure Hash Algorithm 2 (384 bits)	_
sha512/224	sha512/224	Secure Hash Algorithm 2 (224 bits)	_
sha224	sha224	Secure Hash Algorithm 2 (224 bits)	_

Object attribute	MISP attribute type	Description	Disable correlation
sha256	sha256	Secure Hash Algorithm 2 (256 bits)	_
sha512	sha512	Secure Hash Algorithm 2 (512 bits)	_
entropy	float	Entropy of the whole section	✓
md5	md5	[Insecure] MD5 hash (128 bits)	_
ssdeep	ssdeep	Fuzzy hash using context triggered piecewise hashes (CTPH)	_
name	text	Name of the section	~
size-in-bytes	size-in-bytes	Size of the section, in bytes	✓
sha512/256	sha512/256	Secure Hash Algorithm 2 (256 bits)	-

microblog

Microblog post like a Twitter tweet or a post on a Facebook wall..



microblog 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
link	url	Link into the microblog post	_
username	text	Username who posted the microblog post	_

Object attribute	MISP attribute type	Description	Disable correlation
type	text	Type of the microblog post ['Twitter', 'Facebook', 'LinkedIn', 'Google+', 'Instagram', 'Forum', 'Other']	
post	text	Raw post	_
url	url	Original URL location of the microblog post	_
modification-date	datetime	Last update of the microblog post	_
username-quoted	text	Username who are quoted into the microblog post	
creation-date	datetime	Initial creation of the microblog post	_
removal-date	datetime	When the microblog post was removed	_

netflow

Netflow object describes an network object based on the Netflowv5/v9 minimal definition.



netflow 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-src	ip-src	IP address source of the netflow	_
dst-port	port	Destination port of the netflow	_
protocol	text	Protocol used for this flow ['TCP', 'UDP', 'ICMP', 'IP']	

Object attribute	MISP attribute type	Description	Disable correlation
flow-count	counter	Flows counted in this flow	✓
ip-protocol-number	size-in-bytes	IP protocol number of this flow	✓
icmp-type	text	ICMP type of the flow (if the traffic is ICMP)	✓
first-packet-seen	datetime	First packet seen in this flow	_
src-as	AS	Source AS number for this flow	_
ip-dst	ip-dst	IP address destination of the netflow	_
src-port	port	Source port of the netflow	_
direction	text	Direction of this flow ['Ingress', 'Egress']	✓
dst-as	AS	Destination AS number for this flow	_
last-packet-seen	datetime	Last packet seen in this flow	_
ip_version	counter	IP version of this flow	~
byte-count	counter	Bytes counted in this flow	~
tcp-flags	text	TCP flags of the flow	✓
packet-count	counter	Packets counted in this flow	•

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
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	
text	text	_	_
zone_time_last	datetime	Last time that the unique tuple (rrname, rrtype, rdata) record has been seen via master file import	
origin	text	Origin of the Passive DNS response	_
time_last	datetime	Last time that the unique tuple (rrname, rrtype, rdata) record has been seen by the passive DNS	
zone_time_first	datetime	First time that the unique tuple (rrname, rrtype, rdata) record has been seen via master file import	_
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
rrtype	text	Resource Record type as seen by the passive DNS ['A', 'AAAA', 'CNAME', 'PTR', 'SOA', 'TXT', 'DNAME', 'NS', 'SRV', 'RP', 'NAPTR', 'HINFO', 'A6']	
rdata	text	Resource records of the queried resource	_
rrname	text	Resource Record name of the queried resource	_
bailiwick	text	Best estimate of the apex of the zone where this data is authoritative	_
sensor_id	text	Sensor information where the record was seen	

paste

Paste or similar post from a website allowing to share privately or publicly posts..



paste 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
title	text	Title of the paste or post.	_

Object attribute	MISP attribute type	Description	Disable correlation
origin	text	Original source of the paste or post. ['pastebin.com', 'pastebin.com_pro', 'pastie.org', 'slexy.org', 'gist.github.com', 'codepad.org', 'safebin.net', 'hastebin.com', 'ghostbin.com']	
url	url	Link to the original source of the paste or post.	_
first-seen	datetime	When the paste has been accessible or seen for the first time.	
last-seen	datetime	When the paste has been accessible or seen for the last time.	•
paste	text	Raw text of the paste or post	_

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
lang-id	text	Lang ID in the resources	✓
text	text	Free text value to attach to the PE	✓

Object attribute	MISP attribute type	Description	Disable correlation
pehash	pehash	Hash of the structural information about a sample. See https://www.usenix.org/legacy/event/leet09/tech/full_papers/wicherski/wicherski_html/	
original-filename	filename	OriginalFilename in the resources	_
file-description	text	FileDescription in the resources	~
file-version	text	FileVersion in the resources	✓
type	text	Type of PE ['exe', 'dll', 'driver', 'unknown']	✓
imphash	imphash	Hash (md5) calculated from the import table	_
product-version	text	ProductVersion in the resources	✓
entrypoint-section-at- position	text	Name of the section and position of the section in the PE	•
number-sections	counter	Number of sections	•
legal-copyright	text	LegalCopyright in the resources	•
company-name	text	CompanyName in the resources	~
compilation-timestamp	datetime	Compilation timestamp defined in the PE header	

Object attribute	MISP attribute type	Description	Disable correlation
impfuzzy	impfuzzy	Fuzzy Hash (ssdeep) calculated from the import table	_
entrypoint-address	text	Address of the entry point	~
internal-filename	filename	InternalFilename in the resources	_
product-name	text	ProductName 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
text	text	Free text value to attach to the section	✓
sha1	sha1	[Insecure] Secure Hash Algorithm 1 (160 bits)	_
sha384	sha384	Secure Hash Algorithm 2 (384 bits)	_
sha512/224	sha512/224	Secure Hash Algorithm 2 (224 bits)	_
sha224	sha224	Secure Hash Algorithm 2 (224 bits)	_
sha256	sha256	Secure Hash Algorithm 2 (256 bits)	_
characteristic	text	Characteristic of the section ['read', 'write', 'executable']	

Object attribute	MISP attribute type	Description	Disable correlation
sha512	sha512	Secure Hash Algorithm 2 (512 bits)	_
entropy	float	Entropy of the whole section	✓
md5	md5	[Insecure] MD5 hash (128 bits)	_
ssdeep	ssdeep	Fuzzy hash using context triggered piecewise hashes (CTPH)	
name	text	Name of the section ['.rsrc', '.reloc', '.rdata', '.data', '.text']	
size-in-bytes	size-in-bytes	Size of the section, in bytes	•
sha512/256	sha512/256	Secure Hash Algorithm 2 (256 bits)	_

person

An person which describes a person or an identity..



person 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
date-of-birth	date-of-birth	Date of birth of a natural person (in YYYY-MM-DD format).	_
text	text	A description of the person or identity.	~
passport-number	passport-number	The passport number of a natural person.	_

Object attribute	MISP attribute type	Description	Disable correlation
place-of-birth	place-of-birth	Place of birth of a natural person.	_
passport-expiration	passport-expiration	The expiration date of a passport.	_
nationality	nationality	The nationality of a natural person.	_
gender	gender	The gender of a natural person. ['Male', 'Female', 'Other', 'Prefer not to say']	_
first-name	first-name	First name of a natural person.	_
passport-country	passport-country	The country in which the passport was issued.	
middle-name	middle-name	Middle name of a natural person	_
redress-number	redress-number	The Redress Control Number is the record identifier for people who apply for redress through the DHS Travel Redress Inquiry Program (DHS TRIP). DHS TRIP is for travelers who have been repeatedly identified for additional screening and who want to file an inquiry to have erroneous information corrected in DHS systems.	
last-name	last-name	Last name of a natural person.	_

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
gummei	text	Globally Unique MME Identifier (GUMMEI) is composed from MCC, MNC and MME Identifier (MMEI).	
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.	
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.	
first-seen	datetime	When the phone has been accessible or seen for the first time.	•
tmsi	text	Temporary Mobile Subscriber Identities (TMSI) to visiting mobile subscribers can be allocated.	

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.	
last-seen	datetime	When the phone has been accessible or seen for the last time.	
serial-number	text	Serial Number.	-
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.	✓

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
text	text	Description of the r2graphity object	✓
referenced-strings	counter	Amount of referenced strings	✓
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.)	
callback-average	counter	Average size of a callback	✓
callback-largest	counter	Largest callback	•
total-api	counter	Total amount of API calls	~
ratio-api	float	Ratio: amount of API calls per kilobyte of code section	
r2-commit-version	text	Radare2 commit ID used to generate this object	•
memory-allocations	counter	Amount of memory allocations	✓
not-referenced-strings	counter	Amount of not referenced strings	✓
total-functions	counter	Total amount of functions in the file.	✓
ratio-string	float	Ratio: amount of referenced strings per kilobyte of code section	✓

Object attribute	MISP attribute type	Description	Disable correlation
ratio-functions	float	Ratio: amount of functions per kilobyte of code section	
local-references	counter	Amount of API calls inside a code section	✓
miss-api	counter	Amount of API call reference that does not resolve to a function offset	✓
create-thread	counter	Amount of calls to CreateThread	~
gml	attachment	Graph export in G>raph Modelling Language format	~
refsglobalvar	counter	Amount of API calls outside of code section (glob var, dynamic API)	✓
shortest-path-to-create- thread	counter	Shortest path to the first time the binary calls CreateThread	
callbacks	counter	Amount of callbacks (functions started as thread)	~
unknown-references	counter	Amount of API calls not ending in a function (Radare2 bug, probalby)	✓
get-proc-address	counter	Amount of calls to GetProcAddress	•

regexp

An object describing a regular expression (regex or regexp). The object can be linked via a relationship to other attributes or objects to describe how it can be represented as a regular

expression..



regexp 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
comment	comment	A description of the regular expression.	_
regexp	text	regexp	_
regexp-type	text	Type of the regular expression syntax. ['PCRE', 'PCRE2', 'POSIX BRE', 'POSIX ERE']	

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	reg-data	Data stored in the registry key	_
name	reg-name	Name of the registry key	_

Object attribute	MISP attribute type	Description	Disable correlation
data-type	reg-datatype	Registry value type ['REG_NONE', 'REG_SZ', 'REG_EXPAND_SZ', 'REG_BINARY', 'REG_DWORD', 'REG_DWORD_LITTLE_ ENDIAN', 'REG_DWORD_BIG_EN DIAN', 'REG_LINK', 'REG_MULTI_SZ', 'REG_RESOURCE_LIST', 'REG_FULL_RESOURCE _DESCRIPTOR', 'REG_RESOURCE_REQU IREMENTS_LIST', 'REG_QWORD', 'REG_QWORD_LITTLE_ ENDIAN']	
key	reg-key	Full key path	_
last-modified	datetime	Last time the registry key has been modified	_

report

Metadata used to generate an executive level report.



report 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
case-number	text	Case number	_
summary	text	Free text summary of the report	_

rtir

RTIR - Request Tracker for Incident Response.



rtir 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
ticket-number	text	ticket-number of the RTIR ticket	_
constituency	text	Constituency of the RTIR ticket	_
queue	text	Queue of the RTIR ticket ['incident', 'investigations', 'blocks', 'incident reports']	
classification	text	Classification of the RTIR ticket	_
ip	ip-dst	IPs automatically extracted from the RTIR ticket	_
status	text	Status of the RTIR ticket ['new', 'open', 'stalled', 'resolved', 'rejected', 'deleted']	_
subject	text	Subject of the RTIR ticket	_

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
text	text	Tor node comment.	✓

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

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
credential	text	Credential (username, password)	_
text	text	Description of the URL	_
first-seen	datetime	First time this URL has been seen	_
resource_path	text	Path (between hostname:port and query)	
last-seen	datetime	Last time this URL has been seen	_
fragment	text	Fragment identifier is a short string of characters that refers to a resource that is subordinate to another, primary resource.	
host	hostname	Full hostname	_
scheme	text	Scheme ['http', 'https', 'ftp', 'gopher', 'sip']	•
subdomain	text	Subdomain	~
tld	text	Top-Level Domain	~
port	port	Port number	~
url	url	Full URL	_
domain_without_tld	text	Domain without Top- Level Domain	_
domain	domain	Full domain	_

Object attribute	MISP attribute type	Description	Disable correlation
query_string	text	Query (after path, preceded by '?')	_

victim

Victim object describes the target of an attack or abuse..



victim 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
sectors	text	The list of sectors that	_
		the victim belong to	
		['agriculture',	
		'aerospace',	
		'automotive',	
		'communications',	
		'construction',	
		'defence', 'education',	
		'energy', 'engineering',	
		'entertainment',	
		'financial\xadservices',	
		'government\xadnation	
		al',	
		'government\xadregion	
		al',	
		'government\xadlocal',	
		'government\xadpublic	
		\xadservices',	
		'healthcare',	
		'hospitality\xadleisure',	
		'infrastructure',	
		'insurance',	
		'manufacturing',	
		'mining',	
		'non\xadprofit',	
		'pharmaceuticals',	
		'retail', 'technology',	
		'telecommunications',	
		'transportation',	
		'utilities']	

Object attribute	MISP attribute type	Description	Disable correlation
name	text	The name of the victim targeted. The name can be an organisation or a group of organisations.	
roles	text	The list of roles targeted within the victim.	
regions	text	The list of regions or locations from the victim targeted. ISO 3166 should be used.	_
description	text	Description of the victim	_
classification	text	The type of entity being targeted. ['individual', 'group', 'organization', 'class', 'unknown']	_

virustotal-report

VirusTotal report.



virustotal-report 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-submission	datetime	First Submission	_
permalink	link	Permalink Reference	_
community-score	text	Community Score	•
detection-ratio	text	Detection Ratio	~
last-submission	datetime	Last Submission	_

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
id	vulnerability	Vulnerability ID (generally CVE, but not necessarely)	_
text	text	Description of the vulnerability	_
references	link	External references	_
modified	datetime	Last modification date	_
published	datetime	Initial publication date	_
vulnerable_configurati on	text	The vulnerable configuration is described in CPE format	
summary	text	Summary of the vulnerability	_

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
text	text	Full whois entry	_
modification-date	datetime	Last update of the whois entry	_

Object attribute	MISP attribute type	Description	Disable correlation
registrant-name	whois-registrant-name	Registrant name	_
expiration-date	datetime	Expiration of the whois entry	_
registrant-phone	whois-registrant-phone	Registrant phone number	_
registrant-email	whois-registrant-email	Registrant email address	_
creation-date	datetime	Initial creation of the whois entry	_
registar	whois-registrar	Registrar of the whois entry	_
domain	domain	Domain 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
text	text	Free text description of hte certificate	_
pubkey-info-algorithm	text	Algorithm of the public key	_
version	text	Version of the certificate	_
raw-base64	text	Raw certificate base64 encoded	_
x509-fingerprint-md5	md5	[Insecure] MD5 hash (128 bits)	_

Object attribute	MISP attribute type	Description	Disable correlation
issuer	text	Issuer of the certificate	_
pubkey-info-exponent	text	Exponent of the public key	_
pubkey-info-size	text	Length of the public key (in bits)	_
pubkey-info-modulus	text	Modulus of the public key	_
serial-number	text	Serial number of the certificate	_
x509-fingerprint- sha256	sha256	Secure Hash Algorithm 2 (256 bits)	_
x509-fingerprint-sha1	sha1	[Insecure] Secure Hash Algorithm 1 (160 bits)	_
validity-not-before	datetime	Certificate invalid before that date	_
validity-not-after	datetime	Certificate invalid after that date	_
subject	text	Subject of the certificate	_

yabin

yabin.py generates Yara rules from function prologs, for matching and hunting binaries. ref: https://github.com/AlienVault-OTX/yabin.



yabin 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
version	comment	yabin.py and regex.txt version used for the generation of the yara rules.	

Object attribute	MISP attribute type	Description	Disable correlation
comment	comment	A description of Yara rule generated.	_
yara	yara	Yara rule generated from -y.	✓
yara-hunt	yara	Wide yara rule generated from -yh.	✓
whitelist	comment	Whitelist name used to generate the rules.	_

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']

Name of relationship	Description	Format
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']
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']

Name of relationship	Description	Format
intercepts	This relationship describes an object which intercepts another object.	['misp']
calls	This relationship describes an object which calls another objects.	['misp']
detected-as	This relationship describes an object which is detected as another object.	['misp']
followed-by	This relationship describes an object which is followed by another object. This can be used when a time reference is missing but a sequence is known.	['misp']
preceding-by	This relationship describes an object which is preceded by another object. This can be used when a time reference is missing but a sequence is known.	['misp']
triggers	This relationship describes an object which triggers another object.	['misp']
vulnerability-of	This relationship describes an object which is a vulnerability of another object.	['cert-eu']
works-like	This relationship describes an object which works like another object.	['cert-eu']
seller-of	This relationship describes an object which is selling another object.	['cert-eu']
seller-on	This relationship describes an object which is selling on another object.	['cert-eu']
trying-to-obtain-the-exploit	This relationship describes an object which is trying to obtain the exploit described by another object	['cert-eu']
used-by	This relationship describes an object which is used by another object.	['cert-eu']
affiliated	This relationship describes an object which is affiliated with another object.	['cert-eu']

Name of relationship	Description	Format
alleged-founder-of	This relationship describes an object which is the alleged founder of another object.	['cert-eu']
attacking-other-group	This relationship describes an object which attacks another object.	['cert-eu']
belongs-to	This relationship describes an object which belongs to another object.	['cert-eu']
business-relations	This relationship describes an object which has business relations with another object.	['cert-eu']
claims-to-be-the-founder-of	This relationship describes an object which claims to be the founder of another object.	['cert-eu']
cooperates-with	This relationship describes an object which cooperates with another object.	['cert-eu']
former-member-of	This relationship describes an object which is a former member of another object.	['cert-eu']
successor-of	This relationship describes an object which is a successor of another object.	['cert-eu']
has-joined	This relationship describes an object which has joined another object.	['cert-eu']
member-of	This relationship describes an object which is a member of another object.	['cert-eu']
primary-member-of	This relationship describes an object which is a primary member of another object.	['cert-eu']
administrator-of	This relationship describes an object which is an administrator of another object.	['cert-eu']
is-in-relation-with	This relationship describes an object which is in relation with another object,	['cert-eu']
provide-support-to	This relationship describes an object which provides support to another object.	['cert-eu']
regional-branch	This relationship describes an object which is a regional branch of another object.	['cert-eu']

Name of relationship	Description	Format
similar	This relationship describes an object which is similar to another object.	['cert-eu']
subgroup	This relationship describes an object which is a subgroup of another object.	['cert-eu']
suspected-link	This relationship describes an object which is suspected to be linked with another object.	['misp']
same-as	This relationship describes an object which is the same as another object.	['misp']
creator-of	This relationship describes an object which is the creator of another object.	['cert-eu']
developer-of	This relationship describes an object which is a developer of another object.	['cert-eu']
uses-for-recon	This relationship describes an object which uses another object for recon.	['cert-eu']
operator-of	This relationship describes an object which is an operator of another object.	['cert-eu']
overlaps	This relationship describes an object which overlaps another object.	['cert-eu']
owner-of	This relationship describes an object which owns another object.	['cert-eu']
publishes-method-for	This relationship describes an object which publishes method for another object.	['cert-eu']
recommends-use-of	This relationship describes an object which recommends the use of another object.	['cert-eu']
released-source-code	This relationship describes an object which released source code of another object.	['cert-eu']
released	This relationship describes an object which release another object.	['cert-eu']