# VIPER - USING MISP FROM YOUR TER-MINAL

MISP - THREAT SHARING

CIRCL / TEAM MISP PROJECT

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

CIRCL - UNILLU



#### VIPER - MAIN IDEAS

Viper is a binary analysis and management framework. Its fundamental objective is to provide a solution to easily organize your collection of malware and exploit samples as well as your collection of scripts you created or found over the time to facilitate your daily research. Think of it as a Metasploit for malware researchers: it provides a terminal interface that you can use to store, search and analyze arbitrary files with and a framework to easily create plugins of any sort.

#### **VIPER**

- Solid CLI
- Plenty of modules (PE files, \*office, ELF, APK, ...)
- Connection to 3rd party services (MISP, VirusTotal, cuckoo)
- Connectors to 3rd party tools (IDA, radare)
- Locale storage of your own zoo
- Django interface is available (I've been told)

#### **VIPER**

```
Command
              Parse Android Applications
              Scan file from local ClamAV daemon
clamav
               Submit the file to Cuckoo Sandbox
debun
              Parse McAfee BUP Files
               Edit distance on the filenames
               Extract information from ELF headers
elf
email
               Parse eml and msg email files
              Extract Exif MetaData
               Search for similar files through fuzzy hashing
              Parse html files and extract content
html
               Start IDA Pro
              Parse Java IDX files
               Perform analysis on images
               Parse Java JAR archives
               Interact with Koodous
koodous
lastline
               Submit files and retrieve reports from LastLine (default will print short summary)
               Get Macho OSX Headers
              Upload and query IOCs to/from a MISP instance
               Office Document Parser
ndf
              Parse and analyze PDF documents
               Ouerv a Passivé DNS server
pdns
               Extract information from PE32 headers
pssl
               Ouerv a Passive SSL server
              Process PST Files for Attachment
               Start Radare2
              Extract information from known RAT families
               Online Sandboxes Reports
              Search for known shellcode patterns
               Size command to show/scan/cluster files
              Extract strings from file
               Parse, analyze and decompress Flash objects
               Perform some initial triaging and tagging of the file
```

## **PYMISP & VIPER**

- Full featured **CLI for MISP**
- Remote storage of your zoo
- Search / Cross check with VirusTotal
- Create / Update / Show / Publish Event
- Download / Upload Samples
- Mass export / Upload / Download
- Get Yara rules

#### MISP Module

```
viper > misp -h
usage: misp [-h] [--url URL] [-k KEY] [-v]
            {upload, download, search, check_hashes, yara, pull, create event, add, show, open.
publish.version.store}
Upload and query IOCs to/from a MISP instance
positional arguments:
  fupload.download.search.check hashes.vara.pull.create event.add.show.open.publish.ve
rsion,store}
                        Send malware sample to MISP.
    upload
    download
                        Download malware samples from MISP.
                        Search in all the attributes.
    check hashes
                        Crosscheck hashes on VT.
                        Get YARA rules of an event.
    yara
    llua
                        Initialize the session with an existing MISP event.
    create event
                        Create a new event on MISP and initialize the session
                        with it.
    add
                        Add attributes to an existing MISP event.
    show
                        Show attributes to an existing MISP event.
    open
                        Open a sample from the temp directory.
    publish
                        Publish an existing MISP event.
                        Returns the version of the MISP instance.
    version
                        Store the current MISP event in the current project.
optional arguments:
  -h, --help
                        show this help message and exit
  --url URL
                        URL of the MISP instance
  -k KEY, --kev KEY
                        Your key on the MISP instance
                        Disable certificate verification (for self-signed)
  -v. --verify
```

### **VIPER & VT**

- Searches for hashes/ips/domains/URLs from the current MISP event, or download the samples
- Download samples from current MISP event
- Download all samples from all the MISP events of the current session

#### VIRUSTOTAL MODULE

```
Lookup the file on VirusTotal
optional arguments:
 -h. --help
                       show this help message and exit
 -- search SEARCH Search a hash.
 -c COMMENT [COMMENT ...], --comment COMMENT [COMMENT ...]
                       Comment to add to the file
 -d, --download
                       Hash of the file to download
 -dl, --download list List the downloaded files
 -do DOWNLOAD_OPEN, --download_open_DOWNLOAD_OPEN
                        Open a file from the list of the DL files (ID)
 -don DOWNLOAD_OPEN_NAME, --download_open_name DOWNLOAD_OPEN_NAME
                        Open a file by name from the list of the DL files
                        (NAMe)
 -dd DOWNLOAD DELETE, --download delete DOWNLOAD DELETE
                       Delete a file from the list of the DL files can be an
                        ID or all.
 -s, --submit
                        Submit file or a URL to VirusTotal (by default it only
                       looks up the hash/url)
 -i IP, --ip IP
                       IP address to lookup in the passive DNS
 -dm DOMAIN, --domain DOMAIN
                       Domain to lookup in the passive DNS
 -υ URL, --υrl URL
                       URL to lookup on VT
 -v, --verbose
                       Turn on verbose mode.
 -m {hashes, ips, domains, urls, download, download all}, --misp {hashes, ips, domains, urls,
download, download all}
                        Searches for the hashes, ips, domains or URLs from the
                        current MISP event, or download the samples if
                        possible. Be carefull with download all: it will
                        download *all* the samples of all the MISP events in
                        the current project.
```

/

#### **EXTRA FEATURES**

- Link to a MISP event
- Local storage of the MISP event
- On the fly cross-check of MISP atributes with 3rd party services
- Never leaving your CLI!

#### OTHER MODULES

- Fully featured CLI for **Passive SSL**
- Fully featured CLI for **Passive DNS**
- Can launch Radare2 or IDA

#### PASSIVE SSL

```
viper > pssl -h
usage: pssl [-h] [--url URL] [-u USER] [-p PASSWORD] [-i IP] [-c CERT]
           [-f FETCH] [-v] [-m {ips}]
Query a Passive SSL server
optional arguments:
 -h, --help
                       show this help message and exit
 --url URL
                       URL of the Passive SSL server (No path)
 -u USER, --user USER Username on the PSSL instance
 -p PASSWORD, --password PASSWORD
                       Password on the PSSL instance
 -i IP. --ip IP IP to query (can be a block, max /23).
 -c CERT, --cert CERT SHA1 of the certificate to search.
 -f FETCH, --fetch FETCH
                       SHA1 of the certificate to fetch.
 -v, --verbose
                       Turn on verbose mode.
 -m {ips}, --misp {ips}
                       Searches for the ips from the current MISP event
```

#### PASSIVE DNS

```
viper > pdns -h
usage: pdns [-h] [--url URL] [-u USER] [-p PASSWORD] [-v] [-m {ips,domains}]
            [query]
Query a Passive DNS server
positional arguments:
                         Domain or IP address to query
optional arguments:
  -h, --help
                      show this help message and exit
URL of the Passive DNS server
 -- url URL
  -u USER, --user USER Username on the PDNS instance
  -p PASSWORD, --password PASSWORD
                         Password on the PDNS instance
  -v, --verbose Turn on verbose mode.
  -m {ips,domains}, --misp {ips,domains}
                         Searches for the ips or domains from the current MISP
                         event
```

# Q&A



- https://github.com/MISP/PyMISP
- https://github.com/MISP/
- https://github.com/viper-framework/viper
- We welcome new functionalities and pull requests.