

Invasão de servidores Linux e Windows com técnicas anti-forensic

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APOIO

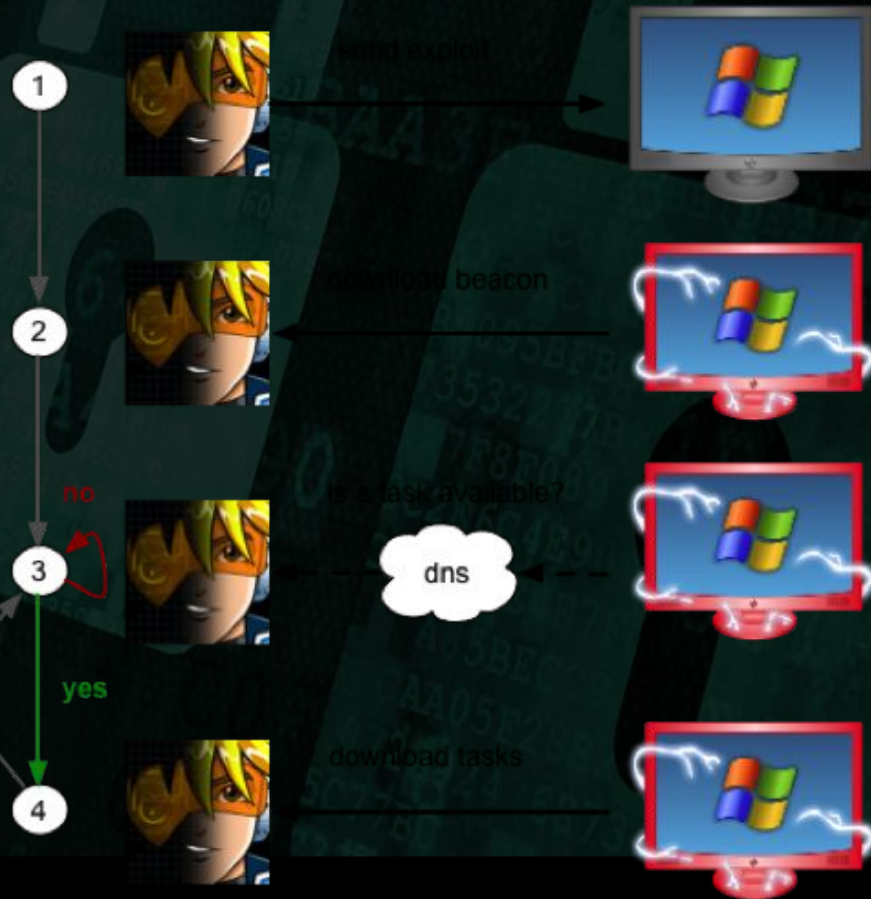


CONFRARIA  DAY

Invasão de servidores Windows
(Powershell/Beacon([http/http://dns](http://http://dns)
metasploit))

Cobaltstrike payload beacon

Hybrid HTTP e DNS Beacon



Cobaltstrike ataque powershell

AntivirusBypass	Set all module versions to 3.0	2 years ago
CodeExecution	Fixed FreeLibrary function signature #146	a year ago
Exfiltration	fixed little-endian encoding	7 months ago
Mayhem	Set all module versions to 3.0	2 years ago
Persistence	Added ScheduledTaskHourly to New-UserPersistenceOption	a year ago
Privesc	typo fix for #179	7 months ago
Recon	Updated Get-ExploitableSystem	7 months ago
ScriptModification	Set all module versions to 3.0	2 years ago
Tests	removed Pester test for non-exported Invoke-ThreadedFunction function	7 months ago
.gitignore	Revert "Normalizing all files to ascii encoding"	2 years ago
LICENSE	Changed licensing to BSD 3-Clause	5 years ago
PowerSploit.psd1	Renamed Get-RegistryAutoRun to Get-ModifiableRegistryAutoRun	a year ago
PowerSploit.psm1	Excluding the Tests folder from being loaded as a module	2 years ago
PowerSploit.pssproj	Updated .psproj to reflect additions/removals	2 years ago
PowerSploit.sln	Adding Visual Studio 2015 project file	2 years ago
README.md	Added Get-GPPAutologon.ps1	7 months ago

O poder do Cobaltstrike

Aggressor Scripts

GitHub, Inc. [US] | <https://github.com/Und3rf10w/Aggressor-scripts>

Branch: master | New pull request | Find file | Clone or download

Und3rf10w committed on GitHub Merge pull request #17 from zacharyhenson/add_bloodhound Latest commit 08ebb56 on 17 May

📁 Ebowla	added process tree searcher to DebugKit	4 months ago
📁 Pushover	Pushover bugfixes for SSH sessions	9 months ago
📁 Reports	added knightlab timeline report generator	5 months ago
📁 inveigh	Added the start of ebowla interoperability	4 months ago
📁 kits	Added BloodHound.ps1, modified bloodhound to feed directly into inges...	a month ago
📄 .gitattributes	fixed gitattributes, added some postExploit	a year ago
📄 .gitignore	added mimikittenz, adsbackdoor script, and proper adsbackdoor function	9 months ago
📄 .gitmodules	Add menu support for bloodhound	3 months ago
📄 LICENSE	Initial commit	a year ago
📄 README.md	Added the start of ebowla interoperability	4 months ago
📄 auto-keylogger.cna	bugfixes, added some in progress things	11 months ago

📄 README.md

Aggressor Scripts

Aggressor Scripts

Und3rf10w / Aggressor-scripts

Watch 11 Star 49 Fork 26

Code Issues 1 Pull requests 1 Projects 0 Insights

Branch: master Aggressor-scripts / kits / Create new file Find file History

Und3rf10w Added BloodHound.ps1, modified bloodhound to feed directly into inges... Latest commit ec4b669 on 17 May

..		
📁 AnnoyKit	fixed bug where scripts wouldn't load. Updated powerscripts. Updated ...	9 months ago
📁 AntiForensicsKit	Added anti-carbon black scripts	8 months ago
📁 CredKit	fixed bug where scripts wouldn't load. Updated powerscripts. Updated ...	9 months ago
📁 DebugKit	bugfix for process tree	4 months ago
📁 EnumKit	Added BloodHound.ps1, modified bloodhound to feed directly into inges...	a month ago
📁 PersistKit	fixed bug in PersistKit	4 months ago
📁 PrivescKit	Updated powersploit scripts to latest dev	6 months ago
📁 ThirdParty	Added the start of ebowlA interoperability	4 months ago
📄 KitLoader.cna	added ThridParty to kit and moved Get-MicrophoneAudio from dev to master	5 months ago

The background features a dark teal color with several semi-transparent padlock icons scattered across it. In the background, there are faint, light-colored hex code patterns (e.g., C3AC4A21BE, 5F3F, A85B, 005, 77B, 2, D1, 26, 26, 509, 73532217B, 12B8AA, F8F089, A0E3C2E6C4E0, 45C3AC, 5095BFBC5, 353277E, 7F8F08, 3C2E6C4E5, 34A2, 5095BFBC5, 353277E, 7F8F08, 3C2E6C4E5, 34A2, 5095BFBC5, 353277E, 7F8F08, 3C2E6C4E5, 34A2) and some numbers (e.g., 923530, 2, 6, BAD888, B923589, 1B, 1, DE9053F, 5, 51, 56, B1, 608C, 9, D).

Cobaltstrike o poder da manipulação do beacon

Invasão de servidores Linux

Daemons (root)

Utilizar senhas padrões

Segurança do Linux

Port Knocking

```
~ → knock 192.168.56.101 1 2 3 -v
```

```
hitting tcp 192.168.56.101:1
```

```
hitting tcp 192.168.56.101:2
```

```
hitting tcp 192.168.56.101:3
```

Port Knocking

[options]

UseSyslog

[openSSH]

sequence = 7000,8000,9000

seq_timeout = 5

command = /sbin/iptables -A INPUT -s %IP% -p tcp --dport 22 -j ACCEPT

tcpflags = syn

[closeSSH]

sequence = 9000,8000,7000

seq_timeout = 5

command = /sbin/iptables -D INPUT -s %IP% -p tcp --dport 22 -j ACCEPT

tcpflags = syn

Port Knocking

```
##### Fases do Segredo #####  
/sbin/iptables -N INTO-FASE2  
/sbin/iptables -A INTO-FASE2 -m recent --name FASE1 --remove  
/sbin/iptables -A INTO-FASE2 -m recent --name FASE2 --set  
/sbin/iptables -A INTO-FASE2 -j LOG --log-prefix "INTO FASE2: "  
  
/sbin/iptables -N INTO-FASE3  
/sbin/iptables -A INTO-FASE3 -m recent --name FASE2 --remove  
/sbin/iptables -A INTO-FASE3 -m recent --name FASE3 --set  
/sbin/iptables -A INTO-FASE3 -j LOG --log-prefix "INTO FASE3: "  
  
/sbin/iptables -N INTO-FASE4  
/sbin/iptables -A INTO-FASE4 -m recent --name FASE3 --remove  
/sbin/iptables -A INTO-FASE4 -m recent --name FASE4 --set  
/sbin/iptables -A INTO-FASE4 -j LOG --log-prefix "INTO FASE4: "  
  
/sbin/iptables -A INPUT -m recent --update --name FASE1
```

Port Knocking

```
/sbin/iptables -A INPUT -p tcp --dport 100 -m recent --set --name FASE1
/sbin/iptables -A INPUT -p tcp --dport 200 -m recent --rcheck --seconds 15 --name FASE1 -j INTO-FASE2
/sbin/iptables -A INPUT -p tcp --dport 300 -m recent --rcheck --seconds 15 --name FASE2 -j INTO-FASE3
/sbin/iptables -A INPUT -p tcp --dport 400 -m recent --rcheck --seconds 15 --name FASE3 -j INTO-FASE4

##### Aqui chegamos a FASE4, que é a última deste exemplo, onde será liberada a conexão com a porta 22
(ssh). O tempo aqui está setado para 3600 segundos (1 hora). Depois disso será fechada novamente para o ip em
questão, lembrando que se ele ainda estiver logado não fará diferença, será fechada mesmo assim. Então aumente
o tempo conforme desejado.#####

/sbin/iptables -A INPUT -p tcp -s $HOST_IP --dport 22 -m recent --rcheck --seconds 3600 --name FASE4 -j ACCEPT

##### Por último fechamos todos acessos a porta 22 #####

/sbin/iptables -A INPUT -p tcp --dport 22 -j DROP
```

Kernel

```
echo "====>PROTECOES DE KERNEL<===="
```

```
echo 0 > /proc/sys/net/ipv4/conf/all/accept_source_route
```

```
echo 0 > /proc/sys/net/ipv4/conf/all/accept_redirects
```

```
echo 0 > /proc/sys/net/ipv4/conf/all/accept_redirects
```

```
echo 1 > /proc/sys/net/ipv4/icmp_ignore_bogus_error_responses
```

```
echo 0 > /proc/sys/net/ipv4/icmp_echo_ignore_all
```

```
echo 1 > /proc/sys/net/ipv4/tcp_syncookies
```

```
echo 0 > /proc/sys/net/ipv4/conf/all/accept_source_route
```

```
echo 1 > /proc/sys/net/ipv4/conf/all/rp_filter
```

```
echo 1 > /proc/sys/net/ipv4/icmp_echo_ignore_broadcasts
```

```
echo 1 > /proc/sys/net/ipv4/conf/all/log_martians
```

```
echo "OK -> proteção para o Kernel ..."
```


Kernel

echo 0 > /proc/sys/net/ipv4/conf/all/accept_source_route (**Router**)

echo 1 > /proc/sys/net/ipv4/icmp_echo_ignore_broadcasts (dos icpm)

Echo 0 >

/proc/sys/net/ipv4/conf/all/accept_source_router(redirecionar pacotes teste de routers)

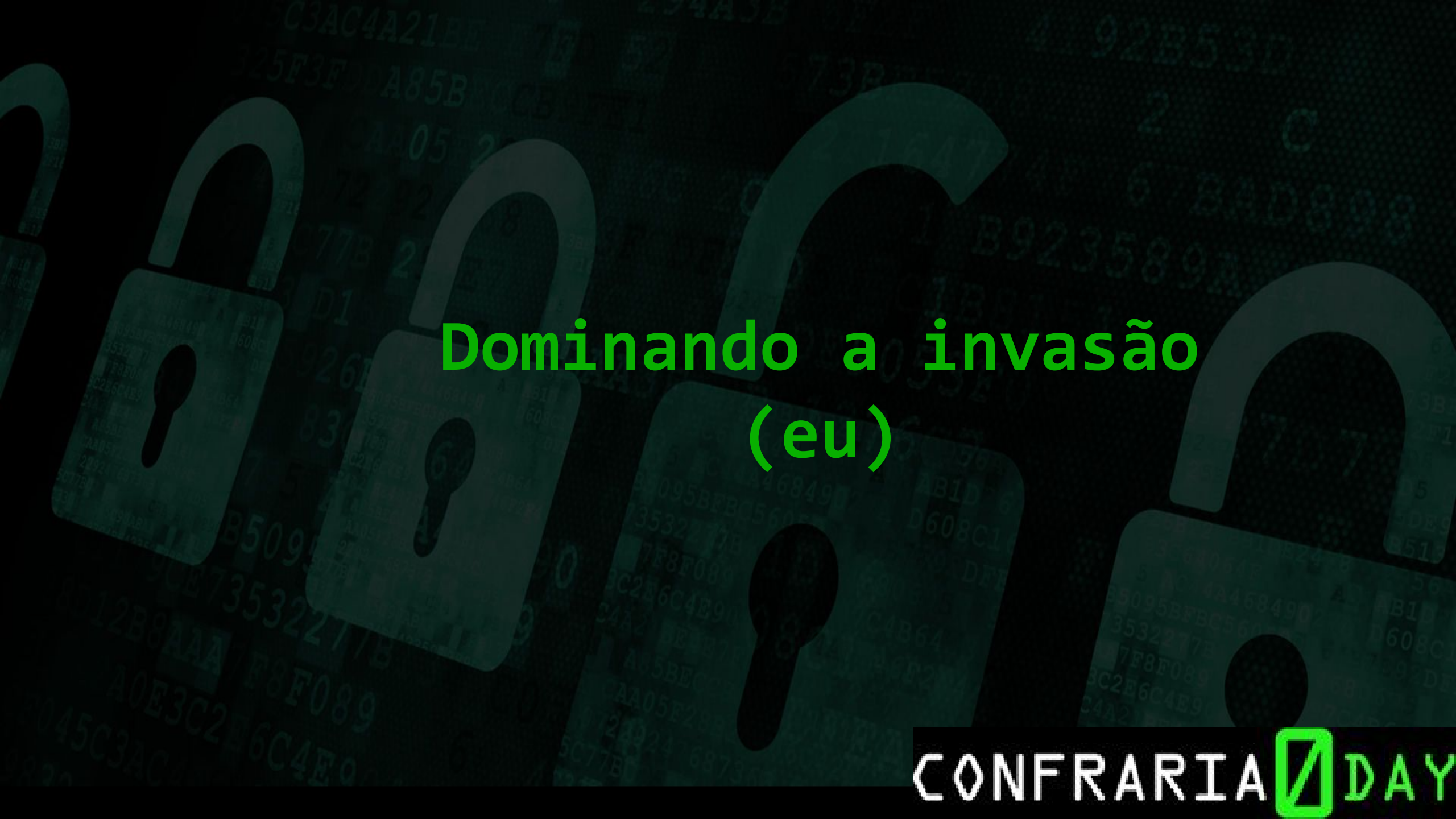
Echo 0 > /proc/sys/net/ipv4/ip_forward (desativando suporte a ip_forward)

Echo 0 > /proc/sys/net/ipv4/tcp_syscookies(not syn flood)

Echo 1 > /proc/sys/net/ipv4/conf/all/log_martians(Isso registra falsificação, bem como "roteamento de origem" e "redirecionamento".

)

Sniffer remonte de sessão

The background features a dark teal color with several semi-transparent padlock icons scattered across it. In the background, there is also a faint pattern of binary code (0s and 1s) and hexadecimal characters (A-F, 0-9).

Dominando a invasão (eu)

Bad god

1. **Root(no-root)**
2. *Criptografia de disco (home/ var/ root/)*
3. *Cuidado com a /etc*
4. *Senhas fortes mínimo 20 dígitos (random)*
5. *Proxy/socks*
6. *Mac*
7. *Ids, ips , honeypost e nc*
8. *Firewall*
9. *Crpt*
10. *criptografia (rsa & aes)*

Invasão de servidores Linux

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Logs bad god

1. Logs bad god

1. /var/log/messages
2. /var/log/auth.log
3. /var/log/kern.log
4. /var/log/cron.log
5. /var/log/maillog
6. /var/log/secure
7. /var/log/utmp
/var/log/wtmp
8. /var/log/boot.log

Sniffer remonte de sessão (bad god)

Anonimato sub-networks

redes
(*Tor; Resilio; Maelstrom; Ricochet; i2p;*
Retrosahre; Soulseek; demonsaw)

Navegador
(Firefox, hconstf, mantra)

Técnicas anti-forensic

Após a invasão o que devo fazer ?

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Como eu limpo os meus logs-files ?

bad god logs

1. Memoria ram
2. Swap
3. E-nodes

Arquivos do sistema

Logs (ips / dns)

ferramenta criada por min
(priv8 dark-zero)

Google Chrome
Access the Internet

DARK-ZERO

criador=[luiz gustavo/darkcode] date=[2017/3/9] tag=[pentest-box]
roadsec 2017 brasilia
@priv8

```

Network
#####
                vitima-systeminfo
vitima-hostname = parrot
vitima-ip = 200.181.86.244
cobaltst vitima-ip = 192.168.0.105
vitima-id = 1000 (0=root outro numero id-user)
rotiamento-pacote = Kernel IP routing table
Destination      Gateway         Genmask        Flags Metric Ref    Use Iface
default          192.168.0.1    0.0.0.0        UG    600    0      0 wlan0
192.168.0.0     0.0.0.0        255.255.255.0  U     600    0      0 wlan0
#####

```

```

localização da vitima
{
  "ip": "200.181.86.244",
  "hostname": "No Hostname",
  "city": "Brasília",
  "region": "Federal District",
  "country": "BR",
  "loc": "-15.7772,-47.8413",
  "org": "AS8167 Brasil Telecom S/A - Filial Distrito Federal"
}
#####

```

- 00 ==> menu
- 0 ==> dependencias
- 1 ==> limpar log
- 2 ==> deletar arquivo ou pastas com srm 38 urandom/random/null/zero
- 3 ==> liberar firewall iptables para a cesso remoto
- 4 ==> deleta regra do seu ip no firewall da vitima
- 5 ==> limpar memoria ram /random/null/zero/uradnom e null byte

criador=[luiz gustavo/darkcode] date=[2017/3/9] tag=[pentest-box]
roadsec 2017 brasilia
@priv8

#####
Home vitima-systeminfo
vitima-hostname = parrot
vitima-ip = 200.181.86.244
vitima-ip = 192.168.0.105
vitima-id = 1000 (0=root outro numero id-user)
rotiamento-pacote = Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
default 192.168.0.1 0.0.0.0 UG 600 0 0 wlan0
192.168.0.0 0.0.0.0 255.255.255.0 U 600 0 0 wlan0
#####

#####
cobaltstrike localização da vitima
{
"ip": "200.181.86.244",
"hostname": "No Hostname",
"city": "Brasília",
"region": "Federal District",
"country": "BR",
"loc": "-15.7772,-47.8413",
"org": "AS8167 Brasil Telecom S/A - Filial Distrito Federal"
}
#####

- 00 ==> menu
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4 ==> deleta regra do seu ip no firewall da vitima
5 ==> limpar memoria ram /random/null/zero/uradnom e null byte
6 ==> matar o sistema de uma vez (nao rodar)
7 ==> privilegio de escalção em linux (so roda se nao tiver root)
8 ==> remover o seu ip do firewall da vitima

pvt-darkbox=>