

Threat Level

### Hiveforce Labs THREAT ADVISORY



### Desert Falcon Strikes with an Upgraded Arsenal

Date of Publication

April 11, 2023

Admiralty code

TA Number TA2023179

# Summary

First Appearance: 2011

Actor Name: Desert Falcons (Mantis, APT-C-23, Two-tailed Scorpion, Arid Viper, ATK 66, TAG-CT1)

**Target Industries:** Government, Media, Financial, Research Institutions, Education, Activists, Political Leaders, Energy Firms, Physical Security Companies, Critical infrastructure, Defense, Transportation, Utilities, Aerospace, Think Tanks

**Target Region:** Akrotiri and Dhekelia, Albania, Algeria, Australia, Bahrain, Belgium, Bosnia and Herzegovina, Canada, China, Cyprus, Denmark, Egypt, France, Germany, Greece, Hungary, India, Iran, Iraq, Israel, Italy, Japan, Jordan, Kuwait, Lebanon, Libya, Mali, Mauritania, Mexico, Morocco, Netherland, Netherlands, Norway, Oman, Pakistan, Palestine, Portugal, Qatar, Romania, Russia, Saudi Arabia, South Korea, Sudan, Sweden, Syria, Taiwan, Turkey, UAE, Ukraine, USA, Uzbekistan, Yemen, Zimbabwe.

Malware: Micropsia backdoor and Arid Gopher info-stealer malware

**O** Actor Map



Desert Falcons

CTORS REPORT (Red)

2 & Hive Pro

### **Actor Details**

Starting in 2011, the cyber-espionage group known as Desert Falcon, which also goes by the aliases APT-C-23 and Mantis, began conducting its operations. The group's initial infections were reported in 2013, and it has since been known to target organizations located in Israel as well as numerous firms across various Middle Eastern countries.

#2

#1

During their most recent attacks, the group employed enhanced versions of their custom Arid Gopher and Micropsia backdoors to gain access to their targets, followed by an extensive theft of credentials and exfiltration of stolen data. The primary function of Micropsia appears to be running secondary payloads for the Desert Falcon, and it is executed via WMI.

#4

The exact method of initial infection for this campaign is currently unknown. However, it is noteworthy that Desert Falcon has previously utilized tactics such as spear-phishing emails and the creation of fake social media profiles to entice their targets into installing malware on their devices.

#5

In one instance of this campaign, the group distributed three different versions of the same toolset across three groups of PCs within a targeted organization, possibly as a precautionary measure. Following this, Micropsia was deployed and executed, successfully establishing contact with a command and control (C&C) server.

#6

To execute and conceal their campaigns, Desert Falcon is known to utilize a collection of custom-built malware tools such as ViperRat, FrozenCell (aka VolatileVenom), and Micropsia can operate across Windows, Android, and iOS platforms. Arid Gopher, a variant of Micropsia malware, is coded in the Go programming language and was first identified in March 2022. The group's transition to Go is not unexpected, as it allows their malware to evade detection.

#### 

| NAME  | ORIGIN                                | TARGET REGIONS   | TARGET<br>INDUSTRIES   |
|---|---------------------------------------|--|--|
| Desert<br>Falcons<br>(Mantis,<br>APT-C-23,<br>Two-tailed<br>Scorpion,<br>Arid Viper,<br>ATK 66,<br>TAG-CT1) | Gaza                                  | Akrotiri and Dhekelia, Albania,<br>Algeria, Australia, Bahrain, Belgium,<br>Bosnia and Herzegovina, Canada,<br>China, Cyprus, Denmark, Egypt,<br>France, Germany, Greece, Hungary,<br>India, Iran, Iraq, Israel, Italy, Japan,<br>Jordan, Kuwait, Lebanon, Libya, Mali,<br>Mauritania, Mexico, Morocco,<br>Netherland, Netherlands, Norway,<br>Oman, Pakistan, Palestine, Portugal,<br>Qatar, Romania, Russia, Saudi Arabia,<br>South Korea, Sudan, Sweden, Syria,<br>Taiwan, Turkey, UAE, Ukraine, USA,<br>Uzbekistan, Yemen, Zimbabwe. | Government, Media,<br>Financial, Research<br>Institutions,<br>Education, Activists,<br>Political Leaders,<br>Energy Firms,<br>Physical Security<br>Companies, Critical<br>infrastructure,<br>Defense,<br>Transportation,<br>Utilities, Aerospace,<br>Think Tanks |
|   | MOTIVE                                |  |  |
|   | Information<br>theft and<br>espionage |  |  |

### Recommendations

To avoid falling victim to cyber attacks, businesses must remain vigilant and take necessary precautions. While routine education and awareness training are important, it is crucial to also consider factors such as MFA fatigue and web browser hygiene. Additionally, it is important to always verify the authenticity of email attachments and avoid opening untrusted links. By implementing these measures, businesses can better protect themselves against potential threats.



It is recommended to take precautions against the shellcode deployed by Desert Falcon, which uses a 32-bit stager to download another stage from a command-and-control (C&C) server via a basic TCP-based protocol. The specific C&C server IP address and port number used by the attackers are 104.194.222[.]50 port 4444. Measures should be taken to block traffic to this IP address and port and monitor network traffic for any attempts to communicate with it.

#### Potential <u>MITRE ATT&CK</u> TTPs

| TA0001<br>Initial Access                       | TA0002<br>Execution             | TA0003<br>Persistence                                | TA0004<br>Privilege Escalation                 |
|--|---------------------------------|--|--|
| TA0005<br>Defense Evasion                      | TA0006<br>Credential Access     | TA0007<br>Discovery                                  | TA0009<br>Collection                           |
| TA0011<br>Command and Control                  | TA0010<br>Exfiltration          | <b>T1190</b><br>Exploit Public-Facing<br>Application | T1566<br>Phishing                              |
| T1059<br>Command and Scripting<br>Interpreter  | T1053<br>Scheduled Task/Job     | T1204<br>User Execution                              | T1047<br>Windows Management<br>Instrumentation |
| T1543<br>Create or Modify System<br>Process    | T1574<br>Hijack Execution Flow  | T1548<br>Abuse Elevation Control<br>Mechanism        | T1055<br>Process Injection                     |
| T1564<br>Hide Artifacts                        | T1562<br>Impair Defenses        | T1070<br>Indicator Removal                           | <u><b>T1036</b></u><br>Masquerading            |
| T1212<br>Exploitation for<br>Credential Access | T1056<br>Input Capture          | T1083<br>File and Directory<br>Discovery             | T1046<br>Network Service Discovery             |
| T1057<br>Process Discovery                     | T1560<br>Archive Collected Data | T1071<br>Application Layer<br>Protocol               | <u><b>T1001</b></u><br>Data Obfuscation        |
| T1105<br>Ingress Tool Transfer                 | T1571<br>Non-Standard Port      | T1047<br>Windows Management<br>Instrumentation       | T1566.002<br>Spearphishing Link                |

#### **X** Indicator of Compromise (IOCs)

| ТҮРЕ   | VALUE  |  |  |
|--------|--|--|--|
| SHA256 | 4840214a7c4089c18b655bd8a19d38252af21d7dd048591f0af12954232<br>b267f,4a25ca8c827e6d84079d61bd6eba563136837a0e9774fd73610f60<br>b67dca6c02,624705483de465ff358ffed8939231e402b0f024794cf3ded9<br>c9fc771b7d3689,7ae97402ec6d973f6fb0743b47a24254aaa94978806d9<br>68455d919ee979c6bb4,8d1c7d1de4cb42aa5dee3c98c3ac637aebfb0d6<br>220d406145e6dc459a4c741b2,b6a71ca21bb5f400ff3346aa5c42ad2faea<br>4ab3f067a4111fd9085d8472c53e3,bb6fd3f9401ef3d0cc5195c7114764c<br>20a6356c63790b0ced2baceb8b0bdac51,bc9a4df856a8abde9e06c5d65<br>d3bf34a4fba7b9907e32fb1c04d419cca4b4ff9,d420b123859f5d902cb51<br>cce992083370bbd9deca8fa106322af1547d94ce842 |  |  |

| ТҮРЕ      | VALUE  |
|-----------|--|
| SHA256    | 0fb4d09a29b9ca50bc98cb1f0d23bfc21cb1ab602050ce786c86bd2bb605<br>0311,3d649b84df687da1429c2214d6f271cc9c026eb4a248254b9bfd438f<br>4973e529,82f734f2b1ccc44a93b8f787f5c9b4eca09efd9e8dcd90c80ab35<br>5a496208fe4,85b083b431c6dab2dd4d6484fe0749ab4acba50842591292<br>fdb40e14ce19d097,cb765467dd9948aa0bfff18214ddec9e993a141a5fdd<br>8750b451fd5b37b16341,f2168eca27fbee69f0c683d07c2c5051c8f3214f8<br>841c05d48897a1a9e2b31f8,21708cea44e38d0ef3c608b25933349d54c3<br>5e392f7c668c28f3cf253f6f9db8,58331695280fc94b3e7d31a52c6a567a4<br>508dc7be6bdc200f23f5f1c72a3f724,5af853164cc444f380a083ed528404<br>495f30d2336ebe0f2d58970449688db39e,0a6247759679c92e1d2d2907<br>ce374e4d6112a79fe764a6254baff4d14ac55038,1d1a0f39f339d1ddd506<br>a3c5a69a9bc1e411e057fe9115352482a20b63f609aa,211f04160aa40c1<br>1637782973859f44fd623cb5e9f9c83df704cc21c4e18857d,d10a2dda29d<br>bf669a32e4198657216698f3e0e3832411e53bd59f067298a9798,5405ff<br>84473abccc5526310903fcc4f7ad79a03af9f509b6bca61f1db8793ee4,f38<br>ad4aa79b1b448c4b70e65aecc58d3f3c7eea54feb46bdb5d10fb92d88020<br>3,c4b9ad35b92408fa85b92b110fe355b3b996782ceaafce7feca44977c03<br>7556b,f98bc2ccac647b93f7f7654738ce52c13ab477bf0fa981a5bf5b712b<br>97482dfb,411086a626151dc511ab799106cfa95b1104f4010fe7aec50b9c<br>a81d6a64d299,5ea6bdae7b867b994511d9c648090068a6f50cb768f90e6<br>2f79cd8745f53874d,6a0686323df1969e947c6537bb404074360f27b569<br>01fa2bac97ae62c399e061,11b81288e5ed3541498a4f0fd20424ed1d9bd<br>1e4fae5e6b8988df364e8c02c4e,1b62730d836ba612c3f56fa8c3b0b5a28<br>2379869d34e841f4dca411dce465ff6,220eba0feb946272023c384c8609e<br>9242e5692923f85f348b05d0ec354e7ac3c |
| URLs      | hxxp[:]//5.182.39[.]44/esuzmwmrtajj/cmsnvbyawttf/mkxnhqwdywbu  |
| Domains   | jumpstartmail[.]com<br>paydayloansnew[.]com<br>picture-world[.]info<br>rnacgroup[.]com<br>salimafia[.]net<br>seomoi[.]net<br>soft-utils[.]com<br>chloe-boreman[.]com<br>criston-cole[.]com   |
| IPV4:PORT | 104.194.222[.]50:4444  |
|           |  |

#### **S** References

https://symantec-enterprise-blogs.security.com/blogs/threat-intelligence/mantis-palestinianattacks

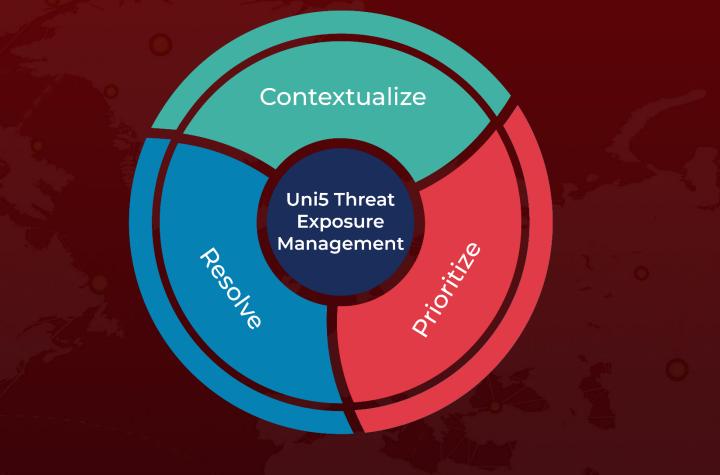
https://blog.talosintelligence.com/arid-viper-targets-palestine/

https://securelist.com/the-desert-falcons-targeted-attacks/68817/

## What Next?

At **<u>Hive Pro</u>**, it is our mission to detect the most likely threats to your organization and to help you prevent them from happening.

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