Fire in the Skype

Skype powered botnets...

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The biggest botnet ever ?

Key factors for a good botnet

Want a good botnet ? Need two things :

- Massive number of bots
- Resilience

Definition from Wikipedia

Resilience generally means the ability to recover from (or to resist being affected by) some shock, insult, or disturbance. However, it is used quite differently in different fields.

In fact, it's more about resilience than numbers...

Why use Skype ?

Where popularity hurts...

Skype is an interesting piece of software

- Very popular, 300M downloads, 100M+ users
- Between 5M and 12M users connected
- Very good firewall "punching" capabilities
- Obfuscated and persistant network flow

Heavy fuel for kiddies...

And... It kindly provides network API so we can use all this transparently

Skype usage benefits

What makes it worse

So we have the numbers. What about resilience ?

- Skype provides network connectivity and obfuscation
- Skype is resilient by design ;)
- Just need nickname(s) for communications

Cool isn't it ? Can we make better ?

All about resilience

Where you use what you may have heard before...

Keeping your botnet up is somehow keeping master(s) connected and reachable

- Credentials caching roughly means your login last for ages[1]
- Multiple login from different places is possible
- Skype handles everything else for us

Why does it make us stronger ?

- Will be able te reconnect anytime using cached credentials
- Won't get disconnected until last instance dies
- Network ensures connectivity and proper routing

0.02€ ideas : steal credentials to create more masters with different nicknames, create multiples bots with same nickname, etc.

[1] Like yesterday's jam !

Finding bots
Building the big thing

Just exploit supernodes priviledges !

- List of supernodes
- List of clients and version
- Looks perfect for a potential targets list !

Just need a flaw, say a "non-exploitable" heap overflow...

Then, things are easy...

- Exploit Skype
- Install bot as Skype plugin
- Generate plugin authorization token and execute

Finding bots

Can't use Skype itself ?

Maybe you can't find Skype vulnerable enough

- Social engineering
- XSS
- DNS cache poisoning
- Malicious websites

Internet usage stats

- 1 billion Internet users vs. 100M Skype users...
- Naive deduction : 1/10 probability

Just exploit whoever you can and check if Skype is installed !

The biggest botnet ever ?

No !

The BEST botnet ever...

BTW, functionnalities misusage is not specific to Skype and any alike P2P based communication system can be used

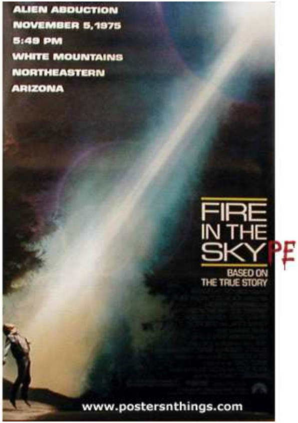
Think of...

- Teredo IPv6 over IPv4 P2P network
- Hamachi P2P network tunneling
- Many others to come in the future

Greetings...

And questions ?

- Thanks to Serpi, Recca, Phil and Newsoft
- Team Bisounours
- Rstack.org team
  `http://www.rstack.org/`
- MISC Magazine
  `http://www.miscmag.com/`
- French Honeynet Project
  `http://www.frenchhoneynet.org/`



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