

2019-12-03 - TRAFFIC ANALYSIS EXERCISE ANSWERS

Link to exercise: <https://www.malware-traffic-analysis.net/2019/12/03/index.html>

Links to some tutorials I've written that should help with this exercise:

- [Customizing Wireshark - Changing Your Column Display](#)
- [Using Wireshark: Identifying Hosts and Users](#)
- [Using Wireshark - Display Filter Expressions](#)
- [Using Wireshark: Exporting Objects from a Pcap](#)

ENVIRONMENT FOR THE PCAP:

- LAN segment range: 10.18.20.0/24 (10.18.20.0 through 10.18.20.255)
- Domain: icemaiden.com
- Domain controller: 10.18.20.08 - Icemaiden-DC
- LAN segment gateway: 10.18.20.1
- LAN segment broadcast address: 10.18.20.255

QUESTIONS:

- What is the IP address, MAC address, and host name of the infected Windows host?
- What is the Windows user account name of the victim on this infected Windows host?
- What type of malware was the victim infected with?
- Based on traffic from the pcap, where did the malware possibly come from?
- After the initial infection, what type of web page/website did the victim appear to visit?

ANSWERS:

Q: What is the IP address, MAC address, and host name of the infected Windows host?

A: **10.18.20.97, 00:01:24:56:9b:cf, JUANITA-WORK-PC**

Q: What is the Windows user account name of the victim on this infected Windows host?

A: **momia.juanita**

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Q: What type of malware was the victim infected with?

A: **Ursnif**

Q: Based on traffic from the pcap, where did the malware likely come from?

A: **Possibly from email, since the user went to mail.aol.com shortly before getting infected.**

Q: After the initial infection, what type of web page/website did the victim appear to visit?

A: **Looks like the victim went to a banking website, because of several domains in the HTTPS traffic ending in bankofamerica.com.**

NOTES:

Q: What is the IP address, MAC address, and host name of the infected Windows host?

A: 10.18.20.97, 00:01:24:56:9b:cf, JUANITA-WORK-PC

You can identify the IP address based on the pcap itself. All traffic is going to or from IP address 10.18.20.97. You can find the MAC address as described in [this tutorial](#). You can also find the host name by filtering on **kerberos.CNameString** as described in [the same tutorial](#).

Q: What is the Windows user account name of the victim on this infected Windows host?

A: momia.juanita

You can also find the host name by filtering on **kerberos.CNameString** as described in [the tutorial I mentioned in the last question](#).

Q: What type of malware was the victim infected with?

A: Ursnif

You can find this in the alerts from the image or the text file.

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Dst IP	DPort	Pr	Event Message
10.18.20.8	389	6	ET POLICY Reserved Internal IP Traffic
10.18.20.97	49185	6	ET POLICY Reserved Internal IP Traffic
10.18.20.8	88	6	GPL RPC kerberos principal name overflow TCP
10.18.20.97	59102	17	ET DNS Standard query response, Name Error
10.18.20.97	49354	6	ET POLICY Lets Encrypt Free SSL Cert Observed
10.18.20.97	49364	6	ET POLICY Lets Encrypt Free SSL Cert Observed
10.18.20.97	49561	6	ET POLICY Lets Encrypt Free SSL Cert Observed
8.208.24.139	80	6	ETPRO TROJAN Ursnif Variant CnC Beacon 12 M1
8.208.24.139	80	6	ETPRO TROJAN Ursnif Variant CnC Beacon 12 M2
208.67.222.222	53	17	ET POLICY External IP Lookup Domain (myip.opendns.com in DNS lookup)
10.18.20.97	49597	6	SURICATA HTTP unable to match response to request

Q: Based on traffic from the pcap, where did the malware likely come from?

A: Possibly from email, since the user went to **mail.aol.com** shortly before getting infected.

(http.request or tls.handshake.type == 1) and !(ssdp)						Expression...	+
Time		Dst	port	Host	Info		
2019-12-03 22:45:55		69.147.64.34	80	mail.aol.com	GET / HTTP/1.1		
2019-12-03 22:45:56		69.147.64.34	443	mail.aol.com	Client Hello		
2019-12-03 22:45:56		67.195.204.151	443	oidc.mail.aol.com	Client Hello		
2019-12-03 22:45:56		67.195.204.151	443	oidc.mail.aol.com	Client Hello		
2019-12-03 22:45:57		98.137.156.136	443	api.login.aol.com	Client Hello		
2019-12-03 22:45:57		98.137.156.136	443	api.login.aol.com	Client Hello		
2019-12-03 22:45:57		67.195.204.151	443	login.aol.com	Client Hello		
2019-12-03 22:45:57		67.195.204.151	443	login.aol.com	Client Hello		
2019-12-03 22:45:59		69.147.64.34	443	s.yimg.com	Client Hello		
2019-12-03 22:45:59		69.147.64.34	443	s.yimg.com	Client Hello		
2019-12-03 22:45:59		69.147.64.34	443	s.yimg.com	Client Hello		
2019-12-03 22:46:00		66.218.84.42	443	udc.yahoo.com	Client Hello		
2019-12-03 22:46:00		69.147.64.34	443	fc.yahoo.com	Client Hello		
2019-12-03 22:46:00		69.147.64.34	443	fc.yahoo.com	Client Hello		

Q: After the initial infection, what type of web page/website did the victim appear to visit?

A: A banking website, because of several domains in the HTTPS traffic ending in **bankofamerica.com**.

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(http.request or tls.handshake.type == 1) and !(ssdp)					Expression...	+
Time	Dst	port	Host	Info		
2019-12-03 22:55:56	8.208.24.139	80	h1.wensa.at	POST /api1/h		
2019-12-03 22:57:25	69.147.64.34	443	mail.aol.com	Client Hello		
2019-12-03 22:57:26	69.147.64.34	443	mail.aol.com	Client Hello		
2019-12-03 22:57:26	69.147.64.34	443	mail.aol.com	Client Hello		
2019-12-03 23:00:56	8.208.24.139	80	h1.wensa.at	GET /api1/g_		
2019-12-03 23:00:57	8.208.24.139	80	h1.wensa.at	POST /api1/0		
2019-12-03 23:05:57	8.208.24.139	80	h1.wensa.at	POST /api1/r		
2019-12-03 23:08:03	171.161.198.200	443	secure.bankofamerica.com	Client Hello		
2019-12-03 23:08:04	171.161.198.200	443	secure.bankofamerica.com	Client Hello		
2019-12-03 23:08:04	171.161.198.200	443	secure.bankofamerica.com	Client Hello		
2019-12-03 23:08:04	171.161.198.200	443	secure.bankofamerica.com	Client Hello		
2019-12-03 23:08:04	171.161.198.200	443	secure.bankofamerica.com	Client Hello		
2019-12-03 23:08:07	171.161.198.200	443	secure.bankofamerica.com	Client Hello		
2019-12-03 23:08:08	204.79.197.200	80	www.bing.com	GET /favicon		
2019-12-03 23:08:09	66.235.147.244	443	bankofamerica.tt.omtrdc.net	Client Hello		
2019-12-03 23:08:09	66.235.147.244	443	bankofamerica.tt.omtrdc.net	Client Hello		
2019-12-03 23:08:09	3.83.197.207	443	dull.bankofamerica.com	Client Hello		
2019-12-03 23:08:09	3.83.197.207	443	dull.bankofamerica.com	Client Hello		
2019-12-03 23:08:09	3.83.197.207	443	dull.bankofamerica.com	Client Hello		

This exercise is dedicated to [Mummy Juanita](#), also known as the ***Lady of Ampato***.