

# MAR-10135536-8.v4 – North Korean Trojan: HOPLIGHT

 [us-cert.gov/ncas/analysis-reports/ar20-045g](https://www.us-cert.gov/ncas/analysis-reports/ar20-045g)

## Notification

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## Summary

### Description

This Malware Analysis Report (MAR) is the result of analytic efforts between Department of Homeland Security (DHS), the Federal Bureau of Investigation (FBI), and the Department of Defense (DoD). Working with U.S. Government partners, DHS, FBI, and DoD identified Trojan malware variants used by the North Korean government. One malware variant has been identified as HOPLIGHT. The U.S. Government refers to malicious cyber activity by the North Korean government as HIDDEN COBRA activity, visit <https://www.us-cert.gov/hiddencobra>.

DHS, FBI, and DoD are distributing this MAR to enable network defense and reduce exposure to North Korean government malicious cyber activity.

This MAR includes malware descriptions related to HIDDEN COBRA, suggested response actions and recommended mitigation techniques. Use the activity associated with the malware and report the activity to the Cybersecurity and Infrastructure Security Agency (CISA) or the FBI Cyber Division. Report the activity the highest priority for enhanced mitigation.

This report provides analysis of twenty malicious executable files. Sixteen of these files are proxy applications that mask traffic between the malware operators. The proxies have the ability to generate fake TLS handshake sessions using valid public SSL certificates, disguising network connectivity. One file contains a public SSL certificate and the payload of the file appears to be encoded with a password or key. The remaining files do not contain public SSL certificates, but attempt outbound connections and drops four files. The dropped files primarily contain IP addresses and SSL certificates. For a downloadable copy of IOCs, see [MAR-10135536-8.v4.stix](#).

### Submitted Files (20)

05feed9762bc46b47a7dc5c469add9f163c16df4ddaaf81983a628da5714461 (23E27E5482E3F55BF828DAB8855690...)

0608e411348905145a267a9beaf5cd3527f11f95c4afde4c45998f066f418571 (34E56056E5741F33D823859E77235E...)

084b21bc32ee19af98f85aee8204a148032ce7eabef668481b919195dd62b319 (170A55F7C0448F1741E60B01DCEC9C...)

12480585e08855109c5972e85d99cda7701fe992bc1754f1a0736f1eebcb004d (868036E102DF4CE414B0E6700825B3...)

1a01b8a4c505db70f9e199337ce7f497b3dd42f25ad06487e29385580bca3676 (07D2B057D2385A4CDF413E8D342305...)

2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbaf3a48f4525 (5C3898AC7670DA30CF0B22075F3E8E...)

32ec329301aa4547b4ef4800159940feb950785f1ab68d85a14d363e0ff2bc11 (38FC56965DCCD18F39F8A945F6EBC4...)

4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761 (42682D4A78FE5C2EDA988185A34463...)

4c372df691fc699552f81c3d3937729f1dde2a2393f36c92ccc2bd2a033a0818 (C5DC53A540ABE95E02008A04A0D56D...)

70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3 (61E3571B8D9B2E9CCFADC3DDE10FB6...)

73dcb7639c1f81d37fc4931d32787bdf07bd98550888c4b29b1058b2d5a7ca33 (3EDCE4D49A2F31B8BA9BAD0B8EF549...)

83228075a604e955d59edc760e4c4ed16eedabfc8f6ac291cf21b4fcbcd1f70a (3021B9EF74c&BDDF59656A035F94FD...)

8a1d57ee05d29a730864299376b830a7e127f089e500e148d96d0868b7c5b520 (5C0C1B4C3B1CFD455AC05ACE994AED...)

b05aae59b3c1d024b19c88448811debef1eada2f51761a5c41e70da3db7615a9 (2FF1688FE866EC2871169197F9D469...)

b9a26a569257f7be02c10d3735587f10ee58e4281dba43474dbdef4ace8ea7101 (2A791769AA73AC757F210F8546125B...)

c66ef8652e15b579b409170658c95d35cfd6231c7ce030b172692f911e7dcff8 (E4ED26D5E2A84CC5E48D285E4EA898...)

d77fdabe17cda62a8e728cbe6c740e2c2e541072501f77988674e07a05dfb39 (F8D26F2B8DD2AC4889597E1F2FD1F2...)

ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d (BE588CD29B9DC6F8CFC4D0AA5E5C79...)

f8f7720785f7e75bd6407ac2acd63f90ab6c2907d3619162dc41a8ffa40a5d03 (D2DA675A8ADFEF9D0C146154084FFF...)

fe43bc385b30796f5e2d94dfa720903c70e66bc91dfdcfb2f3986a1fea3fe8c5 (F315BE41D9765D69AD60F0B4D29E43...)

### Additional Files (7)

44a93ea6e6796530bb3cf99555dfb3b1092ed8fb4336bb198ca15b2a21d32980 (None)

49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359 (rdpproto.dll)

70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289 (udbcgiut.dat)  
823d255d3dc8cbc402527072a9220e4c38655de1a3e55a465db28b55d3ac1bf8 (None)  
96a296d224f285c67bee93c30f8a309157f0daa35dc5b87e410b78630a09cfc7 (MSDFMAPI.INI)  
ba80cb0a08908782f4b6e88aa15e2d306b19bc93e79bd8770bf8be904fd1bd09 (None)  
cd5ff67ff773cc60c98c35f9e9d514b597cbd148789547ba152ba67bfc0fec8f (UDPTTrcSvc.dll)

IPs (23)

112.175.92.57  
113.114.117.122  
117.239.241.2  
119.18.230.253  
128.200.115.228  
137.139.135.151  
14.140.116.172  
181.39.135.126  
186.169.2.237  
195.158.234.60  
197.211.212.59  
21.252.107.198  
210.137.6.37  
217.117.4.110  
218.255.24.226  
221.138.17.152  
26.165.218.44  
47.206.4.145  
70.224.36.194  
81.94.192.10  
81.94.192.147  
84.49.242.125  
97.90.44.200

## Findings

**05feed9762bc46b47a7dc5c469add9f163c16df4ddaafe81983a628da5714461**

Tags

trojan

Details

<b>Name</b>	23E27E5482E3F55BF828DAB885569033
<b>Size</b>	242688 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	23e27e5482e3f55bf828dab885569033
<b>SHA1</b>	139b25e1ae32a8768238935a8c878bfbe2f89ef4
<b>SHA256</b>	05feed9762bc46b47a7dc5c469add9f163c16df4ddaafe81983a628da5714461
<b>SHA512</b>	2c481ef42dfc9a7a30575293d09a6f81943e307836ec5b8a346354ab5832c15046dd4015a65201311e33f944763fc55dd44fbe390245b
<b>ssdeep</b>	6144:YnDIYMzUvLFOL9wqk6+pqC8ioolBgajvQIm/Z0cp1:aYiXioolKajvQeZ3

---

**Entropy** 6.537337

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Generic
<b>Antiy</b>	Trojan/Win32.Casdet
<b>Avira</b>	TR/NukeSped.uxivj
<b>BitDefender</b>	Trojan.GenericKD.41198265
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.LXQN-3818
<b>ESET</b>	a variant of Win32/NukeSped.AI trojan
<b>Emsisoft</b>	Trojan.GenericKD.41198265 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 005329311 )
<b>McAfee</b>	Trojan-Hoplight
<b>Microsoft Security Essentials</b>	Trojan:Win32/Hoplight
<b>Quick Heal</b>	Trojan.Hoplight.S5793599
<b>Sophos</b>	Troj/Hoplight-C
<b>Symantec</b>	Trojan.Hoplight
<b>TrendMicro</b>	Trojan.55DEE3DA
<b>TrendMicro House Call</b>	Trojan.55DEE3DA
<b>VirusBlokAda</b>	Trojan.Casdet

YARA Rules

- rule crypt\_constants\_2  
{  
  meta:  
    Author="NCCIC trusted 3rd party"  
    Incident="10135536"  
    Date = "2018/04/19"  
    category = "hidden\_cobra"  
    family = "n/a"  
    description = "n/a"  
  strings:  
    \$ = {efcdab90}  
    \$ = {558426fe}  
    \$ = {7856b4c2}  
  condition:  
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them  
}
- rule lsfr\_constants  
{  
  meta:  
    Author="NCCIC trusted 3rd party"  
    Incident="10135536"  
    Date = "2018/04/19"  
    category = "hidden\_cobra"  
    family = "n/a"  
    description = "n/a"  
  strings:  
    \$ = {efcdab90}  
    \$ = {558426fe}  
    \$ = {7856b4c2}  
  condition:  
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them  
}

- rule polarSSL\_servernames
 

```
{
meta:
  Author="NCCIC trusted 3rd party"
  Incident="10135536"
  Date = "2018/04/19"
  category = "hidden_cobra"
  family = "n/a"
  description = "n/a"
strings:
  $polarSSL = "fjiejfndxklfsdkfjsaadiepwn"
  $sn1 = "www.google.com"
  $sn2 = "www.naver.com"
condition:
  (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) -- 0x4550) and ($polarSSL and 1 of ($sn*))
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-06-05 21:57:29-04:00

**Import Hash** ff390ec082b48263a3946814ea18ba46

PE Sections

MD5	Name	Raw Size	Entropy
c06924120c87e2cb79505e4ab0c2e192	header	1024	2.542817
3368eda2d5820605a055596c7c438f0f	.text	197120	6.441545
ec1f06839fa9bc10ad8e183b6bf7c1b5	.rdata	27136	5.956914
1e62b7d9f7cc48162e0651f7de314c8a	.data	8192	4.147893
980effd28a6c674865537f313318733a	.rsrc	512	5.090362
696fd5cac6e744f336e8ab68a4708fcf	.reloc	8704	5.247502

Packers/Compilers/Cryptors

Microsoft Visual C++ ?.

Description

This artifact is a malicious 32-bit Windows executable. When executed the malware will collect system information about the victim machine including Information, and System Time, as well as enumerate the system drives and partitions.

The malware is capable of the following functions:

---Begin Malware Capability---

- Read, Write, and Move Files
- Enumerate System Drives
- Create and Terminate Processes
- Inject into Running Processes
- Create, Start and Stop Services
- Modify Registry Settings
- Connect to a Remote Host
- Upload and Download Files

---End Malware Capability---

The malware family has 2 versions. Both are nearly identical in functionality but use slightly different command codes. So if the opcode for Keppa 0xB6C1, the opcode in version 2 will be 0xB6C2.

There may be some versions of the malware that have limited/additional functionality, but most will have these command codes:

---Begin Version 1 Command Codes---

0xB6A4 GetComputerInfo

- Gets OS Version
- Opens and sends back multiple registry keys
  - Keys are encrypted in actually binary using RC4 with 16 byte key (af 3d 78 23 4a 79 92 81 9d 7f 20 47 ad e3 f2 b3). Keys are decrypted pri RegOpenKey/RegQueryValue.

- Calls GetSystemInfo, returns results of a SYSTEM\_INFO struct
- Calls GetSystemMetrics and returns results
- 0xB6A5 GetDrivesInfo
  - Gets info about different drives/share drives on system as well as memory available/memory used on those drives
- 0xB6A6 Directorylist
  - Gives list of all files in a directory that is specified by the C2
- 0xB6A7 SendFile
  - Sends a file from the victim machine to the C2 that is specified by the C2
- 0xB6A8 ReceiveFile
  - Victim machine receives file from the C2
- 0xB6A9 CreateProcess
  - Calls CreateProcessW to run a process via the command line. C2 specifies the path of the file to be run via command line.
- 0xB6AA EnableLogging
  - Prior to victim and C2 closing out a connection the victim will spawn a new thread that will compile a comprehensive log of system/session info it opens a file that is named randomly and places it in the temp directory. It puts all the log results into this file.
- 0xB6AB Deletefile
  - Deletes file specified by the C2.
- 0xB6AC RunCmdPipe
  - Runs CreateProcessW to run a process via the command line. The process will be cmd.exe and the arguments will be the windows cmd comm

The results of this command will be sent to a temporary file and then read back to the C2 from that file. Afterwards that file is deleted.

- 0xB6AD Processlist
  - Gets a list of processes
- 0xB6AE KillProcess
  - Kills process based on the PID that the C2 supplies.
- 0xB6AF TestEncryption
  - Tests LFSR encryption, no real functionality
- 0xB6B0 Uninstall
  - Uninstalls the implant from the victim box
- 0xB6B2 GetConfig
  - Gets the current callback config file from memory, returns the list to C2. There are 10 IP options in this config.
- 0xB6B3 SetConfig
  - Gets the current callback config file from memory, allows C2 to change the configurations. This will change the beacon IP to whatever the C2 w
- 0xB6B4 SetCurrentDirectory
  - Changes current working directory to the path supplied by C2
- 0xB6B5 GetCurrentDirectory
  - Gets the current working directory and returns it to the C2
- 0xB6C1 KeepAlive
  - C2s sends this as a keep alive to the victim, victim responds with confirmation that it received the keep alive and keeps session open

---End Version 1 Command Codes---

The malware is capable of opening and binding to a socket. The malware uses a public SSL certificate for secure communication. This certificate Naver.com is the largest search engine in Korea and provides a variety of web services to clients around the world.

The malware uses the default certificates/private keys that come with PolarSSL. These are generally used for testing purposes only. Additionally 1 server for the TLS handshake require the malware to respond back with a client key. This key is also a default key found within the PolarSSL libra

---Begin SSL Certificate Header---

```
1 0 UNL10U
PolarSSL10UPolarSSL Test CA0
110212144407Z
2102121144407Z0<1 0 UNL10U
PolarSSL10UPolarSSL Client 200
```

---End SSL Certificate Header---

When executed, the malware will attempt a TLS Handshake with one of four hardcoded IP addresses embedded in the malware. These IP address 'udbcgiut.dat' below. The malware also contains an embedded Zlib compression library that appears to further obfuscate the communications pay

After the TLS authentication is completed this particular malware does NOT use the session key that is generated via TLS. It uses a custom LFSR (LFSR) encryption scheme to encrypt all communications after the completion of the handshake. A python script to decrypt traffic is given below:

---Begin LFSR Decryption Script---

```
class lfsr:
    def __init__(self):
        self.b = (0, 0, 0, 0)
        self.data = b''
        self.L = 0

    def lfsr_init(self, data):
        self.L = len(data)
        self.data = data
        self.b[0] = 0
        self.b[1] = 0xc2b45678
        self.b[2] = 0x90abcdef
        self.b[3] = 0xfe268455
```

```

for i in range(int(self.L / 3)):
    self.b[1] ^= self.b[2]
    self.b[2] ^= self.b[3]
    self.b[3] ^= self.b[1]

for i in range(self.L % 3):
    self.b[1] |= self.b[2]
    self.b[2] |= self.b[3]
    self.b[3] |= self.b[1]

def lfsr_1(self):
    r = 0
    if (self.b[1] & 0x200) == 0x200:
        r += 1
    if (self.b[2] & 0x800) == 0x800:
        r += 1
    if (self.b[3] & 0x800) == 0x800:
        r += 1
    if r <= 1:
        self.b[0] = 1
    else:
        self.b[0] = 0

def lfsr_2(self):
    v1 = self.b[1]
    r = (self.b[1] >> 9) & 1
    v3 = r == self.b[0]
    self.b[0] ^= r
    if not v3:
        r = (v1 ^ ((v1 ^ ((v1 ^ (v1 >> 1)) >> 1)) >> 3)) >> 13
        v4 = 2 * (v1 & 0x3ffff)
        self.b[1] = v4
        if (r & 1):
            self.b[1] = v4 ^ 1

def lfsr_3(self):
    v1 = self.b[2]
    r = (self.b[2] >> 11) & 1
    v3 = r == self.b[0]
    self.b[0] ^= r
    if not v3:
        r = (v1 ^ ((v1 ^ ((v1 ^ (v1 >> 1)) >> 4)) >> 4)) >> 12
        v4 = 2 * (v1 & 0x1ffff)
        self.b[2] = v4
        if (r & 1):
            self.b[2] = v4 ^ 1

def lfsr_4(self):
    v1 = self.b[3]
    r = (self.b[3] >> 11) & 1
    v3 = r == self.b[0]
    self.b[0] ^= r
    if not v3:
        r = (v1 ^ ((v1 ^ ((v1 ^ (v1 >> 1)) >> 3)) >> 1)) >> 17
        v4 = 2 * (v1 & 0x3ffff)
        self.b[3] = v4
        if (r & 1):
            self.b[3] = v4 ^ 1

def lfsr_genKeyByte(self):
    self.lfsr_1()
    self.lfsr_2()
    self.lfsr_3()
    self.lfsr_4()
    v2 = self.b[1] ^ self.b[2] ^ self.b[3]
    r = (v2 >> 0x18) ^ (v2 >> 0x10) ^ (v2 >> 0x8) ^ v2
    r ^= 0xff
    return r

def crypt(self):
    r = b''
    for i in range(len(self.data)):
        k = self.lfsr_genKeyByte()
        r += bytes([self.data[i] ^ k])
    return r

```

---End LFSR Decryption Script---

The following notable strings have been linked to the use of the SSL certificates and can be used to identify the malware:

---Begin Notable Strings---

fjieffndxklfjsadiepwn  
ofuierfsdkljffjoiejftyuir  
reykfgkodfgkfdskgdfogpdokgsdfpg  
ztretrireotretieroptkierert  
etudjfirejer  
yrty  
uiyy  
uiyiyj lildvucv  
erfdfe poiiumwq

---End Notable Strings---

The next four artifacts contain identical characteristics as those described above. Therefore, only capability that is unique will be described for the **2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525**

Tags

trojan

Details

<b>Name</b>	5C3898AC7670DA30CF0B22075F3E8ED6
<b>Size</b>	221184 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	5c3898ac7670da30cf0b22075f3e8ed6
<b>SHA1</b>	91110c569a48b3ba92d771c5666a05781fdd6a57
<b>SHA256</b>	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525
<b>SHA512</b>	700ec4d923cf0090f4428ac3d4d205b551c3e48368cf90d37f9831d8a57e73c73eb507d1731662321c723362c9318c3f019716991073d
<b>ssdeep</b>	3072:nKBzqEHcJw0sqz7vLFOLBAqui1mqLK1VaU9BzNRyHmdMaF0QqWN0Qjpthmu:nKg0cJ19z7vLFOLSqp0q7syHeFhnhm
<b>Entropy</b>	6.346504

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Generic
<b>Antiy</b>	Trojan/Win32.NukeSped
<b>Avira</b>	TR/NukeSped.bqdkh
<b>BitDefender</b>	Trojan.GenericKD.41198269
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.MYIL-1461
<b>ESET</b>	a variant of Win32/NukeSped.AI trojan
<b>Emsisoft</b>	Trojan.GenericKD.41198269 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 005329311 )
<b>McAfee</b>	Trojan-Hoplight
<b>Microsoft Security Essentials</b>	Trojan:Win32/Hoplight
<b>Quick Heal</b>	Trojan.Hoplight.S5774771
<b>Sophos</b>	Troj/Hoplight-C
<b>Symantec</b>	Trojan.Hoplight
<b>TACHYON</b>	Trojan/W32.Hoplight.221184
<b>TrendMicro</b>	Trojan.55DEE3DA
<b>TrendMicro House Call</b>	Trojan.55DEE3DA
<b>VirusBlokAda</b>	BScope.Trojan.Casdet

YARA Rules

- rule crypt\_constants\_2  
{  
  meta:  
    Author="NCCIC trusted 3rd party"  
    Incident="10135536"  
    Date = "2018/04/19"  
    category = "hidden\_cobra"  
    family = "n/a"  
    description = "n/a"  
  strings:  
    \$ = {efcdab90}  
    \$ = {558426fe}  
    \$ = {7856b4c2}  
  condition:  
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them  
  }  
}
- rule lsfr\_constants  
{  
  meta:  
    Author="NCCIC trusted 3rd party"  
    Incident="10135536"  
    Date = "2018/04/19"  
    category = "hidden\_cobra"  
    family = "n/a"  
    description = "n/a"  
  strings:  
    \$ = {efcdab90}  
    \$ = {558426fe}  
    \$ = {7856b4c2}  
  condition:  
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them  
  }  
}
- rule polarSSL\_servernames  
{  
  meta:  
    Author="NCCIC trusted 3rd party"  
    Incident="10135536"  
    Date = "2018/04/19"  
    category = "hidden\_cobra"  
    family = "n/a"  
    description = "n/a"  
  strings:  
    \$polarSSL = "fjiejfndxklfsdkfjsaadiepwn"  
    \$sn1 = "www.google.com"  
    \$sn2 = "www.naver.com"  
  condition:  
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and (\$polarSSL and 1 of (\$sn\*))  
  }  
}

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-05-16 02:35:55-04:00  

---

**Import Hash** 6ffc5804961e26c43256df683fea6922

PE Sections

MD5	Name	Raw Size	Entropy
adb596d3ceae66510778e3bf5d4d9582	header	4096	0.695660
6453931a0b6192e0bbd6476e736ca63f	.text	184320	6.343388
0ba1433cc62ba7903ada2f1e57603e83	.rdata	16384	6.246206
76a08265777f68f08e5e6ed2102cb31d	.data	12288	4.050945
cb8939d6bc1cd076acd850c3850bdf78	.rsrc	4096	3.289605

Packers/Compilers/Cryptors

Microsoft Visual C++ v6.0



## Relationships

2151c1977b...	Connected_To	81.94.192.147
2151c1977b...	Connected_To	112.175.92.57
2151c1977b...	Related_To	181.39.135.126
2151c1977b...	Related_To	197.211.212.59
2151c1977b...	Related_To	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289
2151c1977b...	Dropped	96a296d224f285c67bee93c30f8a309157f0daa35dc5b87e410b78630a09cfc7

## Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

When this artifact is executed, it will write the file 'udbcgiut.dat' to C:\Users\<user>\AppData\Local\Temp.

The malware will then attempt outbound SSL connections to 81.94.192.147 and 112.175.92.57. Both connection attempts are over TCP Port 443. The two IP addresses above, as well as the IP addresses 181.39.135.126 and 197.211.212.59 are hard-coded into the malware. However, only c IP addresses were attempted during analysis.

**197.211.212.59**

## Tags

command-and-control

## Ports

443 TCP

## Whois

```
inetnum: 197.211.208.0 - 197.211.215.255
netname: ZOL-16e-MOBILE-CUSTOMERS
descr: ZOL Customers on ZTE Mobile WiMAX Platform
country: ZW
admin-c: BS10-AFRINIC
admin-c: GJ1-AFRINIC
admin-c: JHM1-AFRINIC
tech-c: BS10-AFRINIC
tech-c: GJ1-AFRINIC
tech-c: JHM1-AFRINIC
status: ASSIGNED PA
mnt-by: LIQUID-TOL-MNT
source: AFRINIC # Filtered
parent: 197.211.192.0 - 197.211.255.255

person: B Siwela
address: 3rd Floor Greenbridge South
address: Eastgate Center
address: R. Mugabe Road
address: Harare
address: Zimbabwe
phone: +263774673452
fax-no: +2634702375
nic-hdl: BS10-AFRINIC
mnt-by: GENERATED-DVCNVXWBH3VN3XZXTRPHOT0OJ77GUNN3-MNT
source: AFRINIC # Filtered

person: G Jaya
address: 3rd Floor Greenbridge South
address: Eastgate Center
address: R. Mugabe Road
address: Harare
address: Zimbabwe
phone: +263773373135
fax-no: +2634702375
nic-hdl: GJ1-AFRINIC
mnt-by: GENERATED-QPEEUIPPW1WPRZ5HLHRXAVHDOKWLC9UC-MNT
source: AFRINIC # Filtered

person: John H Mwangi
address: Liquid Telecom Kenya
address: P.O.Box 62499 - 00200
address: Nairobi Kenya
address: Nairobi, Kenya
address: Kenya
phone: + 254 20 556 755
```

#### Relationships

197.211.212.59	Related_To	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525
197.211.212.59	Connected_From	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
197.211.212.59	Connected_From	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3

#### Description

This IP address is listed in the file 'udbcgiut.dat'. Outbound SSL connection attempts are made to this IP by Malware2.exe, Malware3.exe, and Mz-zol-ad-bdc.zol.co.zw is associated with the IP address, however, no DNS query is made for the name.

#### 181.39.135.126

##### Tags

command-and-control

##### Ports

443 TCP

##### Whois

inetnum: 181.39.135.120/29  
status: reallocated  
owner: Clientes Guayaquil  
ownerid: EC-CLGU1-LACNIC  
responsible: Tomislav Topic  
address: Kennedy Norte Mz. 109 Solar 21, 5, Piso 2  
address: 5934 - Guayaquil - GY  
country: EC  
phone: +593 4 2680555 [101]  
owner-c: SEL  
tech-c: SEL  
abuse-c: SEL  
created: 20160720  
changed: 20160720  
inetnum-up: 181.39/16

nic-hdl: SEL  
person: Carlos Montero  
e-mail: networking@TELCONET.EC  
address: Kennedy Norte MZ, 109, Solar 21  
address: 59342 - Guayaquil -  
country: EC  
phone: +593 42680555 [4601]  
created: 20021004  
changed: 20170323

##### Relationships

181.39.135.126	Related_To	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525
181.39.135.126	Connected_From	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
181.39.135.126	Connected_From	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3

#### Description

This IP address is listed in the file 'udbcgiut.dat'. Outbound SSL connection attempts are made to this IP by Malware2.exe, Malware3.exe, and Mz associated with the IP address.

#### 112.175.92.57

##### Tags

command-and-control

##### Ports

443 TCP

##### Whois

inetnum: 112.160.0.0 - 112.191.255.255  
netname: KORNET  
descr: Korea Telecom  
admin-c: IM667-AP  
tech-c: IM667-AP  
country: KR  
status: ALLOCATED PORTABLE  
mnt-by: MNT-KRNIC-AP

mnt-irt: IRT-KRNIC-KR  
last-modified: 2017-02-03T02:21:58Z  
source: APNIC

irt: IRT-KRNIC-KR  
address: Seocho-ro 398, Seocho-gu, Seoul, Korea  
e-mail: hostmaster@nic.or.kr  
abuse-mailbox: hostmaster@nic.or.kr  
admin-c: IM574-AP  
tech-c: IM574-AP  
auth: # Filtered  
mnt-by: MNT-KRNIC-AP  
last-modified: 2017-10-19T07:36:36Z  
source: APNIC

person: IP Manager  
address: Gyeonggi-do Bundang-gu, Seongnam-si Buljeong-ro 90  
country: KR  
phone: +82-2-500-6630  
e-mail: kornet\_ip@kt.com  
nic-hdl: IM667-AP  
mnt-by: MNT-KRNIC-AP  
last-modified: 2017-03-28T06:37:04Z  
source: APNIC  
Relationships

---

112.175.92.57 Connected\_From 2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525

---

112.175.92.57 Connected\_From ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d

---

112.175.92.57 Connected\_From 70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3

---

112.175.92.57 Connected\_From 83228075a604e955d59edc760e4c4ed16eedabfc8f6ac291cf21b4fcbcd1f70a

#### Description

This IP address is listed in the file 'udbcgiut.dat'. Outbound SSL connection attempts are made to this IP by Malware2.exe, Malware3.exe, and M: mail.everzone.co.kr is associated with the IP address, however, no DNS query is made for the name.

#### 81.94.192.147

##### Tags

command-and-control

##### Ports

443 TCP

##### Whois

inetnum: 81.94.192.0 - 81.94.192.255  
netname: IOMARTHOSTING  
descr: iomart Hosting Limited  
country: GB  
admin-c: RA1415-RIPE  
tech-c: RA1415-RIPE  
status: ASSIGNED PA  
remarks: ABUSE REPORTS: abuse@redstation.com  
mnt-by: REDSTATION-MNT  
mnt-domains: REDSTATION-MNT  
mnt-routes: REDSTATION-MNT  
created: 2016-02-14T11:44:25Z  
last-modified: 2016-02-14T11:44:25Z  
source: RIPE

role: Redstation Admin Role  
address: Redstation Limited  
address: 2 Frater Gate Business Park  
address: Aerodrome Road  
address: Gosport  
address: Hampshire  
address: PO13 0GW  
address: UNITED KINGDOM  
abuse-mailbox: abuse@redstation.com  
e-mail: abuse@redstation.com  
nic-hdl: RA1415-RIPE  
mnt-by: REDSTATION-MNT  
created: 2005-04-22T17:34:33Z  
last-modified: 2017-05-02T09:47:13Z  
source: RIPE

% Information related to '81.94.192.0/24AS20860'

route: 81.94.192.0/24  
descr: Wayne Dalton - Redstation Ltd  
origin: AS20860  
mnt-by: GB10488-RIPE-MNT  
created: 2015-11-03T12:58:00Z  
last-modified: 2015-11-03T12:58:00Z  
source: RIPE

Relationships

81.94.192.147	Connected_From	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbaf3a48f4525
81.94.192.147	Connected_From	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
81.94.192.147	Connected_From	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3

Description

This IP address is listed in the file 'udbcgiut.dat'. Outbound SSL connection attempts are made to this IP by Malware2.exe, Malware3.exe, and M associated with the IP address.

**70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289**

Tags

droppertrojan

Details

<b>Name</b>	udbcgiut.dat
<b>Size</b>	1171 bytes
<b>Type</b>	data
<b>MD5</b>	ae829f55db0198a0a36b227addcdeeff
<b>SHA1</b>	04833210fa57ea70a209520f4f2a99d049e537f2
<b>SHA256</b>	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289
<b>SHA512</b>	1b4509102ac734ce310b6f8631b1bedd772a38582b4feda9fee09f1edd096006cf5ba528435c844effa97f95984b07bd2c111aa480bb22f
<b>ssdeep</b>	3:ElcIFUI8GIFcmzkXlil23X1ll:ElcUXmQkXQ3
<b>Entropy</b>	0.395693

Antivirus

<b>Ahnlab</b>	BinImage/Hoplight
<b>Antiy</b>	Trojan/Generic.Generic
<b>ClamAV</b>	Win.Dropper.Hoplight-7402658-0
<b>Ikarus</b>	Trojan.Win32.Hoplight
<b>McAfee</b>	Trojan-Hoplight.b
<b>Microsoft Security Essentials</b>	Trojan:Win32/Hoplight
<b>TrendMicro</b>	Trojan.22D9D34C
<b>TrendMicro House Call</b>	Trojan.22D9D34C

YARA Rules

No matches found.

ssdeep Matches

No matches found.

Relationships

70902623c9...	Dropped_By	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
70902623c9...	Related_To	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
70902623c9...	Related_To	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbaf3a48f4525

---

70902623c9...	Related_To	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
70902623c9...	Related_To	12480585e08855109c5972e85d99cda7701fe992bc1754f1a0736f1eebc004d

Description

'udbcgiut.dat' is dropped by three of the four PE32 executables. This file contains a 32byte unicode string uniquely generated for the infected syst pairs in hexadecimal.

---Begin Decoded Socket Pairs---

197.211.212.59:443  
181.39.135.126:443  
112.175.92.57:7443  
81.94.192.147:7443

---End Decoded Socket Pairs---

The unicode string generated during this analysis was '8a9b11762b96c4b6'. The socket pairs remain the same for all instances of the malware. For the PE32 executables, 'udbcgiut.dat' was dropped in the victim's profile at %AppData%\Local\Temp. For the 64bit executables, 'udbcgiut.dat' C:\Windows.

**4c372df691fc699552f81c3d3937729f1dde2a2393f36c92ccc2bd2a033a0818**

Tags

trojan

Details

<b>Name</b>	C5DC53A540ABE95E02008A04A0D56D6C
<b>Size</b>	241152 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	c5dc53a540abe95e02008a04a0d56d6c
<b>SHA1</b>	4cfe9e353b1a91a2add627873846a3ad912ea96b
<b>SHA256</b>	4c372df691fc699552f81c3d3937729f1dde2a2393f36c92ccc2bd2a033a0818
<b>SHA512</b>	fc33c99facfbc98d164e63167353bdcff7c1704810e4bb64f7e56812412d84099b224086c04aea66e321cd546d8cf6f14196f5b58d5e931
<b>ssdeep</b>	6144:LA5cWD93YuzTvLFOLoqbWbnuX7ZEAV6efA/Pawzq:Xc93YbLZEAV6mX
<b>Entropy</b>	6.534884

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Hopligh
<b>Antiy</b>	Trojan/Win32.Casdet
<b>Avira</b>	TR/NukeSped.qdbcu
<b>BitDefender</b>	Trojan.GenericKD.31879714
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.OTMD-4999
<b>ESET</b>	a variant of Win32/NukeSped.AS trojan
<b>Emsisoft</b>	Trojan.GenericKD.31879714 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 0051d4f01 )
<b>McAfee</b>	Trojan-Hopligh
<b>Microsoft Security Essentials</b>	Trojan:Win32/Hopligh
<b>Quick Heal</b>	Trojan.Hopligh.S5793599
<b>Sophos</b>	Troj/Hopligh-C
<b>Symantec</b>	Trojan.Hopligh

<b>TrendMicro</b>	Trojan.55DEE3DA
<b>TrendMicro House Call</b>	Trojan.55DEE3DA
<b>VirusBlokAda</b>	Trojan.Casdet

YARA Rules

- rule crypt\_constants\_2
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule polarSSL\_servernames
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $polarSSL = "fjiejfndxklfsdkfjsaadiepwn"
    $sn1 = "www.google.com"
    $sn2 = "www.naver.com"
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and ($polarSSL and 1 of ($sn*))
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-06-04 21:31:07-04:00

---

**Import Hash** c76f6bb3f2ce6f4ce3e83448836f3ddd

PE Sections

MD5	Name	Raw Size	Entropy
64cb3246aafa83129f7fd6b25d572a9f	header	1024	2.625229
e8c15e136370c12020eb23545085b9f6	.text	196096	6.431942
cf0eb4ad22ac1ca687b87a0094999ac8	.rdata	26624	5.990247
b246681e20b3c8ff43e1fcf6c0335287	.data	8192	4.116777

6545248a1e3449e95314cbc874837096	.rsrc	512	5.112624
31a7ab6f707799d327b8425f6693c220	.reloc	8704	5.176231

Packers/Compilers/Cryptors

Microsoft Visual C++ ?.

Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

This artifact appears to be named 'lamp.exe'. The malware contains the following debug pathway:

---Begin Debug Pathway---

Z:\Develop\41.LampExe\Release\LampExe.pdb

---End Debug Pathway---

**ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d**

Tags

adwaretrojan

Details

<b>Name</b>	BE588CD29B9DC6F8CFC4D0AA5E5C79AA
<b>Name</b>	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
<b>Size</b>	267776 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	be588cd29b9dc6f8cfc4d0aa5e5c79aa
<b>SHA1</b>	06be4fe1f26bc3e4bef057ec83ae81bd3199c7fc
<b>SHA256</b>	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
<b>SHA512</b>	c074ec876350b3ee3f82208041152c0ecf25cc8600c8277eec389c253c12372e78da59182a6df8331b05e0eefb07c142172951115a582
<b>ssdeep</b>	6144:UEFpmt3md/iA3uiyzOvLFOLYqnHGZIDwf/OYy85eqmJKRPg:/PQ3mJxeigqi/OYy+/g
<b>Entropy</b>	6.554499

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Generic
<b>Antiy</b>	Trojan/Win32.Casdet
<b>Avira</b>	TR/NukeSped.yvkuj
<b>BitDefender</b>	Trojan.GenericKD.31879713
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.TBKF-4720
<b>ESET</b>	a variant of Win32/NukeSped.AI trojan
<b>Emsisoft</b>	Trojan.GenericKD.31879713 (B)
<b>Filseclab</b>	Adware.Amonetize.heur.xjym.mg
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 005329311 )
<b>McAfee</b>	Trojan-Hoplight
<b>Microsoft Security Essentials</b>	Trojan:Win32/Nukesped.PA!MTB
<b>Sophos</b>	Troj/Hoplight-C
<b>Symantec</b>	Trojan.Hoplight

<b>TACHYON</b>	Trojan/W32.Hopligh.267776
<b>TrendMicro</b>	Trojan.55DEE3DA
<b>TrendMicro House Call</b>	Trojan.55DEE3DA
<b>VirusBlokAda</b>	BScope.Trojan.Casdet

#### YARA Rules

- rule crypt\_constants\_2
 {
 meta:
 Author="NCCIC trusted 3rd party"
 Incident="10135536"
 Date = "2018/04/19"
 category = "hidden\_cobra"
 family = "n/a"
 description = "n/a"
 strings:
 \$ = {efcdab90}
 \$ = {558426fe}
 \$ = {7856b4c2}
 condition:
 (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
 }
- rule lsfr\_constants
 {
 meta:
 Author="NCCIC trusted 3rd party"
 Incident="10135536"
 Date = "2018/04/19"
 category = "hidden\_cobra"
 family = "n/a"
 description = "n/a"
 strings:
 \$ = {efcdab90}
 \$ = {558426fe}
 \$ = {7856b4c2}
 condition:
 (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
 }
- rule polarSSL\_servernames
 {
 meta:
 Author="NCCIC trusted 3rd party"
 Incident="10135536"
 Date = "2018/04/19"
 category = "hidden\_cobra"
 family = "n/a"
 description = "n/a"
 strings:
 \$polarSSL = "fjiejfndxklfsdkfjsaadiepwn"
 \$sn1 = "www.google.com"
 \$sn2 = "www.naver.com"
 condition:
 (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and (\$polarSSL and 1 of (\$sn\*))
 }

#### ssdeep Matches

No matches found.

#### PE Metadata

**Compile Date** 2017-06-06 10:33:38-04:00

---

**Import Hash** 8184d5d35e3a4640bb5d21698a4b6021

#### PE Sections

MD5	Name	Raw Size	Entropy
59b5d567b9b7b9da0ca0936675fd95fe	header	1024	2.658486
c0b6929e0f01a7b61bde3d7400a801e0	.text	218624	6.470188
ce1e5ab830fcfaa2d7bea92f56e9026e	.rdata	27136	5.962575



006bad003b65738ed203a576205cc546	.data	8192	4.157373
992987e022da39fcdbeede8ddd48f226	.rsrc	3072	5.511870
4be460324f0f4dc1f6a0983752094cce	.reloc	9728	5.303151

Packers/Compilers/Cryptors

Microsoft Visual C++ ??

Relationships

ddea408e17...	Connected_To	81.94.192.147
ddea408e17...	Connected_To	112.175.92.57
ddea408e17...	Connected_To	181.39.135.126
ddea408e17...	Connected_To	197.211.212.59
ddea408e17...	Related_To	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289
ddea408e17...	Connected_To	81.94.192.10

Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

This program attempts to initiate a TLS Handshake to the four IP/Port pairs listed in 'udbcgiut.dat'. If the program is unable to establish a connection, the file is deleted.

After 'udbcgiut.dat' is deleted, an outbound SSL connection is made to 81.94.192.10. The IP address is hard coded in the malware and are not random.

This artifact also loads several APIs that are commonly associated with Pass-The-Hash (PTH) toolkits, indicating a capability to harvest user credentials.

---Begin Common PTH APIs---

SamChangePasswordUser  
SamFreeMemory  
SamCloseHandle  
SamOpenUser  
SamLookupNamesInDomain  
SamOpenDomain  
SamConnect

---End Common PTH APIs---

**81.94.192.10**

Tags

command-and-control

Whois

Domain name:

redstation.net.uk

Registrant:

Redstation Limited

Registrant type:

UK Limited Company, (Company number: 3590745)

Registrant's address:

2 Frater Gate Business Park  
Aerodrome Road  
Gosport  
Hampshire  
PO13 0GW  
United Kingdom

Data validation:

Nominet was able to match the registrant's name and address against a 3rd party data source on 21-Feb-2017

Registrar:

Easyspace Ltd [Tag = EASYSPACE]  
URL: <https://www.easyspace.com/domain-names/extensions/uk>

Relevant dates:  
Registered on: 11-Apr-2005  
Expiry date: 11-Apr-2019  
Last updated: 12-Apr-2017

Registration status:  
Registered until expiry date.

Name servers:  
ns1.redstation.com  
ns2.redstation.com

Relationships

81.94.192.10 Connected\_From ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d

Description

A high port to high port connection attempt is made to this IP address from 'Malware5.dll'. No domain is associated with the IP address.

**12480585e08855109c5972e85d99cda7701fe992bc1754f1a0736f1eebcb004d**

Tags

droppertrojan

Details

<b>Name</b>	868036E102DF4CE414B0E6700825B319
<b>Size</b>	453791 bytes
<b>Type</b>	PE32+ executable (GUI) x86-64, for MS Windows
<b>MD5</b>	868036e102df4ce414b0e6700825b319
<b>SHA1</b>	7f1e68d78e455aa14de9020abd2293c3b8ec6cf8
<b>SHA256</b>	12480585e08855109c5972e85d99cda7701fe992bc1754f1a0736f1eebcb004d
<b>SHA512</b>	724d83493dbe86cfcee7f655272d2c733baa5470d7da986e956c789aa1b8f518ad94b575e655b4fe5f67d426b9aa7d8304fc879b82a38
<b>ssdeep</b>	12288:eb/3G8vg+Rg1cvAHTe0MLa07rt5POui6z:+/3G8vg+pvi9Sa07rt4ui6z
<b>Entropy</b>	7.713852

Antivirus

<b>Ahnlab</b>	Trojan/Win64.Hoplight
<b>Antiy</b>	Trojan/Generic.Generic
<b>Avira</b>	TR/Dropper.ezydy
<b>BitDefender</b>	Trojan.Autoruns.GenericKDS.32698229
<b>ClamAV</b>	Win.Trojan.Hoplight-7402636-0
<b>Cyren</b>	W64/Trojan.PLQG-3049
<b>ESET</b>	a variant of Win64/NukeSped.BV trojan
<b>Emsisoft</b>	Trojan.Autoruns.GenericKDS.32698229 (B)
<b>Ikarus</b>	Trojan.Win64.Nukesped
<b>K7</b>	Riskware ( 0040eff71 )
<b>McAfee</b>	Generic Trojan.ix
<b>Microsoft Security Essentials</b>	Trojan:Win64/Hoplight
<b>NANOAV</b>	Trojan.Win64.Crypted.excqpl
<b>NetGate</b>	Trojan.Win32.Malware
<b>Quick Heal</b>	Trojan.Win64
<b>Sophos</b>	Troj/Hoplight-C
<b>Symantec</b>	Trojan.Gen.MBT

<b>TACHYON</b>	Trojan/W32.Hopligh.453791
<b>TrendMicro</b>	Trojan.D58D9624
<b>TrendMicro House Call</b>	Trojan.D58D9624
<b>VirusBlokAda</b>	Trojan.Win64.Hopligh

YARA Rules

No matches found.

ssdeep Matches

**90** 890d3928be0f36b1f4dcfffb20ac3747a31451ce010caba768974bfccdc26e7c

PE Metadata

**Compile Date** 2017-06-06 10:54:03-04:00

**Import Hash** 947a389c3886c5fa7f3e972fd4d7740c

PE Sections

MD5	Name	Raw Size	Entropy
e772c7a04c7e3d53c58fdb8a88bb0c02	header	1024	2.486400
a6a2750e5b57470403299e0327553042	.text	34816	6.297430
cc5d69374e9b0266a4b1119e5274d392	.rdata	12288	4.715650
ac4ee21fcb2501656efc217d139ec804	.data	5120	1.876950
359af12d4a14ced423d39736dfec613a	.pdata	2560	3.878158
097e0e4be076b795a7316f1746bace8a	.rsrc	3072	5.514584
5849f380266933d6f3c5c4740334b041	.reloc	1024	2.517963

Packers/Compilers/Cryptors

Microsoft Visual C++ 8.0 (DLL)

Relationships

12480585e0... Related\_To 70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289

12480585e0... Dropped 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

Description

This artifact is a malicious x64 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

In addition to the capabilities described above, this variant will hook the Windows Local Security Authority (lsass.exe). 'lsass.exe' will check the re 'rdpproto' under the key SYSTEM\CurrentControlSet\Control\Lsa Name: Security Packages. If not found, this value is added by 'lsass.exe'. Next, the malware will drop the embedded file, 'rdpproto.dll' into the %System32% directory. The file, 'udbcgiut.dat' is then written to C:\Windows. Outbound connection attempts are made to the socket pairs found within this file as describe **49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359**

Tags

trojan

Details

<b>Name</b>	rdpproto.dll
<b>Size</b>	391680 bytes
<b>Type</b>	PE32+ executable (DLL) (console) x86-64, for MS Windows
<b>MD5</b>	dc268b166fe4c1d1c8595dccc857c476
<b>SHA1</b>	8264556c8a6e460760dc6bb72ecc6f0f966a16b8
<b>SHA256</b>	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

---

**SHA512** b47c4caa0b5c17c982fcd040c7171d36ec962fe32e9b8bec567ee14b187507fe90e026aa05eec17d36c49a924eeaed55e66c95a111cfa

**ssdeep** 6144:jfsTC8amAXJeZP6BPjIDeLkigDxcvAHjVXjhtBGshMLa1Mj7rtkiP60dwtudlye:jvg+Rg1cvAHtE0MLa07rt5POui6

---

**Entropy** 7.893665

Antivirus

<b>Ahnlab</b>	Trojan/Win64.Hopligh
<b>Antiy</b>	Trojan/Win32.Casdet
<b>Avira</b>	TR/Crypt.XPACK.xuqld
<b>BitDefender</b>	Trojan.Generic.22790108
<b>ClamAV</b>	Win.Trojan.Hopligh-7402636-0
<b>ESET</b>	a variant of Win64/NukeSped.BV trojan
<b>Emsisoft</b>	Trojan.Generic.22790108 (B)
<b>Ikarus</b>	Trojan.SuspectCRC
<b>K7</b>	Trojan ( 0054bb211 )
<b>McAfee</b>	Hopligh-FDXG!DC268B166FE4
<b>Microsoft Security Essentials</b>	Trojan:Win64/Hopligh
<b>NANOAV</b>	Trojan.Win64.Crypted.excqpl
<b>Quick Heal</b>	Trojan.Win64
<b>Sophos</b>	Troj/Hopligh-C
<b>Symantec</b>	Trojan.Hopligh
<b>TACHYON</b>	Trojan/W32.Hopligh.391680
<b>VirusBlokAda</b>	Trojan.Win64.Agent

YARA Rules

No matches found.

ssdeep Matches

**99** 890d3928be0f36b1f4dcffb20ac3747a31451ce010caba768974bfccdc26e7c

PE Metadata

**Compile Date** 2017-06-06 11:34:06-04:00

**Import Hash** 360d26520c50825099ec61e97b01a43b

PE Sections

<b>MD5</b>	<b>Name</b>	<b>Raw Size</b>	<b>Entropy</b>
3bb2a7d6aab283c82ab853f536157ce2	header	1024	2.524087
b0bf8ec7b067fd3592c0053702e34504	.text	23552	6.180871
6cc98c5fef3ea1b782262e355b5c5862	.rdata	10752	4.635336
484d4698d46b3b5ad033c1a80ba83acf	.data	4096	2.145716
a07c8f17c18c6789a3e757aec183aea6	.pdata	2048	3.729952
fae0d0885944745d98849422bd799457	.rsrc	348672	7.997488
0c1c23e1fb129b1b1966f70fc75cf20e	.reloc	1536	1.737829

Relationships

49757cf856... Dropped\_By 12480585e08855109c5972e85d99cda7701fe992bc1754f1a0736f1eebcb004d

---

49757cf856...	Connected_To	21.252.107.198
49757cf856...	Connected_To	70.224.36.194
49757cf856...	Connected_To	113.114.117.122
49757cf856...	Connected_To	47.206.4.145
49757cf856...	Connected_To	84.49.242.125
49757cf856...	Connected_To	26.165.218.44
49757cf856...	Connected_To	137.139.135.151
49757cf856...	Connected_To	97.90.44.200
49757cf856...	Connected_To	128.200.115.228
49757cf856...	Connected_To	186.169.2.237

#### Description

"rdpproto.dll" is dropped into the %System32% directory by 868036E102DF4CE414B0E6700825B319. When the library is loaded, "rdpproto.dll" will attempt to send SSL Client Hello packets to any of the following embedded IP addresses:

---Begin Embedded IP Addresses---

21.252.107.198  
70.224.36.194  
113.114.117.122  
47.206.4.145  
84.49.242.125  
26.165.218.44  
137.139.135.151  
97.90.44.200  
128.200.115.228  
186.169.2.237

---End Embedded IP Addresses---

This artifact contains the following notable strings:

---Begin Notable Strings---

CompanyName  
Adobe System Incorporated  
FileDescription  
MicrosoftWindows TransFilter/FilterType : 01 WindowsNT Service  
FileVersion  
6.1 Build 7601  
InternalName  
TCP/IP Packet Filter Service  
LegalCopyright  
Copyright 2015 - Adobe System Incorporated  
LegalTrademarks  
OriginalFileName  
TCP/IP - PacketFilter

---End Notable Strings---

**21.252.107.198**

Tags

command-and-control

Ports

23164 TCP

Whois

NetRange: 21.0.0.0 - 21.255.255.255  
CIDR: 21.0.0.0/8  
NetName: DNIC-SNET-021  
NetHandle: NET-21-0-0-1  
Parent: ()  
NetType: Direct Allocation  
OriginAS:  
Organization: DoD Network Information Center (DNIC)

RegDate: 1991-06-30  
Updated: 2009-06-19  
Ref: https://whois.arin.net/rest/net/NET-21-0-0-0-1

OrgName: DoD Network Information Center  
OrgId: DNIC  
Address: 3990 E. Broad Street  
City: Columbus  
StateProv: OH  
PostalCode: 43218  
Country: US  
RegDate:  
Updated: 2011-08-17  
Ref: https://whois.arin.net/rest/org/DNIC  
Relationships

---

21.252.107.198 Connected\_From 4a74a9fd40b63218f7504f806fce71dffec1b1d6ca4bbaadd720b6a89d47761

---

21.252.107.198 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

#### Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

#### 70.224.36.194

##### Tags

command-and-control

##### Ports

59681 TCP

##### Whois

Domain Name: AMERITECH.NET  
Registry Domain ID: 81816\_DOMAIN\_NET-VRSN  
Registrar WHOIS Server: whois.corporatedomains.com  
Registrar URL: http://www.cscglobal.com/global/web/csc/digital-brand-services.html  
Updated Date: 2017-06-09T05:27:34Z  
Creation Date: 1996-06-14T04:00:00Z  
Registry Expiry Date: 2018-06-13T04:00:00Z  
Registrar: CSC Corporate Domains, Inc.  
Registrar IANA ID: 299  
Registrar Abuse Contact Email: domainabuse@cscglobal.com  
Registrar Abuse Contact Phone: 8887802723  
Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited  
Name Server: NS1.ATTDNS.COM  
Name Server: NS2.ATTDNS.COM  
Name Server: NS3.ATTDNS.COM  
Name Server: NS4.ATTDNS.COM  
DNSSEC: unsigned

Domain Name: ameritech.net  
Registry Domain ID: 81816\_DOMAIN\_NET-VRSN  
Registrar WHOIS Server: whois.corporatedomains.com  
Registrar URL: www.cscprotectsbrands.com  
Updated Date: 2017-06-09T05:27:34Z  
Creation Date: 1996-06-14T04:00:00Z  
Registrar Registration Expiration Date: 2018-06-13T04:00:00Z  
Registrar: CSC CORPORATE DOMAINS, INC.  
Registrar IANA ID: 299  
Registrar Abuse Contact Email: domainabuse@cscglobal.com  
Registrar Abuse Contact Phone: +1.8887802723  
Domain Status: clientTransferProhibited http://www.icann.org/epp#clientTransferProhibited  
Registry Registrant ID:  
Registrant Name: Domain Administrator  
Registrant Organization: AT&T SERVICES, INC.  
Registrant Street: 801 Chestnut Street  
Registrant City: Saint Louis  
Registrant State/Province: MO  
Registrant Postal Code: 63101  
Registrant Country: US  
Registrant Phone: +1.3142358168  
Registrant Phone Ext:  
Registrant Fax: +1.3142358168  
Registrant Fax Ext:  
Registrant Email: att-domains@att.com  
Registry Admin ID:  
Admin Name: Domain Administrator

Admin Organization: AT&T SERVICES, INC.  
Admin Street: 801 Chestnut Street  
Admin City: Saint Louis  
Admin State/Province: MO  
Admin Postal Code: 63101  
Admin Country: US  
Admin Phone: +1.3142358168  
Admin Phone Ext:  
Admin Fax: +1.3142358168  
Admin Fax Ext:  
Admin Email: att-domains@att.com  
Registry Tech ID:  
Tech Name: Domain Administrator  
Tech Organization: AT&T SERVICES, INC.  
Tech Street: 801 Chestnut Street  
Tech City: Saint Louis  
Tech State/Province: MO  
Tech Postal Code: 63101  
Tech Country: US  
Tech Phone: +1.3142358168  
Tech Phone Ext:  
Tech Fax: +1.3142358168  
Tech Fax Ext:  
Tech Email: att-domains@att.com  
Name Server: ns3.attdns.com  
Name Server: ns1.attdns.com  
Name Server: ns2.attdns.com  
Name Server: ns4.attdns.com  
DNSSEC: unsigned  
Relationships

---

70.224.36.194 Connected\_From 4a74a9fd40b63218f7504f806fce71dffec1b1d6ca4bbaadd720b6a89d47761

---

70.224.36.194 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

#### Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

**113.114.117.122**

#### Tags

command-and-control

#### Ports

23397 TCP

#### Whois

inetnum: 113.112.0.0 - 113.119.255.255  
netname: CHINANET-GD  
descr: CHINANET Guangdong province network  
descr: Data Communication Division  
descr: China Telecom  
country: CN  
admin-c: CH93-AP  
tech-c: IC83-AP  
remarks: service provider  
status: ALLOCATED PORTABLE  
mnt-by: APNIC-HM  
mnt-lower: MAINT-CHINANET-GD  
mnt-routes: MAINT-CHINANET-GD  
last-modified: 2016-05-04T00:15:17Z  
source: APNIC  
mnt-irt: IRT-CHINANET-CN

irt: IRT-CHINANET-CN  
address: No.31 ,jingrong street,beijing  
address: 100032  
e-mail: anti-spam@ns.chinanet.cn.net  
abuse-mailbox: anti-spam@ns.chinanet.cn.net  
admin-c: CH93-AP  
tech-c: CH93-AP  
auth: # Filtered  
mnt-by: MAINT-CHINANET  
last-modified: 2010-11-15T00:31:55Z  
source: APNIC

person: Chinanet Hostmaster  
nic-hdl: CH93-AP  
e-mail: anti-spam@ns.chinanet.cn.net  
address: No.31 ,jingrong street,beijing  
address: 100032  
phone: +86-10-58501724  
fax-no: +86-10-58501724  
country: CN  
mnt-by: MAINT-CHINANET  
last-modified: 2014-02-27T03:37:38Z  
source: APNIC

person: IPMASTER CHINANET-GD  
nic-hdl: IC83-AP  
e-mail: gdnoc\_HLWI@189.cn  
address: NO.18,RO. ZHONGSHANER,YUEXIU DISTRIC,GUANGZHOU  
phone: +86-20-87189274  
fax-no: +86-20-87189274  
country: CN  
mnt-by: MAINT-CHINANET-GD  
remarks: IPMASTER is not for spam complaint,please send spam complaint to abuse\_gdnoc@189.cn  
abuse-mailbox: antispam\_gdnoc@189.cn  
last-modified: 2014-09-22T04:41:26Z  
source: APNIC  
Relationships

---

113.114.117.122 Connected\_From 4a74a9fd40b63218f7504f806fce71dffec1b1d6ca4bbaadd720b6a89d47761

---

113.114.117.122 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

#### Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

#### 47.206.4.145

##### Tags

command-and-control

##### Ports

59067 TCP

##### Whois

Domain Name: FRONTIERNET.NET  
Registry Domain ID: 4305589\_DOMAIN\_NET-VRSN  
Registrar WHOIS Server: whois.register.com  
Registrar URL: http://www.register.com  
Updated Date: 2017-09-14T07:53:05Z  
Creation Date: 1995-10-14T04:00:00Z  
Registry Expiry Date: 2018-10-13T04:00:00Z  
Registrar: Register.com, Inc.  
Registrar IANA ID: 9  
Registrar Abuse Contact Email: abuse@web.com  
Registrar Abuse Contact Phone: +1.8003337680  
Domain Status: clientTransferProhibited <https://icann.org/epp#clientTransferProhibited>  
Name Server: AUTH.DLLS.PA.FRONTIERNET.NET  
Name Server: AUTH.FRONTIERNET.NET  
Name Server: AUTH.LKVL.MN.FRONTIERNET.NET  
Name Server: AUTH.ROCH.NY.FRONTIERNET.NET  
DNSSEC: unsigned

Domain Name: FRONTIERNET.NET  
Registry Domain ID: 4305589\_DOMAIN\_NET-VRSN  
Registrar WHOIS Server: whois.register.com  
Registrar URL: www.register.com  
Updated Date: 2017-09-14T00:53:05.00Z  
Creation Date: 1995-10-14T04:00:00.00Z  
Registrar Registration Expiration Date: 2018-10-13T04:00:00.00Z  
Registrar: REGISTER.COM, INC.  
Registrar IANA ID: 9  
Domain Status: clientTransferProhibited <https://www.icann.org/epp#clientTransferProhibited>  
Registry Registrant ID:  
Registrant Name: FRONTIERNET HOSTMASTER  
Registrant Organization:  
Registrant Street: 95 N. FITZHUGH ST.  
Registrant City: ROCHESTER  
Registrant State/Province: NY  
Registrant Postal Code: 14614-1212



Registrant Country: US  
Registrant Phone: +1.8664747662  
Registrant Phone Ext:  
Registrant Fax:  
Registrant Fax Ext:  
Registrant Email: HOSTMASTER@FRONTIERNET.NET  
Registry Admin ID:  
Admin Name: FRONTIERNET HOSTMASTER  
Admin Organization:  
Admin Street: 95 N. FITZHUGH ST.  
Admin City: ROCHESTER  
Admin State/Province: NY  
Admin Postal Code: 14614-1212  
Admin Country: US  
Admin Phone: +1.8664747662  
Admin Phone Ext:  
Admin Fax:  
Admin Fax Ext:  
Admin Email: HOSTMASTER@FRONTIERNET.NET  
Registry Tech ID:  
Tech Name: FRONTIERNET HOSTMASTER  
Tech Organization:  
Tech Street: 95 N. FITZHUGH ST.  
Tech City: ROCHESTER  
Tech State/Province: NY  
Tech Postal Code: 14614-1212  
Tech Country: US  
Tech Phone: +1.8664747662  
Tech Phone Ext:  
Tech Fax:  
Tech Fax Ext:  
Tech Email: HOSTMASTER@FRONTIERNET.NET  
Name Server: AUTH.DLLS.PA.FRONTIERNET.NET  
Name Server: AUTH.FRONTIERNET.NET  
Name Server: AUTH.LKVL.MN.FRONTIERNET.NET  
Name Server: AUTH.ROCH.NY.FRONTIERNET.NET  
DNSSEC: unSigned  
Relationships

47.206.4.145 Connected\_From 4a74a9fd40b63218f7504f806fce71dffec1b1d6ca4bbaadd720b6a89d47761

47.206.4.145 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

#### Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

#### 84.49.242.125

##### Tags

command-and-control

##### Ports

17770 TCP

##### Whois

Domain Name: NEXTGENTEL.COM  
Registry Domain ID: 13395561\_DOMAIN\_COM-VRSN  
Registrar WHOIS Server: whois.domaininfo.com  
Registrar URL: http://www.ports.domains  
Updated Date: 2017-11-10T23:44:50Z  
Creation Date: 1999-11-17T15:47:51Z  
Registry Expiry Date: 2018-11-17T15:47:51Z  
Registrar: Ports Group AB  
Registrar IANA ID: 73  
Registrar Abuse Contact Email: abuse@portsgroup.se  
Registrar Abuse Contact Phone: +46.707260017  
Domain Status: clientTransferProhibited <https://icann.org/epp#clientTransferProhibited>  
Name Server: ANYADNS1.NEXTGENTEL.NET  
Name Server: ANYADNS2.NEXTGENTEL.NET  
DNSSEC: unsigned

Domain Name: nextgentel.com  
Registry Domain ID: 13395561\_DOMAIN\_COM-VRSN  
Registrar WHOIS Server: whois.domaininfo.com  
Registrar URL: ports.domains  
Updated Date: 2017-11-10T23:44:50Z  
Creation Date: 1999-11-17T15:47:51Z

Registrar Registration Expiration Date: 2018-11-17T15:47:51Z  
Registrar: PortsGroup AB  
Registrar IANA ID: 73  
Registrar Abuse Contact Email: abuse@portsgroup.se  
Registrar Abuse Contact Phone: +46.317202000  
Domain Status: clientTransferProhibited <https://icann.org/epp#clientTransferProhibited>  
Registry Registrant ID:  
Registrant Name: Hostmaster  
Registrant Organization: NextGenTel AS  
Registrant Street: Sandslimarka 31  
Registrant City: SANDSLI  
Registrant State/Province:  
Registrant Postal Code: 5254  
Registrant Country: NO  
Registrant Phone: +47.55527900  
Registrant Fax: +47.55527910  
Registrant Email: hostmaster@nextgentel.com  
Registry Admin ID:  
Admin Name: Hostmaster  
Admin Organization: NextGenTel AS  
Admin Street: Sandslimarka 31  
Admin City: Sandsli  
Admin State/Province:  
Admin Postal Code: 5254  
Admin Country: NO  
Admin Phone: +47.55527900  
Admin Fax: +47.55527910  
Admin Email: hostmaster@nextgentel.com  
Registry Tech ID:  
Tech Name: Hostmaster v/ Eivind Olsen  
Tech Organization: NextGenTel AS  
Tech Street: Postboks 3 Sandsli  
Tech City: Bergen  
Tech State/Province:  
Tech Postal Code: 5861  
Tech Country: NO  
Tech Phone: +47.41649322  
Tech Fax: +47.55527910  
Tech Email: hostmaster@nextgentel.com  
Name Server: ANYADNS1.NEXTGENTEL.NET  
Name Server: ANYADNS2.NEXTGENTEL.NET  
DNSSEC: unsigned  
Relationships

84.49.242.125 Connected\_From 4a74a9fd40b63218f7504f806fce71dfffc1b1d6ca4bbaadd720b6a89d47761

84.49.242.125 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

#### Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

#### 26.165.218.44

#### Tags

command-and-control

#### Ports

2248 TCP

#### Whois

NetRange: 26.0.0.0 - 26.255.255.255  
CIDR: 26.0.0.0/8  
NetName: DISANET26  
NetHandle: NET-26-0-0-0-1  
Parent: ()  
NetType: Direct Allocation  
OriginAS:  
Organization: DoD Network Information Center (DNIC)  
RegDate: 1995-04-30  
Updated: 2009-06-19  
Ref: <https://whois.arin.net/rest/net/NET-26-0-0-0-1>

OrgName: DoD Network Information Center  
OrgId: DNIC  
Address: 3990 E. Broad Street  
City: Columbus  
StateProv: OH

PostalCode: 43218  
Country: US  
RegDate:  
Updated: 2011-08-17  
Ref: <https://whois.arin.net/rest/org/DNIC>

OrgTechHandle: MIL-HSTMST-ARIN  
OrgTechName: Network DoD  
OrgTechPhone: +1-844-347-2457  
OrgTechEmail: [disa.columbus.ns.mbx.hostmaster-dod-nic@mail.mil](mailto:disa.columbus.ns.mbx.hostmaster-dod-nic@mail.mil)  
OrgTechRef: <https://whois.arin.net/rest/poc/MIL-HSTMST-ARIN>

OrgAbuseHandle: REGIS10-ARIN  
OrgAbuseName: Registration  
OrgAbusePhone: +1-844-347-2457  
OrgAbuseEmail: [disa.columbus.ns.mbx.arin-registrations@mail.mil](mailto:disa.columbus.ns.mbx.arin-registrations@mail.mil)  
OrgAbuseRef: <https://whois.arin.net/rest/poc/REGIS10-ARIN>

OrgTechHandle: REGIS10-ARIN  
OrgTechName: Registration  
OrgTechPhone: +1-844-347-2457  
OrgTechEmail: [disa.columbus.ns.mbx.arin-registrations@mail.mil](mailto:disa.columbus.ns.mbx.arin-registrations@mail.mil)  
OrgTechRef: <https://whois.arin.net/rest/poc/REGIS10-ARIN>  
Relationships

---

26.165.218.44 Connected\_From 4a74a9fd40b63218f7504f806fce71dfffc1b1d6ca4bbaadd720b6a89d47761

---

26.165.218.44 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

#### Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

#### 137.139.135.151

#### Tags

command-and-control

#### Ports

64694 TCP

#### Whois

NetRange: 137.139.0.0 - 137.139.255.255  
CIDR: 137.139.0.0/16  
NetName: SUC-OLDWEST  
NetHandle: NET-137-139-0-0-1  
Parent: NET137 (NET-137-0-0-0-0)  
NetType: Direct Assignment  
OriginAS:  
Organization: SUNY College at Old Westbury (SCAOW)  
RegDate: 1989-11-29  
Updated: 2014-02-18  
Ref: <https://whois.arin.net/rest/net/NET-137-139-0-0-1>

OrgName: SUNY College at Old Westbury  
OrgId: SCAOW  
Address: 223 Store Hill Road  
City: Old Westbury  
StateProv: NY  
PostalCode: 11568  
Country: US  
RegDate: 1989-11-29  
Updated: 2011-09-24  
Ref: <https://whois.arin.net/rest/org/SCAOW>

OrgTechHandle: SUNYO-ARIN  
OrgTechName: SUNYOWNOC  
OrgTechPhone: +1-516-876-3379  
OrgTechEmail: [sunyownoc@oldwestbury.edu](mailto:sunyownoc@oldwestbury.edu)  
OrgTechRef: <https://whois.arin.net/rest/poc/SUNYO-ARIN>

OrgAbuseHandle: SUNYO-ARIN  
OrgAbuseName: SUNYOWNOC  
OrgAbusePhone: +1-516-876-3379  
OrgAbuseEmail: [sunyownoc@oldwestbury.edu](mailto:sunyownoc@oldwestbury.edu)  
OrgAbuseRef: <https://whois.arin.net/rest/poc/SUNYO-ARIN>

RAbuseHandle: SUNYO-ARIN  
RAbuseName: SUNYOWNOC  
RAbusePhone: +1-516-876-3379  
RAbuseEmail: sunyownoc@oldwestbury.edu  
RAbuseRef: <https://whois.arin.net/rest/poc/SUNYO-ARIN>

RTechHandle: SUNYO-ARIN  
RTechName: SUNYOWNOC  
RTechPhone: +1-516-876-3379  
RTechEmail: sunyownoc@oldwestbury.edu  
RTechRef: <https://whois.arin.net/rest/poc/SUNYO-ARIN>

RNOCHandle: SUNYO-ARIN  
RNOCHandle: SUNYOWNOC  
RNOCHandle: +1-516-876-3379  
RNOCHandle: sunyownoc@oldwestbury.edu  
RNOCHandle: <https://whois.arin.net/rest/poc/SUNYO-ARIN>  
Relationships

---

137.139.135.151 Connected\_From 4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761

---

137.139.135.151 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

#### Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

#### 97.90.44.200

##### Tags

command-and-control

##### Ports

37120 TCP

##### Whois

Domain Name: CHARTER.COM  
Registry Domain ID: 340223\_DOMAIN\_COM-VRSN  
Registrar WHOIS Server: whois.markmonitor.com  
Registrar URL: <http://www.markmonitor.com>  
Updated Date: 2017-07-03T04:22:18Z  
Creation Date: 1994-07-30T04:00:00Z  
Registry Expiry Date: 2019-07-29T04:00:00Z  
Registrar: MarkMonitor Inc.  
Registrar IANA ID: 292  
Registrar Abuse Contact Email: [abusecomplaints@markmonitor.com](mailto:abusecomplaints@markmonitor.com)  
Registrar Abuse Contact Phone: +1.2083895740  
Domain Status: clientDeleteProhibited <https://icann.org/epp#clientDeleteProhibited>  
Domain Status: clientTransferProhibited <https://icann.org/epp#clientTransferProhibited>  
Domain Status: clientUpdateProhibited <https://icann.org/epp#clientUpdateProhibited>  
Name Server: NS1.CHARTER.COM  
Name Server: NS2.CHARTER.COM  
Name Server: NS3.CHARTER.COM  
Name Server: NS4.CHARTER.COM  
DNSSEC: unsigned

Domain Name: charter.com  
Registry Domain ID: 340223\_DOMAIN\_COM-VRSN  
Registrar WHOIS Server: whois.markmonitor.com  
Registrar URL: <http://www.markmonitor.com>  
Updated Date: 2017-12-18T04:00:14-0800  
Creation Date: 1994-07-29T21:00:00-0700  
Registrar Registration Expiration Date: 2019-07-28T21:00:00-0700  
Registrar: MarkMonitor, Inc.  
Registrar IANA ID: 292  
Registrar Abuse Contact Email: [abusecomplaints@markmonitor.com](mailto:abusecomplaints@markmonitor.com)  
Registrar Abuse Contact Phone: +1.2083895740  
Domain Status: clientUpdateProhibited (<https://www.icann.org/epp#clientUpdateProhibited>)  
Domain Status: clientTransferProhibited (<https://www.icann.org/epp#clientTransferProhibited>)  
Domain Status: clientDeleteProhibited (<https://www.icann.org/epp#clientDeleteProhibited>)  
Registry Registrant ID:  
Registrant Name: Domain Admin  
Registrant Organization: Charter Communications Operating, LLC  
Registrant Street: 12405 Powerscourt Drive,  
Registrant City: Saint Louis  
Registrant State/Province: MO  
Registrant Postal Code: 63131  
Registrant Country: US

Registrant Phone: +1.3149650555  
Registrant Phone Ext:  
Registrant Fax: +1.9064010617  
Registrant Fax Ext:  
Registrant Email: hostmaster@charter.com  
Registry Admin ID:  
Admin Name: Domain Admin  
Admin Organization: Charter Communications Operating, LLC  
Admin Street: 12405 Powerscourt Drive,  
Admin City: Saint Louis  
Admin State/Province: MO  
Admin Postal Code: 63131  
Admin Country: US  
Admin Phone: +1.3149650555  
Admin Phone Ext:  
Admin Fax: +1.9064010617  
Admin Fax Ext:  
Admin Email: hostmaster@charter.com  
Registry Tech ID:  
Tech Name: Charter Communications Internet Security and Abuse  
Tech Organization: Charter Communications Operating, LLC  
Tech Street: 12405 Powerscourt Drive,  
Tech City: Saint Louis  
Tech State/Province: MO  
Tech Postal Code: 63131  
Tech Country: US  
Tech Phone: +1.3142883111  
Tech Phone Ext:  
Tech Fax: +1.3149090609  
Tech Fax Ext:  
Tech Email: abuse@charter.net  
Name Server: ns4.charter.com  
Name Server: ns3.charter.com  
Name Server: ns1.charter.com  
Name Server: ns2.charter.com  
DNSSEC: unsigned  
Relationships

---

97.90.44.200 Connected\_From 4a74a9fd40b63218f7504f806fce71dfffc1b1d6ca4bbaadd720b6a89d47761

---

97.90.44.200 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

**128.200.115.228**

Tags

command-and-control

Ports

52884 TCP

Whois

Domain Name: UCI.EDU

Registrant:

University of California, Irvine  
6366 Ayala Science Library  
Irvine, CA 92697-1175  
UNITED STATES

Administrative Contact:

Con Wieland  
University of California, Irvine  
Office of Information Technology  
6366 Ayala Science Library  
Irvine, CA 92697-1175  
UNITED STATES  
(949) 824-2222  
oit-nsp@uci.edu

Technical Contact:

Con Wieland  
University of California, Irvine  
Office of Information Technology  
6366 Ayala Science Library

Irvine, CA 92697-1175  
UNITED STATES  
(949) 824-2222  
oit-nsp@uci.edu

Name Servers:  
NS4.SERVICE.UCI.EDU 128.200.59.190  
NS5.SERVICE.UCI.EDU 52.26.131.47

Domain record activated: 30-Sep-1985  
Domain record last updated: 07-Jul-2016  
Domain expires: 31-Jul-2018  
Relationships

---

128.200.115.228 Connected\_From 4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761

---

128.200.115.228 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

#### Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

#### **186.169.2.237**

##### Tags

command-and-control

##### Ports

65292 TCP

##### Whois

inetnum: 186.168/15  
status: allocated  
aut-num: N/A  
owner: COLOMBIA TELECOMUNICACIONES S.A. ESP  
ownerid: CO-CTSE-LACNIC  
responsible: Administradores Internet  
address: Transversal 60, 114, A 55  
address: N - BOGOTA - Cu  
country: CO  
phone: +57 1 5339833 []  
owner-c: CTE7  
tech-c: CTE7  
abuse-c: CTE7  
inetrev: 186.169/16  
nserver: DNS5.TELECOM.COM.CO  
nsstat: 20171220 AA  
nslastaa: 20171220  
nserver: DNS.TELECOM.COM.CO  
nsstat: 20171220 AA  
nslastaa: 20171220  
created: 20110404  
changed: 20141111

nic-hdl: CTE7  
person: Grupo de Administradores Internet  
e-mail: admin.internet@TELECOM.COM.CO  
address: Transversal, 60, 114 A, 55  
address: 571111 - BOGOTA DC - CU  
country: CO  
phone: +57 1 7050000 [71360]  
created: 20140220  
changed: 20140220

##### Relationships

---

186.169.2.237 Connected\_From 4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761

---

186.169.2.237 Connected\_From 49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359

#### Description

A high port to high port connection attempt is made to this IP address from 'Malware2.dll'. No domain is associated with the IP address.

#### **4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761**

##### Tags

trojan

##### Details

<b>Name</b>	42682D4A78FE5C2EDA988185A344637D
<b>Name</b>	4a74a9fd40b63218f7504f806fce71dffec1b1d6ca4bbaadd720b6a89d47761
<b>Size</b>	346624 bytes
<b>Type</b>	PE32+ executable (DLL) (console) x86-64, for MS Windows
<b>MD5</b>	42682d4a78fe5c2eda988185a344637d
<b>SHA1</b>	4975de2be0a1f7202037f5a504d738fe512191b7
<b>SHA256</b>	4a74a9fd40b63218f7504f806fce71dffec1b1d6ca4bbaadd720b6a89d47761
<b>SHA512</b>	213e4a0afbafac0bd884ab262ac87aee7d9a175cff56ba11aa4c75a4feb6a96c5e4e2c26adbe765f637c783df7552a56e4781a3b17be5fde
<b>ssdeep</b>	6144:nCgsFAkxS1rrtZQXTip12P04nTnvze6lxjWV346vze6lpjWV34Evze6lSjWV34a7:nCgsukxS1vtZ+5nvze6lxjWV346vze6N
<b>Entropy</b>	6.102810

#### Antivirus

<b>Ahnlab</b>	Trojan/Win32.Generic
<b>Antiy</b>	Trojan/Win32.AGeneric
<b>Avira</b>	TR/NukeSped.tbxxd
<b>BitDefender</b>	Trojan.GenericKD.41198710
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W64/Trojan.NKDY-0871
<b>ESET</b>	a variant of Win64/NukeSped.T trojan
<b>Emsisoft</b>	Trojan.GenericKD.41198710 (B)
<b>Ikarus</b>	Trojan.Win64.Nukesped
<b>K7</b>	Trojan ( 0054bc321 )
<b>McAfee</b>	Generic Trojan.ix
<b>Microsoft Security Essentials</b>	Trojan:Win64/Hoplight
<b>Quick Heal</b>	Trojan.Hoplight.S5795935
<b>Sophos</b>	Troj/Hoplight-C
<b>Symantec</b>	Trojan.Hoplight
<b>TACHYON</b>	Trojan/W32.Hoplight.346624
<b>TrendMicro</b>	Trojan.A7CCF529
<b>TrendMicro House Call</b>	Trojan.A7CCF529
<b>VirusBlokAda</b>	Trojan.Win64.Hoplight
<b>Zillya!</b>	Trojan.NukeSped.Win64.56

#### YARA Rules

- rule crypt\_constants\_2
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule polarSSL\_servernames
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $polarSSL = "fjiejfndxklfsdkfjsaadiepwn"
    $sn1 = "www.google.com"
    $sn2 = "www.naver.com"
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) -- 0x4550) and ($polarSSL and 1 of ($sn*))
}
```

ssdeep Matches

No matches found.

PE Metadata

<b>Compile Date</b>	2017-06-06 11:24:44-04:00
<b>Import Hash</b>	e395fbfa0104d0173b3c4fdd3debdceb
<b>Company Name</b>	Kamsky Co.,Ltd
<b>File Description</b>	Vote_Controller
<b>Internal Name</b>	MDL_170329_x86_V06Lv3
<b>Legal Copyright</b>	Copyright lu24d2 2017
<b>Original Filename</b>	Vote_Controller
<b>Product Name</b>	Kamsky ColdFear
<b>Product Version</b>	17, 0, 0, 0

PE Sections

MD5	Name	Raw Size	Entropy
40d66d1a2f846d7c3bf291c604c9fca3	header	1024	2.628651



d061ffec6721133c433386c96520bc55	.text	284160	5.999734
cbbc6550dcbdcaf012bdbf758a377779	.rdata	38912	5.789426
c83bcaab05056d5b84fc609f41eed210	.data	7680	3.105496
b9fc36206883aa1902566b5d01c27473	.pdata	8704	5.319307
1c1d46056b4cb4627a5f92112b7e09f7	.rsrc	4096	5.608168
3baedaa3d6b6d6dc9fb0ec4f5c3b007c	.reloc	2048	2.331154

#### Relationships

4a74a9fd40...	Connected_To	21.252.107.198
4a74a9fd40...	Connected_To	70.224.36.194
4a74a9fd40...	Connected_To	113.114.117.122
4a74a9fd40...	Connected_To	47.206.4.145
4a74a9fd40...	Connected_To	84.49.242.125
4a74a9fd40...	Connected_To	26.165.218.44
4a74a9fd40...	Connected_To	137.139.135.151
4a74a9fd40...	Connected_To	97.90.44.200
4a74a9fd40...	Connected_To	128.200.115.228
4a74a9fd40...	Connected_To	186.169.2.237

#### Description

This artifact is a malicious 64bit Windows dynamic library called 'Vote\_Controller.dll'. The file shares similar functionality with 'rdpproto.dll' above, ; the same ten IP addresses.

42682D4A78FE5C2EDA988185A344637D also contains the same public SSL certificate as many of the artifacts above.

The file contains the following notable strings:

---Begin Notable Strings---

```

CompanyName
Kamsky Co, .Ltd
FileDescription
Vote_Controller
FileVersion
49, 0, 0, 0
InternalName
MDL_170329_x86_V06Lv3
LegalCopyright
Copyright
2017
LegalTrademarks
OriginalFileName
Vote_Controller
PrivateBuild
ProductName
Kamsky ColdFear
ProductVersion
17, 0, 0, 0

```

---End Notable Strings---

**83228075a604e955d59edc760e4c4ed16eedabfc8f6ac291cf21b4fcbcd1f70a**

#### Tags

trojan

#### Details

<b>Name</b>	3021B9EF74c&BDDF59656A035F94FD08
<b>Name</b>	83228075a604e955d59edc760e4c4ed16eedabfc8f6ac291cf21b4fcbcd1f70a
<b>Size</b>	245760 bytes

<b>Type</b>	PE32+ executable (DLL) (console) x86-64, for MS Windows
<b>MD5</b>	3021b9ef74c7bddf59656a035f94fd08
<b>SHA1</b>	05ad5f346d0282e43360965373eb2a8d39735137
<b>SHA256</b>	83228075a604e955d59edc760e4c4ed16eedabfc8f6ac291cf21b4fcbcd1f70a
<b>SHA512</b>	f8fcc5ed34b7bf144fc708d01d9685f0cb2e678c173d014987d6ecbf4a7c3ed539452819237173a2ab14609a913cf46c3bd618cffe7b599f
<b>ssdeep</b>	6144:4+ZmN/ix9bd+Rvze6lxjWV346vze6lpjWV34Evze6lSjWV34avze6lkjWV34z5FT:4+ZmN/ix9b8Rvze6lxjWV346vze6lpjn
<b>Entropy</b>	5.933390

#### Antivirus

<b>Ahnlab</b>	Trojan/Win64.Hoplight
<b>Antiy</b>	Trojan/Win32.Hoplight
<b>Avira</b>	TR/AD.APTLazerus.Itfzr
<b>BitDefender</b>	Trojan.Agent.DVDE
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W64/Trojan.KDWH-2913
<b>ESET</b>	a variant of Win64/NukeSped.BW trojan
<b>Emsisoft</b>	Trojan.Agent.DVDE (B)
<b>Ikarus</b>	Trojan.Agent
<b>K7</b>	Riskware ( 0040eff71 )
<b>McAfee</b>	Generic Trojan.jp
<b>Microsoft Security Essentials</b>	Trojan:Win64/Hoplight
<b>Sophos</b>	Troj/Hoplight-C
<b>Symantec</b>	Trojan.Hoplight
<b>TrendMicro</b>	Trojan.A7CCF529
<b>TrendMicro House Call</b>	Trojan.A7CCF529
<b>VirusBlokAda</b>	Trojan.Win64.Hoplight

#### YARA Rules

- rule crypt\_constants\_2
 {
 meta:
 Author="NCCIC trusted 3rd party"
 Incident="10135536"
 Date = "2018/04/19"
 category = "hidden\_cobra"
 family = "n/a"
 description = "n/a"
 strings:
 \$ = {efcdab90}
 \$ = {558426fe}
 \$ = {7856b4c2}
 condition:
 (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
 }

- rule lsfr\_constants
 

```

      {
      meta:
      Author="NCCIC trusted 3rd party"
      Incident="10135536"
      Date = "2018/04/19"
      category = "hidden_cobra"
      family = "n/a"
      description = "n/a"
      strings:
      $ = {efcdab90}
      $ = {558426fe}
      $ = {7856b4c2}
      condition:
      (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
      }
      
```
- rule polarSSL\_servernames
 

```

      {
      meta:
      Author="NCCIC trusted 3rd party"
      Incident="10135536"
      Date = "2018/04/19"
      category = "hidden_cobra"
      family = "n/a"
      description = "n/a"
      strings:
      $polarSSL = "fjiejfndxklfsdkfjsaadiepwn"
      $sn1 = "www.google.com"
      $sn2 = "www.naver.com"
      condition:
      (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) -- 0x4550) and ($polarSSL and 1 of ($sn*))
      }
      
```

ssdeep Matches

No matches found.

PE Metadata

<b>Compile Date</b>	2017-05-16 02:44:21-04:00
<b>Import Hash</b>	ca767ccbffbed559cbe77c923e3af1f8
<b>Company Name</b>	Kamsky Co.,Ltd
<b>File Description</b>	Vote_Controller
<b>Internal Name</b>	MDL_170329_x86_V06Lv3
<b>Legal Copyright</b>	Copyright lu24d2 2017
<b>Original Filename</b>	Vote_Controller
<b>Product Name</b>	Kamsky ColdFear
<b>Product Version</b>	17, 0, 0, 0

PE Sections

MD5	Name	Raw Size	Entropy
83ec15e3cf335f784144db4208b328c9	header	1024	2.790421
036c57e89ea3a6afa819c242c5816b70	.text	206848	5.688491
4812d2f39e9a8ae569370d423ba31344	.rdata	26112	6.000116
cb41e8f63b7c22c401a0634cb4fe1909	.data	2048	4.748331
3cc7651747904bfe94ed18f44354a706	.pdata	5120	4.962073
9e92c54604ea67e76210c3c914e9608c	.rsrc	4096	5.606351
71dcfb1ec7257ee58dcc20cafb0be691	.reloc	512	0.673424

Relationships

83228075a6... Connected\_To 112.175.92.57

## Description

This artifact is 64bit Windows dynamic library file which shares many of the same characteristics and name (Vote\_Controller.dll) as 42682D4A78FE5C2EDA988185A344637D above.

When this library is loaded it will look for the file 'udbcgiut.dat' in C:\WINDOWS. If 'udbcgiut.dat' is not found, the file will attempt connections to the described under 'rdproto.dll' above.

One notable difference with this variant is that it uses the Windows Management Instrumentation (WMI) process to recompile the Managed Object WMI repository. At runtime, the malware will enumerate the drivers located in the registry at HKLM\Software\WBEM\WDM.

These files are then recompiled by invoking wmioprse.exe through svchost.exe: "C:\Windows\system32\wbem\wmioprse.exe -Embedding". MOF files are written in a SQL-like language and are run (compiled) by the operating system when a predetermined event takes place. Recent malware observed modifying the MOF files within the system registry to run specific commands and create persistency on the system.

Of note, the paravirtual SCSI driver for VMWare Tools is also located in HKLM\Software\WBEM\WDM within a virtual image. When this driver is reloaded VMWare Tools no longer works. It cannot be determined if this is an intentional characteristic of the malware to hinder analysis, or simply a symptom to establish persistence.

**70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3**

## Tags

trojan

## Details

<b>Name</b>	61E3571B8D9B2E9CCFADC3DDE10FB6E1
<b>Size</b>	258052 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	61e3571b8d9b2e9ccfadc3dde10fb6e1
<b>SHA1</b>	55daa1fca210ebf66b1a1d2db1aa3373b06da680
<b>SHA256</b>	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
<b>SHA512</b>	235f7b920f54c4d316386cbf6cc14db1929029e8053270e730be15acc8e9f333231d2d984681bea26013a1d1cf4670528ba0989337be1
<b>ssdeep</b>	6144:d71TKN7LBHvS+bujafrsxwkm1Ka5I7gTtJUGx:dxKHPuj8WR0K6VgTtZx
<b>Entropy</b>	7.829590

## Antivirus

<b>Ahnlab</b>	Trojan/Win32.Hoplight
<b>Antiy</b>	Trojan/Win32.NukeSped
<b>Avira</b>	TR/NukeSped.opme
<b>BitDefender</b>	Dropped:Trojan.Generic.22954895
<b>Cyren</b>	W32/Trojan.GZYA-1356
<b>ESET</b>	Win32/NukeSped.AI trojan
<b>Emsisoft</b>	Dropped:Trojan.Generic.22954895 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 005329311 )
<b>McAfee</b>	Trojan-Hoplight
<b>Microsoft Security Essentials</b>	Trojan:Win32/Hoplight
<b>NANOAV</b>	Trojan.Win32.NukeSped.fpblwf
<b>NetGate</b>	Trojan.Win32.Malware
<b>Sophos</b>	Troj/Hoplight-C
<b>Symantec</b>	Trojan.Gen.MBT
<b>TACHYON</b>	Trojan/W32.Hoplight.258052
<b>TrendMicro</b>	Trojan.55DEE3DA
<b>TrendMicro House Call</b>	Trojan.55DEE3DA

YARA Rules

- rule crypt\_constants\_2
 

```

{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}

```
- rule lsfr\_constants
 

```

{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}

```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2016-08-23 00:19:59-04:00

---

**Import Hash** 8e253f83371d82907ff72f57257e3810

PE Sections

MD5	Name	Raw Size	Entropy
84f39a6860555231d60a55c72d07bc5e	header	4096	0.586304
649c24790b60bda1cf2a85516bfc7fa0	.text	24576	5.983290
fbd6ca444ef8c0667aed75820cc99dce	.rdata	4096	3.520964
0ecb4bcb0a1ef1bf8ea4157fabdd7357	.data	4096	3.988157

Packers/Compilers/Cryptors

Installer VISE Custom

Relationships

70034b33f5...	Dropped	cd5ff67ff773cc60c98c35f9e9d514b597cbd148789547ba152ba67bfc0fec8f
70034b33f5...	Dropped	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289
70034b33f5...	Dropped	96a296d224f285c67bee93c30f8a309157f0daa35dc5b87e410b78630a09cfc7
70034b33f5...	Connected_To	81.94.192.147
70034b33f5...	Connected_To	112.175.92.57
70034b33f5...	Connected_To	181.39.135.126
70034b33f5...	Connected_To	197.211.212.59
70034b33f5...	Related_To	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289

## Description

This artifact is a malicious PE32 executable. When executed, the artifact sets up the service, 'Network UDP Trace Management Service'. To set up the service, the program drops a dynamic library, 'UDPTrcSvc.dll' into the %System32% directory. Next, the following registry keys are added:

---Begin Registry Keys---

```
HKLM\SYSTEM\CurrentControlSet\services\UDPTrcSvc Name: Type Value: 20
HKLM\SYSTEM\CurrentControlSet\services\UDPTrcSvc Name: Start Value: 02
HKLM\SYSTEM\CurrentControlSet\services\UDPTrcSvc Name: ImagePath Value: "%SystemRoot%\System32\svchost.exe -k mdnetuse"
HKLM\SYSTEM\CurrentControlSet\services\UDPTrcSvc Name: DisplayName Value: "Network UDP Trace Management Service"
HKLM\SYSTEM\CurrentControlSet\services\UDPTrcSvc Name: ObjectName Value: "LocalSystem"
HKLM\SYSTEM\CurrentControlSet\services\UDPTrcSvc\Parameters Name: ServiceDll Value: "%SystemRoot%\System32\svchost.exe -k mdnetu
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Svchost\mdnetuse
```

---End Registry Keys---

The service is started by invoking svchost.exe.

After writing 'UDPTrcSvc.dll' to disk, the program drops two additional files. Similar to 5C3898AC7670DA30CF0B22075F3E8ED6 above, the prog 'udbcgiut.dat' to the victim's profile at %AppData/Local/Temp%. A second file is written to the victim's profile in the %AppData/Local/VirtualStore/V identified as 'MSDFMAPI.INI'. 'MSDFMAPI.INI' is also written to C:\WINDOWS. More information on the content of these files is below.

61E3571B8D9B2E9CCFADC3DDE10FB6E1 attempts the same outbound connections as 5C3898AC7670DA30CF0B22075F3E8ED6, however 1 any of the public SSL certificates referenced above.

**cd5ff67ff773cc60c98c35f9e9d514b597cbd148789547ba152ba67bfc0fec8f**

## Tags

backdoortrojan

## Details

<b>Name</b>	UDPTrcSvc.dll
<b>Size</b>	221184 bytes
<b>Type</b>	PE32 executable (DLL) (GUI) Intel 80386, for MS Windows
<b>MD5</b>	0893e206274cb98189d51a284c2a8c83
<b>SHA1</b>	d1f4cf4250e7ba186c1d0c6d8876f5a644f457a4
<b>SHA256</b>	cd5ff67ff773cc60c98c35f9e9d514b597cbd148789547ba152ba67bfc0fec8f
<b>SHA512</b>	8042356ff8dc69fa84f2de10a4c34685c3ffa798d5520382d4fbcdbc43ae17e403a208be9891cca6cf2bc297f767229a57f746ca834f6b79f
<b>ssdeep</b>	3072:WsyjTzEvLFOL8AqCiueLt1VFu9+zcSywy0mcj90nSJ5NatCmtWwNQLK:W/zEvLFOLdquebdSwHN9n5wtkwNwK
<b>Entropy</b>	6.359677

## Antivirus

<b>Ahnlab</b>	Backdoor/Win32.Akdoor
<b>Antiy</b>	Trojan/Win32.AGeneric
<b>Avira</b>	TR/NukeSped.davct
<b>BitDefender</b>	Trojan.Generic.22954895
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>ESET</b>	Win32/NukeSped.AI trojan
<b>Emsisoft</b>	Trojan.Generic.22954895 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 005329311 )
<b>McAfee</b>	Trojan-Hoplight
<b>Microsoft Security Essentials</b>	Trojan:Win32/Hoplight
<b>NANOAV</b>	Trojan.Win32.NukeSped.fcodob
<b>Sophos</b>	Troj/Hoplight-C

<b>Symantec</b>	Trojan.Gen.MBT
<b>Systweak</b>	malware.gen-ra
<b>TACHYON</b>	Trojan/W32.Hoplighr.221184.B
<b>TrendMicro</b>	Trojan.CCD7B260
<b>TrendMicro House Call</b>	Trojan.CCD7B260
<b>VirusBlokAda</b>	Trojan.Tiggre
<b>Zillya!</b>	Trojan.NukeSped.Win32.73

#### YARA Rules

- rule crypt\_constants\_2
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule polarSSL\_servernames
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $polarSSL = "fjiejffndxklfsdkfjsaadiepwn"
    $sn1 = "www.google.com"
    $sn2 = "www.naver.com"
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and ($polarSSL and 1 of ($sn*))
}
```

#### ssdeep Matches

No matches found.

#### PE Metadata

**Compile Date** 2016-08-23 00:23:04-04:00

**Import Hash** 30d3466536de2b423897a3c8992ef999

#### PE Sections

MD5	Name	Raw Size	Entropy
-----	------	----------	---------

d37b95aa17fa132415b37ec777f439ff	header	4096	0.709908
badbc93c35554aec904ab0c34f05fbe0	.text	180224	6.295472
64f7a9cafdad34003aba4547bba0e25b	.rdata	16384	6.372911
c792eb0c57577f4f3649775cbf32b253	.data	12288	3.996008
8791f715ae89ffe2c7d832c1be821edc	.reloc	8192	5.154376

#### Relationships

cd5ff67f7f... Dropped\_By 70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3

#### Description

This artifact is a malicious 32bit Windows dynamic library. 'UDPTrcSvc.dll' is identified as the 'Network UDP Trace Management Service'. The foll provided:

---Begin Service Description---

Network UDP Trace Management Service Hosts TourSvc Tracing. If this service is stopped, notifications of network trace will no longer function a access to service functions. If this service is disabled, notifications of and monitoring to network state will no longer function.

---End Service Description---

The service is invoked with the command, 'C:\Windows\System32\svchost.exe -k mdnetuse'.

When the service is run a modification to the system firewall is attempted, 'cmd.exe /c netsh firewall add portopening TCP 0 "adp"'.

Unlike many of the files listed above that use a public certificate from naver.com, 'UDPTrcSvc.dll' uses a public SSL certificate from google.com. **96a296d224f285c67bee93c30f8a309157f0daa35dc5b87e410b78630a09cfc7**

#### Details

<b>Name</b>	MSDFMAPI.INI
<b>Size</b>	2 bytes
<b>Type</b>	data
<b>MD5</b>	c4103f122d27677c9db144cae1394a66
<b>SHA1</b>	1489f923c4dca729178b3e3233458550d8ddd29
<b>SHA256</b>	96a296d224f285c67bee93c30f8a309157f0daa35dc5b87e410b78630a09cfc7
<b>SHA512</b>	5ea71dc6d0b4f57bf39aadd07c208c35f06cd2bac5fde210397f70de11d439c62ec1cdf3183758865fd387fcea0bada2f6c37a4a17851dd
<b>ssdeep</b>	3::
<b>Entropy</b>	0.000000

#### Antivirus

No matches found.

#### YARA Rules

No matches found.

#### ssdeep Matches

<b>100</b>	028f5531e8593ce6faf30dd5c5131abf1400fc4deb4d322f3f39578f14348be1
<b>100</b>	132fde08d7f788dece120e98bf6c794bafb655959764798ead053b872d097638
<b>100</b>	200608c94d52d33ff86b8f4db28451752eeae7c70062488f380f112e11b4350a
<b>100</b>	2d07a41ae992770085117e9815300bfd0730745883e60b24aad5e69dfc087ae
<b>100</b>	3d1066ae1cd00d635b2131664a7d0d5483554901ed6aae9d627b697ecb02718e
<b>100</b>	5309e677c79cfae49a65728c61b436d3cdc2a2bab4c81bf0038415f74a56880
<b>100</b>	854871db188e45e5a948fb03d293459aef6def1c9a63acb8cfdAAF7155d5699e
<b>100</b>	ad7facb2586fc6e966c004d7d1d16b024f5805ff7cb47c7a85dabd8b48892ca7
<b>100</b>	c35020473aed1b4642cd726cad727b63fff2824ad68cedd7ffb73c7cbd890479



#### Relationships

96a296d224... Dropped\_By 70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3  
96a296d224... Dropped\_By 2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccba3a48f4525

#### Description

'MSDFMAPI.INI' is written to C:\WINDOWS and to %UserProfile\AppData\Local\VirtualStore\Windows%. During analysis, two NULL characters w purpose of the file has not been determined. This file containing two NULL bytes is benign.

**d77fdabe17cdba62a8e728cbe6c740e2c2e541072501f77988674e07a05dfb39**

#### Tags

droppertrojan

#### Details

<b>Name</b>	F8D26F2B8DD2AC4889597E1F2FD1F248
<b>Name</b>	d77fdabe17cdba62a8e728cbe6c740e2c2e541072501f77988674e07a05dfb39
<b>Size</b>	456241 bytes
<b>Type</b>	data
<b>MD5</b>	f8d26f2b8dd2ac4889597e1f2fd1f248
<b>SHA1</b>	dd132f76a4aff9862923d6a10e54dca26f26b1b4
<b>SHA256</b>	d77fdabe17cdba62a8e728cbe6c740e2c2e541072501f77988674e07a05dfb39
<b>SHA512</b>	34f8d10ebcab6f10c5140e94cf858761e9fa2e075db971b8e49c7334e1d55237f844ed6cf8ce735e984203f58d6b5032813b55e29a59af
<b>ssdeep</b>	12288:MG31DF/ubokxmgF8JsVusikiWxdj3tIQLYe:NIIOUV0ou1kiWvm4Ye
<b>Entropy</b>	7.999350

#### Antivirus

<b>Ahnlab</b>	BinImage/Agent
<b>Antiy</b>	Trojan/Win32.Casdet
<b>Avira</b>	TR/Agent.anrq
<b>BitDefender</b>	Trojan.Agent.DVDS
<b>ClamAV</b>	Win.Dropper.Hopligh-7402659-0
<b>Cyren</b>	Trojan.GTWY-8
<b>Emsisoft</b>	Trojan.Agent.DVDS (B)
<b>Ikarus</b>	Trojan.Agent
<b>McAfee</b>	Trojan-Hopligh.b

#### YARA Rules

No matches found.

#### ssdeep Matches

No matches found.

#### Description

This artifact contains a similar public SSL certificate from naver.com, similar to many of the files above. The payload of the file appears to be enc key. No context was provided with the file's submission.

**b9a26a569257fbe02c10d3735587f10ee58e4281dba43474dbdef4ace8ea7101**

#### Tags

trojan

#### Details

<b>Name</b>	2A791769AA73AC757F210F8546125B57
<b>Size</b>	110592 bytes

<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	2a791769aa73ac757f210f8546125b57
<b>SHA1</b>	269f1cc44f6b323118612bde998d17e5bfbf555e
<b>SHA256</b>	b9a26a569257fbe02c10d3735587f10ee58e4281dba43474dbdef4ace8ea7101
<b>SHA512</b>	1e88edf97f62282323928a304762864d69e0e5a1b98c7824cf7ee8af92a5a7d17586e30165c6b6ec4b64ea64dd97d6f2b3a3ef880debc
<b>ssdeep</b>	1536:BdQGY/Ni+mo06N1homALeoYbrAUD7Qum5T9Xlgj5MX7jbthYWL3:DQGYFFzxAgoYbrAOQum5TsgjbHP
<b>Entropy</b>	6.406443

#### Antivirus

<b>Ahnlab</b>	Trojan/Win32.Akdoor
<b>Antiy</b>	Trojan/Win32.Autophyte
<b>Avira</b>	TR/AD.APTLazerus.zobau
<b>BitDefender</b>	Gen:Variant.Graftor.487501
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.BCDT-8700
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Emsisoft</b>	Gen:Variant.Graftor.487501 (B)
<b>Huorong</b>	Trojan/NukeSped.a
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 0052cf421 )
<b>McAfee</b>	Trojan-HidCobra
<b>Microsoft Security Essentials</b>	Trojan:Win32/Autophyte.ElIdha
<b>NANOAV</b>	Trojan.Win32.NukeSped.fyoobu
<b>Quick Heal</b>	Trojan.Generic
<b>Sophos</b>	Troj/NukeSpe-G
<b>Symantec</b>	Trojan Horse
<b>TrendMicro</b>	BKDR_HO.9D36C86C
<b>TrendMicro House Call</b>	BKDR_HO.9D36C86C
<b>VirusBlokAda</b>	BScope.Trojan.Autophyte
<b>Zillya!</b>	Trojan.NukeSped.Win32.158

#### YARA Rules

- rule crypt\_constants\_2
 {
 meta:
 Author="NCCIC trusted 3rd party"
 Incident="10135536"
 Date = "2018/04/19"
 category = "hidden\_cobra"
 family = "n/a"
 description = "n/a"
 strings:
 \$ = {efcdab90}
 \$ = {558426fe}
 \$ = {7856b4c2}
 condition:
 (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
 }

- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-08-11 01:03:45-04:00

---

**Import Hash** e56949fef3294200cb30be8009694a42

PE Sections

MD5	Name	Raw Size	Entropy
3d755df7f28ddb5a661a68637cfd23e	header	4096	0.647583
8f28409d19efb02746f0cc7f186ac3e3	.text	86016	6.553916
03ec21be9a3702ad9b6a107a387c2be1	.rdata	16384	5.844150
cecd220a4af1182a425b07c4547fd1e6	.data	4096	2.638490

Packers/Compilers/Cryptors

Microsoft Visual C++ v6.0

Relationships

b9a26a5692... Connected\_To 117.239.241.2

---

b9a26a5692... Connected\_To 195.158.234.60

---

b9a26a5692... Connected\_To 218.255.24.226

Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

When the malware runs it checks a config file to determine where it should beacon back to. If the config file has not been modified the malware w following hard coded IPs:

--Begin IP List--

117.239.241.2  
218.255.24.226  
195.158.234.60

--End IP List--

Client uses uk.yahoo.com for client hello server name instead of naver.com.

**117.239.241.2**

Tags

command-and-control

Relationships

117.239.241.2 Connected\_From ba80cb0a08908782f4b6e88aa15e2d306b19bc93e79bd8770bf8be904fd1bd09

---

117.239.241.2 Connected\_From b9a26a569257f8e02c10d3735587f10ee58e4281dba43474dbdef4ace8ea7101

**218.255.24.226**

Tags

command-and-control

Relationships

218.255.24.226 Connected\_From b9a26a569257fbe02c10d3735587f10ee58e4281dba43474dbdef4ace8ea7101

**195.158.234.60**

Tags

command-and-control

Relationships

195.158.234.60 Connected\_From b9a26a569257fbe02c10d3735587f10ee58e4281dba43474dbdef4ace8ea7101

**1a01b8a4c505db70f9e199337ce7f497b3dd42f25ad06487e29385580bca3676**

Tags

trojan

Details

<b>Name</b>	07D2B057D2385A4CDF413E8D342305DF
<b>Size</b>	2608223 bytes
<b>Type</b>	PE32+ executable (GUI) x86-64, for MS Windows
<b>MD5</b>	07d2b057d2385a4cdf413e8d342305df
<b>SHA1</b>	1991e7797b2e97179b7604497f7f6c39eba2229b
<b>SHA256</b>	1a01b8a4c505db70f9e199337ce7f497b3dd42f25ad06487e29385580bca3676
<b>SHA512</b>	fa2535b08c43c0dae210c12c4a5445925723d50f8828e0d0b89ec70d08aaa2f1d222eea9fd4be40c46c9024b3ed9bfe33e16724496c1c
<b>ssdeep</b>	49152:2sn+T/ymkSsvv1vb+oNEOaPmztSWNz25hqhbR5C7kcaFZweRrjxQTgZdy:2sck5ojp+Ef25al5CjywsJQMzy
<b>Entropy</b>	7.981828

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Akdoor
<b>Antiy</b>	Trojan/Win64.NukeSped
<b>Avira</b>	TR/NukeSped.cgnux
<b>BitDefender</b>	Trojan.GenericKD.41793016
<b>Cyren</b>	W64/Trojan.DUQO-0431
<b>ESET</b>	a variant of Win64/NukeSped.AH trojan
<b>Emsisoft</b>	Trojan.GenericKD.41793016 (B)
<b>Ikarus</b>	Trojan.Win64.Nukesped
<b>K7</b>	Trojan ( 00545d8d1 )
<b>McAfee</b>	Trojan-HidCobra.a
<b>Microsoft Security Essentials</b>	Trojan:Win32/Casdet!Irfn
<b>NANOAV</b>	Trojan.Win64.NukeSped.gayjsq
<b>Sophos</b>	Troj/NukeSpe-H
<b>Symantec</b>	Trojan.Hoplight
<b>TACHYON</b>	Trojan/W64.Agent.2608223
<b>TrendMicro</b>	TSPY_KI.58F058EF
<b>TrendMicro House Call</b>	TSPY_KI.58F058EF

<b>VirusBlokAda</b>	Trojan.Agent
<b>Zillya!</b>	Trojan.Agent.Win32.1135323

#### YARA Rules

No matches found.

#### ssdeep Matches

No matches found.

#### PE Metadata

**Compile Date** 2018-02-12 15:06:28-05:00

**Import Hash** 347c977c6137a340c7cc0fcd5b224aef

#### PE Sections

MD5	Name	Raw Size	Entropy
28fc69ad12a0765af4cc06fbd261cb24	header	1024	2.672166
88425c71e7e293d43db9868e4693b365	.text	89088	6.415516
bb0048e4f3851ea07b365828ddf613f7	.rdata	26624	4.912250
50e3efe1a6ea325c87f8e86e2fbd40b4	.data	5632	2.093641
f56a65eb9562d6c6d607f867d1d0fd09	.pdata	4608	4.725531
6a9a84d523e53e1d43c31b2cc069930c	.rsrc	1536	4.308150
dab5e290c15de9634d93d8f592a44633	.reloc	1536	2.912599

#### Packers/Compilers/Cryptors

Microsoft Visual C++ 8.0 (DLL)

#### Description

This artifact is a malicious 64bit Windows dynamic library. When run the malware drops a Themida packed DLL. This DLL runs and drops another Remote admin tool. This RAT is very similar to version 2 in op codes and functionality however it uses real TLS instead of the LFSR encryption. A data with XOR Ox47 SUB Ox28 prior to being TLS encrypted.

**73dcb7639c1f81d3f7c4931d32787bdf07bd98550888c4b29b1058b2d5a7ca33**

#### Tags

trojan

#### Details

<b>Name</b>	3EDCE4D49A2F31B8BA9BAD0B8EF54963
<b>Size</b>	147456 bytes
<b>Type</b>	PE32 executable (DLL) (GUI) Intel 80386, for MS Windows
<b>MD5</b>	3edce4d49a2f31b8ba9bad0b8ef54963
<b>SHA1</b>	1209582451283c46f29a5185f451aa3c989723c9
<b>SHA256</b>	73dcb7639c1f81d3f7c4931d32787bdf07bd98550888c4b29b1058b2d5a7ca33
<b>SHA512</b>	0d3de1758b44597ccc4dad46a9b42626237da425a41b8833bf7549a3c809bd7432ce938cd8757b362e2268bead45a0b212c96cc8817
<b>ssdeep</b>	3072:bQGYFFzsaXlvJdbx9NAzDZWaNoh05WKRYW7IWwh7:bSFhLIh9N8DZWaNoG5W8VIWC
<b>Entropy</b>	6.605430

#### Antivirus

<b>Ahnlab</b>	Trojan/Win32.Akdoor
<b>Antiy</b>	Trojan/Win32.Autophyte
<b>Avira</b>	TR/AD.APTLazerus.jtxjg

<b>BitDefender</b>	Gen:Variant.Zusy.290462
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.DXJJ-0934
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Emsisoft</b>	Gen:Variant.Zusy.290462 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 0052cf421 )
<b>McAfee</b>	Trojan-HidCobra
<b>Microsoft Security Essentials</b>	Trojan:Win32/Autophyte.ElIdha
<b>NetGate</b>	Trojan.Win32.Malware
<b>Sophos</b>	Troj/NukeSpe-l
<b>Symantec</b>	Trojan.Hoplight
<b>TrendMicro</b>	BKDR_HO.9D36C86C
<b>TrendMicro House Call</b>	BKDR_HO.9D36C86C
<b>VirusBlokAda</b>	Trojan.Autophyte
<b>Zillya!</b>	Trojan.NukeSped.Win32.154

#### YARA Rules

- rule crypt\_constants\_2
 {
 meta:
 Author="NCCIC trusted 3rd party"
 Incident="10135536"
 Date = "2018/04/19"
 category = "hidden\_cobra"
 family = "n/a"
 description = "n/a"
 strings:
 \$ = {efcdab90}
 \$ = {558426fe}
 \$ = {7856b4c2}
 condition:
 (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
 }
- rule lsfr\_constants
 {
 meta:
 Author="NCCIC trusted 3rd party"
 Incident="10135536"
 Date = "2018/04/19"
 category = "hidden\_cobra"
 family = "n/a"
 description = "n/a"
 strings:
 \$ = {efcdab90}
 \$ = {558426fe}
 \$ = {7856b4c2}
 condition:
 (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
 }

#### ssdeep Matches

No matches found.

#### PE Metadata

**Compile Date** 2017-07-11 14:26:59-04:00  
**Import Hash** cf3e2269004b18054d77ec54601edfd1

#### PE Sections

MD5	Name	Raw Size	Entropy
f31fc1b632aa011a29b506385890b3bb	header	4096	0.703326
0b401c68fa1a8f024f25189b31fd8caf	.text	118784	6.634510
78ad5231f5184af8093a2f31ef1f9952	.rdata	16384	6.126224
8c48fdefd1785500380702796882a0b6	.data	4096	3.860135
e6b0be8044e573ca9fc84de173a7ca3d	.reloc	4096	5.404736

Packers/Compilers/Cryptors

Microsoft Visual C++ 6.0 DLL

Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

This file is dropped by a different binary into System32 and then run as a service. When the malware runs it checks a config file to determine whether. If the config file has not been modified the malware will beacon back to the following hard coded IPs:

--Begin IP List--

192.168.1.2

--End IP List--

Client uses uk.yahoo.com for client hello server name instead of naver.com.

**084b21bc32ee19af98f85aee8204a148032ce7eabef668481b919195dd62b319**

Tags

trojan

Details

<b>Name</b>	170A55F7C0448F1741E60B01DCEC9CFB
<b>Size</b>	197632 bytes
<b>Type</b>	PE32+ executable (DLL) (GUI) x86-64, for MS Windows
<b>MD5</b>	170a55f7c0448f1741e60b01dcec9cfb
<b>SHA1</b>	b6b84783816cca123adbc18e78d3b847f04f1d32
<b>SHA256</b>	084b21bc32ee19af98f85aee8204a148032ce7eabef668481b919195dd62b319
<b>SHA512</b>	a014cf5772ed993951dc62026e3acef174c424e47fd56583a1563c692ac3ed2ae5e1d51d34974ed04db11824dc9c76290297244e28e5
<b>ssdeep</b>	6144:XT1NVhDJSUaZcdHltR3SG88+TIm5T7BRWj:xx9tuVSe+TIm5Tt
<b>Entropy</b>	6.262340

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Akdoor
<b>Antiy</b>	Trojan/Win32.Agent
<b>Avira</b>	TR/AD.APTLazerus.dsenk
<b>BitDefender</b>	Trojan.GenericKD.32643407
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W64/Trojan3.AOLF
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Emsisoft</b>	Trojan.GenericKD.32643407 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 005233111 )
<b>McAfee</b>	Trojan-HidCobra

<b>Microsoft Security Essentials</b>	Trojan:Win32/Casdet!Irfn
<b>NANOAV</b>	Trojan.Win64.NukeSped.fzpbxb
<b>Quick Heal</b>	Trojan.Multi
<b>Sophos</b>	Troj/NukeSpe-G
<b>Symantec</b>	Trojan.Hoplight
<b>TrendMicro</b>	TROJ64_.655BEC93
<b>TrendMicro House Call</b>	TROJ64_.655BEC93
<b>VirusBlokAda</b>	Trojan.Agent
<b>Zillya!</b>	Trojan.Agent.Win32.1134660

#### YARA Rules

- rule crypt\_constants\_2
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```

#### ssdeep Matches

No matches found.

#### PE Metadata

**Compile Date** 2017-05-03 22:40:47-04:00

**Import Hash** 0675d7e21ce264449360c0b797c279e7

#### PE Sections

MD5	Name	Raw Size	Entropy
48a2d611f70a4718084857fa2f732b21	header	1024	2.780205
aaf67ea89d12bea95c148274c71ebac5	.text	44544	6.440744
91171a72af025ca7098ba6c94ecbb2a0	.rdata	25600	3.935800
fc2a61b6f1b29162f93fad1660c4b8af	.data	120320	6.379891
114b795f9c567e0a81a04cec6ae1a0b4	.pdata	2560	4.287495
17c80d03f2f5729407ec55eca7e1f5b2	.rsrc	2048	2.948558



c9243c94e36bc012d7d5eb0a3f588dfb .reloc 1536 5.079827

#### Description

This artifact is a malicious 64bit Windows dynamic library. The DLL can be run using the DoStart export. This export calls write file to load the act "C:\windows\msncone.exe" and then calls Win Exec to execute the implant.

**c66ef8652e15b579b409170658c95d35cfd6231c7ce030b172692f911e7dcff8**

#### Tags

trojan

#### Details

<b>Name</b>	E4ED26D5E2A84CC5E48D285E4EA898C0
<b>Size</b>	157696 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	e4ed26d5e2a84cc5e48d285e4ea898c0
<b>SHA1</b>	c3d28d8e49a24a0c7082053d22597be9b58302b1
<b>SHA256</b>	c66ef8652e15b579b409170658c95d35cfd6231c7ce030b172692f911e7dcff8
<b>SHA512</b>	0c0b8fa4e83036b9dbe88b193e93b412c47eee8c6f4b04f04082288d7dce0f0d687e7581e624145bd357e5ad70584b9ab4d9f5a950afe
<b>ssdeep</b>	3072:MzviXzovLFOLUAqWilvLc1V2n9+zEty7+LEfq0Mg3ewPWTc:Mzv+zovLFOLFqhlvIQz7ZqueweT
<b>Entropy</b>	6.446363

#### Antivirus

<b>Ahnlab</b>	Trojan/Win32.Crypt
<b>Antiy</b>	Trojan/Win32.NukeSped
<b>Avira</b>	TR/AD.APTLazerus.tmfid
<b>BitDefender</b>	Trojan.GenericKD.32416111
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.GVKT-3327
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Emsisoft</b>	Trojan.GenericKD.32416111 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 0052cf421 )
<b>McAfee</b>	Trojan-HidCobra
<b>Microsoft Security Essentials</b>	Trojan:Win32/Nukesped.PA!MTB
<b>NANOAV</b>	Trojan.Win32.NukeSped.fzlqhl
<b>NetGate</b>	Trojan.Win32.Malware
<b>Quick Heal</b>	Trojan.Generic
<b>Sophos</b>	Troj/NukeSpe-E
<b>Symantec</b>	Trojan.Gen.MBT
<b>TrendMicro</b>	TROJ_FR.D1E707E2
<b>TrendMicro House Call</b>	TROJ_FR.D1E707E2
<b>Vir.IT eXplorer</b>	Trojan.Win32.Genus.BRN
<b>VirusBlokAda</b>	BScope.Trojan.Casdet
<b>Zillya!</b>	Trojan.NukeSped.Win32.153

#### YARA Rules

- rule crypt\_constants\_2
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule polarSSL\_servernames
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $polarSSL = "fjiejfndxklfsdkfjsaadiepwn"
    $sn1 = "www.google.com"
    $sn2 = "www.naver.com"
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) -- 0x4550) and ($polarSSL and 1 of ($sn*))
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-10-23 16:44:37-04:00  


---

**Import Hash** 861401f76d1251e0d08a8ade1a5ed38c

PE Sections

MD5	Name	Raw Size	Entropy
0aa18a6525a2203ee52f6df5f9622dcb	header	1024	2.637312
33e3584e4c52c24e16fc108224a3f6a3	.text	132608	6.153434
8a43450710359fae49269f1217924cf5	.rdata	16896	6.299497
b0c95d35585e130bea58057c11e9d53b	.data	3584	5.455587
3a4fdc31bb49b29d6f19b94641d14ee8	.rsrc	512	5.112624
f74e21bd34aa3a05131ae77f0b48c2b2	.reloc	3072	5.875833

Packers/Compilers/Cryptors

Microsoft Visual C++ ??

## Description

This artifact is a malicious PE32 executable that is an add-on tool for other Hoplight implants.

When malware is run it opens a log file C:\WINDOWS\Temp\ndb.dat that is used for the remainder of the program to log all activity.

The malware runs with an IP as an argument. It sends out a beacon to this IP and connects to it using the same FakeTLS/PolarSSL protocol as the successful connection to a C2, it uses a named pipe called \\.\pipe\AnonymousPipe to connect to a running implant and sends tasking to the ru returns the results of these taskings over the named pipe and the malware sends the results back to the C2.

**fe43bc385b30796f5e2d94dfa720903c70e66bc91dfdcfb2f3986a1fea3fe8c5**

## Tags

trojan

## Details

<b>Name</b>	F315BE41D9765D69AD60F0B4D29E4300
<b>Size</b>	147456 bytes
<b>Type</b>	PE32 executable (DLL) (GUI) Intel 80386, for MS Windows
<b>MD5</b>	f315be41d9765d69ad60f0b4d29e4300
<b>SHA1</b>	f60c2bd78436a14e35a7e85feccb319d3cc040eb
<b>SHA256</b>	fe43bc385b30796f5e2d94dfa720903c70e66bc91dfdcfb2f3986a1fea3fe8c5
<b>SHA512</b>	bc8f821b4989076e441f5e5668cee0a388adcc375fac4a553f4c27423cd61c4500739820033b32f4197820ddf34decf1a043c6d34619aa
<b>ssdeep</b>	3072:pQWbIW5G5bzxbT33FiDZWTNArLioB4Gwhes:pR3SGtJ33YDZWTNMLiGah
<b>Entropy</b>	6.477832

## Antivirus

<b>Ahnlab</b>	Trojan/Win32.Agent
<b>Antiy</b>	Trojan/Win32.Autophyte
<b>Avira</b>	TR/AD.APTLazerus.ifaaj
<b>BitDefender</b>	Gen:Variant.Graftor.487501
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.CTPG-1488
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Emsisoft</b>	Gen:Variant.Graftor.487501 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 0052cf421 )
<b>McAfee</b>	Trojan-HidCobra
<b>Microsoft Security Essentials</b>	Trojan:Win32/Autophyte.E!rfrn
<b>NetGate</b>	Trojan.Win32.Malware
<b>Sophos</b>	Troj/NukeSpe-D
<b>Symantec</b>	Trojan Horse
<b>TrendMicro</b>	BKDR_HO.9D36C86C
<b>TrendMicro House Call</b>	BKDR_HO.9D36C86C
<b>VirusBlokAda</b>	BScope.Trojan.Autophyte
<b>Zillya!</b>	Trojan.NukeSped.Win32.161

## YARA Rules

- rule crypt\_constants\_2
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-08-21 12:39:06-04:00  
**Import Hash** 00c4520b07e61d244e7e7b942ebae39f

PE Sections

MD5	Name	Raw Size	Entropy
7991745d0f6ed295154f066bb53ccbc2	header	4096	0.767780
cd39ffb10726106d9b85172804784b97	.text	114688	6.620841
3ab93f20dc7859f5510efbf121790dd7	.rdata	16384	5.991690
9fdf9be0cd049c58cb3718927458e69c	.data	4096	3.880827
330d3d9d2c3c1a342547cea468095f2a	.rsrc	4096	1.138029
cefd737bf48bc8375f92c8f7d9755e3a	.reloc	4096	5.221555

Packers/Compilers/Cryptors

Microsoft Visual C++ 6.0 DLL

**f8f7720785f7e75bd6407ac2acd63f90ab6c2907d3619162dc41a8ffa40a5d03**

Tags

trojan

Details

<b>Name</b>	D2DA675A8ADFEF9D0C146154084FFF62
<b>Size</b>	139264 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	d2da675a8adfef9d0c146154084fff62

<b>SHA1</b>	c55d080ea24e542397bbbfa00edc6402ec1c902c
<b>SHA256</b>	f8f7720785f7e75bd6407ac2acd63f90ab6c2907d3619162dc41a8ffa40a5d03
<b>SHA512</b>	06f531e49154d59f684475da95693df1fccd50b505e6d3ca028c9d84fcfc79ef287704dd0b24b022bfac6ba9ee581d19f440773dd00cfcfe
<b>ssdeep</b>	3072:1QGYFFzYCGUXBK/hbpjYr9Lde0NPV1Y88PxbE:1SFhYaXBkjYJLde0Nd1Hqb
<b>Entropy</b>	6.605300

#### Antivirus

<b>Ahnlab</b>	Trojan/Win32.Akdoor
<b>Antiy</b>	Trojan/Win32.Autophyte
<b>Avira</b>	TR/AD.APTLazerus.denpe
<b>BitDefender</b>	Gen:Variant.Graftor.487501
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.ATKI-5308
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Emsisoft</b>	Gen:Variant.Graftor.487501 (B)
<b>Huorong</b>	Trojan/NukeSped.a
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 0052cf421 )
<b>McAfee</b>	Trojan-FPIA!D2DA675A8ADF
<b>Microsoft Security Essentials</b>	Trojan:Win32/Autophyte.E!dha
<b>NANOAV</b>	Trojan.Win32.NukeSped.fyopnf
<b>NetGate</b>	Trojan.Win32.Malware
<b>Quick Heal</b>	Trojan.Generic
<b>Sophos</b>	Troj/NukeSpe-F
<b>Symantec</b>	Trojan Horse
<b>TrendMicro</b>	BKDR_HO.9D36C86C
<b>TrendMicro House Call</b>	BKDR_HO.9D36C86C
<b>VirusBlokAda</b>	BScope.Trojan.Autophyte
<b>Zillya!</b>	Trojan.NukeSped.Win32.146

#### YARA Rules

- rule crypt\_constants\_2
 {
 meta:
 Author="NCCIC trusted 3rd party"
 Incident="10135536"
 Date = "2018/04/19"
 category = "hidden\_cobra"
 family = "n/a"
 description = "n/a"
 strings:
 \$ = {efcdab90}
 \$ = {558426fe}
 \$ = {7856b4c2}
 condition:
 (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
 }

- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-07-14 18:40:25-04:00  


---

**Import Hash** 86e90e40d8e53d1e5b06a22353734ed4

PE Sections

MD5	Name	Raw Size	Entropy
bf34ee8fcf71c0aa14531ae02d74f359	header	4096	0.647238
66e2b83909b4d47d3e3d20ad44df1acc	.text	114688	6.660284
d20ad0b8b42883ae6eb4c89cfbbd893b	.rdata	16384	6.057701
5e1b09084dfc15dda52bdac606eae3d	.data	4096	3.824972

Packers/Compilers/Cryptors

Microsoft Visual C++ v6.0

Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

When the malware runs it checks a config file to determine where it should beacon back to. If the config file has not been modified the malware w following hard coded IPs:

--Begin IP List--

10.10.30.130

--End IP List--

Client uses uk.yahoo.com for client hello server name instead of naver.com.

**32ec329301aa4547b4ef4800159940feb950785f1ab68d85a14d363e0ff2bc11**

Tags

trojan

Details

<b>Name</b>	38FC56965DCCD18F39F8A945F6EBC439
<b>Size</b>	122880 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	38fc56965dccd18f39f8a945f6ebc439
<b>SHA1</b>	50736517491396015afdf1239017b9abd16a3ce9
<b>SHA256</b>	32ec329301aa4547b4ef4800159940feb950785f1ab68d85a14d363e0ff2bc11
<b>SHA512</b>	70a1568df0e97e8ab020f108e52ec861a0cdae936ac3340f1657565a8ac8a253179b4c451a79cb7c362fe60ff70be2694705110c67369c

---

**ssdeep** 1536:kSQWbe9BzK0xGtGVyDBWikDsD3bG0aII2Tm5TPb+5MI7jcg9YL23O:fQWbIWWSG61UD3bGUI2Tm5TP2Njcmn+

---

**Entropy** 6.236928

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Crypt
<b>Antiy</b>	Trojan/Win32.AGeneric
<b>Avira</b>	TR/AD.APTLazerus.sogzc
<b>BitDefender</b>	Gen:Variant.Graftor.487501
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.ACES-2943
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Emsisoft</b>	Gen:Variant.Graftor.487501 (B)
<b>Huorong</b>	Trojan/NukeSped.a
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 0052cf421 )
<b>McAfee</b>	Trojan-FPIA!38FC56965DCC
<b>Microsoft Security Essentials</b>	Trojan:Win32/Nukesped.PA!MTB
<b>NANOAV</b>	Trojan.Win32.HiddenCobra.fyqds
<b>NetGate</b>	Trojan.Win32.Malware
<b>Sophos</b>	Troj/NukeSpe-F
<b>Symantec</b>	Trojan Horse
<b>TrendMicro</b>	BKDR_HO.9D36C86C
<b>TrendMicro House Call</b>	BKDR_HO.9D36C86C
<b>VirusBlokAda</b>	BScope.Trojan.Autophyte
<b>Zillya!</b>	Trojan.NukeSped.Win32.149

YARA Rules

- rule crypt\_constants\_2  
{  
  meta:  
    Author="NCCIC trusted 3rd party"  
    Incident="10135536"  
    Date = "2018/04/19"  
    category = "hidden\_cobra"  
    family = "n/a"  
    description = "n/a"  
  strings:  
    \$ = {efcdab90}  
    \$ = {558426fe}  
    \$ = {7856b4c2}  
  condition:  
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them  
}

- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-12-12 12:58:45-05:00  


---

**Import Hash** 2054fd7b9bbcb62441ba2a21c156d403

PE Sections

MD5	Name	Raw Size	Entropy
39af78f4af9f093c2eb4765202eab41a	header	4096	0.704943
48f0a09061c556cbde93f864f2adb2e3	.text	94208	6.479768
65fe1d182b2f7322719d142a81a901a8	.rdata	16384	5.812175
43cd1b0954c2785708b9e8da200242e9	.data	4096	2.465375
cab878079ca8c3f53ed3e0d0414e3a3a	.rsrc	4096	1.194369

Packers/Compilers/Cryptors

Microsoft Visual C++ v6.0

Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

When the malware runs it checks a config file to determine where it should beacon back to. If the config file has not been modified the malware w following hard coded IPs:

--Begin IP List--

218.255.24.226

--End IP List--

Client uses www.bing.com, Microsoft.com, and facebook.com for client hello server name instead of naver.com.

**8a1d57ee05d29a730864299376b830a7e127f089e500e148d96d0868b7c5b520**

Tags

backdoortrojan

Details

<b>Name</b>	5C0C1B4C3B1CFD455AC05ACE994AED4B
<b>Size</b>	348160 bytes
<b>Type</b>	PE32 executable (DLL) (GUI) Intel 80386, for MS Windows
<b>MD5</b>	5c0c1b4c3b1cfd455ac05ace994aed4b
<b>SHA1</b>	69cda1f1adeeed455b519f9cf188e7787b5efa07
<b>SHA256</b>	8a1d57ee05d29a730864299376b830a7e127f089e500e148d96d0868b7c5b520



---

**SHA512** 084d2223934848594e23dbedab5064f98cd3d07d0783d4a7de66800a2a823daf73b0b044aea0ff9516538e6c478c8d18018c006c713e

---

**ssdeep** 6144:aR3SGkuDrOZm5Te5EXzO7h2ZMB6zJJ+KFvmjyFdzDs0dRb83hYnOQSzS7:aVSWrOZm5TeOjVMoJFFv+mdzDs+kYnOS

---

**Entropy** 7.540376

---

Antivirus

<b>Ahnlab</b>	Backdoor/Win32.Akdoor
<b>Antiy</b>	Trojan/Win32.Autophyte
<b>Avira</b>	TR/AD.APTLazerus.itcpp
<b>BitDefender</b>	Gen:Variant.Graftor.487501
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.HLGX-3930
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Emsisoft</b>	Gen:Variant.Graftor.487501 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 0052cf421 )
<b>McAfee</b>	Trojan-HidCobra
<b>Microsoft Security Essentials</b>	Trojan:Win32/Autophyte.E!lfn
<b>NetGate</b>	Trojan.Win32.Malware
<b>Sophos</b>	Troj/NukeSpe-l
<b>Symantec</b>	Trojan.Hoplight
<b>TrendMicro</b>	BKDR_HO.9D36C86C
<b>TrendMicro House Call</b>	BKDR_HO.9D36C86C
<b>VirusBlokAda</b>	Trojan.Autophyte
<b>Zillya!</b>	Trojan.NukeSped.Win32.163

YARA Rules

- rule crypt\_constants\_2  
{  
  meta:  
    Author="NCCIC trusted 3rd party"  
    Incident="10135536"  
    Date = "2018/04/19"  
    category = "hidden\_cobra"  
    family = "n/a"  
    description = "n/a"  
  strings:  
    \$ = {efcdab90}  
    \$ = {558426fe}  
    \$ = {7856b4c2}  
  condition:  
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them  
}

- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-08-12 05:20:38-04:00  


---

**Import Hash** 3ca68e2a005e05e2c4831de87ae091c0

PE Sections

MD5	Name	Raw Size	Entropy
787ed8122e53d5ea17e3ece6d9fb7342	header	4096	0.782305
83b06d297acb20b05505da2d09905abd	.text	102400	6.523509
b2e739b37837f1c2b941660711daf98f	.rdata	16384	5.951907
cd8aa1387168caeb4604401aedb143eb	.data	4096	2.718596
8840ce03428c311935a20ac968c10ce7	.rsrc	217088	7.888219
2f0ede5fcdada29ec11ad8cd25c53f77	.reloc	4096	4.923777

Packers/Compilers/Cryptors

Microsoft Visual C++ 6.0 DLL

Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

This file is dropped by a different binary into System32 and then run as a service. When the malware runs it checks a config file to determine whether. If the config file has not been modified the malware will beacon back to the following hard coded IPs:

--Begin IP List--

81.94.192.147  
 112.175.92.57  
 181.39.135.126  
 197.211.212.59

--End IP List--

**0608e411348905145a267a9beaf5cd3527f11f95c4afde4c45998f066f418571**

Tags

trojan

Details

<b>Name</b>	34E56056E5741F33D823859E77235ED9
<b>Size</b>	151552 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	34e56056e5741f33d823859e77235ed9

<b>SHA1</b>	fcc2dcba7d3cbcf749f6aab2f37cc4b62d0bb64
<b>SHA256</b>	0608e411348905145a267a9beaf5cd3527f11f95c4afde4c45998f066f418571
<b>SHA512</b>	93ac57f0b9bf48e39870b88f918f9b6e33404c1667d5f98d0965736e9e001b18152530f1c3a843b91929d308f63739faf3de62077bbfb15
<b>ssdeep</b>	3072:nQWblWSGw0CkXbhM1Vsm5TJYwMrzPoXL8GnQj3y3:nR3SGQYM16m5TJDwPo7bUC3
<b>Entropy</b>	6.652398

#### Antivirus

<b>Ahnlab</b>	Trojan/Win32.Agent
<b>Antiy</b>	Trojan/Win32.Autophyte
<b>Avira</b>	HEUR/AGEN.1023221
<b>BitDefender</b>	Gen:Variant.Graftor.487501
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.PGQL-0621
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Emsisoft</b>	Gen:Variant.Graftor.487501 (B)
<b>Huorong</b>	Trojan/NukeSped.a
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 0052cf421 )
<b>McAfee</b>	Trojan-FPIA!34E56056E574
<b>Microsoft Security Essentials</b>	Trojan:Win32/Autophyte.E!rfn
<b>NANOAV</b>	Trojan.Win32.NukeSped.fyqduv
<b>Quick Heal</b>	Trojan.Generic
<b>Sophos</b>	Troj/NukeSpe-F
<b>Symantec</b>	Trojan Horse
<b>TrendMicro</b>	TROJ_FR.D0256DD5
<b>TrendMicro House Call</b>	TROJ_FR.D0256DD5
<b>VirusBlokAda</b>	BScope.Trojan.Autophyte
<b>Zillya!</b>	Trojan.NukeSped.Win32.166

#### YARA Rules

- rule crypt\_constants\_2
 {
 meta:
 Author="NCCIC trusted 3rd party"
 Incident="10135536"
 Date = "2018/04/19"
 category = "hidden\_cobra"
 family = "n/a"
 description = "n/a"
 strings:
 \$ = {efcdab90}
 \$ = {558426fe}
 \$ = {7856b4c2}
 condition:
 (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
 }

- rule lsfr\_constants
 

```
{
  meta:
    Author="NCCIC trusted 3rd party"
    Incident="10135536"
    Date = "2018/04/19"
    category = "hidden_cobra"
    family = "n/a"
    description = "n/a"
  strings:
    $ = {efcdab90}
    $ = {558426fe}
    $ = {7856b4c2}
  condition:
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-08-12 03:44:57-04:00  


---

**Import Hash** e93a06b89e75751a9ac2c094ca7da8b0

PE Sections

MD5	Name	Raw Size	Entropy
a45f9a7c2174752a1472fb634ba9d8c7	header	4096	0.715236
2b9f5ce0725453a209a416ab7a13f3df	.text	98304	6.576807
03605ec3eefe3b70e118cea4b8655229	.rdata	16384	5.866137
5ac0ab0641ec076e15dd1468e11c57cd	.data	4096	2.680020
58ede934084bbe73fa7f9e0d32c4fafb	.rsrc	28672	7.045289

Packers/Compilers/Cryptors

Microsoft Visual C++ v6.0

Relationships

0608e41134... Connected\_To 14.140.116.172

Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

When the malware runs it checks a config file to determine where it should beacon back to. If the config file has not been modified the malware w following hard coded IPs:

---Begin IP List---

14.140.116.172

---End IP List---

Client uses uk.yahoo.com for client hello server name instead of naver.com.

**14.140.116.172**

Tags

command-and-control

Relationships

14.140.116.172 Connected\_From 0608e411348905145a267a9beaf5cd3527f11f95c4afde4c45998f066f418571

Description

The file 34E56056E5741F33D823859E77235ED9 beacons to this hard coded IP.

**b05aae59b3c1d024b19c88448811debef1eada2f51761a5c41e70da3db7615a9**

Tags

trojan

Details

<b>Name</b>	2FF1688FE866EC2871169197F9D46936
<b>Size</b>	229500 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	2ff1688fe866ec2871169197f9d46936
<b>SHA1</b>	6dc37ff32ea70cbd0078f1881a351a0a4748d10e
<b>SHA256</b>	b05aae59b3c1d024b19c88448811debef1eada2f51761a5c41e70da3db7615a9
<b>SHA512</b>	91c3a6e84ca728ecc26d63b91a09f3081288c9b9592430035b9ea50ba7cf2d4b4ddba4711933d17013d3d06fcb8d70789a37ddfa5c741
<b>ssdeep</b>	6144:GANjUaXCXwz+vLFOLEq3VNwO9zyPqYNkHms:bNjxXgA9uPqR
<b>Entropy</b>	6.385793

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Agent
<b>Antiy</b>	Trojan/Win32.NukeSped
<b>Avira</b>	TR/AD.APTLazerus.oytdw
<b>BitDefender</b>	Trojan.GenericKD.32416090
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>Cyren</b>	W32/Trojan.GCCR-6631
<b>ESET</b>	a variant of Win32/NukeSped.AI trojan
<b>Emsisoft</b>	Trojan.GenericKD.32416090 (B)
<b>Ikarus</b>	Trojan.Win32.NukeSped
<b>K7</b>	Trojan ( 005329311 )
<b>McAfee</b>	Trojan-HidCobra
<b>Microsoft Security Essentials</b>	Trojan:Win32/Nukesped.PA!MTB
<b>NetGate</b>	Trojan.Win32.Malware
<b>Quick Heal</b>	Trojan.Generic
<b>Sophos</b>	Troj/Inject-DZV
<b>Symantec</b>	Trojan.Gen.MBT
<b>TrendMicro</b>	BKDR_HO.9D36C86C
<b>TrendMicro House Call</b>	BKDR_HO.9D36C86C
<b>Zillya!</b>	Trojan.NukeSped.Win32.160

YARA Rules

- rule crypt\_constants\_2
 

```
{
meta:
  Author="NCCIC trusted 3rd party"
  Incident="10135536"
  Date = "2018/04/19"
  category = "hidden_cobra"
  family = "n/a"
  description = "n/a"
strings:
  $ = {efcdab90}
  $ = {558426fe}
  $ = {7856b4c2}
condition:
  (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule lsfr\_constants
 

```
{
meta:
  Author="NCCIC trusted 3rd party"
  Incident="10135536"
  Date = "2018/04/19"
  category = "hidden_cobra"
  family = "n/a"
  description = "n/a"
strings:
  $ = {efcdab90}
  $ = {558426fe}
  $ = {7856b4c2}
condition:
  (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them
}
```
- rule polarSSL\_servernames
 

```
{
meta:
  Author="NCCIC trusted 3rd party"
  Incident="10135536"
  Date = "2018/04/19"
  category = "hidden_cobra"
  family = "n/a"
  description = "n/a"
strings:
  $polarSSL = "fjiejfndxklfsdkfjsaadiepwn"
  $sn1 = "www.google.com"
  $sn2 = "www.naver.com"
condition:
  (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) -- 0x4550) and ($polarSSL and 1 of ($sn*))
}
```

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2017-06-13 11:12:43-04:00  


---

**Import Hash** 8948765c0ef7c91beff2e97907c801d0

PE Sections

MD5	Name	Raw Size	Entropy
eb0f947605842ea84fea9d8d8382f056	header	4096	0.684814
f9aa8191af45813b80031064403835f1	.text	192512	6.400854
bbcbbf5f54deae51d41d404973c30e4	.rdata	16384	6.228868
8ea12cda731d50b93944d8534c11402c	.data	12288	3.927662
06d5d2729a367d565819e6867d8caea7	.rsrc	4096	3.317978

Packers/Compilers/Cryptors

Microsoft Visual C++ v6.0

Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

When the malware runs it checks a config file to determine where it should beacon back to. If the config file has not been modified the malware will follow the following hard coded IPs:

---Begin IP List---

210.137.6.37  
119.18.230.253  
221.138.17.152

---End IP List---

Client uses naver.com for client hello server name.

**119.18.230.253**

Tags

command-and-control

Description

The file 2FF1688FE866EC2871169197F9D46936 beacons to this hard coded IP.

**210.137.6.37**

Tags

command-and-control

Description

The file 2FF1688FE866EC2871169197F9D46936 beacons to this hard coded IP.

**221.138.17.152**

Tags

command-and-control

Description

The file 2FF1688FE866EC2871169197F9D46936 beacons to this hard coded IP.

**ba80cb0a08908782f4b6e88aa15e2d306b19bc93e79bd8770bf8be904fd1bd09**

Tags

trojan

Details

<b>Size</b>	117591 bytes
<b>Type</b>	PE32 executable (GUI) Intel 80386, for MS Windows
<b>MD5</b>	3dbd47cc12c2b7406726154e2e95a403
<b>SHA1</b>	afaa88c46666e5684b89b94ef2c4bc82e4c00845
<b>SHA256</b>	ba80cb0a08908782f4b6e88aa15e2d306b19bc93e79bd8770bf8be904fd1bd09
<b>SHA512</b>	c13e79b4c7e7dd53736e87836930d4aafe5a9c6c467c31c976253ebc0b031424eb2d92a04bbdcb7b610afc5d93f2b752b14663b2e9c0
<b>ssdeep</b>	1536:/sQWbe9BzK0xGtFOpVyDpWpQCnRx/bV3Q3Wgim5TjZU15MX7jbQnKVYJ3n:EQWbIWSGWjBjrbV3jgim5TjqPgjbQgA
<b>Entropy</b>	6.387236

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Generic
<b>ClamAV</b>	Win.Trojan.HiddenCobra-7402602-0
<b>ESET</b>	a variant of Win32/NukeSped.AU trojan
<b>Huorong</b>	Trojan/NukeSped.a
<b>McAfee</b>	Trojan-HidCobra!3DBD47CC12C2
<b>Microsoft Security Essentials</b>	Trojan:Win32/Autophyte.E!dha
<b>Symantec</b>	Trojan.Hopligh
<b>VirusBlokAda</b>	BScope.Trojan.Autophyte

#### YARA Rules

- rule crypt\_constants\_2  
{  
  meta:  
    Author="NCCIC trusted 3rd party"  
    Incident="10135536"  
    Date = "2018/04/19"  
    category = "hidden\_cobra"  
    family = "n/a"  
    description = "n/a"  
  strings:  
    \$ = {efcdab90}  
    \$ = {558426fe}  
    \$ = {7856b4c2}  
  condition:  
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them  
  }  
}
- rule lsfr\_constants  
{  
  meta:  
    Author="NCCIC trusted 3rd party"  
    Incident="10135536"  
    Date = "2018/04/19"  
    category = "hidden\_cobra"  
    family = "n/a"  
    description = "n/a"  
  strings:  
    \$ = {efcdab90}  
    \$ = {558426fe}  
    \$ = {7856b4c2}  
  condition:  
    (uint16(0) == 0x5A4D and uint16(uint32(0x3c)) == 0x4550) and all of them  
  }  
}

#### ssdeep Matches

No matches found.

#### PE Metadata

**Compile Date** 2017-09-03 11:02:30-04:00  

---

**Import Hash** 7d69af70a4430663ca427aa423f7c5ea

#### PE Sections

MD5	Name	Raw Size	Entropy
8291bca724e71f42f0653dbd18357965	header	4096	0.642884
a883335516b2b5c2ff7377e5532611af	.text	94208	6.462877
63fb256f6eaf5fbd897d36dd4777ef89	.rdata	16384	5.845991
8934903570874d7e20867e8c89be5c64	.data	2903	3.458180

#### Packers/Compilers/Cryptors

Microsoft Visual C++ v6.0

#### Relationships

ba80cb0a08... Connected\_To 117.239.241.2  

---

ba80cb0a08... Connected\_To 217.117.4.110

#### Description

This artifact is a malicious PE32 executable with similar characteristics of those described in 23E27E5482E3F55BF828DAB885569033 above.

When the malware runs it checks a config file to determine where it should beacon back to. If the config file has not been modified the malware w following hardcoded IPs.

--Begin Hardcoded IP--

117.239.241.2  
217.117.4.110



--End Hardcoded IP--

**217.117.4.110**

Tags

command-and-control

Relationships

217.117.4.110 Connected\_From ba80cb0a08908782f4b6e88aa15e2d306b19bc93e79bd8770bf8be904fd1bd09

Description

The file ba80cb0a08908782f4b6e88aa15e2d306b19bc93e79bd8770bf8be904fd1bd09 beacons to this hardcoded IP.

**44a93ea6e6796530bb3cf99555dfb3b1092ed8fb4336bb198ca15b2a21d32980**

Tags

backdoordropper Trojan

Details

**Size** 557681 bytes

**Type** PE32 executable (GUI) Intel 80386, for MS Windows

**MD5** 4e595db3b612e1e9da90a0ef7d740792

**SHA1** 1483720917e754d05818e64ae07b320ffbf4d78

**SHA256** 44a93ea6e6796530bb3cf99555dfb3b1092ed8fb4336bb198ca15b2a21d32980

**SHA512** fadd5aea13935cfc592da535c0b4b182d3b2c50cfc5122dd9bb4040a6298e5b0db788d9025b5043e216a242334fd4a08ae69597e0a13f

**ssdeep** 12288:j6k9os/EpYE+DMX6GHU3ZSrlwQ+ruZdwl4TntpdK9roGOeAQ:j6Qos/EpYEWGHRl1+iZdwVTtp09rbOi

**Entropy** 7.850778

Antivirus

**Ahnlab** Backdoor/Win32.Agent

**Avira** TR/Dropper.Gen

**ESET** a variant of Win32/NukeSped.O trojan

**Ikarus** Trojan.Win32.NukeSped

**Microsoft Security Essentials** Trojan:Win32/Nukesped.PA!MTB

YARA Rules

No matches found.

ssdeep Matches

No matches found.

PE Metadata

**Compile Date** 2018-02-12 15:04:34-05:00

**Import Hash** 1e6c10653c6b505369db00e880dbfecb

PE Sections

MD5	Name	Raw Size	Entropy
aef5c3923e5820f46533bf0b26cd7c4e	header	4096	0.626079
70a3e4024020c2792542fcb13130235f	.text	73728	6.252791
f29b61b835618a1c4a0c2cf966badbe9	.rdata	12288	4.414075
0b968078c58131b96a48ffc77413a61b	.data	4096	2.653332

Packers/Compilers/Cryptors

Microsoft Visual C++ v6.0

Description

This executable must be run with argument 15975345682 to execute and then drops C:\Windows\system32\dispark.dll (E5D1C42E5CA7A0AC3A custom packed loader.

E5D1C42E5CA7A0AC3A3B31BD0F290E84 drops 535C879CA109DBECD336E1DE0ECCB696 that runs as a service.  
**823d255d3dc8cbc402527072a9220e4c38655de1a3e55a465db28b55d3ac1bf8**

Tags

trojan

Details

<b>Size</b>	692274 bytes
<b>Type</b>	PE32+ executable (GUI) x86-64, for MS Windows
<b>MD5</b>	894b81b907c23f927a3f38cfd30f32da
<b>SHA1</b>	411a320c389e492bf41eb6c5708809721f28a81f
<b>SHA256</b>	823d255d3dc8cbc402527072a9220e4c38655de1a3e55a465db28b55d3ac1bf8
<b>SHA512</b>	ea550ce5ad8f58fdaf74476cda5255117b4dd3c64ef70ba0f5f08e3c2af62ba45fdafec56ee7d76de3e59894bdf39e26d6c787e2876552f
<b>ssdeep</b>	12288:yeR6alRBGA44gibT2QPAdfyGwspLvgwEq8kkAwkeJbJPCYzH:yeR6alIP44JbydfyGn84KAwbxJPCYD
<b>Entropy</b>	7.849516

Antivirus

<b>Ahnlab</b>	Trojan/Win32.Akdoor
<b>Antiy</b>	Trojan/Win64.NukeSped
<b>ESET</b>	a variant of Win64/NukeSped.AH trojan
<b>K7</b>	Trojan ( 00545d8d1 )
<b>Zillya!</b>	Trojan.Agent.Win32.1135323

YARA Rules

No matches found.

ssdeep Matches

No matches found.

PE Metadata

<b>Compile Date</b>	2018-02-12 15:06:28-05:00
<b>Import Hash</b>	347c977c6137a340c7cc0fcd5b224aef

PE Sections

MD5	Name	Raw Size	Entropy
28fc69ad12a0765af4cc06fbd261cb24	header	1024	2.672166
88425c71e7e293d43db9868e4693b365	.text	89088	6.415516
bb0048e4f3851ea07b365828ddf613f7	.rdata	26624	4.912250
50e3efe1a6ea325c87f8e86e2fbd40b4	.data	5632	2.093641
f56a65eb9562d6c6d607f867d1d0fd09	.pdata	4608	4.725531
6a9a84d523e53e1d43c31b2cc069930c	.rsrc	1536	4.308150
dab5e290c15de9634d93d8f592a44633	.reloc	1536	2.912599

Packers/Compilers/Cryptors

Microsoft Visual C++ 8.0 (DLL)

Description

This executable must be run with argument 15975345682 to execute and then drops C:\Windows\system32\diskpart.dll (7AFF84FB44840E4FD5: custom packed loader).

7AFF84FB44840E4FD5CC9561172E14B drops BD674814315892B937BC91A10783D140 that runs as a service.

### Relationship Summary

2151c1977b...	Connected_To	81.94.192.147
2151c1977b...	Connected_To	112.175.92.57
2151c1977b...	Related_To	181.39.135.126
2151c1977b...	Related_To	197.211.212.59
2151c1977b...	Related_To	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289
2151c1977b...	Dropped	96a296d224f285c67bee93c30f8a309157f0daa35dc5b87e410b78630a09cfc7
197.211.212.59	Related_To	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525
197.211.212.59	Connected_From	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
197.211.212.59	Connected_From	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
181.39.135.126	Related_To	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525
181.39.135.126	Connected_From	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
181.39.135.126	Connected_From	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
112.175.92.57	Connected_From	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525
112.175.92.57	Connected_From	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
112.175.92.57	Connected_From	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
112.175.92.57	Connected_From	83228075a604e955d59edc760e4c4ed16eedabfc8f6ac291cf21b4fcbcd1f70a
81.94.192.147	Connected_From	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525
81.94.192.147	Connected_From	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
81.94.192.147	Connected_From	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
70902623c9...	Dropped_By	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
70902623c9...	Related_To	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
70902623c9...	Related_To	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525
70902623c9...	Related_To	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
70902623c9...	Related_To	12480585e08855109c5972e85d99cda7701fe992bc1754f1a0736f1eebcb004d
ddea408e17...	Connected_To	81.94.192.147
ddea408e17...	Connected_To	112.175.92.57
ddea408e17...	Connected_To	181.39.135.126
ddea408e17...	Connected_To	197.211.212.59
ddea408e17...	Related_To	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289
ddea408e17...	Connected_To	81.94.192.10
81.94.192.10	Connected_From	ddea408e178f0412ae78ff5d5adf2439251f68cad4fd853ee466a3c74649642d
12480585e0...	Related_To	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289
12480585e0...	Dropped	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
49757cf856...	Dropped_By	12480585e08855109c5972e85d99cda7701fe992bc1754f1a0736f1eebcb004d
49757cf856...	Connected_To	21.252.107.198
49757cf856...	Connected_To	70.224.36.194
49757cf856...	Connected_To	113.114.117.122

49757cf856...	Connected_To	47.206.4.145
49757cf856...	Connected_To	84.49.242.125
49757cf856...	Connected_To	26.165.218.44
49757cf856...	Connected_To	137.139.135.151
49757cf856...	Connected_To	97.90.44.200
49757cf856...	Connected_To	128.200.115.228
49757cf856...	Connected_To	186.169.2.237
21.252.107.198	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
21.252.107.198	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
70.224.36.194	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
70.224.36.194	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
113.114.117.122	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
113.114.117.122	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
47.206.4.145	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
47.206.4.145	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
84.49.242.125	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
84.49.242.125	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
26.165.218.44	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
26.165.218.44	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
137.139.135.151	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
137.139.135.151	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
97.90.44.200	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
97.90.44.200	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
128.200.115.228	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
128.200.115.228	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
186.169.2.237	Connected_From	4a74a9fd40b63218f7504f806fce71dffefc1b1d6ca4bbaadd720b6a89d47761
186.169.2.237	Connected_From	49757cf85657757704656c079785c072bbc233cab942418d99d1f63d43f28359
4a74a9fd40...	Connected_To	21.252.107.198
4a74a9fd40...	Connected_To	70.224.36.194
4a74a9fd40...	Connected_To	113.114.117.122
4a74a9fd40...	Connected_To	47.206.4.145
4a74a9fd40...	Connected_To	84.49.242.125
4a74a9fd40...	Connected_To	26.165.218.44
4a74a9fd40...	Connected_To	137.139.135.151
4a74a9fd40...	Connected_To	97.90.44.200
4a74a9fd40...	Connected_To	128.200.115.228
4a74a9fd40...	Connected_To	186.169.2.237
83228075a6...	Connected_To	112.175.92.57
70034b33f5...	Dropped	cd5ff67ff773cc60c98c35f9e9d514b597cbd148789547ba152ba67bfc0fec8f
70034b33f5...	Dropped	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289

70034b33f5...	Dropped	96a296d224f285c67bee93c30f8a309157f0daa35dc5b87e410b78630a09cfc7
70034b33f5...	Connected_To	81.94.192.147
70034b33f5...	Connected_To	112.175.92.57
70034b33f5...	Connected_To	181.39.135.126
70034b33f5...	Connected_To	197.211.212.59
70034b33f5...	Related_To	70902623c9cd0cccc8513850072b70732d02c266c7b7e96d2d5b2ed4f5edc289
cd5ff67f7...	Dropped_By	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
96a296d224...	Dropped_By	70034b33f59c6698403293cdc28676c7daa8c49031089efa6eefce41e22dccb3
96a296d224...	Dropped_By	2151c1977b4555a1761c12f151969f8e853e26c396fa1a7b74ccbf3a48f4525
b9a26a5692...	Connected_To	117.239.241.2
b9a26a5692...	Connected_To	195.158.234.60
b9a26a5692...	Connected_To	218.255.24.226
117.239.241.2	Connected_From	ba80cb0a08908782f4b6e88aa15e2d306b19bc93e79bd8770bf8be904fd1bd09
117.239.241.2	Connected_From	b9a26a569257f5e02c10d3735587f10ee58e4281dba43474dbdef4ace8ea7101
218.255.24.226	Connected_From	b9a26a569257f5e02c10d3735587f10ee58e4281dba43474dbdef4ace8ea7101
195.158.234.60	Connected_From	b9a26a569257f5e02c10d3735587f10ee58e4281dba43474dbdef4ace8ea7101
0608e41134...	Connected_To	14.140.116.172
14.140.116.172	Connected_From	0608e411348905145a267a9beaf5cd3527f11f95c4afde4c45998f066f418571
ba80cb0a08...	Connected_To	117.239.241.2
ba80cb0a08...	Connected_To	217.117.4.110
217.117.4.110	Connected_From	ba80cb0a08908782f4b6e88aa15e2d306b19bc93e79bd8770bf8be904fd1bd09

## Recommendations

CISA recommends that users and administrators consider using the following best practices to strengthen the security posture of their organization. Configuration changes should be reviewed by system owners and administrators prior to implementation to avoid unwanted impacts.

- Maintain up-to-date antivirus signatures and engines.
- Keep operating system patches up-to-date.
- Disable File and Printer sharing services. If these services are required, use strong passwords or Active Directory authentication.
- Restrict users' ability (permissions) to install and run unwanted software applications. Do not add users to the local administrators group unless necessary.
- Enforce a strong password policy and implement regular password changes.
- Exercise caution when opening e-mail attachments even if the attachment is expected and the sender appears to be known.
- Enable a personal firewall on agency workstations, configured to deny unsolicited connection requests.
- Disable unnecessary services on agency workstations and servers.
- Scan for and remove suspicious e-mail attachments; ensure the scanned attachment is its "true file type" (i.e., the extension matches the file name).
- Monitor users' web browsing habits; restrict access to sites with unfavorable content.
- Exercise caution when using removable media (e.g., USB thumb drives, external drives, CDs, etc.).
- Scan all software downloaded from the Internet prior to executing.
- Maintain situational awareness of the latest threats and implement appropriate Access Control Lists (ACLs).

Additional information on malware incident prevention and handling can be found in National Institute of Standards and Technology (NIST) Special Publication 800-151, **"Guide to Malware Incident Prevention & Handling for Desktops and Laptops"**.

## Contact Information

CISA continuously strives to improve its products and services. You can help by answering a very short series of questions about this product at <https://us-cert.gov/forms/feedback/>.

## Document FAQ

**What is a MIFR?** A Malware Initial Findings Report (MIFR) is intended to provide organizations with malware analysis in a timely manner. In most cases, MIFRs provide initial indicators for computer and network defense. To request additional analysis, please contact CISA and provide information regarding the incident.

**What is a MAR?** A Malware Analysis Report (MAR) is intended to provide organizations with more detailed malware analysis acquired via manual analysis. To request additional analysis, please contact CISA and provide information regarding the level of desired analysis.

**Can I edit this document?** This document is not to be edited in any way by recipients. All comments or questions related to this document should be sent to CISA at 1-888-282-0870 or [soc@us-cert.gov](mailto:soc@us-cert.gov).

**Can I submit malware to CISA?** Malware samples can be submitted via three methods:

- Web: <https://malware.us-cert.gov>
- E-Mail: [submit@malware.us-cert.gov](mailto:submit@malware.us-cert.gov)
- FTP: [ftp.malware.us-cert.gov](ftp://malware.us-cert.gov) (anonymous)

CISA encourages you to report any suspicious activity, including cybersecurity incidents, possible malicious code, software vulnerabilities, and phishing. Reporting forms can be found on CISA's homepage at [www.us-cert.gov](http://www.us-cert.gov).

## Revisions

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February 14, 2020: v3 - Initial Version

February 19, 2020: v4 - Updated file MSDFMAPI.INI

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### **Please share your thoughts.**

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