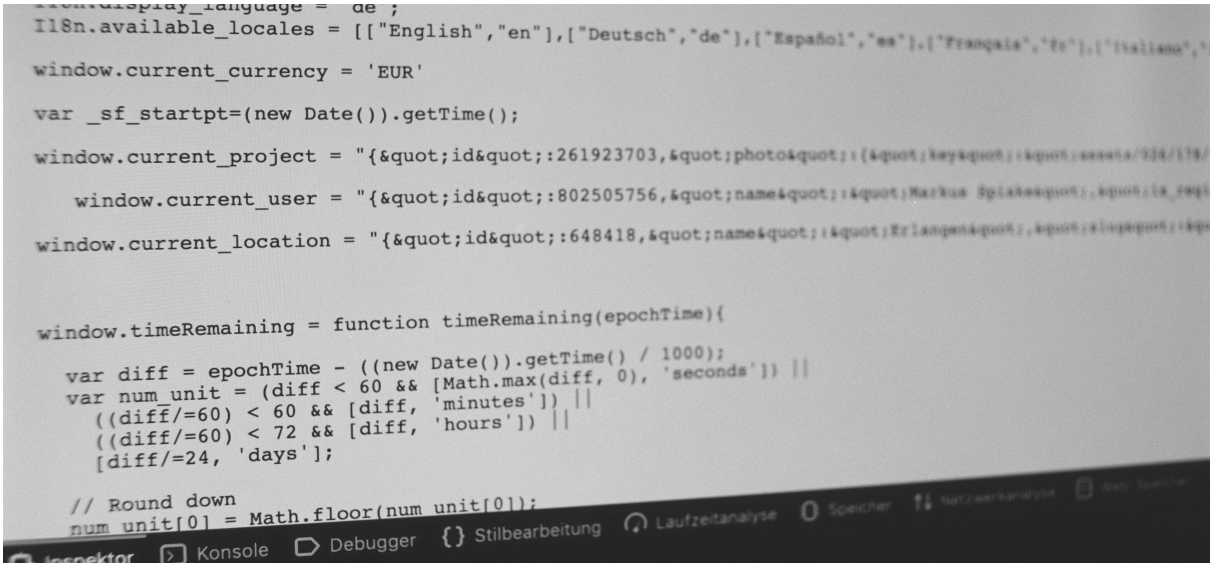


IPv4 & Obfuscated Domain Detection

📅 **Date:** August 11, 2025

Field	Description
Rule Name	`IPv4_Obfuscated_Domain_Detection`
Author	Jynx
Date Created	August 11, 2025
Version	4.5.2
Status	**TESTED**
Target Files	`malware_script.py`, `clean_script.py`
Detection Goal	Detect presence of hardcoded IPv4 addresses and obfuscated domains in code (e.g., `evil[.]com`).

Rule Code

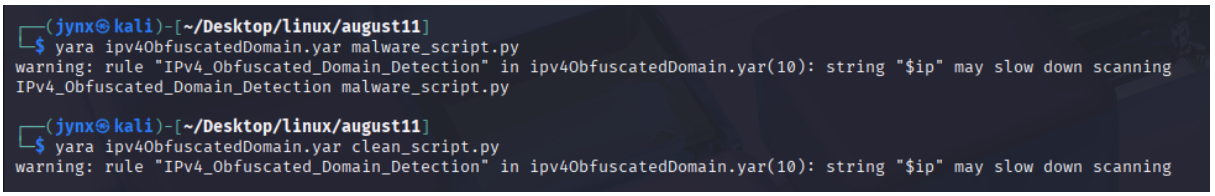
```
rule IPv4_Obfuscated_Domain_Detection
{
    meta:
        author = "Jynx"
        description = "Detects hardcoded IPv4 and obfuscated domains like e
vil[.]com"
```

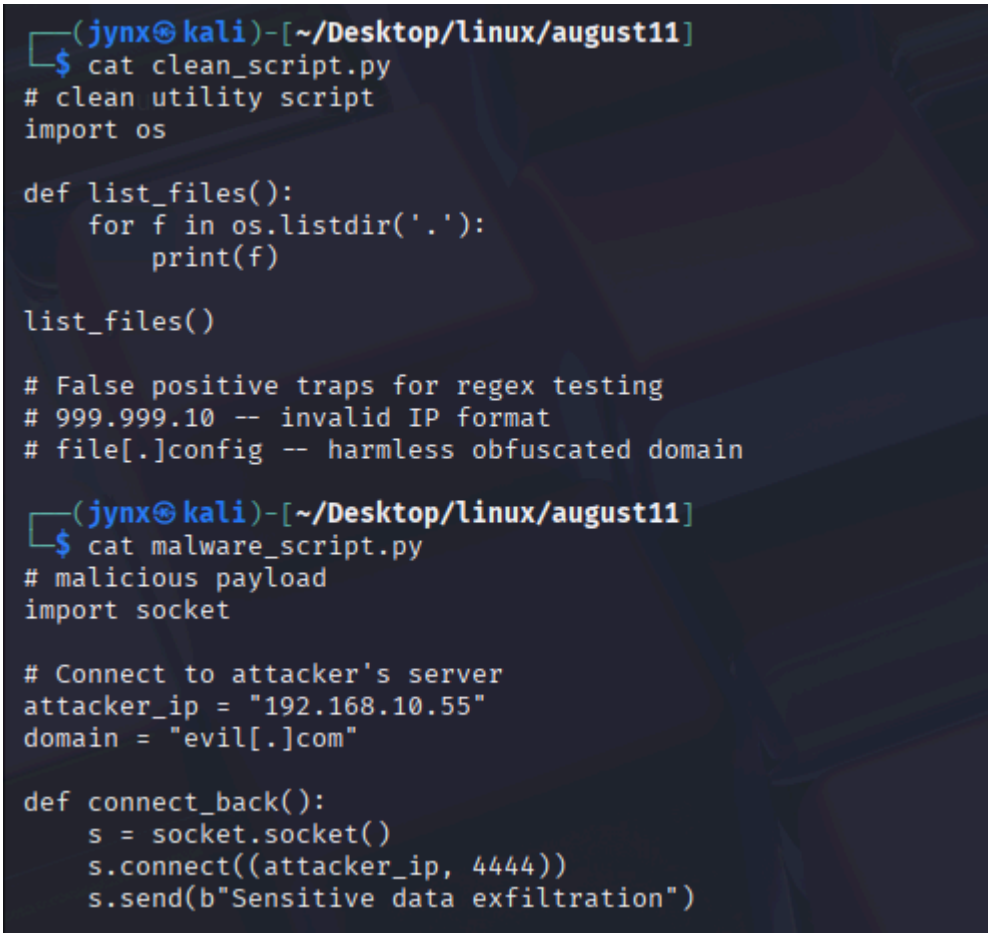
```
        date = "2025-08-11"
        version = "4.5.2"

    strings:
        $ip = /([0-9]{1,3}\.){3}[0-9]{1,3}/ nocase
        $domain = /[a-zA-Z0-9]+\[\.\][a-zA-Z]{2,}/ nocase

    condition:
        all of them
}
```

Findings





Logic Breakdown

Element	Meaning
`$ip`	Matches IPv4 addresses with each octet being 1–3 digits
`$domain`	Matches obfuscated domains of the form `name[.]tld`
`nocase`	Makes both matches case-insensitive
`all of them`	Both `$ip` and `$domain` must be present in the same file for a match

Test Results

Test File	Expected Result	Actual Result
`malware_script.py`	Match	Match
`clean_script.py` (with false-positive traps)	No Match	No Match

Notes & Observations

- **Warning:** `$ip` pattern may slow scanning on large datasets due to nested repetition — not an issue in our small tests.
- Learned that YARA regex doesn't support `\d` or `\b`, and requires `[0-9]` and explicit ranges.
- False-positive traps (`999.999.10` and `file[.]config`) successfully ignored.
- Syntax errors earlier today came from unsupported escape sequences and needing to place `nocase` outside regex delimiters.

📌 **Acknowledgement:** Today's drill built on foundational regex/YARA concepts and debugging, not flashy output — but critical for real-world DFIR readiness.