



# Briefing Malware

CERT Capgemini CIS



From January 1<sup>st</sup>, 2022, **Capgemini** is bringing together its cybersecurity forces, originating from **Sogeti** and **Capgemini Cloud Infrastructure Services**, into a single entity, which operates under the **Capgemini** brand.

**TLP:WHITE**

## About this report

This report aims to identify the Tactics, Techniques and Procedures (TTP's) of the most known malwares along this year on the [ANY.RUN](#) platform © from the [31/05](#) to [07/06](#) . This analysis is based on [the MITRE ATT&CK](#) © matrix in the evaluation of the TTP's most exploited by cyber actors in order to prioritize the vigilance effort of the detection and incident response teams.

A remediation solution is proposed in the "Mitigations" tab for each technique.

Please note that the sub-techniques are now available for the Enterprise Matrix of Mitre ATT&CK. We work on it to add more and more details about these sub-techniques in the present communication. You can click [here](#) to know more about this new way of analysing TTPs of malwares.

## Most Recurrent Malwares

|    |    |  |
|----|----|--|
| == | 1  | <a href="#">RedLine</a> (NC)                                   |
| ^  | 2  | <a href="#">njRAT</a> (ID Mitre: <a href="#">S0385</a> )       |
| v  | 3  | <a href="#">Agent Tesla</a> (ID Mitre: <a href="#">S0331</a> ) |
| v  | 4  | <a href="#">Formbook</a> (NC)                                  |
| ^  | 5  | <a href="#">LokiBot</a> (ID Mitre: <a href="#">S0447</a> )     |
| v  | 6  | <a href="#">Emotet</a> (ID Mitre: <a href="#">S0367</a> )      |
| ^  | 7  | <a href="#">Nanocore</a> (ID Mitre: <a href="#">S0336</a> )    |
| v  | 8  | <a href="#">Remcos</a> (ID Mitre: <a href="#">S0332</a> )      |
| ^  | 9  | <a href="#">Qbot</a> (NC)                                      |
| == | 10 | <a href="#">Ave Maria</a> (NC)                                 |



# Most observed malware's TTPs overlaps

A graphic presentation of TTPs overlaps between malwares is available in the next pages. For each tactic, you can find the listing of the names and the IDs of the techniques. Credits from The Mitre Corporation ©.

| TA0003: Initial Access |                                     | TA0004: Execution                         |                                  | TA0005: Persistence                      |   | TA0006: Privilege Escalation             |   | TA0007: Defense Evasion                  |  | TA0008: Credential Access               |  | TA0009: Discovery                             | TA0010: Lateral Movement           |                                    | TA0011: Collection   |                               | TA0012: Exfiltration                | TA0013: Command and Control       |                          |  |
|------------------------|-------------------------------------|---|----------------------------------|--|---|--|---|--|--|---|--|---|------------------------------------|------------------------------------|----------------------|-------------------------------|-------------------------------------|-----------------------------------|--------------------------|--|
| T1566: Phishing        | T1566.001: Spearphishing Attachment | T1059: Command and Scripting Interpreter  | T1059.003: Windows Command Shell | T1547: Boot or Logon Assistant Execution | T1547.001: Registry Run Keys / Startup Folder | T1547: Boot or Logon Assistant Execution | T1547.001: Registry Run Keys / Startup Folder | T1027: Obfuscated Files or Information   | T1027.002: Software Packing                    | T1056: Input Capture                    | T1056.001: Keylogging                    | T1057: Process Discovery                      | T1021: Remote Services             | T1021.001: Remote Desktop Protocol | T1056: Input Capture | T1056.001: Keylogging         | T1041: Exfiltration Over C2 Channel | T1105: Ingress Tool Transfer      |                          |  |
|                        |                                     |   | T1059.005: Visual Basic          | T1053: Scheduled Task/Job                | T1053.005: Scheduled Task                     | T1055: Process Injection                 | T1055.012: Process Hollowing                  | T1112: Modify Registry                   |  |   | T1056.004: Credential API Hooking        | T1082: System Information Discovery           |                                    |                                    |                      |                               | T1056.004: Credential API Hooking   |                                   | T1571: Non-Standard Port |  |
|                        |                                     |   | T1059.001: PowerShell            |  |   | T1053: Scheduled Task/Job                | T1053.005: Scheduled Task                     | T1055: Process Injection                 | T1055.012: Process Hollowing                   | T1555: Credentials from Password Stores | T1555.003: Credentials from Web Browsers | T1083: File and Directory Discovery           |                                    |                                    |                      | T1125: Video Capture          |                                     | T1071: Application Layer Protocol | T1071.001: Web Protocols |  |
|                        |                                     |   | T1204: User Execution            | T1204.002: Malicious File                |   |  | T1548: Abuse Elevation Control Mechanism      | T1548.002: Bypass User Account Control   | T1070: Indicator Removal on Host               | T1070.004: File Deletion                | T1552: Unsecured Credentials             | T1552.001: Credentials In Files               | T1012: Query Registry              |                                    |                      | T1560: Archive Collected Data |                                     |                                   |                          |  |
|                        |                                     |   | T1106: Native API                |  |   |  |   |  | T1562: Impair Defenses                         | T1562.001: Disable or Modify Tools      |  |   | T1033: System Owner/User Discovery |                                    |                      | T1113: Screen Capture         |                                     |                                   |                          |  |
|                        |                                     |   | T1053: Scheduled Task/Job        | T1053.005: Scheduled Task                |   |  |   |  | T1140: Deobfuscate/Decode Files or Information |   |  |   | T1124: System Time Discovery       |                                    |                      |                               |                                     |                                   |                          |  |
|                        |                                     | T1047: Windows Management Instrumentation |                                  |  |   |  |   | T1548: Abuse Elevation Control Mechanism | T1548.002: Bypass User Account Control         |   |  | T1016: System Network Configuration Discovery |                                    |                                    |                      |                               |                                     |                                   |                          |  |
|                        |                                     |   |                                  |  |   |  |   |  |  |   |  | T1120: Peripheral Device Discovery            |                                    |                                    |                      |                               |                                     |                                   |                          |  |

Technique shared by ...



... malwares



## List of most leveraged techniques

To optimize the visibility of the results, only techniques shared by at least 3 malwares are listed here (from the most to the less shared).

|           |                                    |           |  |           |   |
|-----------|------------------------------------|-----------|--|-----------|---|
| T1056     | Input Capture                      | T1204     | User Execution                         | T1021     | Remote Services                         |
| T1547     | Boot or Logon Autostart Execution  | T1560     | Archive Collected Data                 | T1566     | Phishing                                |
| T1027     | Obfuscated Files or Information    | T1113     | Screen Capture                         | T1566.001 | Spearphishing Attachment                |
| T1112     | Modify Registry                    | T1053     | Scheduled Task/Job                     | T1056.004 | Credential API Hooking                  |
| T1059     | Command and Scripting Interpreter  | T1053.005 | Scheduled Task                         | T1041     | Exfiltration Over C2 Channel            |
| T1547.001 | Registry Run Keys / Startup Folder | T1571     | Non-Standard Port                      | T1055.012 | Process Hollowing                       |
| T1055     | Process Injection                  | T1033     | System Owner/User Discovery            | T1548     | Abuse Elevation Control Mechanism       |
| T1105     | Ingress Tool Transfer              | T1497     | Virtualization/Sandbox Evasion         | T1548.002 | Bypass User Account Control             |
| T1057     | Process Discovery                  | T1124     | System Time Discovery                  | T1071     | Application Layer Protocol              |
| T1056.001 | Keylogging                         | T1016     | System Network Configuration Discovery | T1071.001 | Web Protocols                           |
| T1082     | System Information Discovery       | T1555     | Credentials from Password Stores       | T1120     | Peripheral Device Discovery             |
| T1125     | Video Capture                      | T1555.003 | Credentials from Web Browsers          | T1552     | Unsecured Credentials                   |
| T1083     | File and Directory Discovery       | T1027.002 | Software Packing                       | T1552.001 | Credentials In Files                    |
| T1012     | Query Registry                     | T1562     | Impair Defenses                        | T1562.001 | Disable or Modify Tools                 |
| T1070     | Indicator Removal on Host          | T1059.005 | Visual Basic                           | T1140     | Deobfuscate/Decode Files or Information |
| T1070.004 | File Deletion                      | T1106     | Native API                             | T1059.001 | PowerShell                              |
| T1059.003 | Windows Command Shell              | T1204.002 | Malicious File                         | T1047     | Windows Management Instrumentation      |
|           |                                    |           |  | T1021.001 | Remote Desktop Protocol                 |

## What's new?

[Formbook](#) (NC)

### XLoader Botnet: Find Me If You Can

#Checkpoint research team uncovered new versions of #XLoader with updated protection mechanism and camouflaging capabilities.

#XLoader is based off #Formbook and receive updates much more frequently than its predecessor. The last version observed go back to early 2020 which suggests it is now discontinued in favor of #XLoader.

In their article they explain the changes, especially the process of camouflaging C&C servers as web hosting domains (fake Hostinger and Namecheap being the most common), in v.2.5. They also provide ways to identify C&C domains among others.

This new version brings the most changes, but a v.2.6 was also spotted, bringing minor improvement to the way it communicates.

<https://research.checkpoint.com/2022/xloader-botnet-find-me-if-you-can/>