When Cats Fly: Suspected Iranian Threat Actor UNC1549 Targets Israeli and Middle East Aerospace and Defense Sectors

mandiant.com/resources/blog/suspected-iranian-unc1549-targets-israel-middle-east

Today Mandiant is releasing a blog post about **suspected Iran-nexus espionage activity targeting the aerospace, aviation and defense industries in Middle East** countries, including Israel and the United Arab Emirates (UAE) and potentially Turkey, India, and Albania.

Mandiant attributes this activity with moderate confidence to the Iranian actor UNC1549, which overlaps with **Tortoiseshell**—a threat actor that has been publicly linked to **Iran's Islamic Revolutionary Guard Corps (IRGC)**. Tortoiseshell has previously attempted to compromise supply chains by targeting defense contractors and IT providers.

The **potential link between this activity and the Iranian IRGC** is noteworthy given the focus on defense-related entities and the recent tensions with Iran in light of the Israel-Hamas war. Notably, Mandiant observed an **Israel-Hamas war-themed campaign that masquerades as the "Bring Them Home Now" movement**, which calls for the return of the Israelis kidnapped and held hostage by Hamas.

This suspected UNC1549 activity has been active since at least June 2022 and is still ongoing as of February 2024. While regional in nature and focused mostly in the Middle East, the targeting includes entities operating worldwide.

Mandiant observed this campaigndeploy **multiple evasion techniques** to mask their activity, most prominently the **extensive use of Microsoft Azure cloud infrastructure** as well as **social engineering schemes to disseminate two unique backdoors: MINIBIKE and MINIBUS**.

This blog post details the suspected UNC1549 operations since June 2022, the ongoing development of their proprietary malware, their network of over 125 Azure command-and-control (C2) subdomains, and their attack lifecycle, which includes tactics, techniques, and procedures (TTPs) Mandiant has not previously seen deployed by Iran.

Attribution

Mandiant assesses with moderate confidence that this activity has ties to UNC1549, an Iran-based espionage group, which overlaps with activities publicly known as Tortoiseshell and Smoke Sandstorm/BOHRIUM.

Namely, a fake recruiting website (1stemployer[.]com) was observed hosting a MINIBUS payload in November 2023. The template used for the fake recruiting website had been used previously in another fake recruiting website, careers-finder[.]com, which was used by UNC1549.

- In this campaign, the MINIBUS backdoor was hosted on a fake job website (1stemployer[.]com) using the exact same written contents as careers-finder[.]com used by UNC1549 in early 2022, for example, “After considering the career and education background we introduce you to the employer companies which are looking for the indicated skills and expertise.”

Figure 1: Fake job website 1stemployer[.]com deploying a template similar to a previous UNC1549 website

- In addition, like in previous UNC1549 activities, this campaign leveraged .NET applications to deliver the malware—this time the attackers implemented it by using a fake Hamas-affiliated application to deliver the MINIBUS backdoor.

According to public reporting, Tortoiseshell, which is tied to UNC1549, is potentially linked to the IRGC.

In addition, **the focused targeting of Middle East entities** affiliated with the aerospace and defense sectors **is consistent with other Iran-nexus clusters of activity**, some of which are affiliated with the IRGC as well.

Outlook and Implications

Mandiant research indicates this campaign remains active as of February 2024, and targeted entities are related to defense, aerospace, and aviation in the Middle East, particularly in Israel and the UAE and potentially in Turkey, India, and Albania.

The intelligence collected on these entities is of relevance to strategic Iranian interests and may be leveraged for espionage as well as kinetic operations. This is further supported by the potential ties between UNC1549 and the IRGC.

The evasion methods deployed in this campaign, namely the tailored job-themed lures combined with the use of cloud infrastructure for C2, may make it challenging for network defenders to prevent, detect, and mitigate this activity. The intelligence and indicators provided in this report may support these efforts and enhance them.

Attack Lifecycle

This suspected UNC1549 campaign uses two primary methods to achieve initial access to the targets: spear-phishing and credential harvesting. A typical chain of attack consists of several stages:

1. **Spear-phishing** emails or social media correspondence, disseminating links to **fake websites containing Israel-Hamas related content or fake job offers**. The websites would eventually lead to downloading a malicious payload.

Figure 2: Fake website posing as the “Bring Them Home Now” movement, calling for the return of Israelis kidnapped by Hamas

  - The fake job offers were for **tech and defense-related positions**, specifically in the aviation, aerospace, or thermal imaging sectors.
  - Mandiant also observed some of the fake job websites that hosted malicious payloads were also used during 2023 to **harvest credentials**.

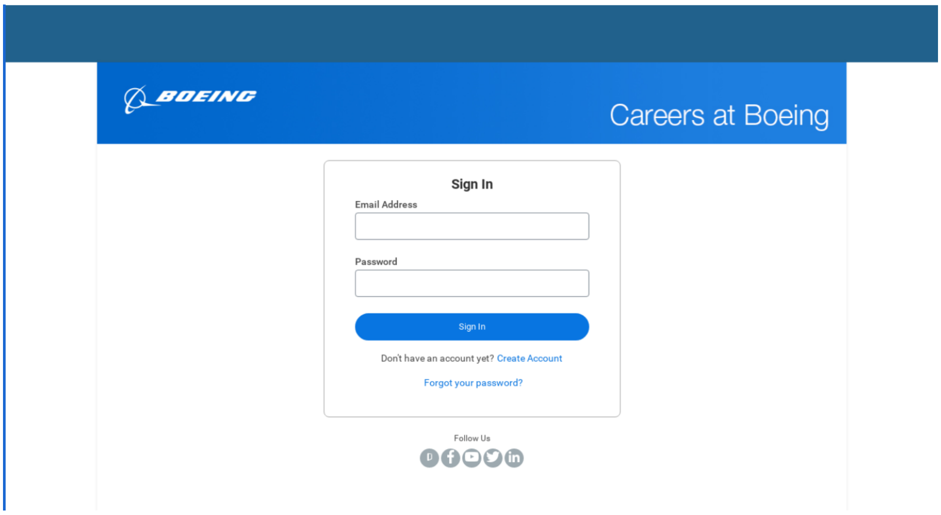


Figure 3: Fake login page masquerading as the aerospace company Boeing

2. **Payload delivery**, downloaded from the previously mentioned websites to the target's computer. The payload is a compressed archive that typically includes two main bundles:
    - MINIBIKE or MINIBUS—two unique backdoors deployed at least since 2022 (MINIBIKE) and 2023 (MINIBUS), providing full backdoor functionality (see the Technical Appendix for more information).
    - A benign lure in the form of an application like OneDrive (MINIBIKE) or, in the case of MINIBUS, a custom application presenting content related to Israelis kidnapped by Hamas hosted on the fake website birngthemhomenow[.]co[.]il mentioned previously.

Figure 4: Decoy content used by MINIBUS, related to the "Bring Them Home Now" movement

3. **Payload installation and device compromise**, achieved after the MINIBIKE or MINIBUS backdoors establish C2 communication, in most cases via Microsoft Azure cloud infrastructure.
    - The access to the device can be leveraged for multiple purposes, including intelligence collection and as a stepping stone for further access into the targeted network.
    - This stage may be supported by the use of LIGHTRAIL, a unique tunneler used in the campaign (see the following details).

This suspected UNC1549 campaign **deployed several evasion techniques to mask their activity**:

- Abusing Microsoft Azure infrastructure for C2 and hosting, making it difficult to discern the activity from legitimate network traffic. In some cases, servers geolocated in the targeted countries (Israel and the UAE) were used, further masking the activity.
- Using domain naming schemes that include strings that would likely seem legitimate to network defenders, like countries, organizations names, languages or descriptions related to the targeted sector. Following are several examples of indicative Azure domains:
    - **il**engineeringrssfeed[.]azurewebsites[.]net ("IL Engineering RSS Feed")
    - hiring**arabic**region[.]azurewebsites[.]net ("Hiring Arabic Region")
    - **turk**airline[.]azurewebsites[.]net ("Turk Airline")

- Using job-themed lures, offering various IT and tech-related positions, which are likely to be disseminated legitimately. One of these fake job offers is presented in Figure 5.

Figure 5: Fake job offer on behalf of DJI, a drone manufacturing company (MD5: 4a223bc9c6096ac6bae3e7452ed6a1cd)

Malware Families

Mandiant observed the following custom malware families used in the suspected UNC1549 activity.

Malware Family	Description	First Seen	Last Seen
MINIBIKE	A custom backdoor written in C++ capable of file exfiltration and upload, command execution, and more. Communicates using Azure cloud infrastructure.	June 2022	October 2023
MINIBUS	A custom backdoor that provides a more flexible code-execution interface and enhanced reconnaissance features compared to MINIBIKE	August 2023	January 2024
LIGHTRAIL	A tunneler, likely based on an open-source Socks4a proxy, that communicates using Azure cloud infrastructure	November 2022	August 2023

MINIBIKE: When Cats Fly (Under the Radar)

MINIBIKE is a custom malware written in C++, used since at least June 2022. Once MINIBIKE is installed, it provides a full backdoor functionality, including directory and file enumeration, collection of system files and information, uploading files, and running additional processes.

The MINIBIKE platform usually consists of three utilities bundled in an archive, delivered via spear phishing:

1. The MINIBIKE backdoor, usually in the form of a .dll or a .dat file
2. A launcher, executed via search-order-hijacking (SoH), deploying MINIBIKE and setting its persistence using registry keys
3. A legitimate/fake executable, used to mask the malicious MINIBIKE deployment. Mandiant observed different MINIBIKE versions use three applications for this purpose: Microsoft SharePoint, Microsoft OneDrive, and a fake Hamas-related .NET application.

The MINIBIKE platform has been in use since at least June 2022, gradually being developed to several versions distinct from each other in lures, features, and functionality. While Mandiant did not observe any embedded version numbers, **the MINIBIKE instances can be divided to the following versions**.

Ver.	Date	Changes (Compared to Earlier Version)	Geographies	Example MD5
1.0	June 2022	- First version - C2 server geolocated in Iran (not Azure) - Submitted to a public malware repository from Iran - Legitimate SharePoint installation as a lure - Bundled in an IMG drive (“Screenshot.img”) - Export DLL name: “update.dll”	Iran	adef679c6aa6860aa89b775dceb6958b
1.1	October–November 2022	- **First use of Azure subdomains for C2** - Three embedded, only one used - First use of OneDrive installation as a lure and as a registry key for persistence - Export DLL name: “Mini.dll”	UAE, Turkey	409c2ac789015e76f9886f1203a73bc0
2.0	August 2023	- Three to five Azure C2 domains used subsequently in a loop - **Bundled in a ZIP file (“Survey.zip”)** - Additional obfuscation - Additional functionality and commands - Export DLL name: “Mini-Junked.dll”	Israel, UAE	691d0143c0642ff783909f983ccb8ffd

2.1	August 2023	- Uses “Image Photo Viewer“ registry key for persistence - Additional obfuscation - Three Azure C2 domains	Israel, India	e3dc8810da71812b860fc59aeadcc350
2.2	August–October 2023	- Four Azure C2 domains - Reverts back to OneDrive registry key for persistence - Additional functionality and commands - Additional obfuscation - Beacon communication looping over three “files”: index.html, favicon.ico, icon.svg - Export DLL name: “Micro.dll”	Israel, UAE	054c67236a86d9ab5ec80e16b884f733

MINIBUS: A RoBUSt Successor?

Mandiant observed a second backdoor deployed in this campaign, which bears multiple similarities to MINIBIKE and was therefore named MINIBUS. The MINIBUS platform has been used since at least August 2023, likely during the same time as the latest MINIBIKE versions, though not necessarily to target the same victims.

MINIBUS is a more advanced, updated platform when compared to MINIBIKE. While similar in functionality and code base, **MINIBUS contains fewer built-in features and a more flexible code-execution and command interface** in addition to more advanced reconnaissance features.

This might make the MINIBUS platform a more suitable option for an experienced operator, which instead of using ready-to-use features may require a more flexible platform. Such an operator may be concerned with operational security (OpSec), possibly as an early stage in a more elaborate operation.

Following is a more detailed list of the key differences between the MINIBIKE and MINIBUS platforms.

Functionality

- MINIBUS has fewer built-in commands and features when compared with MINIBIKE. Instead, MINIBUS provides a more flexible code-execution and command interface, including the ability to run an executable (for example, a possible next-stage implant) using a single command, unlike MINIBIKE.
- MINIBUS has a process enumeration feature. A process list generated by MINIBUS may be useful to avoid detection, for example, by identifying processes related to Virtual Machine (VM) utilities or security applications (such as an EDR).

Export DLL Names

The MINIBUS bundle contains DLLs with the names “torvaldinitial.dll” for its launcher/installer and “torvaldspersist.dll” for its payload, unlike MINIBIKE, which utilizes export DLL names like “Dr2.dll” or “MspUpdate.dll” (for its launchers) and “Mini-Junked.dll” or “Micro.dll” (for its payloads).

C2 Communication

MINIBUS uses a combination of an Azure subdomain and unique *.com domains for C2 communications, unlike MINIBIKE, which relies only on Azure infrastructure.

Lures and Themes

MINIBUS deployed lures related to the Israel-Hamas war, including a fake .NET application with themes and contents abusing the “Bring Them Home Now” movement, which calls for the return of the Israeli hostages kidnapped by Hamas. In another MINIBUS instance, Mandiant observed a lure related to Quizora, possibly referring to a quiz application.

Targeting and Geography

Like MINIBIKE, Mandiant observed MINIBUS targeting **Israel and possibly India and the UAE**. In addition, a MINIBUS C2 domain (cashcloudservices[.]com) had a subdomain with the prefix nsalbaniahack[.]*, suggesting **an interest in Albania** as well, which is consistent with Iran interests but not yet observed in a MINIBIKE-related activity.

LIGHTRAIL: Highway to Where?

In addition to the MINIBIKE and MINIBUS backdoors, Mandiant observed a tunneler named LIGHTRAIL likely affiliated with UNC1549 as well.

LIGHTRAIL has several connections to MINIBIKE and MINIBUS in the form of (1) a shared code base, (2) Azure C2 infrastructure with similar patterns and naming, and (3) overlapping targets and victimology.

LIGHTRAIL communicates with an Azure C2 subdomain of the form **[.]*[.]cloudapp[.]azure[.]com*. Mandiant assesses with medium confidence that both LIGHTRAIL and MINIBIKE were used to target the same victim environment at least once.

LIGHTRAIL likely leverages the open-source utility “Lastenzug” (“freight train” in German), a Socks4a proxy based on websockets with a “static obfuscation on [the] assembly level.” LIGHTRAIL’s export DLL is named “lastenzug.dll,” and it shares the same hard-coded User Agent as Lastenzug.

> Mozilla/5.0 (Windows NT 10.0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/42.0.2311.135 Safari/537.36 Edge/12.10136

Mandiant observed two LIGHTRAIL versions used at least since November 2022. Similarly to MINIBIKE, no “official” versions were embedded in LIGHTRAIL’s code, but the instances can be divided to two versions.

Ver.	Date	Changes (Compared to Earlier Version)	Geographies	Example MD5
1.0	November 2022	- C2 domains: tnlsowki[.]westus3[.]cloudapp[.]azure[.]com tnlsowkis[.]westus3[.]cloudapp[.]azure[.]com - Export DLL named “lastenzug.dll”, likely referring to the open-source Socks4a proxy	Turkey	36e2d9ce19ed045a9840313439d6f18d
2.0	August 2023	- C2 domain: iaidevrssfeed[.]centralus[.]cloudapp[.]azure[.]com - Export DLL named “**L**astenzug.dll” (capital ‘L’) - String obfuscation, similar to MINIBIKE	Israel	a5fdf55c1c50be471946de937f1e46dd

Credential Harvesting and Fake Job Offers

Mandiant observed that several websites hosting MINIBIKE payloads also hosted fake login pages in mid-2023 posing as job offers on behalf of legitimate defense and technology-related companies. More specifically, the companies were affiliated with the aerospace, aviation, and thermal imaging industries.

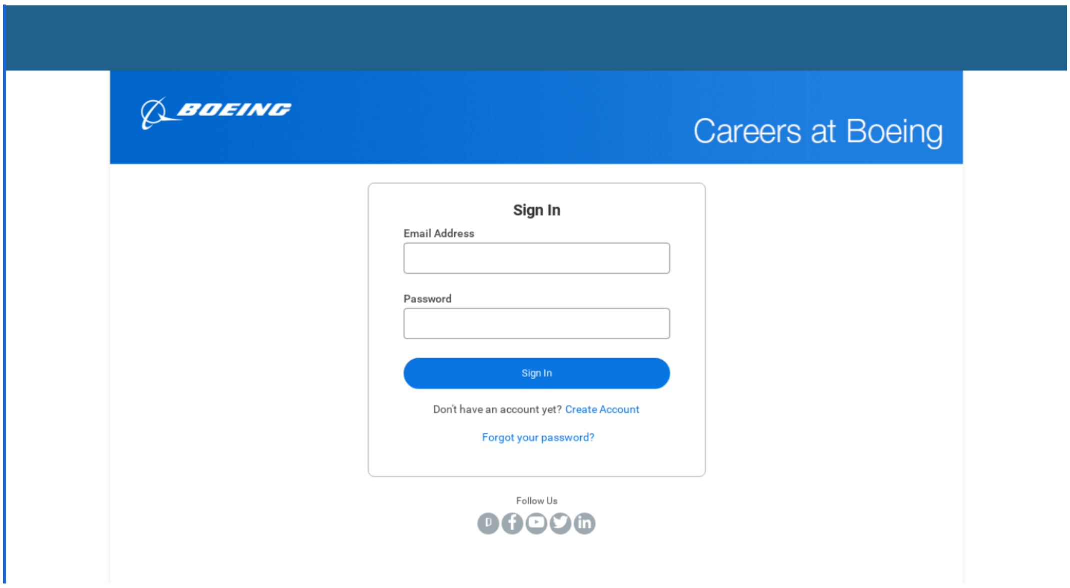
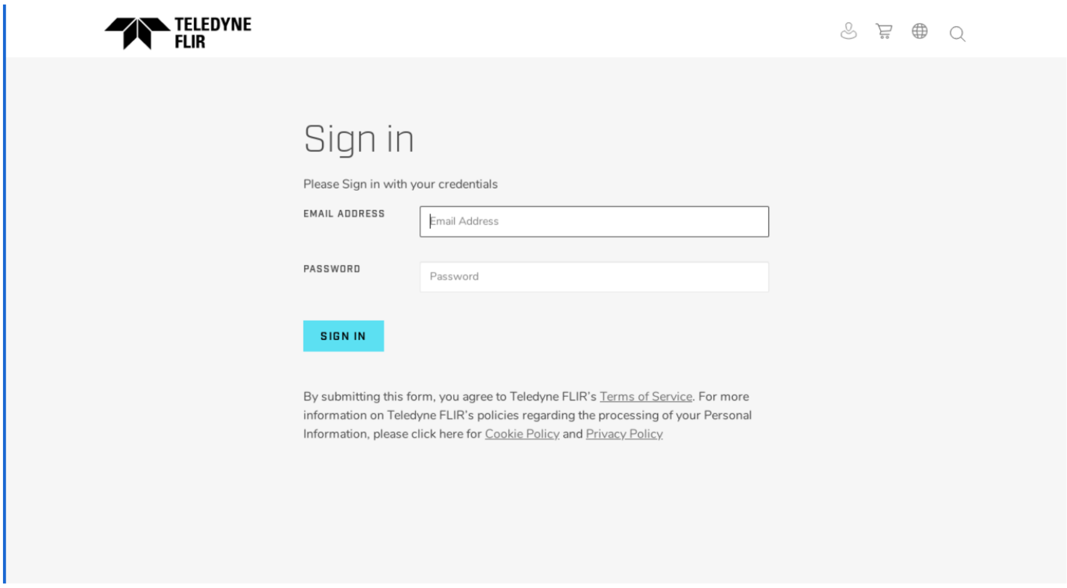


Figure 6: Fake login page masquerading as the aerospace company Boeing



By submitting this form, you agree to Teledyne FLIR's Terms of Service. For more information on Teledyne FLIR's policies regarding the processing of your Personal Information, please click here for Cookie Policy and Privacy Policy

Figure 7: Fake login page masquerading as Teledyne FLIR, a manufacturer of thermal imaging devices

In addition, Mandiant observed suspected UNC1549 infrastructure hosting job description documents for positions in DJI, a drone manufacturing company, in parallel to a MINIBIKE .zip file.

The documents were likely used as lures in social engineering efforts, either for running malicious files or harvesting credentials.

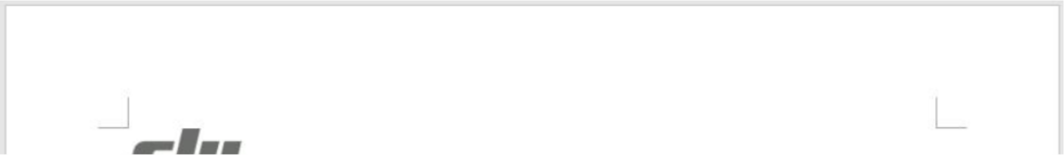


Figure 8: Fake DJI job offer (MD5: 4a223bc9c6096ac6bae3e7452ed6a1cd)

Figure 9: Fake DJI job offer (MD5: ec6a0434b94f51aa1df76a066aa05413)

Technical Appendix

MINIBIKE Technical Analysis

Mandiant observed the following versions of MINIBIKE deployed since 2022.

Version 1.x, June–November 2022

Payload: IMG archive named *Screenshot.img* (example MD5: 409c2ac789015e76f9886f1203a73bc0), containing the following files:

- Screenshots.lnk - a launcher LNK file (MD5: cb565b1bb128dfc20c8392974ff73e3f)
- Setup.exe - a legitimate OneDrive/SharePoint executable (MD5: 400d7190012517677dd5ef2e471f2cd1)
- secur32.dll - the MINIBIKE launcher, executed via search-order-hijacking (SoH) (MD5: 54848d17aa76d807e2fd6d196a01ce84)
- configur.dll - the MINIBIKE backdoor (MD5: e9ed595b24a7eeb34ac52f57eeec6e2b)

Note: Most of the following analysis refers to version 1.0, but version 1.1 behaves in a similar manner.

- **Execution:** once the IMG archive is mounted, the malicious launcher is executed via SoH and copies the legitimate executable and the MINIBIKE backdoor to the following paths:
    - **Legitimate executable:** %LOCALAPPDATA%\Microsoft\OneDrive\configs\FileCoAuth.exe
    - **MINIBIKE backdoor:** %LOCALAPPDATA%\Microsoft\OneDrive\configs\secur32.dll

- **Persistence:** The loader/installer sets persistence for the MINIBIKE payload by moving it to its staging directory and setting the following Run registry key:
  - **Key:** HKCU\SOFTWARE\Microsoft\Windows\CurrentVersion\Run\OneDriveFileCoAuth.exe
  - **Value:** %LOCALAPPDATA%\Microsoft\OneDrive\configs\FileCoAuth.exe
- **Export DLL name:**
  - **Version 1.0:** *“update.dll”*
  - **Version 1.1:***“Mini.dll”*
- **User Agent:**
  - **Version 1.0:** *Mozilla/5.0 (Linux; Android 6.0; Nexus 5 Build/MRA58N) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/99.0.4844.82 Mobile Safari/537.36*
  - **Version 1.1:***Mozilla/5.0*
- **C2 infrastructure:**
  - **Version 1.0:** *158.255.74[.]25*
  - **Version 1.1:** *homefurniture[.]azurewebsites[.]net*
- **C2 URIs:**
  - **Version 1.0:**
    - */api/blogs/96752* - initial beacon and request command
    - */api/blogs/result/96752* - command/request response
    - */api/blogs/download/* - download file
    - */api/blogs/result/file/* - upload file
  - **Version 1.1:**
    - */news/notifications/235722* - initial beacon and request command
    - */news/update/* - command/request response
    - */news/image/* - download file
- **Affected geographies:** UAE, Turkey, Iran

Version 2.x, August–October 2023

- **Payload:** ZIP archive, usually named *Survey.zip* (example MD5: 691d0143c0642ff783909f983ccb8ffd), containing the following files:
  - Setup.exe - a legitimate executable used to sideload the installer (MD5: ce1054d542dbd999401236f2ce20f826)
  - secur32.dll - The MINIBIKE backdoor - (MD5: 1e7cf4c172bdabe48714b402d2255707)
  - lang.dat - a MINIBIKE installer (MD5: 909a235ac0349041b38d84e9aab3f3a1)
- **Execution:** once the legitimate executable is run, the MINIBIKE installer is sideloaded and the files are copied to the following paths:
  - **Legitimate executable:** %LOCALAPPDATA%\Microsoft\Internet Explorer\FileCoAuth.exe
  - **MINIBIKE backdoor:** %LOCALAPPDATA%\Microsoft\Internet Explorer\secur32.dll
- **Persistence:** The loader/installer sets persistence for the MINIBIKE payload by moving it to its staging directory and setting the following Run registry key:
  - **Key:** HKCU\SOFTWARE\Microsoft\Windows\CurrentVersion\Run\OneDrive FileCoAuth
  - **Value:** %LOCALAPPDATA%\Microsoft\Internet Explorer\secur32.dll

Note: Version 2.1 uses ‘Image Photo Viewer’ as a registry key

Export DLL name:

- **Versions 2.0 and 2.1:** *“Mini-Junked.dll”*
- **Version 2.2:** *“Micro.dll”*

Note: In a single instance Mandiant observed the use of “devobj.dll”

User Agent:
- ***Version 2.0:***
  - *Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/539.180 (KHTML, like Gecko) Chrome/110.0.0.2 Safari/538.36*
  - *Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/539.181 (KHTML, like Gecko) Chrome/111.0.0.2 Safari/538.46*
- ***Version 2.1:***
  - *Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/539.181 (KHTML, like Gecko) Chrome/111.0.0.2 Safari/538.36*
  - *Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/539.181 (KHTML, like Gecko) Chrome/111.0.0.2 Safari/538.46*
- ***Version 2.2:***

  Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/115.0.0.0 Safari/537.36

Note: In a single instance Mandiant observed the use of “Mozilla/5.0” user agent.

- **C2 infrastructure:** This version of MINIBIKE communicates with three to five Azure subdomains. After every communication it uses the next C2 in a loop, for example:
  - *blogvolleyballstatus[.]azurewebsites[.]net*
  - *blogvolleyballstatusapi[.]azurewebsites[.]net*
  - *marineblogapi[.]azurewebsites[.]net*
- **C2 URIs:**
  - **Versions 2.0 and 2.1:**
    - */news/notifications/*<*six_digits*> - initial beacon and request command
    - */news/update/* - command/request response
    - */news/image/* - download file
  - **Version 2.2:**
    - */assets/<six_or_eight_digits>/ {index.html / favicon.ico / icon.svg}* - initial beacon and request command
    - */assets/<six_or_eight_digits>/* - command/request response
    - */assets/<six_or_eight_digits>/* - download file
    - */assets/<six_or_eight_digits>/* - upload file

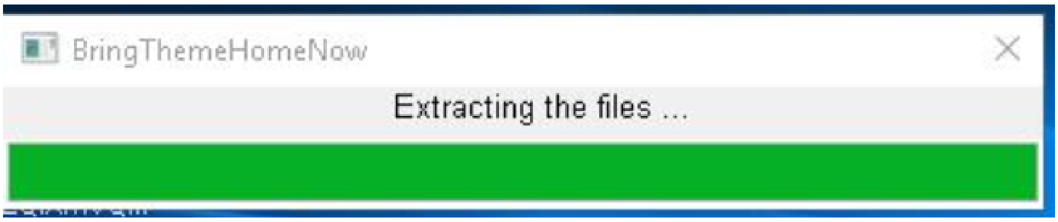
Note: In a single instance Mandiant observed the use of URIs of the form: blogs/<keywords>

Affected geographies: Israel, UAE, and potentially India

MINIBUS Analysis

- **Payload:** ZIP archive named *bringthemhomenow.zip* (MD5: ef262f571cd429d88f629789616365e4), containing the following files:
  - BringThemeHome.exe - a benign executable (MD5: ce1054d542dbd999401236f2ce20f826)
  - A MINIBUS installer - secur32.dll (MD5: c5dc2c75459dc99a42400f6d8b455250)
  - CoreUIComponent.dll - the MINIBUS backdoor (MD5: 816af741c3d6be1397d306841d12e206)
  - essential.dat - an additional archive containing decoy content: a “Bring Them Home” fake .NET application created by the threat actor (MD5: 251894b3af0ece374ed6df223ab09cab)
- **Execution:** Once the legitimate executable is run, the MINIBUS installer is installed via search-order-hijacking (SoH).

The installer DLL displays a message indicating the files are being extracted:

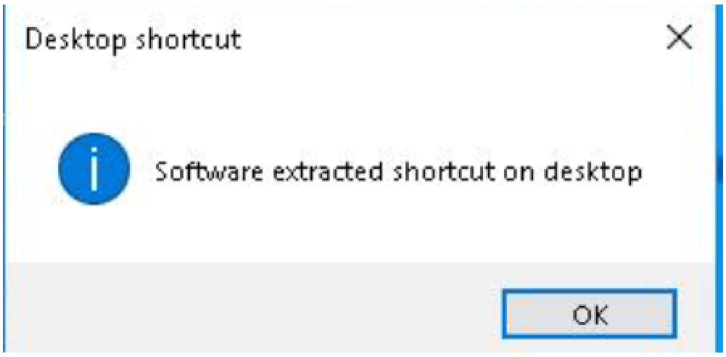


BringThemeHomeNow

Extracting the files ...

Figure 10: MINIBUS installer DLL installation message

The decoy contents are moved to their intended location on the targeted system:



Desktop shortcut

Software extracted shortcut on desktop

Figure 11: Installer DLL message box

Two main decoy files are contained within the ZIP archive along with some dependency files, essential.dat (MD5: 251894b3af0ece374ed6df223ab09cab):

- Decoy .NET application masquerading as an application related to Israeli hostages kidnapped by Hamas during the Oct. 7 attack on Israel: *<extraction_directory>\BringThemeHomeNow\BringThemeHomeNow.exe [sic] (MD5: dfed4468dd78ad2f5d762741df4c1755)*

Figure 12: Fake “Bring Them Home Now”.NET application “BringThemeHomeNow.exe” [sic]

- Decoy image: *<extraction_directory>\BringThemeHomeNow\petition.jpg (MD5: c0060a0c26df9fed7fdcdb7d26ff921f)*

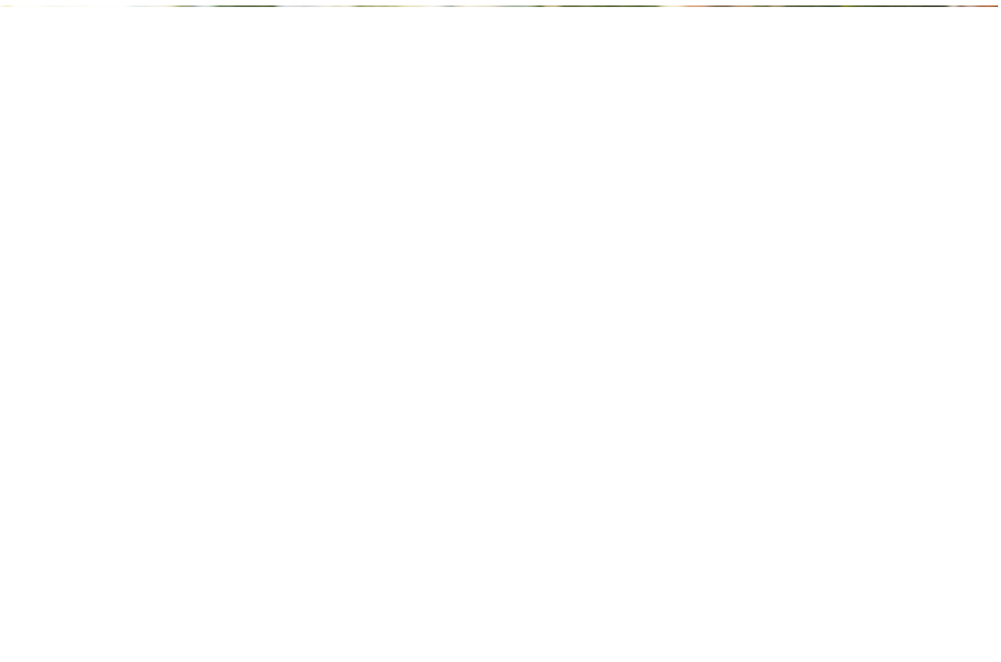


Figure 13: Decoy content "petition.jpg"

Upon execution, the .NET application initially checks of the existence of a flag file that indicates if the decoy has previously run on the device: *%LOCALAPPDATA%\Commons\lg*

If the file does not exist, a splash screen is displayed prior to entering the application. If the file already exists, the application presents the main screen (seen in Figure 12).

In addition to displaying decoy content to the victim, the installer DLL copies the backdoor and dependency files to their staging directory, and it also sets persistence for the backdoor using the following registry run key:

Key: *HKCU\Software\Microsoft\Windows\CurrentVersion\Run\OneDriveCoUpdate*

Value: *%LOCALAPPDATA%\Microsoft\OneDrive\cache\logger\FileCoAuth.exe*

- **C2 infrastructure:** This version of MINIBIKE communicates with one Azure subdomain and two dedicated domains:
  - *vscodeupdater[.]azurewebsites[.]net*
  - *cashcloudservices[.]com*
  - *xboxplayservice[.]com*
- **Affected geographies:** Israel and India, as well as possibly UAE and Albania, based on the following subdomains of cashcloudservices[.]com:
  - ***dubai-ae****0043[.]cashcloudservices[.]com*
  - *ns****albania****hack[.]cashcloudservices[.]com*

Detection and Mitigation

If you are a Google Chronicle Enterprise+ customer, Chronicle rules were released to your Emerging Threats rule pack, and IOCs listed in this blog post are available for prioritization with Applied Threat Intelligence.

Indicators of Compromise (IOCs)

MINIBIKE

- 01cbaddd7a269521bf7b80f4a9a1982f

- 054c67236a86d9ab5ec80e16b884f733
- 1d8a1756b882a19d98632bc6c1f1f8cd
- 2c4cdc0e78ef57b44f11f7ec2f6164cd
- 3b658afa91ce3327dbfa1cf665529a6d
- 409c2ac789015e76f9886f1203a73bc0
- 601eb396c339a69e7d8c2a3de3b0296d
- 664cfda4ada6f8b7bb25a5f50cccf984
- 68f6810f248d032bbb65b391cdb1d5e0
- 691d0143c0642ff783909f983ccb8ffd
- 710d1a8b2fc17c381a7f20da5d2d70fc
- 75d2c686d410ec1f880a6fd7a9800055
- 909a235ac0349041b38d84e9aab3f3a1
- a5e64f196175c5f068e1352aa04bc5fa
- adef679c6aa6860aa89b775dceb6958b
- bfd024e64867e6ca44738dd03d4f87b5
- c12ff86d32bd10c6c764b71728a51bce
- cf32d73c501d5924b3c98383f53fda51
- d94ffe668751935b19eaeb93fed1cdbe
- e3dc8810da71812b860fc59aeadcc350
- e9ed595b24a7eeb34ac52f57eeec6e2b
- eadbaabe3b8133426bcf09f7102088d4

MINIBUS

- ef262f571cd429d88f629789616365e4
- 816af741c3d6be1397d306841d12e206
- c5dc2c75459dc99a42400f6d8b455250
- 05fcace605b525f1bece1813bb18a56c
- 4ed5d74a746461d3faa9f96995a1eec8
- f58e0dfb8f915fa5ce1b7ca50c46b51b

LIGHTRAIL

- 0a739dbdbcf9a5d8389511732371ecb4
- 36e2d9ce19ed045a9840313439d6f18d
- aaef98be8e58be6b96566268c163b6aa

- c3830b1381d95aa6f97a58fd8ff3524e
- c51bc86beb9e16d1c905160e96d9fa29
- a5fdf55c1c50be471946de937f1e46dd

Fake Job Offers

- ec6a0434b94f51aa1df76a066aa05413
- 89107ce5e27d52b9fa6ae6387138dd3e
- 4a223bc9c6096ac6bae3e7452ed6a1cd

C2 and Hosting Infrastructure

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- birngthemhomenow[.]co[.]il
- cashcloudservices[.]com
- jupyternotebookcollections[.]com
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- teledyneflir[.]com[.]de
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Azure Subdomains

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