

#IntelCon2021



IntelCon  
by Ginseg

## Cortando la cebolla... (Y no morir en el intento)

Alfredo Abarca

Congreso Online de Ciberinteligencia



> whoami -

**ALFREDO ABARCA**  
**@aabarcab**

- Dev/Endpoint Security Manager/Purple Team Player/Ciberinteligencia
- Old School Gamer



<https://github.com/AlfredoAbarca>



# DISCLAIMER



#IntelCon2021

\* **NO**, No es una clase de cocina...

(Quizá rompamos algo, pero ya veremos mas adelante.)

\* Las herramientas y metodologías mostradas en la presentación, son con fines didácticos. Por lo que no se fomenta el mal uso de las mismas.



# OBJETIVO



Familiarizarse con el tipo de información que podemos obtener en la Dark Web.

Automatizar el proceso de recolección y análisis de estos sitios.

# AGENDA

- Contexto de la investigación
- Metodología de trabajo
- Resultados
- Requerimientos técnicos
- Otros Usos



# Deep Web

90%



# Surface Web

Todo aquello que puede ser encontrado a través de un buscador como: Google, Yahoo, etc...

8%



- Recursos Gubernamentales
- Registros Médicos
- Repositorios empresariales
- Servicios de Correo
- Servicios de Suscripción

Todo aquello que no está indexado en algún buscador público.



# Dark Web

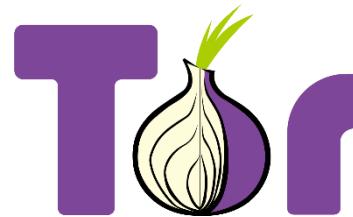
- Sitios de protesta política
- Información Ilegal\*
- Sitios de la red anónima TOR
- Mercados Ilegales (Drogas, Armas, etc...)

2%



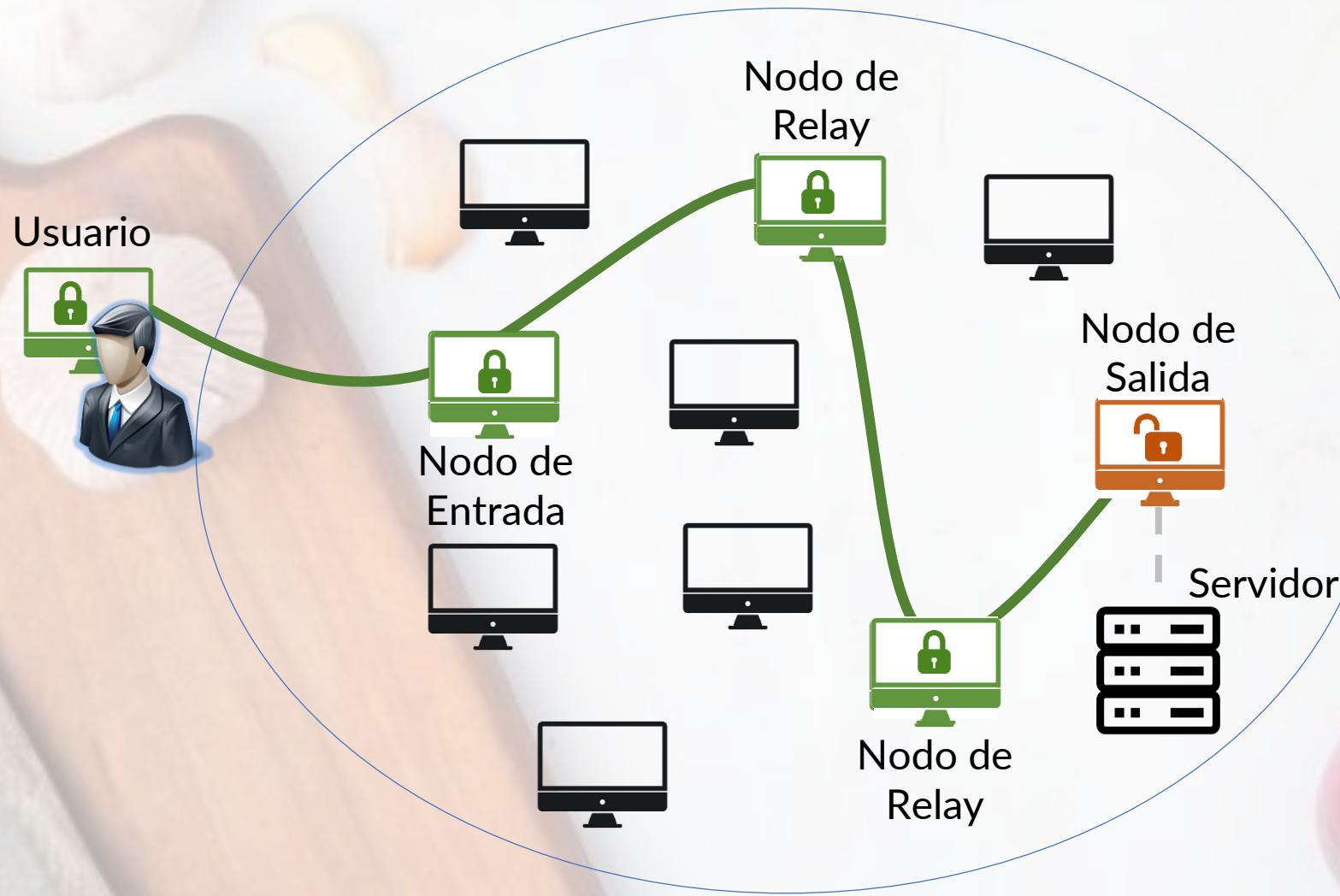
Analista de  
Ciberinteligencia

# TIPOS DE REDES



The Onion Router	Invisible Internet Project	ZeroNet	Freenet
<ul style="list-style-type: none"><li>Los datos son enrutados a través de nodos conocidos como relays.</li><li>Es posible publicar accesos de forma híbrida.</li><li>El anonimato se da por medio de servidores proxy o nodos de entrada.</li></ul>	<ul style="list-style-type: none"><li>Una red que basa su anonimato a través de redes peer to peer (P2P).</li><li>El ruteo se realiza por medio de túneles unidireccionales.</li><li>Lenta transferencia de datos por diseño.</li></ul>	<ul style="list-style-type: none"><li>El contenido de un sitio se ofrece de forma descentralizada y basándose en redes P2P. (BitTorrent)</li><li>Para anonimato emplean TOR.</li></ul>	<ul style="list-style-type: none"><li>Los usuarios comparten porciones de su ancho de banda y almacenamiento.</li><li>Las redes son comunidades de redes “amigas” y por medio de P2P.</li></ul>
<a href="https://www.torproject.org">https://www.torproject.org</a>	<a href="https://geti2p.net/en/">https://geti2p.net/en/</a>	<a href="https://zeronet.io/">https://zeronet.io/</a>	<a href="https://freenetproject.org">https://freenetproject.org</a>

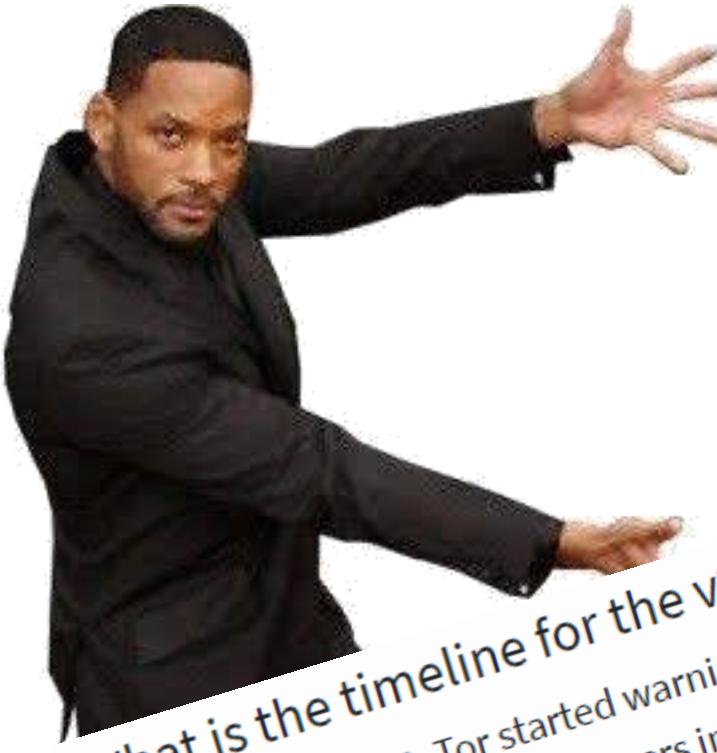
# ¿Cómo funciona la red TOR?



# Hidden Services



Un servicio oculto es un sitio web u otro tipo de servicio (ftp, smtp, irc, etc...) que utiliza la tecnología de TOR para dar cierto nivel de anonimato y .... Seguridad?



What is the timeline for the v2 deprecation?

In September 2020, Tor started warning onion service operators and clients that v2 will be deprecated and obsolete in version 0.4.6.

Tor Browser started warning users in June, 2021.

In July 2021, 0.4.6 Tor will no longer support v2 and support will be removed from the code base.

In October 2021, we will release new Tor client stable versions for all supported series that will disable v2.

You can read more in the Tor Project's blog post [Onion Service version 2 deprecation timeline](#).



<https://metrics.torproject.org/hidserv-dir-onions-seen.html>

# INVESTIGACIONES

- No existe una relación de IP-Dominio.
- No hay una Base de datos de los dominios existentes.
- No hay una forma simple de realizar la identificación de dominios.

DARK WEB



VS

CLEAR WEB

- Existe una relación de IP-Dominio-ASN
- Existe un registro de Dominios con algún proveedor.
- Diversas bases de datos de reputación.
- Mayores controles de vigilancia y regulación.

COME TO THE  
**DARK** ~~WEB~~  
WE HAVE COOKIES **SEARCHERS TOO**



DuckDuckGo



Candle



**GORCH**

**AHMIA**

Tor Anonymity Network Search Engine

A screenshot of the AHMIA search interface. The URL in the address bar is `https://osot4csyd.onion/search/?q=guns`. The search term 'guns' is entered in the search bar, and the 'Search' button is highlighted in green. Below the search bar, there are links for 'About Ahmia', 'Statistics', 'Add Service', and 'i2p search'. On the right side of the header, there are links for 'Contact' and 'Blacklist'. The main content area shows a message 'Any Time ▾' followed by 'Omitted very similar entries. Displaying 2284 matches in 6.27 seconds. Page 1 of 23.' Below this, there are several search results for 'Guns' from different users ('3bb', 'oliver', 'ly75a', 'olivq') with their respective onion URLs and timestamps.

# Son buenos pero...

- Muchos resultados
- Salida no procesable de forma simple.
- Un solo buscador no tiene todo el contenido indexado.
- Existen buscadores con contenido focalizado.
- Ligas a sitios no existentes o inservibles.



## Guns

Worldwide guns, cheapest gun. No serial number!

oliver .onion – 2 days, 13 hours ago –

## Guns

Guns

ly75a sad.onion – 0 minutes ago –

## Guns

Worldwide guns, cheapest gun. No serial number!

olivq akai7zqd.onion – 0 minutes ago –

[Euro Guns - Number one guns dealer in onionland - Buy guns and ammo for Bitcoin](#)



Onion Search es una herramienta que realiza la búsqueda de un término en **16** diferentes buscadores de la Dark web por medio de línea de comandos y entregando el resultado en un archivo CSV.



#IntelCon2021

ahmia  
darksearchio  
onionland  
notevil  
darksearchenginer  
phobos  
Onionsearchserver  
torgle

onionsearchengine  
tordex  
tor66  
tormax  
haystack  
multivac  
evosearch  
deeplink

```
digger@diggervm2:~/OnionSearch$ onionsearch
usage: onionsearch [-h] [--proxy PROXY] [--output OUTPUT]
                   [--continuous_write CONTINUOUS_WRITE] [--limit LIMIT]
                   [--engines [ENGINES [ENGINES ...]]]
                   [--exclude [EXCLUDE [EXCLUDE ...]]]
                   [--fields [FIELDS [FIELDS ...]]]
                   [--field_delimiter FIELD_DELIMITER] [--mp_units MP_UNITS]
                   search
```

<https://github.com/megadose/OnionSearch>

```
digger@diggerDDW:~/TFM/OnionSearch$ onionsearch guns
search.py started with 3 processing units...
Dark Search Enginer (#2): 100%|██████████| 1/1 [00:00<00:00, 1113.43it/s]
    OnionLand (#1): 0%|                | 0/100 [00:00<?, ?it/s]
error: unable to connect1): 2%|                | 2/100 [00:03<03:00, 1.84s/it]
    Ahmia (#0): 100%|██████████| 1/1 [00:11<00:00, 11.97s/it]
    Torgle (#2): 100%|██████████| 1/1 [00:06<00:00, 6.90s/it]
    Torgle 1 (#0): 100%|██████████| 1/1 [00:00<00:00, 5197.40it/s]
    Tordex (#2): 100%|██████████| 1/1 [00:00<00:00, 1273.70it/s]
Onion Search Engine (#0): 0%|                | 0/1 [00:00<?, ?it/s]
```

Al igual que los buscadores tradicionales,  
Onion search devuelve diversos resultados en  
un archivo de tipo CSV.

```
digger@diggerDDW:~/TFM/OnionSearch$ onionsearch guns
search.py started with 3 processing units...
Dark Search Enginer (#2): 100%|██████████| 1/1 [00:00<00:00, 1113.43it/s]
    OnionLand (#1): 0%|                | 0/100 [00:00<?, ?it/s]
error: unable to connect1): 2%|                | 2/100 [00:03<03:00, 1.84s/it]
    Ahmia (#0): 100%|██████████| 1/1 [00:11<00:00, 11.97s/it]
    Torgle (#2): 100%|██████████| 1/1 [00:06<00:00, 6.90s/it]
    Torgle 1 (#0): 100%|██████████| 1/1 [00:00<00:00, 5197.40it/s]
    Tordex (#2): 100%|██████████| 1/1 [00:00<00:00, 1273.70it/s]
Onion Search Engine (#0): 0%|                | 0/1 [00:00<?, ?it/s]

torgle1: 0
onionsearchengine: 0
tordex: 0
tor66: 1
Término de búsqueda
tormax: 0
haystack: 1000
multivac: 0
evosearch: 0
deeplink: 67
Fecha/Hora
Total: 2381 links written to output guns 20210824231812.txt
```



```
digger@diggerDDW: ~
```

```
"deeplink","BITCARDS - Prepaid cards","http://7[REDACTED].onion/"
"deeplink","BESTSHOP - Reliable Electronics Discounter","http://B[REDACTED].onion/"
"deeplink","[REDACTED]A.ONION | High Volume Bitcoin Mixer","http://[REDACTED]za.onion/"
"deeplink","btcmix - Bitcoin mixer","http://[REDACTED].x.onion/"
Archivos[REDACTED],"ChipMixer - Bitcoin tumbler","http://C[REDACTED].onion/"
```

La estructura de este archivo esta estructurado de la siguiente forma:

| Nombre del Buscador | Descripción del sitio | URL |

Además es importante tener en cuenta que para cada término de búsqueda se genera un archivo de salida.



```
digger@diggerDDW:~/TFM/OnionSearch$ cat RunAll2.sh
#!/bin/bash

onionsearch bank --continuous_write True
onionsearch financial --continuous_write True
onionsearch atm --continuous_write True
onionsearch cashout --continuous_write True
onionsearch ammo --continuous_write True
onionsearch gun --continuous_write True
onionsearch hitman --continuous_write True
onionsearch bitcoin --continuous_write True
onionsearch litecoin --continuous_write True
onionsearch leak --continuous_write True
onionsearch hack --continuous_write True
onionsearch hire --continuous_write True
onionsearch "credit card" --continuous_write True
onionsearch exploit --continuous_write True
onionsearch "zero day" --continuous_write True
onionsearch passport --continuous_write True
onionsearch pasaporte --continuous_write True
onionsearch cvv2 --continuous_write True
onionsearch cvv --continuous_write True
onionsearch mobile --continuous_write True
```

#for file in `ls -tr \*.txt`; do cat \$file;done > all\_sites.list

```
digger@diggerDDW: ~/TFM/OnionSearch
digger@diggerDDW:~/TFM/OnionSearch$ for file in `ls -tr *.txt`; do cat $file;done > all_sites.list
digger@diggerDDW:~/TFM/OnionSearch$ cat all_sites.list | wc -l
L949796
```

Una investigación normalmente involucra diversos términos alrededor de una temática determinada.



1.9 Millones de  
Sitios

Creo que ahora  
tenemos más que  
una sola cebolla...

# DESENMASCARANDO HIDDEN SERVICES





**Un servidor en la Dark Web  
es igual a cualquier otro en  
varios aspectos:**

- Sistema Operativo
- Aplicaciones
- Puertos estándar
- Protocolos inseguros
- Vulnerabilidades



Un servidor en la Dark Web  
es igual a cualquier otro en  
varios aspectos:

- Sistema Operativo
- Aplicaciones
- Puertos estándar
- Protocolos inseguros
- **Vulnerabilidades**

# Obteniendo los hostnames

```
digger@diggerDDW:~/TFM/OnionSearch$ head -n 5 all_sites.list
"ahmia","Computer program - The Hidden Wiki","http://zq          .onion/wiki/Computer_program"
"ahmia","Hacking Services - Computer- Social Media","http://ly7          .km6bx53jvivq
kpo6jwppptx3sad.onion/index.php?route=product/product&path=101_107&product_id=160"
"ahmia","Debian -- Computer vendors that pre-install Debian","http://           ca7v.onion/distrib/p
re-installed"
"ahmia","Selling Modified and Weaponized Computer Virus - BlackHats Lounge","http://           5x6o.
onion?product=selling-modified-and-weaponized-computer-virus"
"ahmia","Does using Tor Browser protect other applications on my computer? | Tor Project | Support","
http://4b           bes.onion/tbb/tbb-13/"
```

```
cat all_sites.list | sed -r 's/", "/!"/g' | awk -F'!' '{print $2"**",$3}' | grep "http" | cut -d "/" -f 3 | sed -r 's/www//g' | sed -r 's/\//g' | grep ".onion$" | uniq > all_hosts_name.list
```

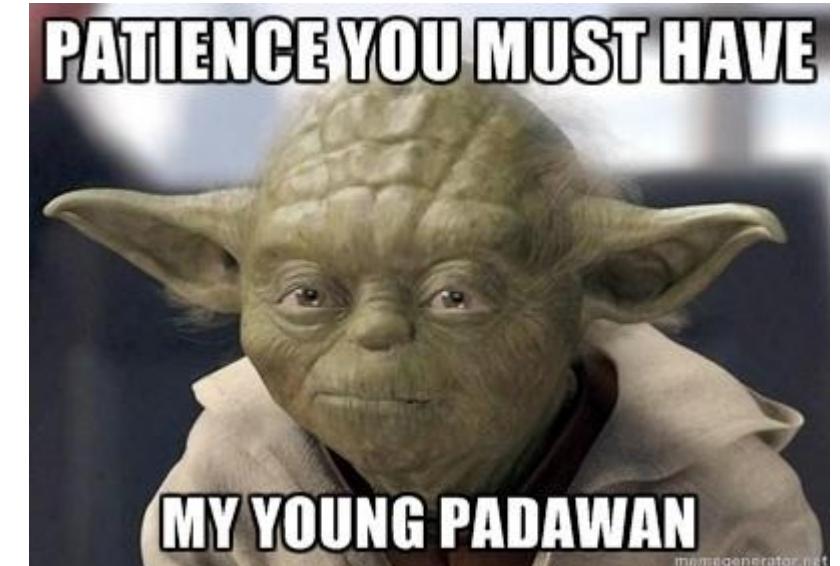


```
digger@diggerDDW: ~/TFM/OnionSearch
digger@diggerDDW:~/TFM/OnionSearch$ cat all_sites.list | sed -r 's/", "/!"/g' | awk -F'!' '{print $2"**",$3}' | grep "http" | cut -d "/" -f 3 | sed -r 's/www//g' | sed -r 's/\//g' | grep ".onion$" | uniq > all_hosts_name.list
digger@diggerDDW:~/TFM/OnionSearch$ head -n 5 all_hosts_name.list
zq          .onion
ly75dbzixy7hlp66 .onion
se          a7v.onion
4b          bes.onion
qua         vtb.onion
```

# Escaneo de puertos en Servidores

```
digger@diggerDDW:~/TFM/OnionSearch$ proxychains4 nmap -Pn -sV -v -p 22,21,80,443,25,6667,11009,4050,5  
5080 -oX scan_results_full.xml -iL all_hosts_name.list  
[proxychains] config file found: /etc/proxychains.conf  
[proxychains] preloading /usr/lib/x86_64-linux-gnu/libproxychains.so.4  
[proxychains] DLL init: proxychains-ng 4.14  
Starting Nmap 7.80 ( https://nmap.org ) at 2021-01-30 17:20 CST  
NSE: Loaded 45 scripts for scanning.  
Initiating Parallel DNS resolution of 4096 hosts. at 17:20  
Completed Parallel DNS resolution of 4096 hosts. at 17:21, 21.55s elapsed  
Initiating Connect Scan at 17:21  
Scanning 113 hosts [9 ports/host]  
[proxychains] Strict chain ... 127.0.0.1:9050 ... ly75db 6jw  
ppptx3sad.onion:443 <--socket error or timeout!  
[proxychains] Strict chain ... 127.0.0.1:9050 ... q itb.onion:443
```

```
# proxychains4 nmap -Pn -sV -v -p 22,21,80,443,25,6667,11009,4050,55080 -oX  
scan_results_full.xml -iL all_hosts_name.list
```



# Normalizando la información obtenida



#IntelCon2021

*python3 nmap\_xml\_parser.py -f scan\_results\_full.xml -csv  
Scan\_Table.csv*

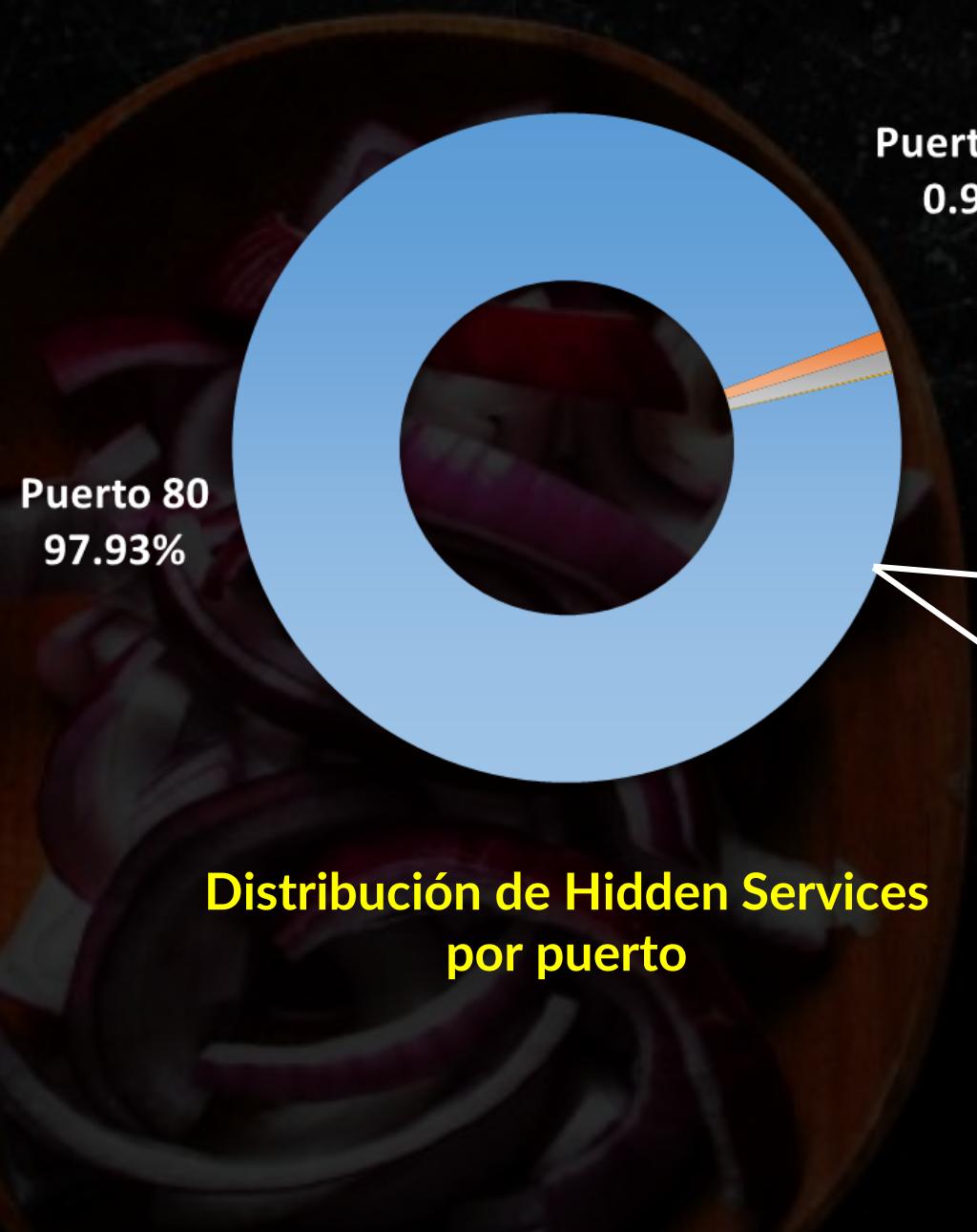
Veo  
tecnologías  
vulnerables,  
Ahooy.

```
digger@diggerDDW:~/TFM/Nmap-Scan-to-CSV$ python3 nmap_xml_parser.py -f scan_results_full.xml -csv Scan_Table.csv
[+] The file Scan_Table.csv does not exist. New file created!
digger@diggerDDW:~/TFM/Nmap-Scan-to-CSV$ head -n 5 Scan_Table.csv
IP,Host,OS,Proto,Port,Service,Product,Service FP,NSE Script ID,NSE Script Output,Notes
224.0.0.1,z0ri.onion,,tcp,80,http,nginx,,
224.0.0.2,s7v.onion,,tcp,80,http,Apache httpd,,
224.0.0.4,bpe.onion,,tcp,80,http,Apache httpd,,
224.0.0.5,rv,lz.onion,,tcp,80,http,lighttpd,,
digger@diggerDDW:~/TFM/Nmap-Scan-to-CSV$
```



<https://github.com/laconicwolf/Nmap-Scan-to-CSV.git>

# Algunos números que resultaron...



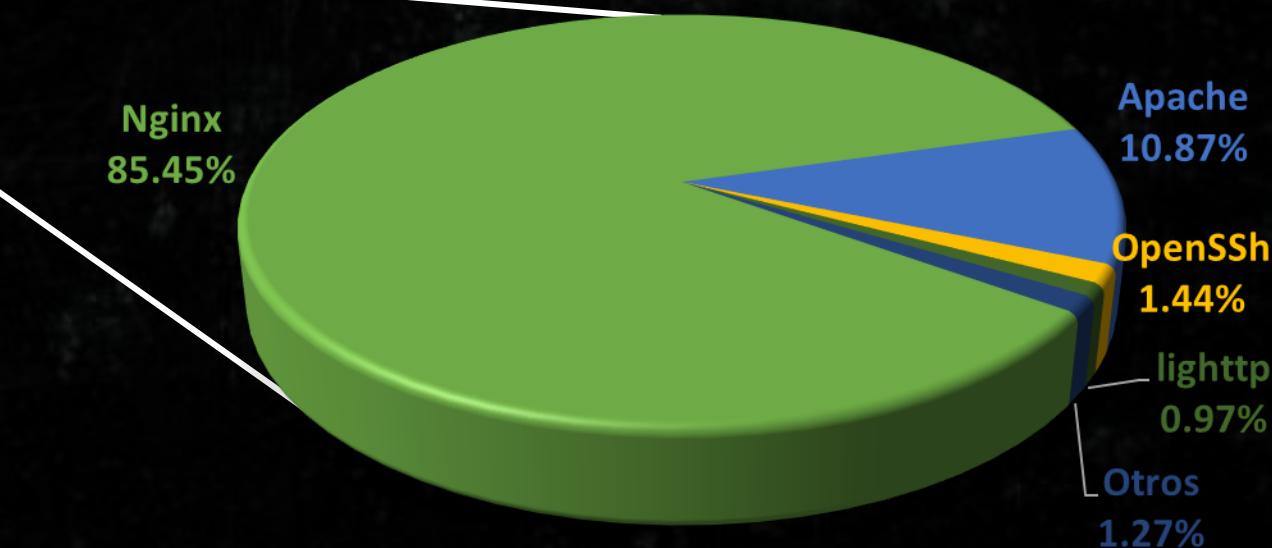
Distribución de Hidden Services  
por puerto

Puerto 443  
0.96%

Otros  
0.07%

Puerto 22  
1.04%

Distribución de Hidden Services  
por tecnología



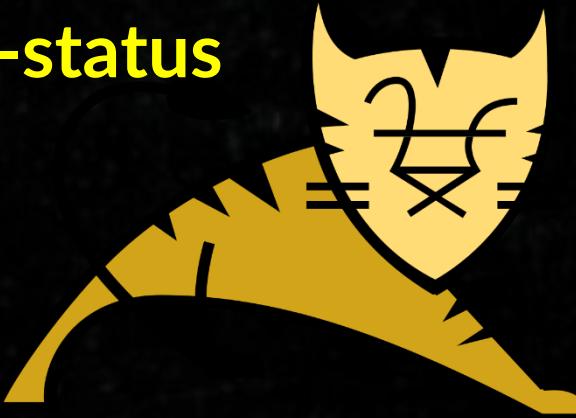
## MOD\_SERVER\_STATUS



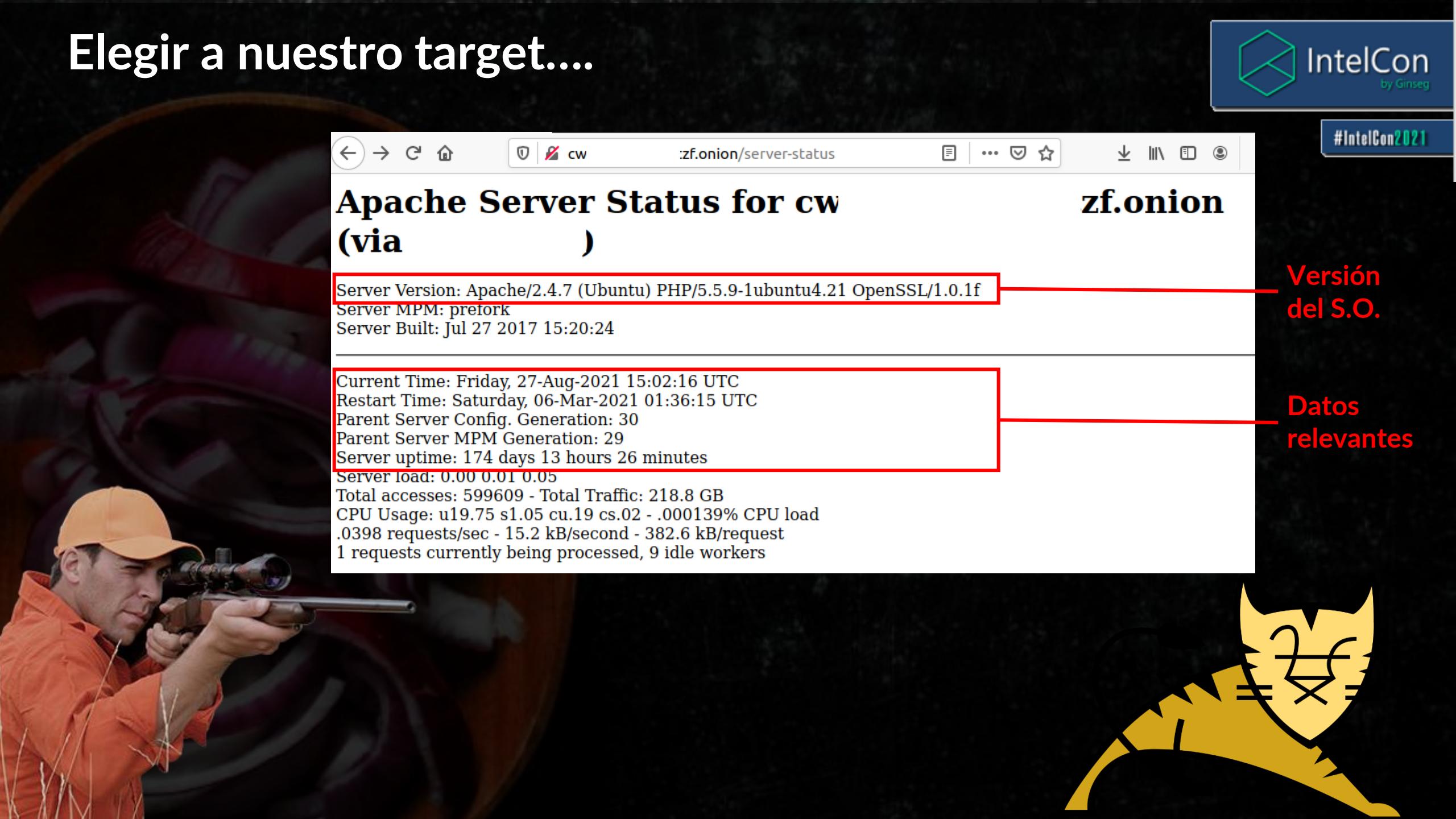
Me pareció  
haber visto  
un lindo  
gatito.

Es una mala configuración en los servidores apache, habilitada en el servidor, permite obtener métricas de uso e inclusive la ip del servidor....

[http\(s\)://server\\_address/server-status](http(s)://server_address/server-status)



# Elegir a nuestro target...



Apache Server Status for cw  
(via )

zf.onion

Server Version: Apache/2.4.7 (Ubuntu) PHP/5.5.9-1ubuntu4.21 OpenSSL/1.0.1f  
Server MPM: prefork  
Server Built: Jul 27 2017 15:20:24

Current Time: Friday, 27-Aug-2021 15:02:16 UTC  
Restart Time: Saturday, 06-Mar-2021 01:36:15 UTC  
Parent Server Config. Generation: 30  
Parent Server MPM Generation: 29  
Server uptime: 174 days 13 hours 26 minutes  
Server load: 0.00 0.01 0.05  
Total accesses: 599609 - Total Traffic: 218.8 GB  
CPU Usage: u19.75 s1.05 cu.19 cs.02 - .000139% CPU load  
.0398 requests/sec - 15.2 kB/second - 382.6 kB/request  
1 requests currently being processed, 9 idle workers

Versión  
del S.O.

Datos  
relevantes

# Elegir a nuestro target....

Relación con otros servicios/páginas

VHost

VHost	Request
niq.onion:80	GET / HTTP/1.1
niq.onion:80	GET / HTTP/1.1
bdjupg4rptjzcaruqw	GET /img/san1.jpg HTTP/1.1
niq.onion:80	GET / HTTP/1.1
iz6.onion:80	GET / HTTP/1.1
bdjupg4rptjzcaruqw	GET /img/c1.jpg HTTP/1.1
bdjupg4rptjzcaruqw	GET /img/7.png HTTP/1.1
wn.onion:80	GET / HTTP/1.1
wn.onion:80	GET / HTTP/1.1
bdjupg4rptjzcaruqw	GET /img/22.png HTTP/1.1
niq.onion:80	GET / HTTP/1.1
bdjupg4rptjzcaruqw	GET /Main/css HTTP/1.1
wn.onion:80	GET / HTTP/1.1



Directorios/  
Archivos  
solicitados

wz.onion

Apache Server Status for ub (via 127.0.0.1)

Server Version: Apache/2.4.25 (Debian)  
Server MPM: prefork  
Server Built: 2019-10-13T15:43:54

Current Time: Friday, 27-Aug-2021 11:31:10 EDT  
Restart Time: Thursday, 08-Jul-2021 03:34:36 EDT  
Parent Server Config. Generation: 1  
Parent Server MPM Generation: 0  
Server uptime: 50 days 7 hours 56 minutes 33 seconds  
Server load: 0.00 0.00 0.00  
Total accesses: 679995 - Total Traffic: 14.6 GB  
CPU Usage: u64.77 s12.17 cu0 cs0 - .00177% CPU load  
.156 requests/sec - 3593 B/second - 22.4 kB/request  
1 requests currently being processed, 108 idle workers

# Elegir a nuestro target...

```
digger@diggerDDW:~/TFM/Nmap-Scan-to-CSV$ cat Scan_Table.csv | cut -d "," -f 2,7 | grep Apache
se      7v.onion,Apache httpd
br      pe.onion,Apache httpd
ha      5q.onion,Apache httpd
7p      ha.onion,Apache httpd
f7      ne.onion,Apache httpd
jc      gk.onion,Apache httpd
e4      yt.onion,Apache
cw      zf.onion,Apache/2.4.7 (Ubuntu)
py      rd.onion,Apache/2.4.46 (Debian)
vy      lf.onion,Apache
ug      az.onion,Apache
pa      kp.onion,Apache
pa      kp.onion,Apache
rc      dq.onion,Apache httpd
55      wz.onion,Apache httpd
ph      yr.onion,Apache httpd
7l      ii.onion,Apache httpd
7l      ii.onion,Apache httpd
sk      mb.onion,Apache httpd
```

Entrada

```
#!/bin/bash

for page in `cat Sites_With_Apache.list`
do
    filename="${page}.html"
    touch $filename
    curl "${page}/server-status" > $filename
done
```

GetAll\_SS.sh

```
gr      wjl.onion.html
gr      pda.onion.html
gr      ois.onion.html
gu      rre.onion.html
gv      x3k.onion.html
ha      75q.onion.html
ha      qzq.onion.html
ha      e2b.onion.html
ha      h42n5o7gbzrewxee3
nd      iwk.onion.html
ng      6db.onion.html
ni      6km.onion.html
ni      yzr.onion.html
ni      2ed.onion.html
nl      7wr.onion.html
no      gku.onion.html
```

Salida



# Desenmascarando el hidden service

**#grep -rnw '.' -e "ip" | uniq**

```
digger@diggerDDW:~/TFM/Get_All_Server_Status$ grep -rnw '.' -e "ip" | uniq
./index.html:63:      "ip":"".
./cwe79xx/index.html:44:</td><td>143.110.          </td><td nowrap>ip-172-31      s-west-2.comp
u</td><td nowrap>POST /wordpress//xmlrpc.php HTTP/1.1</td></tr>
./cwe79xx/index.html:48:</td><td>143.110.          </td><td nowrap>ip-172-31      s-west-2.comp
u</td><td nowrap>POST /wordpress//xmlrpc.php HTTP/1.1</td></tr>
./cwe79xx/index.html:52:</td><td>143.110.          </td><td nowrap>ip-172-31      s-west-2.comp
u</td><td nowrap>POST /wordpress//xmlrpc.php HTTP/1.1</td></tr>
```

Tenemos una IP!!

## WHOIS IP Lookup Tool

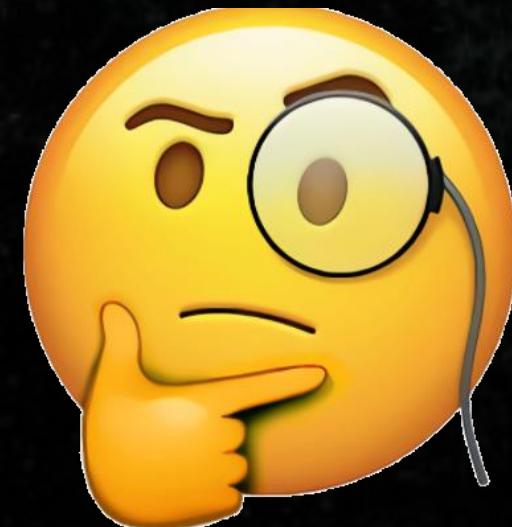
The IPWHOIS Lookup tool finds contact information for the owner of a specified IP address.

Enter a host name or an IP address:

Go »

Related Tools: [DNS Traversal](#) [Traceroute](#) [Vector Trace](#) [Ping](#) [WHOIS Lookup](#)

Source:	<a href="#">whois.arin.net</a>
IP Address:	143.110.          .
Name:	DIGITALOCEAN-143-110-
Handle:	NET-143-110-
Registration Date:	17/01/20
Range:	143.110.          . 0.255.255
Org:	DigitalOcean, LLC



# Desenmascarando el hidden service

SuperTool Beta7

143.110. Reverse Lookup ▾

ptr:143.110 Find Problems

Type	IP Address	Domain Name
PTR	143.110. DigitalOcean, LLC (AS14061)	h c.com

## OSINT:

- Cuentas de correo asociadas al dominio.
- Videos
- Chats
- Waybackmachine
- Etc...

## Resultados de la búsqueda de WHOIS

Domain Name: H C.COM  
Registry Domain ID: 2083660193\_DOMAIN\_COM-VRSN  
Registrar WHOIS Server: grs-whois.hichina.com  
Registrar URL: <http://www.net.cn>  
Updated Date: 2020-04-25T13:47:39Z  
Creation Date: 2016-12-21T12:38:02Z  
Registry Expiry Date: 2022-12-21T12:38:02Z  
Registrar: Alibaba Cloud Computing (Beijing) Co., Ltd.  
Registrar IANA ID: 420  
Registrar Abuse Contact Email: [DomainAbuse@service.aliyun.com](mailto:DomainAbuse@service.aliyun.com)  
Registrar Abuse Contact Phone: +86.95187  
Domain Status: clientTransferProhibited <https://icann.org/epp#clientTransferProhibited>  
Name Server: DNS13.HICHINA.COM  
Name Server: DNS14.HICHINA.COM  
DNSSEC: unsigned

## nginx.conf

```
upstream big_server_com {
    server 127.0.0.3:8000 weight=5;
    server 127.0.0.3:8001 weight=5;
    server 192.168.0.1:8000;
    server 192.168.0.1:8001;
}

server { # simple load balancing
    listen          80;
    server_name    big.server.com;
    access_log     logs/big.server.access.log main;

    location / {
        proxy_pass      http://big_server_com;
    }
}
```

ALGUIEN DIJO ....



NGINX®

# Requerimientos Técnicos empleados



#IntelCon2021

**VM Ubuntu Desktop  
20.04**  
**12 Gb en RAM**  
**4 Procesadores**  
**40 Gb en Disco Duro**



## Software Adicionalmente Instalado

- Cliente de TOR (Instalará también el servicio)
- Onion Search
- ProxyChains4
- Nmap
- Splash
- Docker Server
- Page-Compare
- Privoxy
- Curl



Gracias por la atención

#IntelCon2021

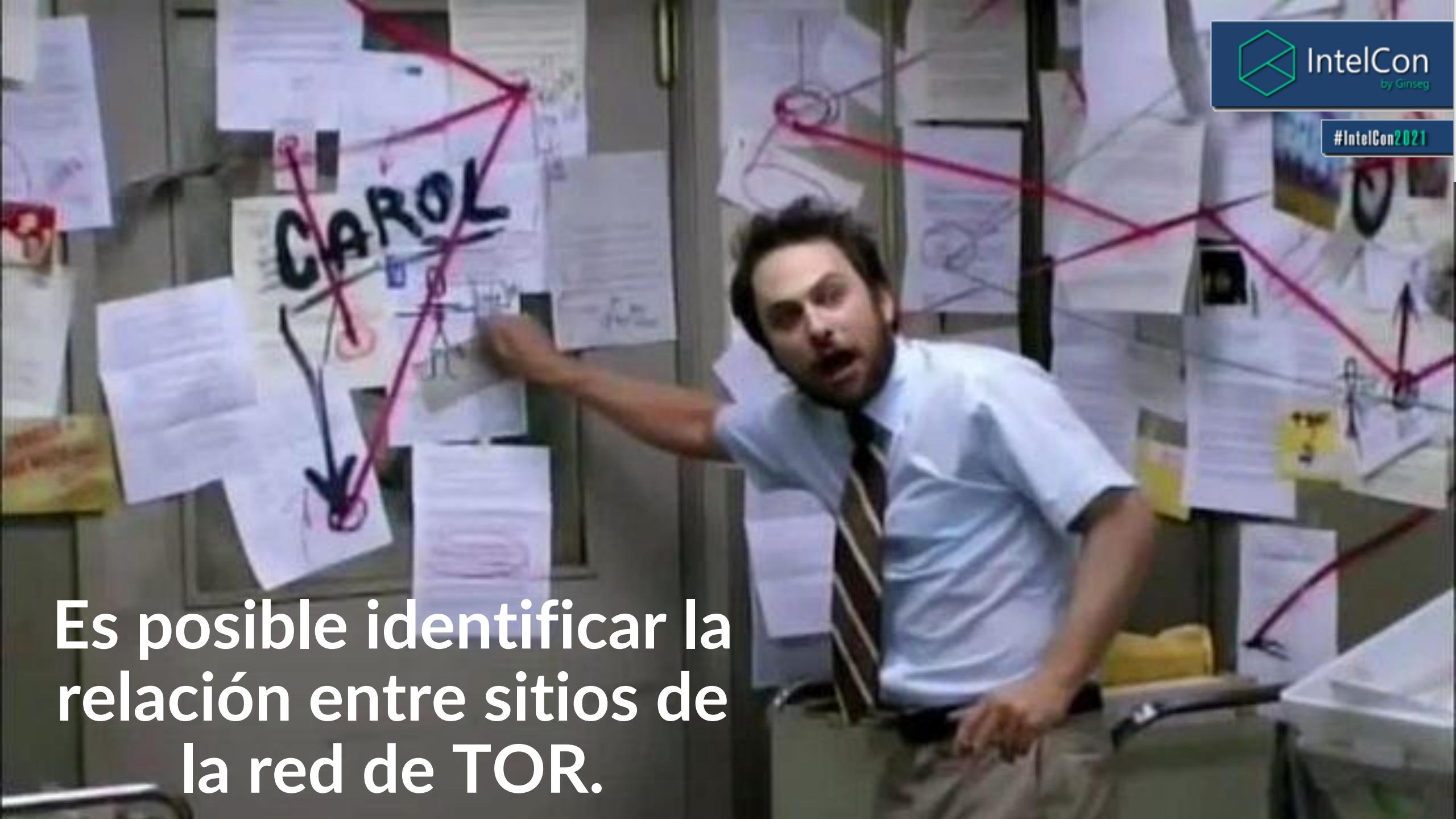


IntelCon  
by Ginseg

# BONUS STAGE

Gracias por la atención

Congreso Online de Ciberinteligencia



Es posible identificar la relación entre sitios de la red de TOR.

# Es posible identificar la relación entre sitios de la red de TOR.



## SPLASH SERVER

Es una utilería que nos permite de manera desatendida obtener el contenido de una página web, así como un screenshot de su home page.

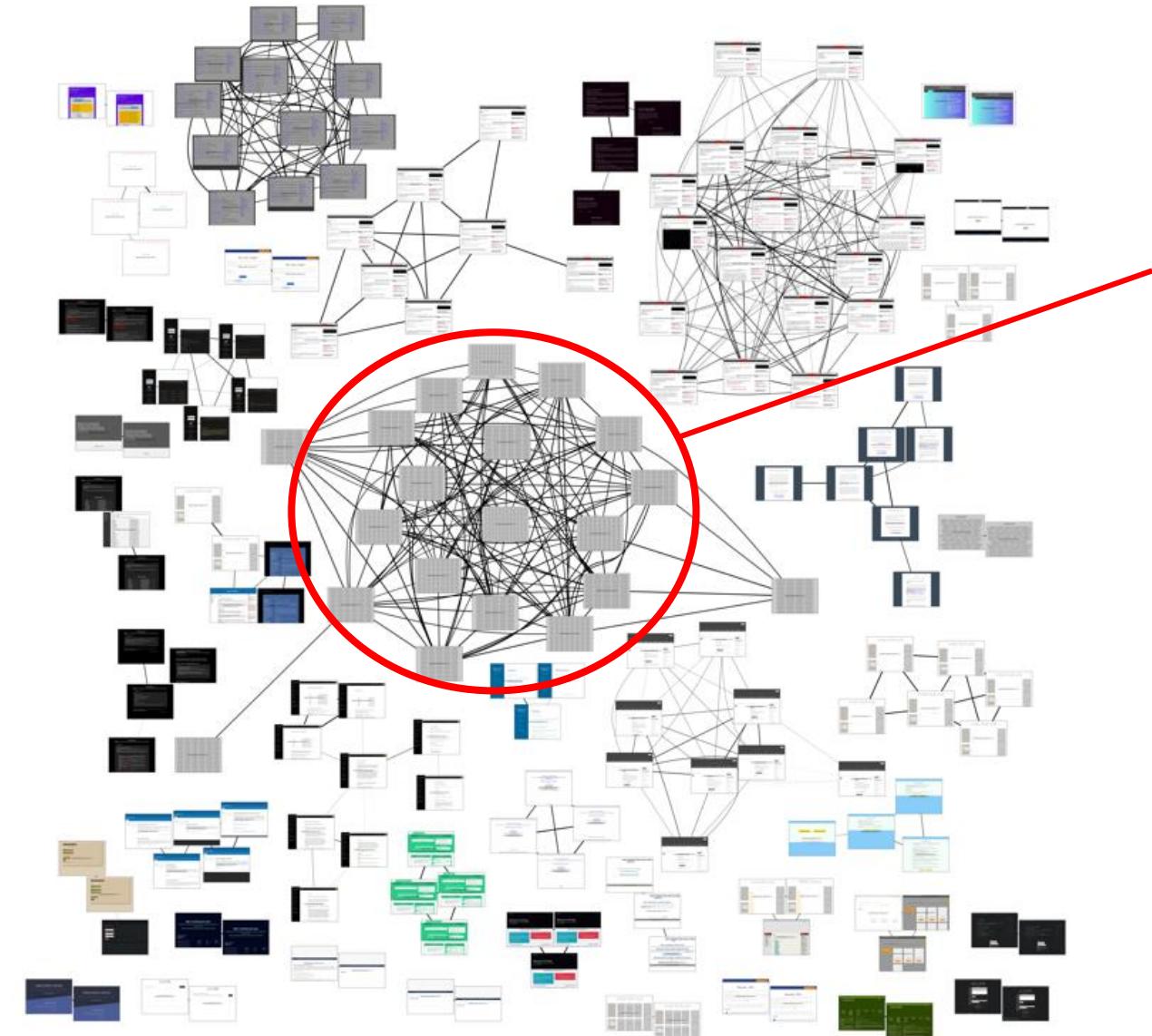
<https://splash.readthedocs.io/en/stable/api.html>

## PAGE COMPARE

Es una herramienta que realiza comparaciones entre el contenido html de una página web contra otra y con ello permite realizar diagramas de relación entre ellas.

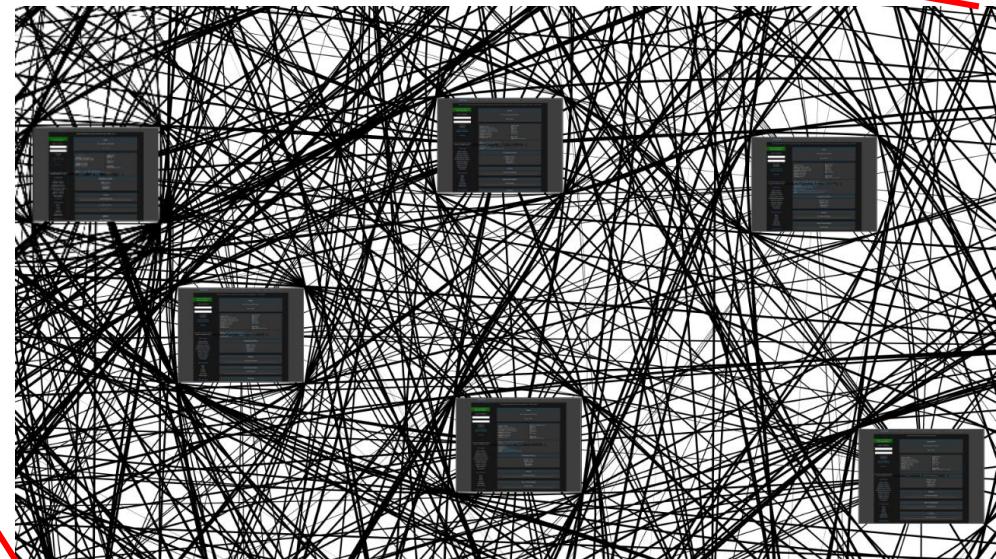
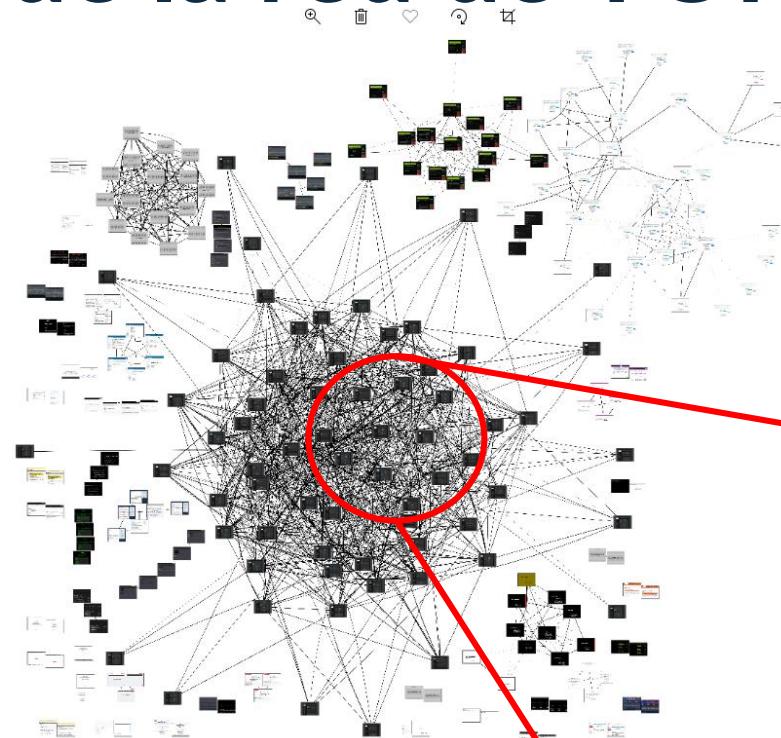
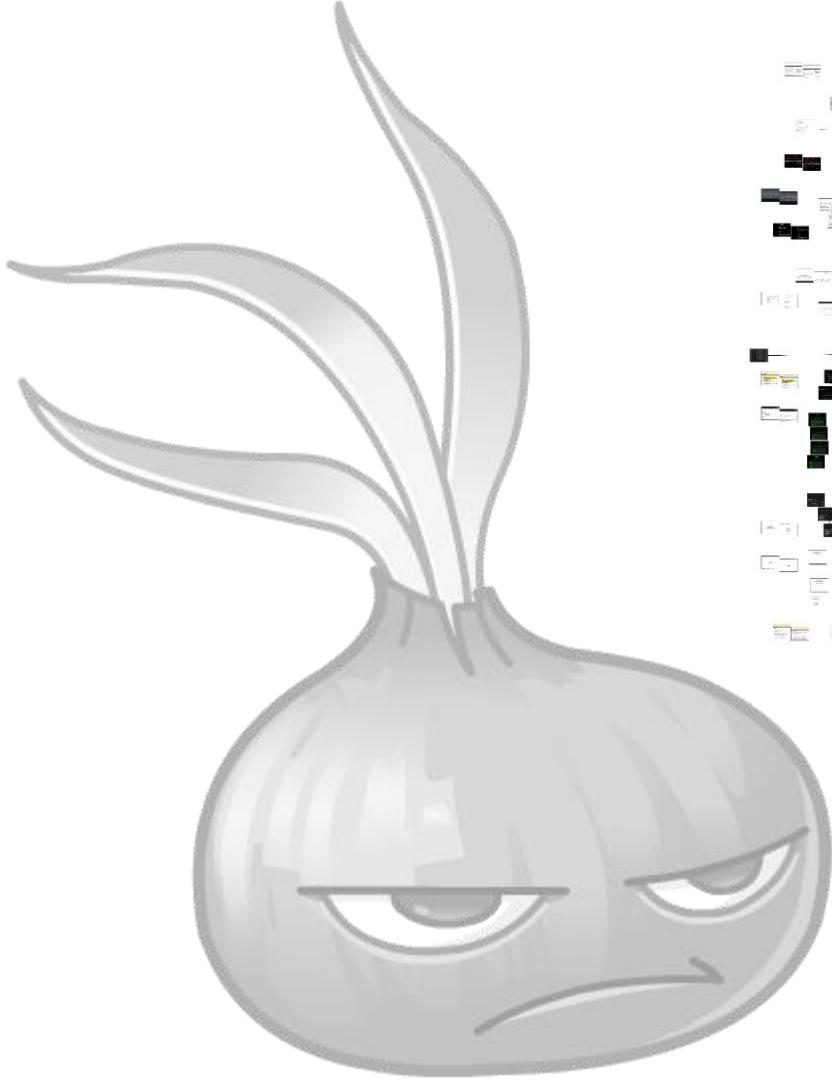
<https://github.com/TeamHG-Memex/page-compare.git>

# Es posible identificar la relación entre sitios de la red de TOR.

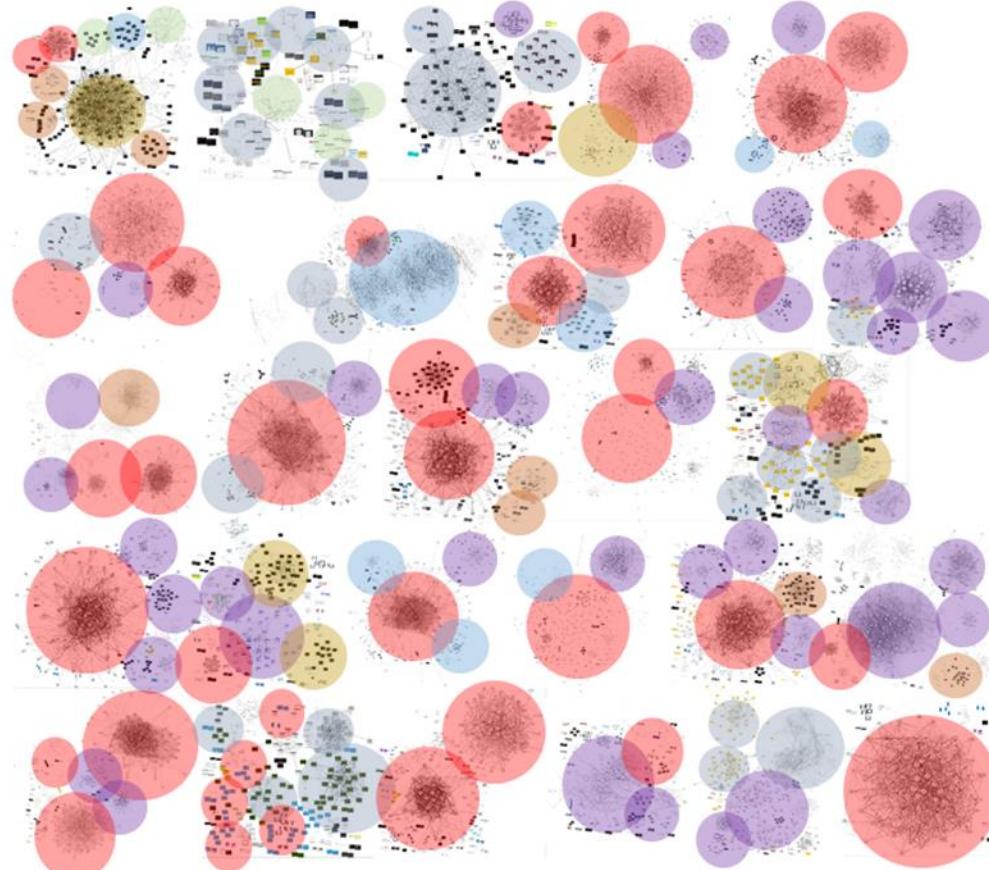


Infraestructura de un sitio web en la Dark Web

# Es posible identificar la relación entre sitios de la red de TOR.



# Es posible identificar la relación entre sitios de la red de TOR.



# Mas referencias y descripción del proyecto...



#IntelCon2021



<https://github.com/AlfredoAbarca/DiggerDDW>



@aabarcab



alfredo-abarca

Gracias por la atención

**“Inteligencia es la habilidad de evitar hacer el trabajo,  
y sin embargo conseguir que el trabajo se haga” -  
Linus Torvalds**