

TASK 1

Analyze a Suspicious File

Rev D

Analyze a Suspicious File

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Analyze a Suspicious File

1 Analyzing a Piece of Intel

This appears to be an entry into an IRC...with the topic of discussion based on "This week's IRC info:". I know it starts with an entry form...but I'm not sure where it leads to...

The password is: ThisPasswordSux!

Function Call	Sub
start	401280
TlsCallback_0	401630
__getmainargs	401DFC
_setmode	401E04
_p_fmode	401E0C
_p_environ	401E14
_cexit	401E1C
signal	401E24
printf	401E2C
fgets	401E34
getchar	401E3C
strlen	401E44
puts	401E4C
putchar	401E54
fgetc	401E5C
clearerr	401E64
fflush	401E6C
fwrite	401E74
vfprintf	401E7C
abort	401E84
memcpy	401E8C
calloc	401E94
free	401E9C
SetUnhandledExceptionFilter	401EA4
ExitProcess	401EAC
GetModuleHandleA	401EB4
GetProcAddress	401EBC
VirtualQuery	401EC4
VirtualProtect	401ECC
EnterCriticalSection	401ED4
TlsGetValue	401EDC
GetLastError	401EE4
LeaveCriticalSection	401EFC
DeleteCriticalSection	401EF4
InitializeCriticalSection	401EFC

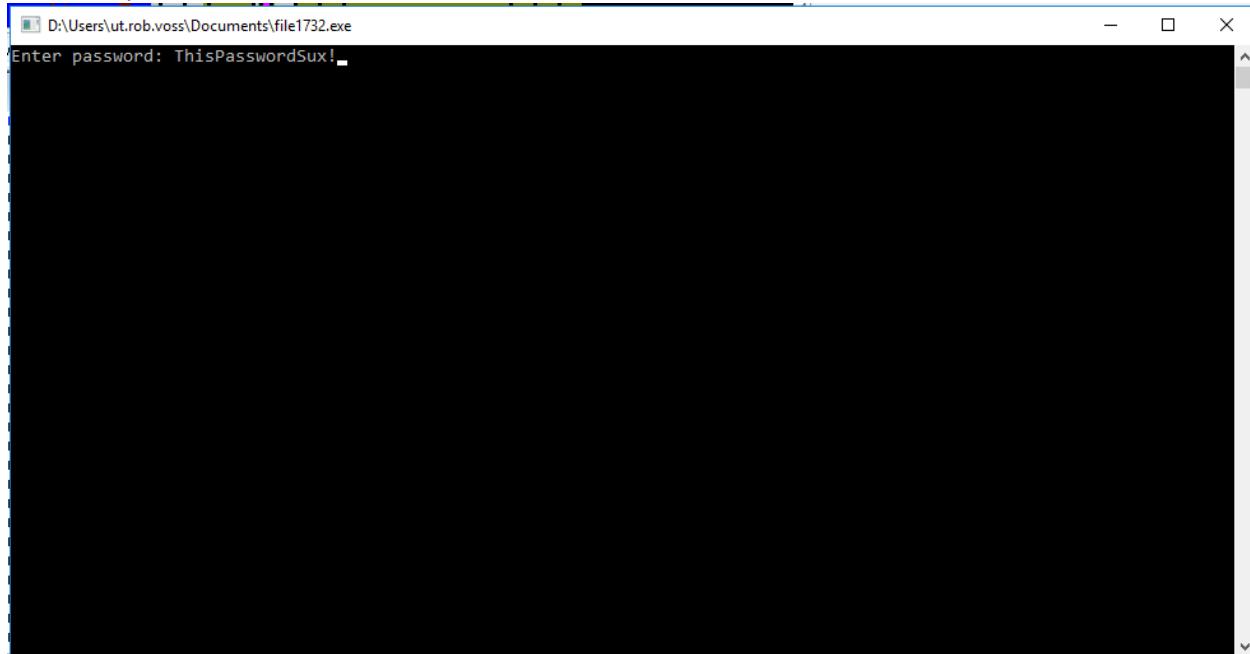
Interesting Text:

```
_Jv_RegisterClasses
Enter password
This Week's IRC info:
ThisPasswordSux!
Press [Enter] to continue
Mingw runtime failure: \n
VirtualQuery failed for %d bytes at address %p
Unknown pseudo relocation protocol version %d. \n
Unknown pseudo relocation bit size %d. \n
```

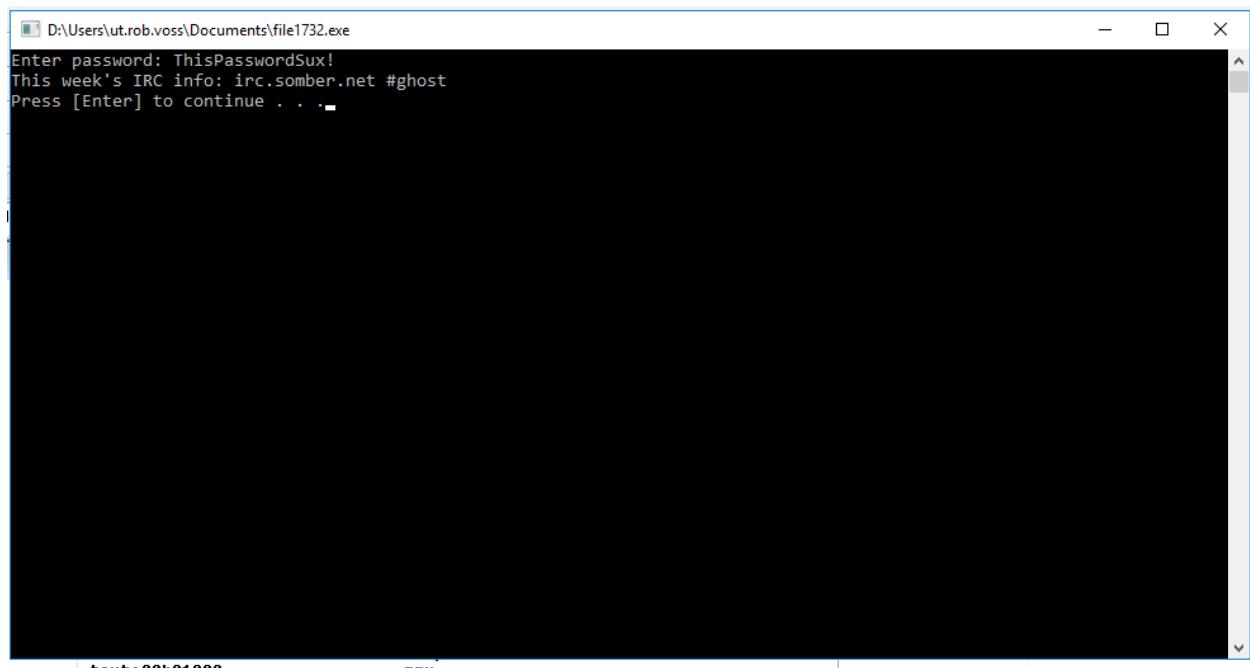
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2 Running the Binary

Enter the password: ThisPasswordSux!



Press enter



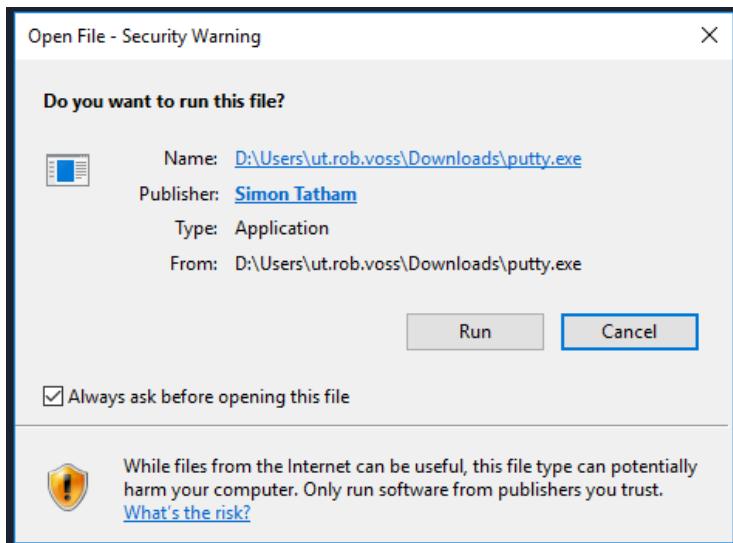
Entering the password, you get: This week's IRC info: irc.somber.net #ghost

When you follow the command press enter the command prompt window vanishes...

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3 Connecting to the IRC Channel

3.1 Run PuTTY

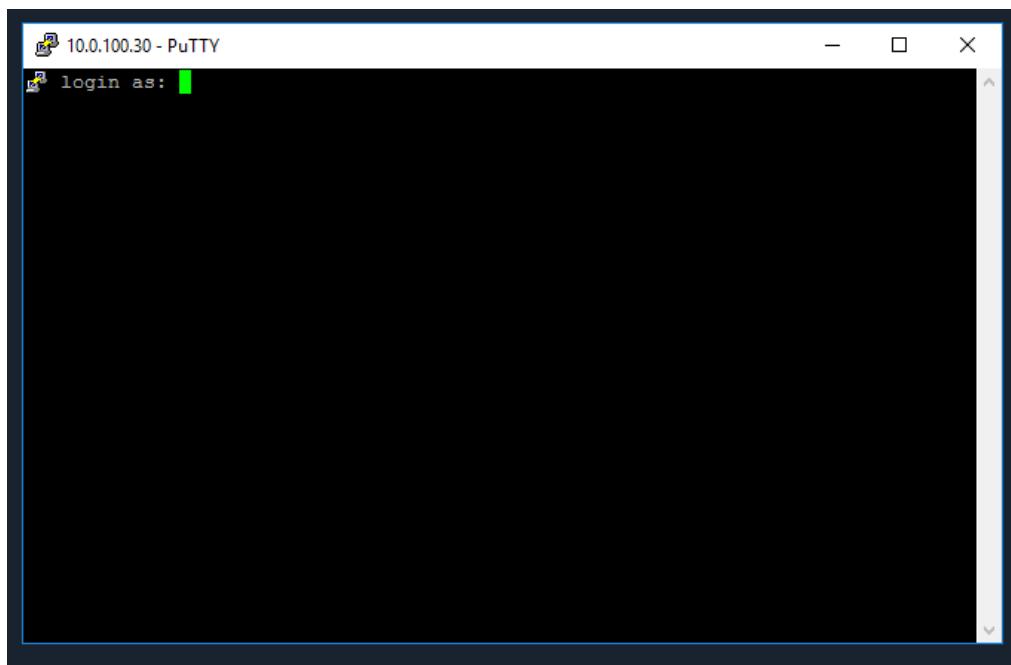
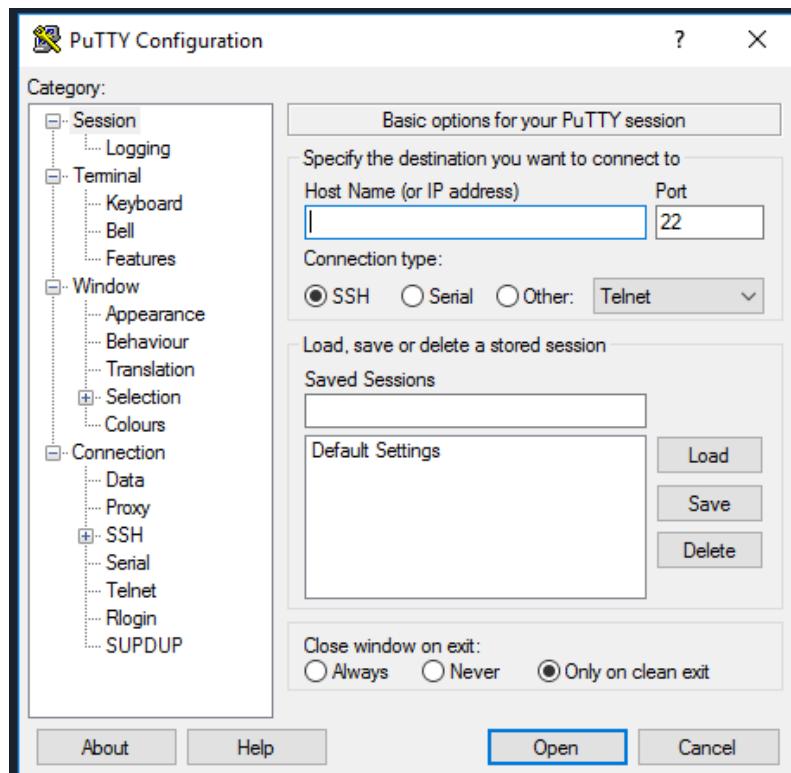


IP: 10.0.100.30

Username: travler2721

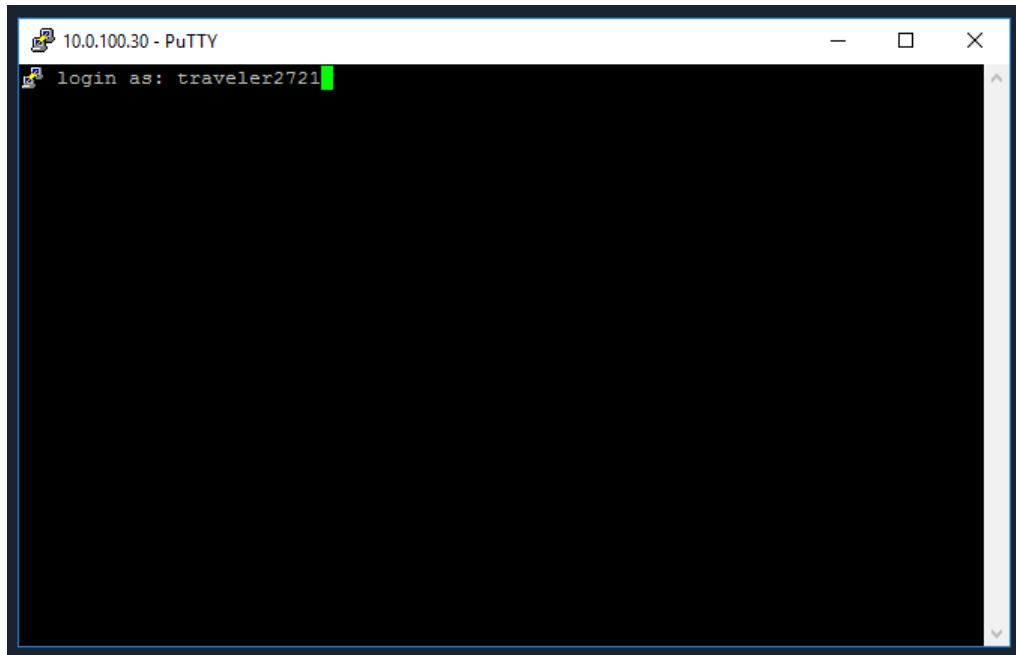
Password: EuD3jwtre4jGIEt07Tej

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Input Username (right click on the mouse will paste in Linux) and hit enter.

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Input Password (right click on the mouse will paste in Linux) and hit enter.

A screenshot of a PuTTY terminal window titled "traveler2721@ip-10-0-100-30:~". The title bar also shows "login as: traveler2721". The terminal output shows:

```
traveler2721@10.0.100.30's password:  
Access denied  
traveler2721@10.0.100.30's password:  
Last login: Fri Nov 10 18:47:14 2023 from ip-10-0-2-163.ec2.internal  
  
_ _ | _ _ )  
_ | ( _ / Amazon Linux AMI  
_ _ \| _ _ |  
  
https://aws.amazon.com/amazon-linux-ami/2018.03-release-notes/  
88 package(s) needed for security, out of 105 available  
Run "sudo yum update" to apply all updates.  
[traveler2721@ip-10-0-100-30 ~]$
```

The password prompt is visible, and the user has entered "Access denied". Below the prompt, the system displays its version as Amazon Linux AMI and provides a link to the release notes. The command "sudo yum update" is suggested for applying security updates.

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Input irssi and hit enter

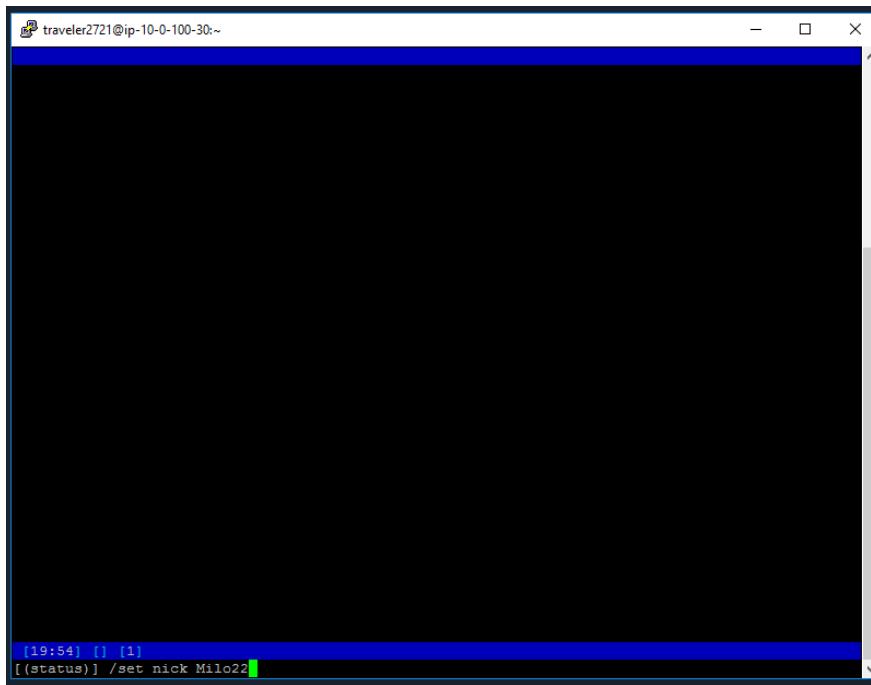
```
traveler2721@ip-10-0-100-30:~  
[traveler2721@ip-10-0-100-30 ~]$ login as: traveler2721  
[traveler2721@ip-10-0-100-30 ~]$ traveler2721@ip-10-0-100-30's password:  
[traveler2721@ip-10-0-100-30 ~]$ Access denied  
[traveler2721@ip-10-0-100-30 ~]$ traveler2721@ip-10-0-100-30's password:  
Last failed login: Fri Nov 10 19:51:38 UTC 2023 from ip-10-0-2-163.ec2.internal on ssh:notty  
There was 1 failed login attempt since the last successful login.  
Last login: Fri Nov 10 19:11:23 2023 from ip-10-0-2-163.ec2.internal  
  
_ _ | _ _ / Amazon Linux AMI  
_ _ \_ | _ |  
  
https://aws.amazon.com/amazon-linux-ami/2018.03-release-notes/  
88 package(s) needed for security, out of 105 available  
Run "sudo yum update" to apply all updates.  
[traveler2721@ip-10-0-100-30 ~]$ irssi
```

A screenshot of a terminal window titled "traveler2721@ip-10-0-100-30:~". The window is mostly blank black space, indicating no output or a blank command. The title bar shows the user name and IP address. The bottom status bar displays the time as [19:13], a status indicator [1], and a green progress bar labeled [(status)].

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3.2 Set nickname

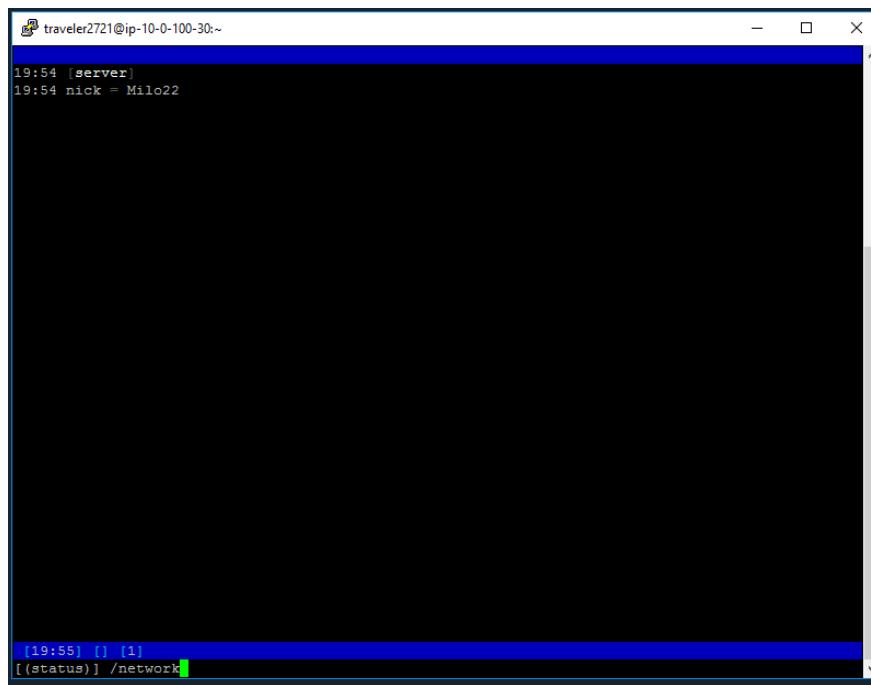
Set nick Milo22



A terminal window titled "traveler2721@ip-10-0-100-30:~". The window has a dark background and a blue header bar. In the bottom right corner of the header bar, there is a small yellow icon. The terminal window contains a single line of text: "[19:54] [] [1] [(status)] /set nick Milo22". The text is white on a black background.

3.3 Request network list

network



A terminal window titled "traveler2721@ip-10-0-100-30:~". The window has a dark background and a blue header bar. In the bottom right corner of the header bar, there is a small yellow icon. The terminal window contains two lines of text: "19:54 [server]" and "19:54 nick = Milo22". The text is white on a black background. At the bottom of the window, there is a status bar with the text "[19:55] [] [1] [(status)] /network" in white on a black background.

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3.4 Connect to network

Connect somber

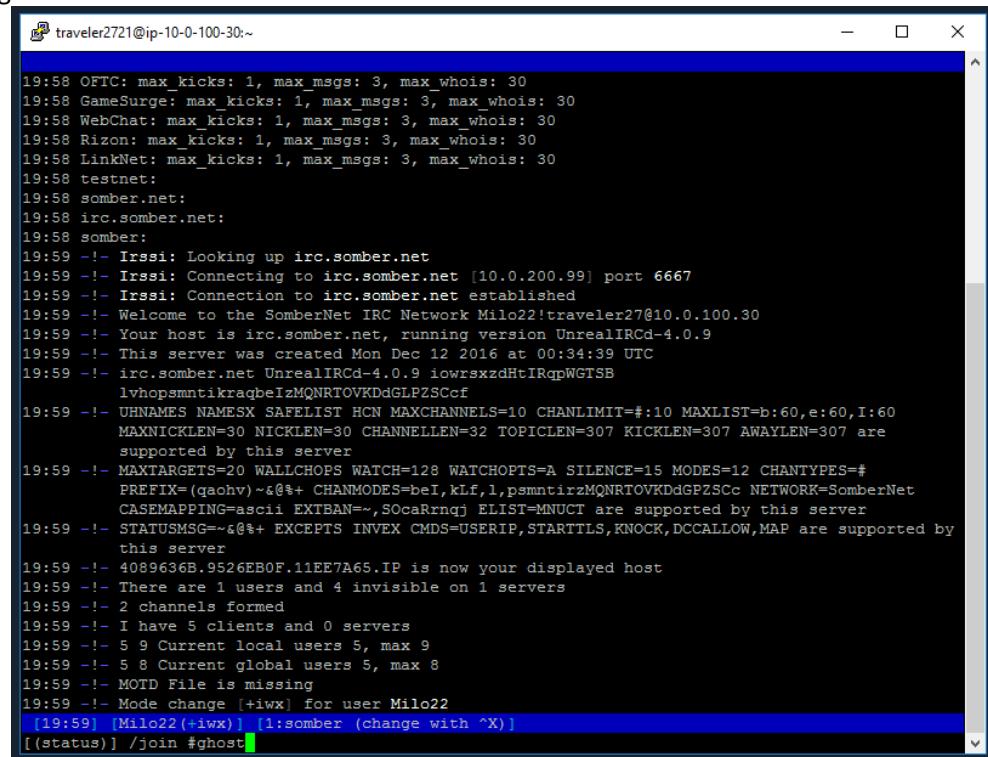
```
traveler2721@ip-10-0-100-30:~  
[19:54] [server]  
[19:54] nick = Milo22  
[19:55] Networks:  
[19:55] IRCnet: querychans: 5, max_kicks: 4, max_msgs: 5, max_whois: 4  
[19:55] EFNet: max_kicks: 4, max_msgs: 3, max_whois: 1  
[19:55] Undernet: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] DALnet: max_kicks: 4, max_msgs: 3, max_whois: 30  
[19:55] QuakeNet: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] OFTC: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] GameSurge: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] WebChat: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] Rizon: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] LinkNet: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] testnet:  
[19:55] sober.net:  
[19:55] irc.somber.net:  
[19:55] sober:  
[19:56] [(status)] /connect somber
```

```
traveler2721@ip-10-0-100-30:~  
[19:55] OFTC: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] GameSurge: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] WebChat: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] Rizon: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] LinkNet: max_kicks: 1, max_msgs: 3, max_whois: 30  
[19:55] testnet:  
[19:55] sober.net:  
[19:55] irc.somber.net:  
[19:55] sober:  
[19:56] -!- Irssi: Looking up irc.somber.net  
[19:56] -!- Irssi: Connecting to irc.somber.net [10.0.200.99] port 6667  
[19:56] -!- Irssi: Connection to irc.somber.net established  
[19:56] -!- Welcome to the SomberNet IRC Network Milo22!traveler27@10.0.100.30  
[19:56] -!- Your host is irc.somber.net, running version UnrealIRCd-4.0.9  
[19:56] -!- This server was created Mon Dec 12 2016 at 00:34:39 UTC  
[19:56] -!- irc.somber.net UnrealIRCd-4.0.9 iowrsxzdHtIRqpWGTB  
    lvhopsmtikragbeIzMQNRTOVKDDgLPZSCcf  
[19:56] -!- UHNAME NAMESX SAFELIST HCN MAXCHANNELS=10 CHANLIMIT=#:10 MAXLIST=b:60,e:60,I:60  
    MAXNICKLEN=30 NICKLEN=30 CHANNELLEN=32 TOPICLEN=307 KICKLEN=307 AWAYLEN=307 are  
    supported by this server  
[19:56] -!- MAXTARGETS=20 WALLCHOPS WATCH=128 WATCHOPTS=A SILENCE=15 MODES=12 CHANTYPES=#  
    PREFIX=(qahv)~&@%+ CHANMODES=be!,kLf,l,psmntirzMQNRTOVKDDgPZSCc NETWORK=SomberNet  
    CASEMAPPING=ascii EXTBAN=~,.SocaRrnqi ELIST=MNUCT are supported by this server  
[19:56] -!- STATUSMSG=~@%+ EXCEPTS INVEK CMDS=USERIP,STARTTLS,KNOCK,DCCALLOW,MAP are supported by  
    this server  
[19:56] -!- 4089636B.9526EB0F.11EE7A65.IP is now your displayed host  
[19:56] -!- There are 1 users and 4 invisible on 1 servers  
[19:56] -!- 2 channels formed  
[19:56] -!- I have 5 clients and 0 servers  
[19:56] -!- 5 9 Current local users 5, max 9  
[19:56] -!- 5 8 Current global users 5, max 8  
[19:56] -!- MOTD File is missing  
[19:56] -!- Mode change [+iwx] for user Milo22  
[19:56] [(status)] [Milo22(+iwx)] [1:somber (change with ^X)]
```

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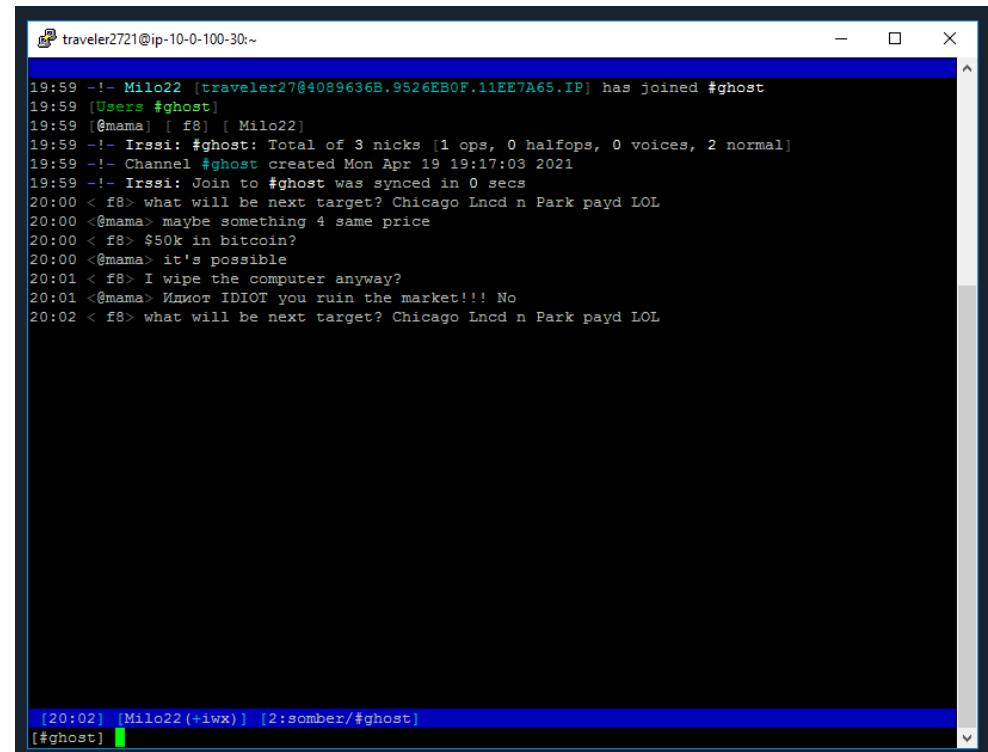
3.5 Join #ghost

join #ghost



```
traveler2721@ip-10-0-100-30:~  
  
19:58 OFTC: max_kicks: 1, max_msgs: 3, max_whois: 30  
19:58 GameSurge: max_kicks: 1, max_msgs: 3, max_whois: 30  
19:58 WebChat: max_kicks: 1, max_msgs: 3, max_whois: 30  
19:58 Rizon: max_kicks: 1, max_msgs: 3, max_whois: 30  
19:58 LinkNet: max_kicks: 1, max_msgs: 3, max_whois: 30  
19:58 testnet:  
19:58 somber.net:  
19:58 irc.somber.net:  
19:58 somber:  
19:59 --!- Irssti: Looking up irc.somber.net  
19:59 --!- Irssti: Connecting to irc.somber.net [10.0.200.99] port 6667  
19:59 --!- Irssti: Connection to irc.somber.net established  
19:59 --!- Welcome to the SomberNet IRC Network Milo22!traveler27@10.0.100.30  
19:59 --!- Your host is irc.somber.net, running version UnrealIRCd-4.0.9  
19:59 --!- This server was created Mon Dec 12 2016 at 00:34:39 UTC  
19:59 --!- irc.somber.net UnrealIRCd-4.0.9 iowsxzdHtIRqpWGTB  
lvhopsmntikraqbeIzMQNRTOVKdGLPZSCcf  
19:59 --!- UHNAMES NAMESX SAFELIST HCN MAXCHANNELS=10 CHANLIMIT=#:10 MAXLIST=b:60,e:60,I:60  
MAXNICKLEN=30 NICKLEN=30 CHANNELLEN=32 TOPICLEN=307 KICKLEN=307 AWAYLEN=307 are  
supported by this server  
19:59 --!- MAXTARGETS=20 WALLCHOPS WATCH=128 WATCHOPTS=A SILENCE=15 MODES=12 CHANTYPES=#  
PREFIX=(gachv)~&%+ CHANMODES=beI,kI,fI,l,psmntirzMQNRTOVKdGPFZSCc NETWORK=SomberNet  
CASEMAPPING=ascii EXTBAN=~,SOcaRrnqj ELIST=MNUCT are supported by this server  
19:59 --!- STATUSMSG=~&%+ EXCEPTS INVEX CMDS=USERIP,STARTTLS,KNOCK,DCCALLOW,MAP are supported by  
this server  
19:59 --!- 4089636B.9526EBOF.11EE7A65.IP is now your displayed host  
19:59 --!- There are 1 users and 4 invisible on 1 servers  
19:59 --!- 2 channels formed  
19:59 --!- I have 5 clients and 0 servers  
19:59 --!- 5 9 Current local users 5, max 9  
19:59 --!- 5 8 Current global users 5, max 8  
19:59 --!- MOTD File is missing  
19:59 --!- Mode change [+iwx] for user Milo22  
[19:59] [Milo22(+iwx)] [1:somber (change with ^X)]  
[status] /join #ghost
```

3.6 Observe conversation



```
traveler2721@ip-10-0-100-30:~  
  
19:59 --!- Milo22 [traveler27@4089636B.9526EBOF.11EE7A65.IP] has joined #ghost  
19:59 [Users #ghost]  
19:59 [@mama] [ f8] [ Milo22]  
19:59 --!- Irssti: #ghost: Total of 3 nicks [1 ops, 0 halfops, 0 voices, 2 normal]  
19:59 --!- Channel #ghost created Mon Apr 19 19:17:03 2021  
19:59 --!- Irssti: Join to #ghost was synced in 0 secs  
20:00 < f8> what will be next target? Chicago Lncd n Park payd LOL  
20:00 < @mama> maybe something 4 same price  
20:00 < f8> $50k in bitcoin?  
20:00 < @mama> it's possible  
20:01 < f8> I wipe the computer anyway?  
20:01 < @mama> Илиот IDIOT you ruin the market!!! No  
20:02 < f8> what will be next target? Chicago Lncd n Park payd LOL  
  
[20:02] [Milo22(+iwx)] [2:somber/#ghost]  
[#ghost]
```

See who the players are:

Other players noted are @mama and f8

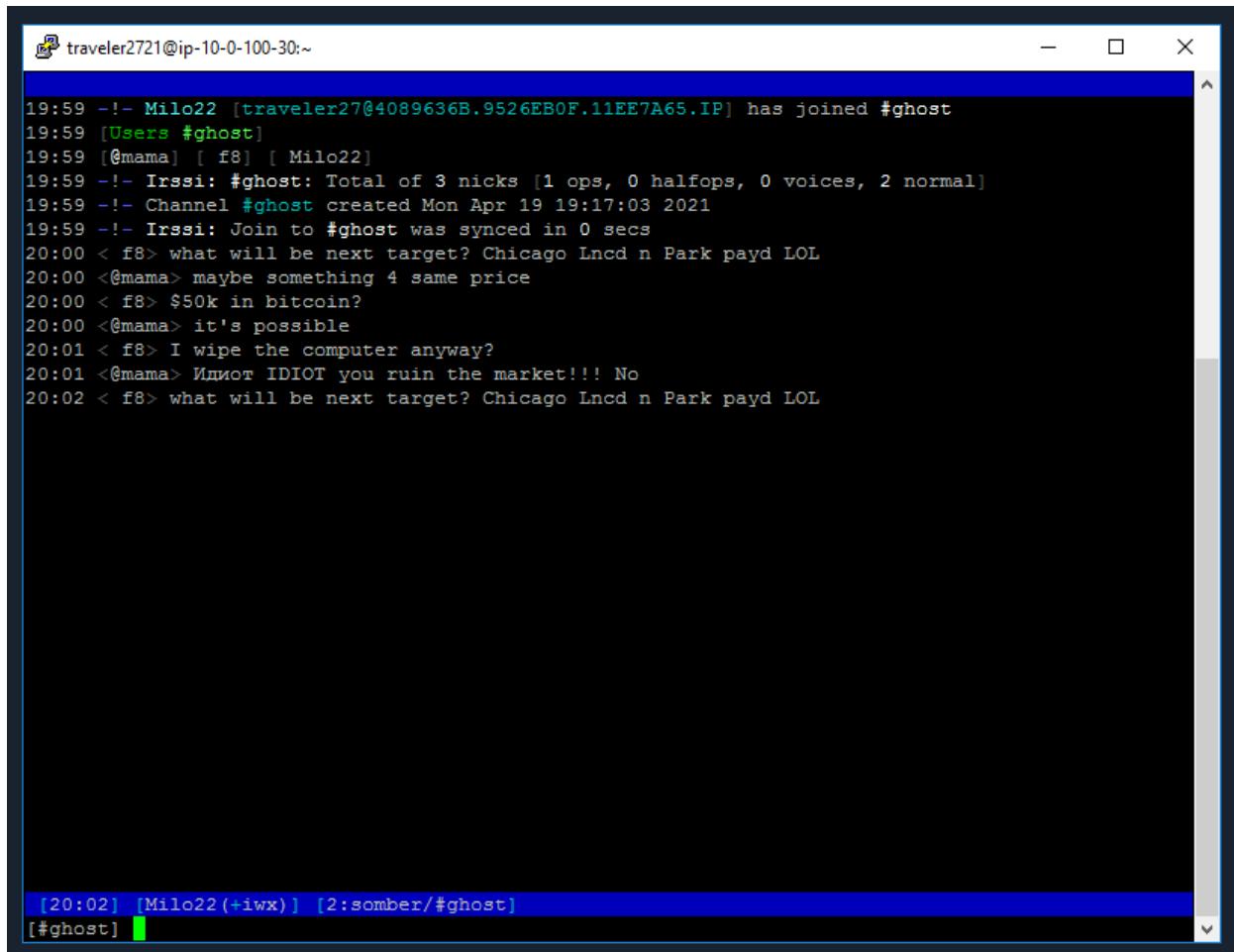
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3.7 Eavesdrop on the IRC channel

irc.somber.net #ghost

This appears to be 2x Russians that have done a ransomware on Chicago Land and Parks for \$50k in bitcoin. The one player, f8 wanted to wipe their computers anyway even after collecting the ransom but the second player @mama said no as it would harm the market...if you wipe them anyway, then future victims won't pay...

I would suggest continuing to monitor them as they are talking about who's next, but haven't said yet...



```
traveler2721@ip-10-0-100-30:~  
  
19:59 --!- Milo22 [traveler27@4089636B.9526EB0F.11EE7A65.IP] has joined #ghost  
19:59 [Users #ghost]  
19:59 [@mama] [ f8 ] [ Milo22 ]  
19:59 --!- Irssi: #ghost: Total of 3 nicks [1 ops, 0 halfops, 0 voices, 2 normal]  
19:59 --!- Channel #ghost created Mon Apr 19 19:17:03 2021  
19:59 --!- Irssi: Join to #ghost was synced in 0 secs  
20:00 < f8> what will be next target? Chicago Lncd n Park payd LOL  
20:00 <@mama> maybe something 4 same price  
20:00 < f8> $50k in bitcoin?  
20:00 <@mama> it's possible  
20:01 < f8> I wipe the computer anyway?  
20:01 <@mama> Идиот IDIOT you ruin the market!!! No  
20:02 < f8> what will be next target? Chicago Lncd n Park payd LOL  
  
[ 20:02 ] [Milo22 (+iwx) ] [2:somber/#ghost]  
[#ghost]
```