

## TASK 1

# Analyze a Suspicious File

Rev D

# Analyze a Suspicious File

1	Analyzing a Piece of Intel.....	3
2	Running the Binary .....	4
3	Connecting to the IRC Channel.....	5
3.1	Run PuTTY .....	5
3.2	Set nickname.....	9
3.3	Request network list .....	9
3.4	Connect to network .....	10
3.5	Join #ghost .....	11
3.6	Observe conversation .....	11
3.7	Eavesdrop on the IRC channel .....	12



# 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	401EEC
DeleteCriticalSection	401EF4
InitializeCriticalSection	401EFC

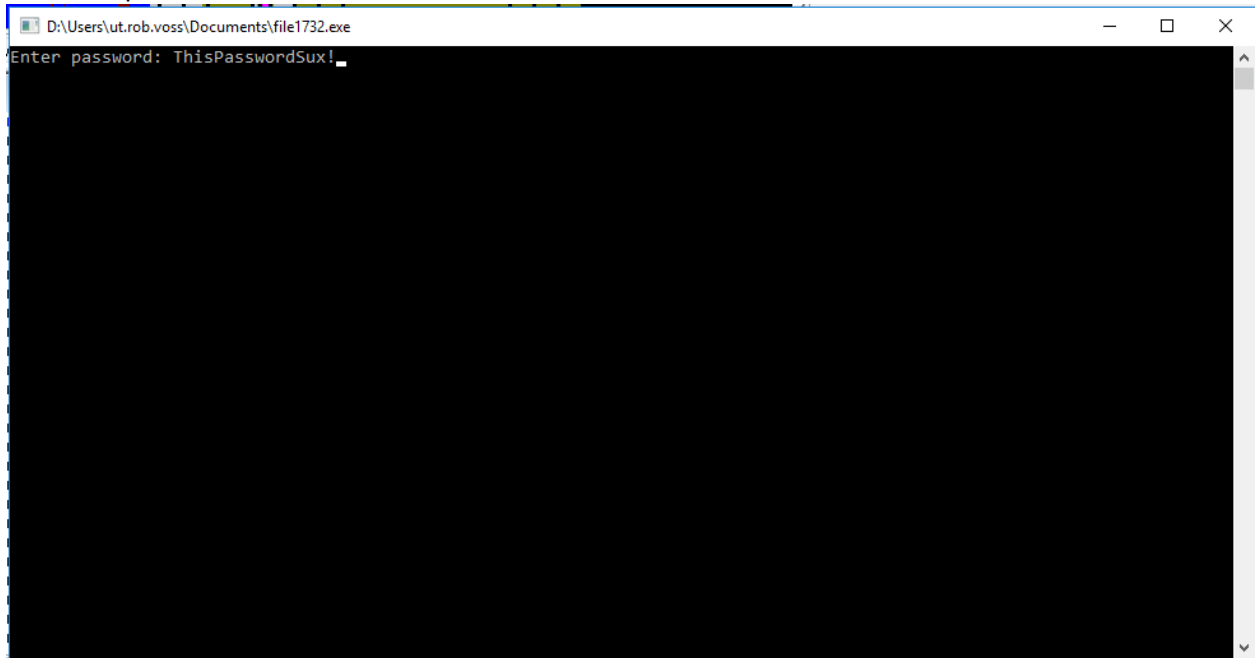
### Interesting Text:

```
_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
```

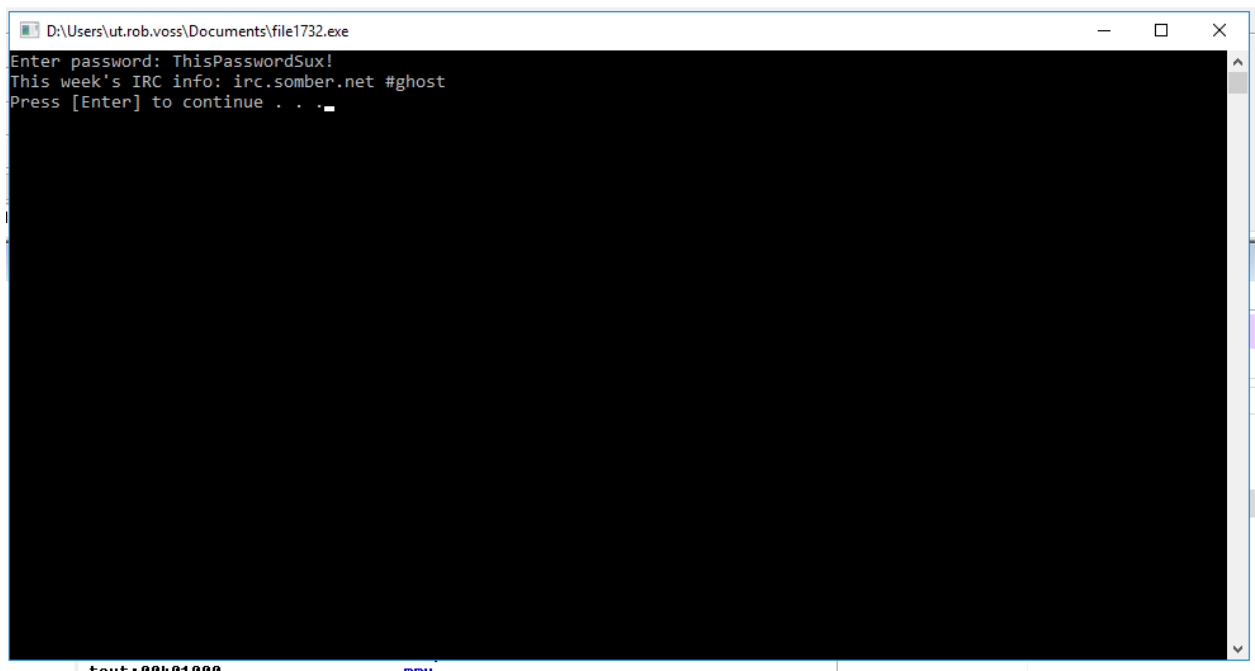
# Analyze a Suspicious File

## 2 Running the Binary

Enter the password: ThisPasswordSux!



Press enter



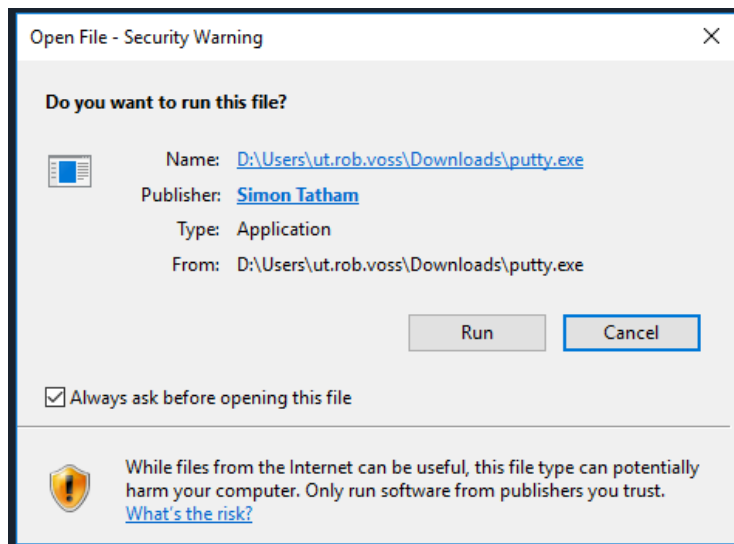
Entering the password, you get: This week's IRC info: irc.somber.net #ghost

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

# Analyze a Suspicious File

## 3 Connecting to the IRC Channel

### 3.1 Run PuTTY

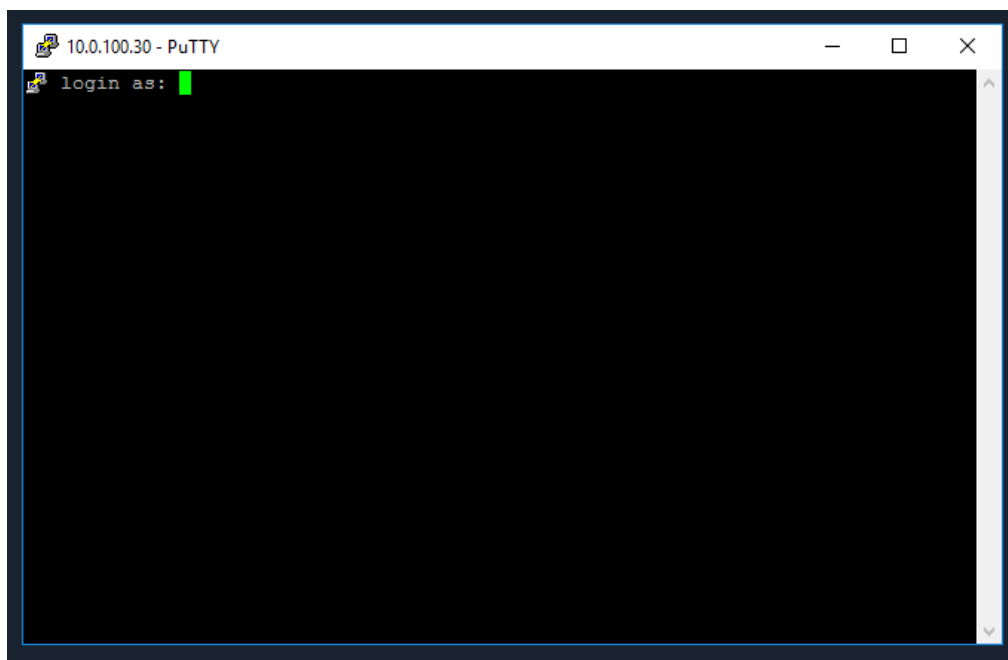
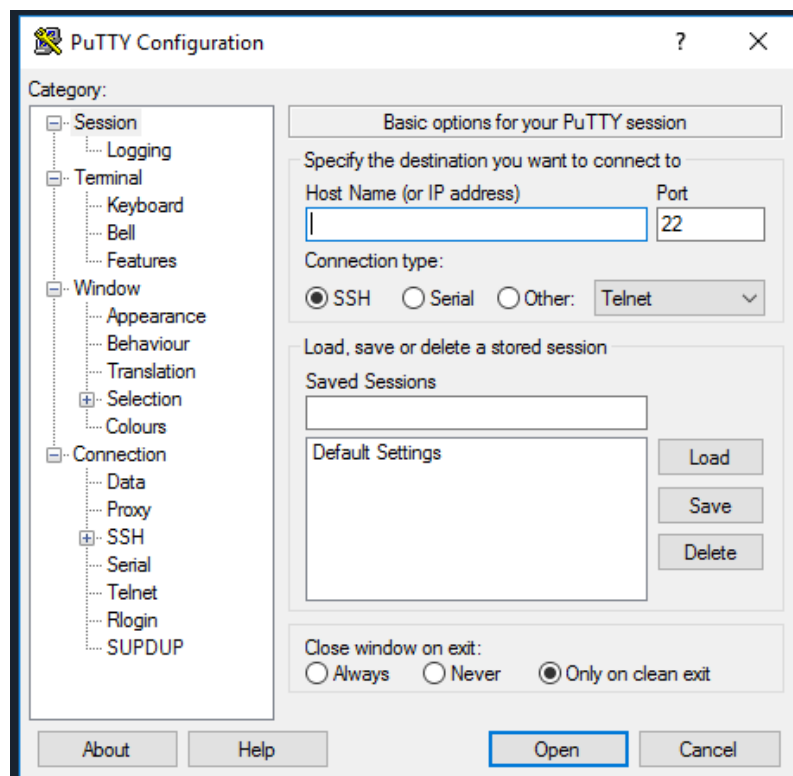


IP: 10.0.100.30

Username: travler2721

Password: EuD3jwtre4jGIEt07Tej

# Analyze a Suspicious File

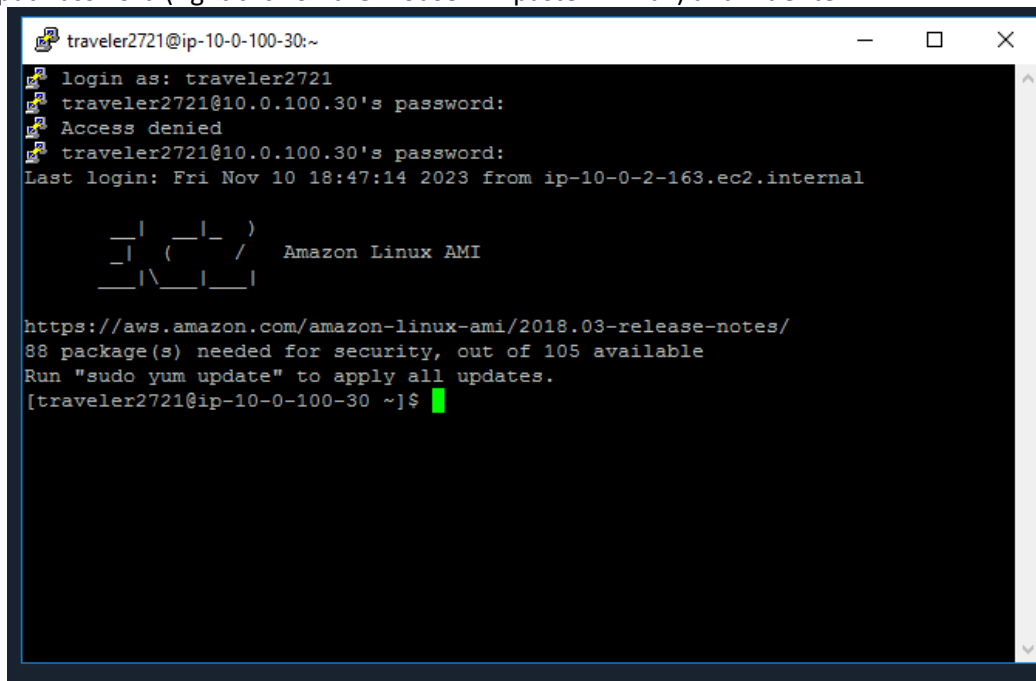


Input Username (right click on the mouse will paste in Linux) and hit enter.

# Analyze a Suspicious File



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



## Analyze a Suspicious File

Input irssi and hit enter

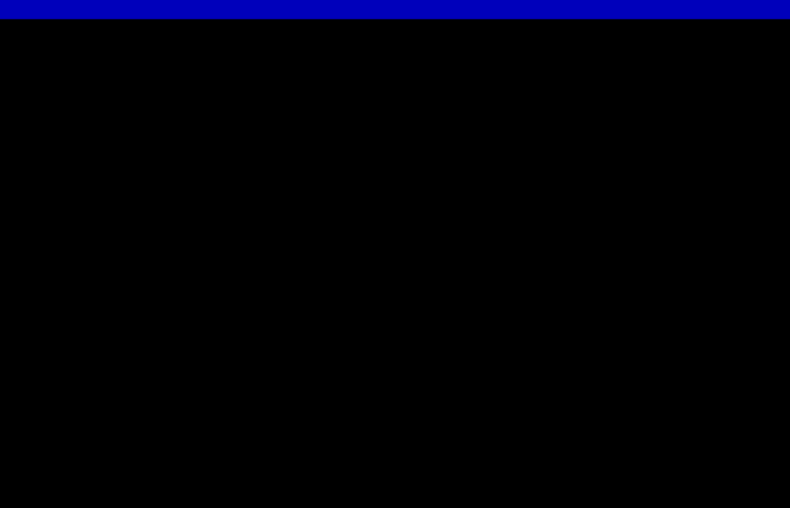
```

traveler2721@ip-10-0-100-30:~
login as: traveler2721
traveler2721@ip-10-0-100-30's password:
Access denied
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

```



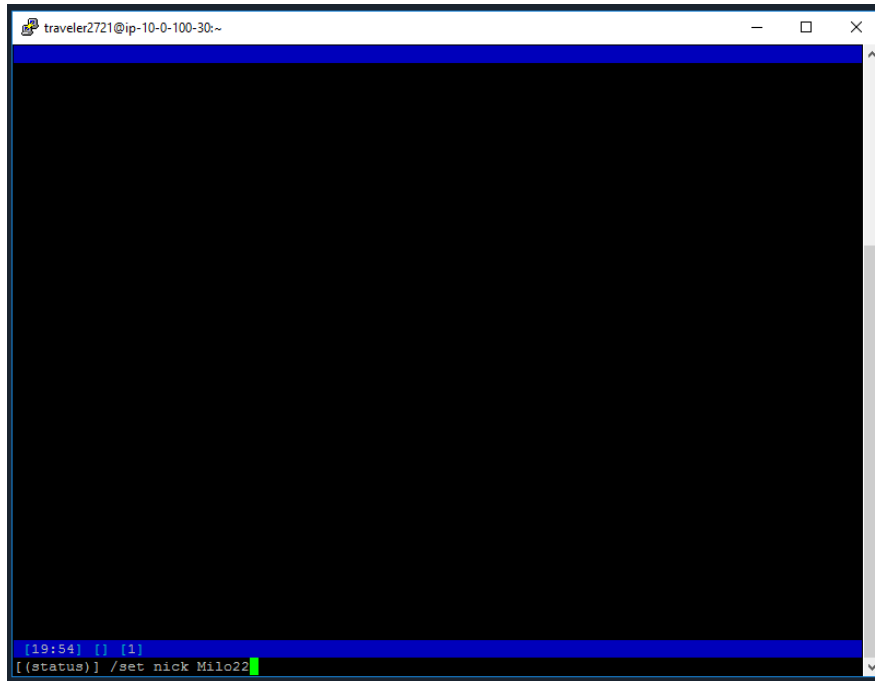
The screenshot shows a terminal window with a title bar that reads "traveler2721@ip-10-0-100-30:~". The terminal has a black background with a blue border. At the bottom, the prompt "[19:13] [] [1]" is displayed in blue, followed by the command "[ (status) ]" in white. A green cursor is positioned at the end of the command. The terminal is otherwise empty.



# Analyze a Suspicious File

## 3.2 Set nickname

Set nick Milo22

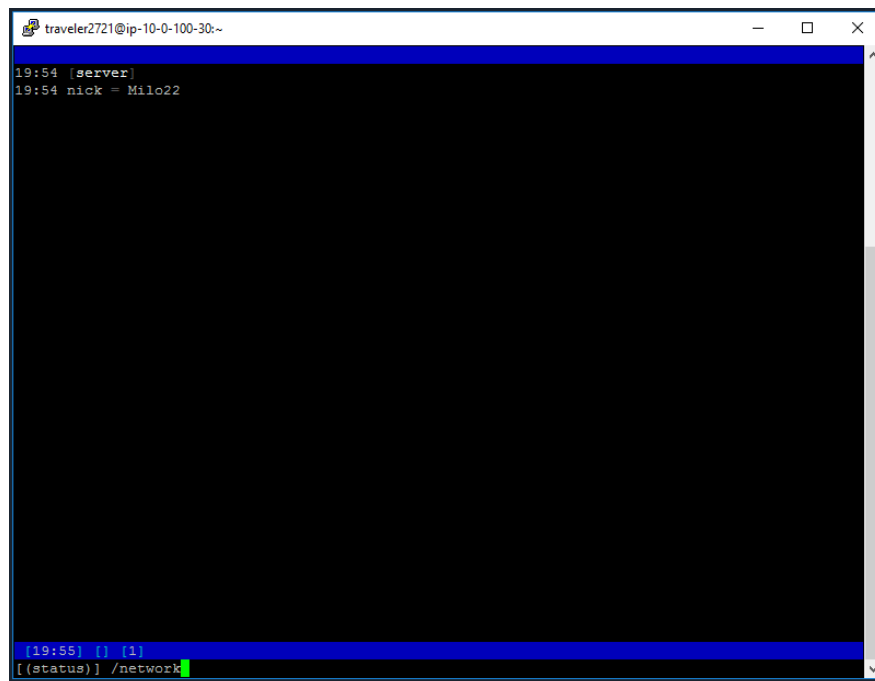


A terminal window titled "traveler2721@ip-10-0-100-30:~" with a blue header bar. The terminal is mostly black. At the bottom, a blue prompt line shows "[19:54] {} [1]" and a green cursor is positioned after the command "[ (status) ] /set nick Milo22".

```
traveler2721@ip-10-0-100-30:~  
[19:54] {} [1]  
[ (status) ] /set nick Milo22
```

## 3.3 Request network list

network



A terminal window titled "traveler2721@ip-10-0-100-30:~" with a blue header bar. The terminal shows two lines of output: "19:54 [server]" and "19:54 nick = Milo22". At the bottom, a blue prompt line shows "[19:55] {} [1]" and a green cursor is positioned after the command "[ (status) ] /network".

```
traveler2721@ip-10-0-100-30:~  
19:54 [server]  
19:54 nick = Milo22  
[19:55] {} [1]  
[ (status) ] /network
```

# Analyze a Suspicious File

## 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 somber.net:  
19:55 irc.somber.net:  
19:55 somber:  
  
[19:56] {} [1]  
[(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 somber.net:  
19:55 irc.somber.net:  
19:55 somber:  
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 iowrsxzdHtIRqpWGTSE  
lvhopsmtikraqbeIzMQNRTOVKdGdGLPZSCcf  
19:56 -!- UHNAMES NAMESX SAFELIST HCN MAXCHANNELS=10 CHANLIMIT=#:10 MAXLIST=b: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=(gaohv)~&@%+ CHANMODES=beI,kLf,l,psmntirzMqNRTOVKdGdGPZSCc NETWORK=SomberNet  
CASEMAPPING=ascii EXTBAN=~,SOcaRrnqj ELIST=MNUCT are supported by this server  
19:56 -!- STATUSMSG=~&@%+ EXCEPTS INVEX 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] [Milo22(+iwx)] [1:somber (change with ^X)]  
[(status)]
```

# Analyze a Suspicious File

## 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 -!- Irssi: Looking up irc.somber.net  
19:59 -!- Irssi: Connecting to irc.somber.net [10.0.200.99] port 6667  
19:59 -!- Irssi: 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 iowrsxzdHtIRqpWGTSE  
lvhopsmtikraqbelzMQRNTOVKDdGLPZSCcf  
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 WATCHOPS=A SILENCE=15 MODES=12 CHANTYPES=#  
PREFIX=(qaoHV)~&@%+ CHANMODES=beI,kLf,l,psmntirzMQRNTOVKDdGPZSCc 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.9526EB0F.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.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 Lnnd n Park paid 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 Lnnd n Park paid LOL  
[20:02] [Milo22(+iwx)] [2:somber/#ghost]  
[#ghost]
```

See who the players are:

Other players noted are @mama and f8

# Analyze a Suspicious File

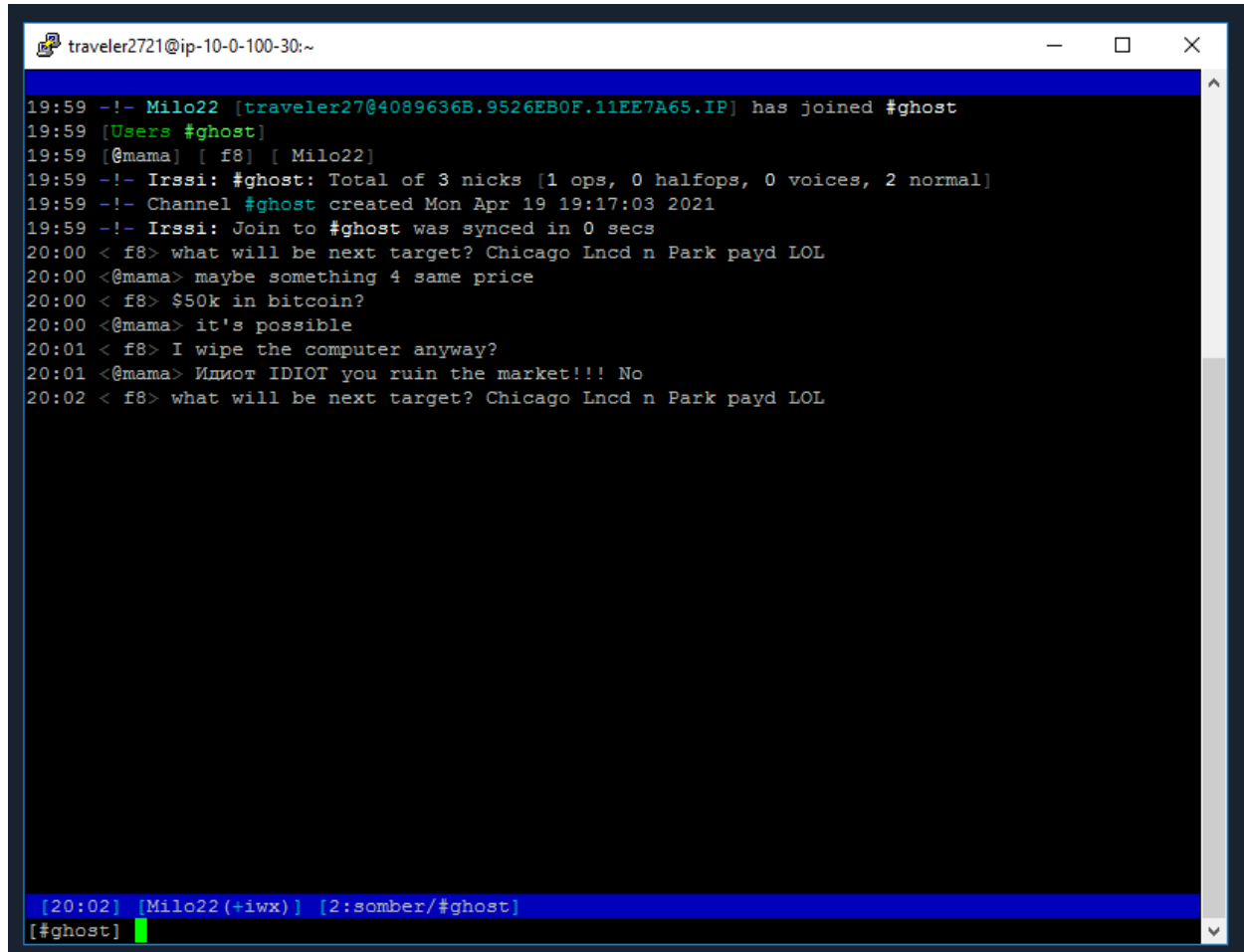
## 3.7 Eavesdrop on the IRC channel

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]
```