

COMP 8006 Set 5D

Assignment 2: Building A Personal Linux Firewall

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Thilina Ratnayake

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Objective: To implement and test a simple personal Linux Firewall.

Program Structure:

```
[root@localhost 8006-Assignment-1]# tree
```

```
.
├── Captures
│   ├── Newer\ Old\ Caps
│   │   ├── Test\ 1\ DHCP.pcapng
│   │   ├── Test\ 2\ DNS.pcapng
│   │   ├── Test\ 3A\ Inbound\ SSH.pcapng
│   │   ├── Test\ 3B\ Inbound\ SSH.pcapng
│   │   ├── Test\ 4A\ Outbound\ HTTP.pcapng
│   │   └── Test\ 4B\ Inbound\ HTTP.pcapng
│   └── Old\ Caps
│       ├── Test\ 01\ DHCP.pcapng
│       ├── Test\ 02\ DNS.pcapng
│       └── Test\ 03\ SSH.pcapng
├── Test1.pcapng
├── Test2.pcapng
├── Test3A.pcapng
├── Test3B:\ Allow\ inbound\ SSH\ to\ a\ host.pcapng
├── Test4A:\ Allow\ inbound\ HTTP.pcapng
├── Test4A.pcapng
├── Test4B.pcapng
├── Test4C.pcapng
├── Test4D.pcapng
├── Firewall.sh
├── FirewallTestNew
├── FirewallTestNew.sh
├── FirewallTest.sh
├── ResetFirewall.sh
└── TEST.pcapng
```

3 directories, 24 files

Program Components:

1. **Firewall.sh** – BASH Script that adds rules to IPtables
2. **ResetFirewall.sh** – BASH Script that deletes all rules from IPtables and restores computer to lab default settings (e.g. All chains ALLOW)
3. **FirewallTest.sh** – BASH Script that automates the tests by performing HPINGS and opening wireshark windows at appropriate intervals.

Firewall Design:

1. Default policy of dropping everything unless stated other was invoked.
2. 12 chains were made, all representing an IN or OUT rule. The decision to use specific IN/OUT chains (e.g. SSH IN and SSH OUT versus SSHTRAFFIC) was made because it is much easier to view statistics at a glance and spot issues. (e.g. looking at SSHTRAFFIC during a DOS attack and not knowing where the problem lay)
3. More specific rules (like dropping all traffic going to or coming from a reserved port like 0) were put earlier in the firewall than later. This is because as a defense mechanism, we want to neutralize serious threats first and let our “catch-all” rules deal with all that get through.

Pseudo Code (Firewall.sh) :

1. Make all the chains
2. Route the chains to appropriate functions (ACCEPT or DROP)
3. Create the rules and route to chain
 - a. Add the really specific rules first (e.g. Drop ALL /FROM port 0)
 - b. Broader rules near bottom.
4. RESET THE FIREWALL/IPTABLES WHEN SCRIPT IS FINISHED.

Pseudo Code (FirewallTest.sh):

1. Prompt user for all necessary info (e.g. Remote workstation ip, ssh user, password)
2. Test DHCP connectivity
 - a. DHCP release
 - b. DHCP renew
 - c. Check Wireshark
 - d. Check that machine has IP
3. Test DNS connectivity
 - a. NSlookup www.google.com
 - b. Check wireshark
4. Test SSH connectivity
 - a. Check outbound by SSH'ing into remote terminal
 - b. Check wireshark
 - c. Check inbound by first SSH'ing into remote and sending HPing's on SSH port to local.
5. Test dropping packet 0
 - a. HPing remote with src port 0 (check for failure)
 - b. HPing remote with dest port 0 (check for failure)
 - c. Try the same from remote to local
 - d. Try from NON port 0's (check for success)
 - e. Check wireshark captures
6. Test Denied HTTP
 - a. SSH into remote
 - b. Try to access local with port in range 1-1024 (check for failure)
 - c. Check wireshark
 - d. Check with port OUTSIDE of range (check for success)

- e. Test HTTP
 - i. Outgoing: Check any normal website (hping google.com)
 - ii. Outgoing: SSH into remote, start Apache, hping
 - iii. Incoming: Check that HPing's get returned
 - iv. Incoming: Start apache, try hping from remote
 - v. Check wrieshark

Execution Instructions:

Run sh.FirewallTest.sh

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Tests:

#	Rule	Direction	Source Port	Destination Port	Test	Wireshark Screenshot	Capture Name	Expected	Result
1	Permit DHCP	Out		68	dhclient -r dhclient	Fig 1	Test1.pcapng	Passed	As expected
2	Permit DHCP	In	68			Fig 1	Test1.pcapng	Passed	As expected
3	Permit DNS	Out		53	nslookup www.google.com	Fig 2	Test2.pcapng	Passed	As expected
4	Permit DNS	In	53			Fig 2	Test2.pcapng	Passed	As expected
5	Permit SSH connections Out	Out		22	SSH into remote machine	Fig 3.1	Test 3A.pcapng	Passed	As expected
6	Permit SSH replies In	In		22		Fig 3.1	Test 3A.pcapng	Passed	As expected
7	Permit SSH connections In	In	22		Let remote machine SSH into local	Fig 3.2	Test 3B.pcapng	Passed	As expected
8	Permit SSH replies Out	Out	22			Fig 3.2	Test 3B.pcapng	Passed	As expected
9	Drop all incoming traffic from port 0	IN	0		Remote machine: hping3 LOCAL -S -s 0 -p 80	Fig 4.1	Test 4A.pcapng	Dropped	As expected
11	Drop all outgoing traffic to port 0	Out		0	Local machine: hping3 REMOTE -S -s 90 -p 0	Fig 4.2	-	Dropped	As expected
	Drop inbound traffic to	IN	1-1024	80	Remote machine: hping3 LOCAL -S -s 1019 -p 80	Fig 5.1	Test 5A.pcapng	As expected	

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	port 80 from select ports								
	Allow outbound HTTP	Out		80	Local machine: hping3 www.tratnayake.me -s 600 -p 80	Fig 6.1	Test 6A.pcapng	As expected	
	Allow inbound HTTP replies	IN	80		Remote machine: hping3 LOCAL -S -s 80 -p 650	Fig 6.1	Test 6A.pcapng	As expected	
	Allow inbound HTTP connections (to Apache)	IN		80	Remote machine: hping3 LOCAL -S -s 2000 -p 80	Fig 6.2	Test 6A.pcapng	As expected	
	Allow outbound HTTP replies (from Apache)	Out	80		Local machine: hping3 Remote -S -s 80 -p 2000	Fig 6.2	Test 6A.pcapng	As expected	

Screenshots

No.	Time	Source	Destination	Protocol	Length	Info	Source Port	Destination Port	New Column
5	1.162605000	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x852da013	bootpc	bootps	DHCP
9	2.164009000	192.168.57.254	192.168.57.138	DHCP	342	DHCP Offer - Transaction ID 0x852da013	bootps	bootpc	DHCP
10	2.166047000	0.0.0.0	255.255.255.255	DHCP	342	DHCP Request - Transaction ID 0x852da013	bootpc	bootps	DHCP
11	2.166763000	192.168.57.254	192.168.57.138	DHCP	342	DHCP ACK - Transaction ID 0x852da013	bootps	bootpc	DHCP

Fig1 – Evidence of DHCP

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No.	Time	Source	Destination	Protocol	Length	Info	Source Port	Destination Port
1	0.000000000	192.168.57.138	192.168.57.2	DNS	76	Standard query 0x4c46 A www.miniclip.com	58476	domain
2	0.039148000	192.168.57.2	192.168.57.138	DNS	204	Standard query response 0x4c46 A 54.149.25.131 A 54.	domain	58476

Fig 2: Evidence of DNS

No.	Time	Source	Destination	Protocol	Length	Info	Source Port	Destination Port
1	0.000000000	fe80::20c:29ff:fe3f:4814ff02::2		ICMPv6	62	Router Solicitation		
2	0.640797000	192.168.57.138	192.168.57.139	TCP	74	59875 > ssh [SYN] Seq=0 Win=29200 Len=0 MSS=1460 SACK	59875	
3	0.641184000	192.168.57.139	192.168.57.138	TCP	74	ssh > 59875 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MS	ssh	
4	0.641230000	192.168.57.138	192.168.57.139	TCP	66	59875 > ssh [ACK] Seq=1 Ack=1 Win=29312 Len=0 TSval=4	59875	
5	0.641670000	192.168.57.138	192.168.57.139	SSHv2	87	Encrypted request packet len=21	59875	
6	0.641936000	192.168.57.139	192.168.57.138	TCP	66	ssh > 59875 [ACK] Seq=1 Ack=22 Win=29056 Len=0 TSval=	ssh	
7	0.659384000	192.168.57.139	192.168.57.138	SSHv2	87	Encrypted response packet len=21	ssh	
8	0.659471000	192.168.57.138	192.168.57.139	TCP	66	59875 > ssh [ACK] Seq=22 Ack=22 Win=29312 Len=0 TSval=	59875	
9	0.659677000	192.168.57.138	192.168.57.139	TCP	1514	[TCP segment of a reassembled PDU]	59875	
10	0.659712000	192.168.57.138	192.168.57.139	SSHv2	450	Client: Key Exchange Init	59875	
11	0.659860000	192.168.57.139	192.168.57.138	TCP	66	ssh > 59875 [ACK] Seq=22 Ack=1854 Win=32640 Len=0 TSv	ssh	
12	0.661292000	192.168.57.139	192.168.57.138	TCP	1514	[TCP segment of a reassembled PDU]	ssh	
13	0.661409000	192.168.57.139	192.168.57.138	SSHv2	138	Server: Key Exchange Init	ssh	
14	0.661420000	192.168.57.138	192.168.57.139	TCP	66	59875 > ssh [ACK] Seq=1854 Ack=1542 Win=32128 Len=0 T	59875	
15	0.662584000	192.168.57.138	192.168.57.139	SSHv2	146	Client: Diffie-Hellman Key Exchange Init	59875	
16	0.664917000	192.168.57.139	192.168.57.138	SSHv2	722	Server: New Keys	ssh	
17	0.665705000	192.168.57.138	192.168.57.139	SSHv2	82	Client: New Keys	59875	
18	0.705898000	192.168.57.139	192.168.57.138	TCP	66	ssh > 59875 [ACK] Seq=2198 Ack=1950 Win=32640 Len=0 T	ssh	
19	0.705935000	192.168.57.138	192.168.57.139	SSHv2	118	Encrypted request packet len=52	59875	
20	0.706068000	192.168.57.139	192.168.57.138	TCP	66	ssh > 59875 [ACK] Seq=2198 Ack=2002 Win=32640 Len=0 T	ssh	
21	0.706185000	192.168.57.139	192.168.57.138	SSHv2	118	Encrypted response packet len=52	ssh	

Fig 3.1: Outgoing SSH connection to a remote host.

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No.	Time	Source	Destination	Protocol	Length	Info	Source Port	Destination Port	New Column
1	0.000000000	192.168.57.138	192.168.57.139	TCP	74	59876 > ssh [SYN] Seq=0 Win=29200 Len=0 MSS=1460 SACK_	59876	ssh	TCP
2	0.000681000	192.168.57.139	192.168.57.138	TCP	74	ssh > 59876 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MS:	ssh	59876	TCP
3	0.000767000	192.168.57.138	192.168.57.139	TCP	66	59876 > ssh [ACK] Seq=1 Ack=1 Win=29312 Len=0 TSval=4	59876	ssh	TCP
4	0.001633000	192.168.57.138	192.168.57.139	SSHv2	87	Encrypted request packet len=21	59876	ssh	SSHv2
5	0.001936000	192.168.57.139	192.168.57.138	TCP	66	ssh > 59876 [ACK] Seq=1 Ack=22 Win=29056 Len=0 TSval=-	ssh	59876	TCP
6	0.014933000	192.168.57.139	192.168.57.138	SSHv2	87	Encrypted response packet len=21	ssh	59876	SSHv2
7	0.015026000	192.168.57.138	192.168.57.139	TCP	66	59876 > ssh [ACK] Seq=22 Ack=22 Win=29312 Len=0 TSval:	59876	ssh	TCP
8	0.015343000	192.168.57.138	192.168.57.139	TCP	1514	[TCP segment of a reassembled PDU]	59876	ssh	TCP
9	0.015461000	192.168.57.138	192.168.57.139	SSHv2	450	Client: Key Exchange Init	59876	ssh	SSHv2
10	0.015685000	192.168.57.139	192.168.57.138	TCP	66	ssh > 59876 [ACK] Seq=22 Ack=1854 Win=34816 Len=0 TSv.	ssh	59876	TCP
11	0.017960000	192.168.57.139	192.168.57.138	TCP	1514	[TCP segment of a reassembled PDU]	ssh	59876	TCP
12	0.018159000	192.168.57.139	192.168.57.138	SSHv2	138	Server: Key Exchange Init	ssh	59876	SSHv2
13	0.018182000	192.168.57.138	192.168.57.139	TCP	66	59876 > ssh [ACK] Seq=1854 Ack=1542 Win=32128 Len=0 T:	59876	ssh	TCP
14	0.020741000	192.168.57.138	192.168.57.139	SSHv2	146	Client: Diffie-Hellman Key Exchange Init	59876	ssh	SSHv2
15	0.025632000	192.168.57.139	192.168.57.138	SSHv2	722	Server: New Keys	ssh	59876	SSHv2
16	0.027312000	192.168.57.138	192.168.57.139	SSHv2	82	Client: New Keys	59876	ssh	SSHv2
17	0.067772000	192.168.57.139	192.168.57.138	TCP	66	ssh > 59876 [ACK] Seq=2198 Ack=1950 Win=34816 Len=0 T:	ssh	59876	TCP
18	0.067836000	192.168.57.138	192.168.57.139	SSHv2	118	Encrypted request packet len=52	59876	ssh	SSHv2
19	0.068379000	192.168.57.139	192.168.57.138	TCP	66	ssh > 59876 [ACK] Seq=2198 Ack=2002 Win=34816 Len=0 T:	ssh	59876	TCP
20	0.068616000	192.168.57.139	192.168.57.138	SSHv2	118	Encrypted response packet len=52	ssh	59876	SSHv2
21	0.070873000	192.168.57.138	192.168.57.139	SSHv2	134	Encrypted request packet len=68	59876	ssh	SSHv2

Figure 3.2 – Incoming SSH connection and replies

Test4A.pcapng [Wireshark 1.10.11 (Git Rev Unknown from unknown)]

File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help

Filter: Expression... Clear Apply Save

No.	Time	Source	Destination	Protocol	Length	Info
35	0.344032000	192.168.57.138	192.168.57.138	SSHv2	302	Encrypted request packet len=230
36	0.344174000	192.168.57.139	192.168.57.138	TCP	66	ssh > 60003 [ACK] Seq=2422 Ack=2
37	0.346241000	192.168.57.139	192.168.57.138	SSHv2	138	Encrypted response packet len=72
38	0.364177000	192.168.57.139	192.168.57.138	TCP	60	0 > http [SYN] Seq=0 Win=512 Len=
39	0.386480000	192.168.57.138	192.168.57.139	TCP	66	60003 > ssh [ACK] Seq=2574 Ack=2
40	1.364957000	192.168.57.139	192.168.57.138	TCP	60	[TCP Port numbers reused] 0 > ht
41	2.366581000	192.168.57.139	192.168.57.138	TCP	60	[TCP Port numbers reused] 0 > ht
42	3.366892000	192.168.57.139	192.168.57.138	TCP	60	[TCP Port numbers reused] 0 > ht
43	3.949840000	fe80::20c:29ff:fe3f:4814ff02::2		ICMPv6	62	Router Solicitation
44	4.367922000	192.168.57.139	192.168.57.138	TCP	60	[TCP Port numbers reused] 0 > ht
45	5.369084000	192.168.57.139	192.168.57.138	SSHv2	150	Encrypted response packet len=84
46	5.369159000	192.168.57.138	192.168.57.139	TCP	66	60003 > ssh [ACK] Seq=2574 Ack=2
47	5.369193000	192.168.57.139	192.168.57.138	SSHv2	166	Encrypted response packet len=10
48	5.369206000	192.168.57.138	192.168.57.139	TCP	66	60003 > ssh [ACK] Seq=2574 Ack=2
49	5.369292000	192.168.57.139	192.168.57.138	SSHv2	150	Encrypted response packet len=84

Frame 56: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0

bigboss@localhost:/home/bigboss/Downloads/8006-Assignment-1

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Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Fig 4.1: Custom drop from 0 rule dropping 5 packets.

```
[root@localhost 8006-Assignment-1]# sh ResetFirewall.sh
Firewalls are now reset :)
[root@localhost 8006-Assignment-1]# hping 192.168.57.139 -S -s 0 -p 2135
HPING 192.168.57.139 (enol6777736 192.168.57.139): S set, 40 headers + 0 data by
tes
len=46 ip=192.168.57.139 ttl=64 DF id=23332 sport=2135 flags=RA seq=0 win=0 rtt=
1.9 ms
len=46 ip=192.168.57.139 ttl=64 DF id=23333 sport=2135 flags=RA seq=1 win=0 rtt=
1.0 ms
len=46 ip=192.168.57.139 ttl=64 DF id=23334 sport=2135 flags=RA seq=2 win=0 rtt=
0.8 ms
len=46 ip=192.168.57.139 ttl=64 DF id=23335 sport=2135 flags=RA seq=3 win=0 rtt=
1.2 ms
^C
--- 192.168.57.139 hping statistic ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 0.8/1.2/1.9 ms
[root@localhost 8006-Assignment-1]# sh Firewall.sh
New IPTABLES SET
Redirecting to /bin/systemctl restart iptables.service
Failed to issue method call: Unit iptables.service failed to load: No such file
or directory.
[root@localhost 8006-Assignment-1]# hping 192.168.57.139 -S -s 0 -p 2135
HPING 192.168.57.139 (enol6777736 192.168.57.139): S set, 40 headers + 0 data by
tes
[send_ip] sendto: Operation not permitted
[root@localhost 8006-Assignment-1]#
```

Fig 4.2 Custom rule denying ability to send packets TO port 0

```

f
Redirecting to /bin/systemctl restart iptables.service
Failed to issue method call: Unit iptables.service failed to load: No such file or directory.
Press any key to START TEST 5A : Drop all incoming traffic TO port 80 from ports 1-1024 (START YOUR WIRES
HARK CAP)
1

--- 192.168.57.138 hping statistic ---
5 packets transmitted, 0 packets received, 100% packet loss
HPING 192.168.57.138 (enol6777736 192.168.57.138): S set, 40 headers + 0 data bytes
round-trip min/avg/max = 0.0/0.0/0.0 ms
Press any key to END TEST 5A: Drop all incoming traffic TO port 80 from ports 1-1024 (STOP AND SAVE YOUR
WIRESHARK CAP)
]

```

```

pkts
0

Chain HTTPDENYI
pkts
5
0

Chain HTTPDENYO
pkts
0

Chain HTTPIN (3
pkts
h

```

Fig 5.1: Deny packets to port 80 from source port 1-1023

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Activities Terminal Thu 03:15

Test5B.pcapng [Wireshark 1.10.11 (Git Rev Unknown from unknown)]

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Filter: Expression... Clear Apply Save

No.	Time	Source	Destination	Protocol	Length	Info
34	0.221151000	192.168.57.139	192.168.57.138	SSHv2	138	Encrypted response packet len
35	0.237135000	192.168.57.139	192.168.57.138	TCP	60	1027 > http [SYN] Seq=0 Win=
36	0.237232000	192.168.57.138	192.168.57.139	TCP	58	http > 1027 [SYN, ACK] Seq=0
37	0.237797000	192.168.57.139	192.168.57.138	TCP	60	1027 > http [RST] Seq=1 Win=
38	0.260568000	192.168.57.138	192.168.57.139	TCP	66	60009 > ssh [ACK] Seq=2574 A
39	1.238386000	192.168.57.139	192.168.57.138	TCP	60	1028 > http [SYN] Seq=0 Win=
40	1.238497000	192.168.57.138	192.168.57.139	TCP	58	http > 1028 [SYN, ACK] Seq=0
41	1.238922000	192.168.57.139	192.168.57.138	TCP	60	1028 > http [RST] Seq=1 Win=
42	2.239629000	192.168.57.139	192.168.57.138	TCP	60	solid-mux > http [SYN] Seq=0
43	2.239854000	192.168.57.138	192.168.57.139	TCP	58	http > solid-mux [SYN, ACK]
44	2.240569000	192.168.57.139	192.168.57.138	TCP	60	solid-mux > http [RST] Seq=1
45	3.029010000	fe80::20c:29ff:fe3d:ca73	ff02::2	ICMPv6	62	Router Solicitation
46	3.240659000	192.168.57.139	192.168.57.138	TCP	60	iad1 > http [SYN] Seq=0 Win=
47	3.240788000	192.168.57.138	192.168.57.139	TCP	58	http > iad1 [SYN, ACK] Seq=0
48	3.241413000	192.168.57.139	192.168.57.138	TCP	60	iad1 > http [RST] Seq=1 Win=
49	4.241751000	192.168.57.139	192.168.57.138	TCP	60	iad2 > http [SYN] Seq=0 Win=
50	4.241984000	192.168.57.138	192.168.57.139	TCP	58	http > iad2 [SYN, ACK] Seq=0
51	4.242593000	192.168.57.139	192.168.57.138	TCP	60	iad2 > http [RST] Seq=1 Win=
52	4.243367000	192.168.57.139	192.168.57.138	SSHv2	150	Encrypted response packet len

File: "/Captures/Test5B.pcapng" 1... Packets: 69 · Displayed: 69 (100.0%) Profile: Default

Press any key to END TEST 5A: Drop all incoming traffic TO port 80 from ports 1-1024 (STOP AND SAVE YOUR WIRESHARK CAP)

2

Press any key to START TEST 5B : DON'T drop all incoming traffic TO port 80 from ports !1-1024 (START YOUR WIRESHARK CAP)

2

```

--- 192.168.57.138 hping statistic ---
5 packets transmitted, 5 packets received, 0% packet loss
HPING 192.168.57.138 (eno16777736 192.168.57.138): S set, 40 headers + 0 data bytes
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=0 win=29200 rtt=0.9 ms
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=1 win=29200 rtt=0.9 ms
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=2 win=29200 rtt=1.3 ms
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=3 win=29200 rtt=1.2 ms
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=4 win=29200 rtt=1.2 ms
round-trip min/avg/max = 0.9/1.1/1.3 ms
Press any key to END TEST 5B: DON'T drop all incoming traffic TO port 80 from ports !1-1024 (STOP AND SAVE YOUR WIRESHARK CAP)

```

File Edit View Search Terminal

0 0 HTTPOUT

dports 80,443

5 220 HTTPOUT

sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts bytes target

0 0 ACCEPT

Chain CUSTOMALLOWOUT (0 references)

pkts bytes target

0 0 ACCEPT

Chain CUSTOMDENYIN (1 reference)

pkts bytes target

0 0 DROP

Chain CUSTOMDENYOUT (1 reference)

pkts bytes target

0 0 DROP

Chain HTTPDENYIN (1 reference)

pkts bytes target

5 200 DROP

0 0 DROP

Chain HTTPDENYOUT (0 references)

pkts bytes target

0 0 DROP

Chain HTTPIN (3 references)

pkts bytes target

10 400 ACCEPT

Chain HTTPOUT (2 references)

pkts bytes target

5 220 ACCEPT

Chain OTHERIN (4 references)

pkts bytes target

0 0 ACCEPT

Chain OTHEROUT (4 references)

pkts bytes target

0 0 ACCEPT

Chain SSHIN (3 references)

pkts bytes target

10 1000000

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Fig 5.2: Allowing traffic from ports !1-1024 into port 80

Test6A.pcapng [Wireshark 1.10.11 (Git Rev Unknown from unknown)]

File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help

Filter: Expression... Clear Apply Save

No.	Time	Source	Destination	Protocol	Length	Info
5	1.317405000	192.168.57.2	192.168.57.138	DNS	154	Standard query response 0xb6
6	1.320078000	192.168.57.138	173.194.33.179	TCP	54	psprserver > http [SYN] Seq=
7	1.336790000	173.194.33.179	192.168.57.138	TCP	60	http > psprserver [SYN, ACK]
8	1.336843000	192.168.57.138	173.194.33.179	TCP	54	psprserver > http [RST] Seq=
9	2.320889000	192.168.57.138	173.194.33.179	TCP	54	psdbserver > http [SYN] Seq=
10	2.336407000	173.194.33.179	192.168.57.138	TCP	60	http > psdbserver [SYN, ACK]
11	2.336482000	192.168.57.138	173.194.33.179	TCP	54	psdbserver > http [RST] Seq=
12	3.322102000	192.168.57.138	173.194.33.179	TCP	54	gxtelmd > http [SYN] Seq=0 W
13	3.338552000	173.194.33.179	192.168.57.138	TCP	60	http > gxtelmd [SYN, ACK] Seq
14	3.338659000	192.168.57.138	173.194.33.179	TCP	54	gxtelmd > http [RST] Seq=1 W
15	4.322896000	192.168.57.138	173.194.33.179	TCP	54	unihub-server > http [SYN] S
16	4.339886000	173.194.33.179	192.168.57.138	TCP	60	http > unihub-server [SYN, A
17	4.340001000	192.168.57.138	173.194.33.179	TCP	54	unihub-server > http [RST] S
18	5.002026000	fe80::20c:29ff:fe3d:ca73ff02::2		ICMPv6	62	Router Solicitation
19	5.323614000	192.168.57.138	173.194.33.179	TCP	54	futrix > http [SYN] Seq=0 Wi
20	5.340221000	173.194.33.179	192.168.57.138	TCP	60	http > futrix [SYN, ACK] Seq
21	5.340272000	192.168.57.138	173.194.33.179	TCP	54	futrix > http [RST] Seq=1 Wi
22	6.333226000	Vmware_3f:48:14	Vmware_ef:91:3e	ARP	42	Who has 192.168.57.2? Tell
23	6.333523000	Vmware_ef:91:3e	Vmware_3f:48:14	ARP	60	192.168.57.2 is at 00:50:56:

File: "/Captures/Test6A.pcapng" 2,... Packets: 23 · Displayed: 23 (100.... Profile: Default

```

--- 192.168.57.138 hping statistic ---
5 packets transmitted, 5 packets received, 0% packet loss
HPING 192.168.57.138 (eno16777736 192.168.57.138): S set, 40 headers + 0 data bytes
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=0 win=29200 rtt=0.9 ms
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=1 win=29200 rtt=0.9 ms
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=2 win=29200 rtt=1.3 ms
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=3 win=29200 rtt=1.2 ms
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=4 win=29200 rtt=1.2 ms
round-trip min/avg/max = 0.9/1.1/1.3 ms
Press any key to END TEST 5B: DON'T drop all incoming traffic TO port 80 from ports !1-1024 (STOP AND SAVE YOUR WIRESHARK CAP)
2
Press any key to START TEST 6A : Allow outbound HTTP (START YOUR WIRESHARK CAP)
2
HPING www.google.com (eno16777736 173.194.33.179): S set, 40 headers + 0 data bytes
len=46 ip=173.194.33.179 ttl=128 id=45796 sport=80 flags=SA seq=0 win=64240 rtt=16.9 ms
len=46 ip=173.194.33.179 ttl=128 id=45797 sport=80 flags=SA seq=1 win=64240 rtt=15.9 ms
len=46 ip=173.194.33.179 ttl=128 id=45798 sport=80 flags=SA seq=2 win=64240 rtt=21.9 ms
len=46 ip=173.194.33.179 ttl=128 id=45799 sport=80 flags=SA seq=3 win=64240 rtt=17.7 ms
len=46 ip=173.194.33.179 ttl=128 id=45800 sport=80 flags=SA seq=4 win=64240 rtt=16.9 ms

--- www.google.com hping statistic ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 15.9/17.9/21.9 ms
Press any key to END TEST 6A: Allow outbound HTTP (STOP AND SAVE YOUR WIRESHARK CAP)

```

Chain CUSTOMALLOWIN (0 references)
pkts 10 bytes target 400 HTTPOUT
0 0 ACCEPT

Chain CUSTOMALLOWOUT (0 references)
pkts 5 bytes target 220 HTTPOUT
0 0 ACCEPT

Chain CUSTOMDENYIN (1 reference)
pkts 0 bytes target 0 DROP

Chain CUSTOMDENYOUT (1 reference)
pkts 0 bytes target 0 DROP

Chain HTTPDENYIN (1 reference)
pkts 5 bytes target 200 DROP
0 0 DROP

Chain HTTPDENYOUT (0 references)
pkts 0 bytes target 0 DROP

Chain HTTPPIN (3 references)
pkts 15 bytes target 620 ACCEPT

Chain HTTPOUT (2 references)
pkts 15 bytes target 620 ACCEPT

Chain OTHERIN (4 references)
pkts 1 bytes target 140 ACCEPT

Chain OTHEROUT (4 references)
pkts 1 bytes target 60 ACCEPT

Chain SSHIN (3 references)
pkts 48 bytes target 9066 ACCEPT

Chain SSHOUT (3 references)
pkts 50 bytes target 7970 ACCEPT

[root@localhost 8006-Assignr

Fig 6.1: Allow outbound HTTP

```

--- 192.168.57.138 hping statistic ---
HPING 192.168.57.138 (eno16777736 192.168.57.138): S set, 40 headers + 0 data bytes
len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=0 win=29200 rtt=1.4 ms
DUP! len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=0 win=29200 rtt=1001.7 ms
DUP! len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=0 win=29200 rtt=2002.9 ms
DUP! len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=0 win=29200 rtt=3003.9 ms
DUP! len=46 ip=192.168.57.138 ttl=64 DF id=0 sport=80 flags=SA seq=0 win=29200 rtt=4005.1 ms
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 1.4/2003.0/4005.1 ms
Press any key to END TEST 6B: Allow inbound HTTP (STOP AND SAVE YOUR WIRESHARK CAP)

```

Fig 6.2: Allowing inbound HTTP (screenshot taken from an SSH session pinging LOCAL machine)**Fig 7. Log file containing test by test comparison of iptables and packets allowed or dropped by chains.**

Format is:

START TEST X

--tables--

END TEST X

--tables--

Notable occurrences are highlighted.

START Test 1 : Allow Inbound/Outbound DHCP

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination	
0	0	OTHERIN	udp	-- *	*		0.0.0.0/0	0.0.0.0/0	udp spt:53
0	0	OTHERIN	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0	tcp spt:53
0	0	OTHERIN	udp	-- *	*		0.0.0.0/0	0.0.0.0/0	udp spt:68
0	0	OTHERIN	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0	tcp spt:68
0	0	SSHIN	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0	tcp dpt:22
0	0	SSHIN	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0	tcp spt:22

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0	0 SSHIN	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:22
0	0 CUSTOMDENYIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spt:0
0	0 HTTPIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spts:1:1023 dpt:80
0	0 HTTPDENYIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spts:1:1023 dpt:80
0	0 HTTPIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443
0	0 HTTPIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 OTHEROUT	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:53	
0	0 OTHEROUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:53	
0	0 OTHEROUT	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:68	
0	0 OTHEROUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:68	
0	0 SSHOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spt:22	
0	0 SSHOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:22	
0	0 SSHOUT	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:22	
0	0 CUSTOMDENYOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:0	
0	0 HTTPOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443	
0	0 HTTPOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443	

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 ACCEPT	all	-- *	*	0.0.0.0/0	0.0.0.0/0		

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 ACCEPT	all	-- *	*	0.0.0.0/0	0.0.0.0/0		

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 DROP	all	-- *	*	0.0.0.0/0	0.0.0.0/0		

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Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *	0.0.0.0/0	0.0.0.0/0	
0	0	DROP	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

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Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

END Test 1: Allow Inbound/Outbound DHCP

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
1	122	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:68
0	0	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:0
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 15 packets, 3106 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
1	73	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
0	0	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

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Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

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Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	122	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	73	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

START Test 2 : Allow Inbound/Outbound DNS

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
1	122	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:68
0	0	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:0
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPDENYIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

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Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
1	73	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
0	0	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

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Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	122	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	73	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

END Test 2: Allow Inbound/Outbound DNS

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:68

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0	0 SSHIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:22
0	0 SSHIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spt:22
0	0 SSHIN	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:22
0	0 CUSTOMDENYIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spt:0
0	0 HTTPIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spts:1:1023 dpt:80
0	0 HTTPDENYIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spts:1:1023 dpt:80
0	0 HTTPIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443
0	0 HTTPIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	-- *	*		0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	-- *	*		0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0 tcp dpt:68
0	0	SSHOUT	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHOUT	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	-- *	*		0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYOUT	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0 tcp dpt:0
0	0	HTTPOUT	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
0	0	HTTPOUT	tcp	-- *	*		0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	-- *	*		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	-- *	*		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

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pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

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```
0    0 ACCEPT  all -- *    *    0.0.0.0/0    0.0.0.0/0
```

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

START Test 3A : Allow outbound SSH to a host

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:68
0	0	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:0
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
0	0	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0

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0	0 HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443
0	0 HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

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```
0    0 ACCEPT  all -- *    *    0.0.0.0/0    0.0.0.0/0
```

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

END Test 3A: Allow outbound SSH to a host

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination	
2	312	OTHERIN	udp	--	* *	0.0.0.0/0	0.0.0.0/0		udp spt:53
0	0	OTHERIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0		tcp spt:53
0	0	OTHERIN	udp	--	* *	0.0.0.0/0	0.0.0.0/0		udp spt:68
0	0	OTHERIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0		tcp spt:68
0	0	SSHIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0		tcp dpt:22
22	4753	SSHIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0		tcp spt:22
0	0	SSHIN	udp	--	* *	0.0.0.0/0	0.0.0.0/0		udp dpt:22
0	0	CUSTOMDENYIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0		tcp spt:0
0	0	HTTPIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0		tcp spts:11:1023 dpt:80
0	0	HTTPDENYIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0		tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0		multiport sports 80,443
0	0	HTTPIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0		multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

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pkts	bytes	target	prot	opt	in	out	source	destination
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Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	-- *	*	*	0.0.0.0/0	0.0.0.0/0
0	0	OTHEROUT	tcp	-- *	*	*	0.0.0.0/0	0.0.0.0/0
0	0	OTHEROUT	udp	-- *	*	*	0.0.0.0/0	0.0.0.0/0
0	0	OTHEROUT	tcp	-- *	*	*	0.0.0.0/0	0.0.0.0/0
0	0	SSHOUT	tcp	-- *	*	*	0.0.0.0/0	0.0.0.0/0
24	3885	SSHOUT	tcp	-- *	*	*	0.0.0.0/0	0.0.0.0/0
0	0	SSHOUT	udp	-- *	*	*	0.0.0.0/0	0.0.0.0/0
0	0	CUSTOMDENYOUT	tcp	-- *	*	*	0.0.0.0/0	0.0.0.0/0
0	0	HTTPOUT	tcp	-- *	*	*	0.0.0.0/0	0.0.0.0/0
0	0	HTTPOUT	tcp	-- *	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	-- *	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	-- *	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	-- *	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	-- *	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	-- *	*	*	0.0.0.0/0	0.0.0.0/0

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0	0 DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
---	--------	-----	----	---	---	-----------	-----------

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
22	4753 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
24	3885 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

START Test 3B: Allow inbound SSH to a host

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination	
2	312 OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0		udp spt:53
0	0 OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0		tcp spt:53

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0	0 OTHERIN	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp spt:68
0	0 OTHERIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spt:68
0	0 SSHIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:22
22	4753 SSHIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spt:22
0	0 SSHIN	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:22
0	0 CUSTOMDENYIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spt:0
0	0 HTTPIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spts:11:1023 dpt:80
0	0 HTTPDENYIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spts:1:1023 dpt:80
0	0 HTTPIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443
0	0 HTTPIN	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:53
0	0	OTHEROUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:53
0	0	OTHEROUT	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:68
0	0	OTHEROUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:68
0	0	SSHOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spt:22
24	3885	SSHOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:22
0	0	SSHOUT	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:22
0	0	CUSTOMDENYOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:0
0	0	HTTPOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443
0	0	HTTPOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	-- *	*	0.0.0.0/0	0.0.0.0/0	

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	-- *	*	0.0.0.0/0	0.0.0.0/0	

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Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

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Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
22	4753	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
24	3885	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

END Test 3B: Allow inbound SSH to a host

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:68
5	200	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp dpt:22
45	9474	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:0
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPDENYIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp dpt:68
5	200	SSHOUT	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:22
49	7870	SSHOUT	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp dpt:22

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```

0  0 SSHOUT  udp -- *   *   0.0.0.0/0      0.0.0.0/0      udp dpt:22
0  0 CUSTOMDENYOUT tcp -- *   *   0.0.0.0/0      0.0.0.0/0      tcp dpt:0
0  0 HTTPOUT   tcp -- *   *   0.0.0.0/0      0.0.0.0/0      multiport dports 80,443
0  0 HTTPOUT   tcp -- *   *   0.0.0.0/0      0.0.0.0/0      multiport sports 80,443

```

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *	0.0.0.0/0	0.0.0.0/0	
0	0	DROP	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

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Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
50	9674	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
54	8070	ACCEPT	all	--	* *	0.0.0.0/0	0.0.0.0/0	

START Test 4A : Drop all incoming traffic from port 0

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	* *	0.0.0.0/0	0.0.0.0/0	udp spt:53
0	0	OTHERIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0	tcp spt:53
0	0	OTHERIN	udp	--	* *	0.0.0.0/0	0.0.0.0/0	udp spt:68
0	0	OTHERIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0	tcp spt:68
5	200	SSHIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0	tcp dpt:22
45	9474	SSHIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0	tcp spt:22
0	0	SSHIN	udp	--	* *	0.0.0.0/0	0.0.0.0/0	udp dpt:22
0	0	CUSTOMDENYIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0	tcp spt:0
0	0	HTTPIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0	tcp spts:1:1023 dpt:80
0	0	HTTPDENYIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0	tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443
0	0	HTTPIN	tcp	--	* *	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443

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Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
5	200	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
49	7870	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

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pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
50	9674	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
54	8070	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

END Test 4A: Drop all incoming traffic from port 0

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

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```

2  312 OTHERIN  udp -- *  *    0.0.0.0/0    0.0.0.0/0    udp spt:53
0   0 OTHERIN  tcp -- *  *    0.0.0.0/0    0.0.0.0/0    tcp spt:53
0   0 OTHERIN  udp -- *  *    0.0.0.0/0    0.0.0.0/0    udp spt:68
0   0 OTHERIN  tcp -- *  *    0.0.0.0/0    0.0.0.0/0    tcp spt:68
5  200 SSHIN   tcp -- *  *    0.0.0.0/0    0.0.0.0/0    tcp dpt:22
69 13799 SSHIN tcp -- *  *    0.0.0.0/0    0.0.0.0/0    tcp spt:22
0   0 SSHIN    udp -- *  *    0.0.0.0/0    0.0.0.0/0    udp dpt:22
5  200 CUSTOMDENYIN tcp -- *  *    0.0.0.0/0    0.0.0.0/0    tcp spt:0
0   0 HTTPIN   tcp -- *  *    0.0.0.0/0    0.0.0.0/0    tcp spts:!1:1023 dpt:80
0   0 HTTPDENYIN tcp -- *  *    0.0.0.0/0    0.0.0.0/0    tcp spts:1:1023 dpt:80
0   0 HTTPIN   tcp -- *  *    0.0.0.0/0    0.0.0.0/0    multiport sports 80,443
0   0 HTTPIN   tcp -- *  *    0.0.0.0/0    0.0.0.0/0    multiport dports 80,443

```

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
5	200	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
74	11855	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
0	0	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

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pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

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```
2 135 ACCEPT all -- * * 0.0.0.0/0 0.0.0.0/0
```

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
74	13999	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
79	12055	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

START Test 4C : Drop all outgoing packets to 0

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:68
5	200	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
69	13799	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
5	200	CUSTOMDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:0
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:11:1023 dpt:80
0	0	HTTPDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68

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5	200	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp spt:22
74	11855	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0	udp dpt:22
0	0	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:0
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

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0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0
---	---	--------	-----	----	---	---	-----------	-----------

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
74	13999	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
79	12055	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

END Test 4C: Drop all outgoing packets to 0

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:68
5	200	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
69	13799	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
5	200	CUSTOMDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:0
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80

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0	0 HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443
0	0 HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
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Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
5	200	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
74	11855	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
1	40	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	40	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

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Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0	
0	0 DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
74	13999 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
79	12055 ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0	

START Test 5A : Drop all incoming traffic TO port 80 from ports 1-1024

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Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:68
5	200	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
69	13799	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
5	200	CUSTOMDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:0
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
5	200	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
74	11855	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
1	40	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

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Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	40	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

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Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
74	13999	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
79	12055	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

END Test 5A: Drop all incoming traffic TO port 80 from ports 1-1024

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:68
5	200	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp dpt:22
93	18124	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp dpt:22
5	200	CUSTOMDENYIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:0
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spts:!1:1023 dpt:80
5	200	HTTPDENYIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
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Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp dpt:53

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0	0 OTHEROUT	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:68
0	0 OTHEROUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:68
5	200 SSHOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp spt:22
99	15840 SSHOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:22
0	0 SSHOUT	udp	-- *	*	0.0.0.0/0	0.0.0.0/0	udp dpt:22
1	40 CUSTOMDENYOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:0
0	0 HTTPOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443
0	0 HTTPOUT	tcp	-- *	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	40	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

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Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
98	18324	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
104	16040	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

START Test 5B : DON'T drop all incoming traffic TO port 80 from ports !1-1024

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:68
5	200	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp dpt:22
93	18124	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp dpt:22
5	200	CUSTOMDENYIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:0

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0	0 HTTPIN	tcp -- *	*	0.0.0.0/0	0.0.0.0/0	tcp spts:1:1023 dpt:80
5	200 HTTPDENYIN	tcp -- *	*	0.0.0.0/0	0.0.0.0/0	tcp spts:1:1023 dpt:80
0	0 HTTPIN	tcp -- *	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443
0	0 HTTPIN	tcp -- *	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp -- *	*			0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp -- *	*			0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp -- *	*			0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp -- *	*			0.0.0.0/0	0.0.0.0/0 tcp dpt:68
5	200	SSHOUT	tcp -- *	*			0.0.0.0/0	0.0.0.0/0 tcp spt:22
99	15840	SSHOUT	tcp -- *	*			0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp -- *	*			0.0.0.0/0	0.0.0.0/0 udp dpt:22
1	40	CUSTOMDENYOUT	tcp -- *	*			0.0.0.0/0	0.0.0.0/0 tcp dpt:0
0	0	HTTPOUT	tcp -- *	*			0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
0	0	HTTPOUT	tcp -- *	*			0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all -- *	*			0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all -- *	*			0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all -- *	*			0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

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pkts	bytes	target	prot	opt	in	out	source	destination
1	40 DROP	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200 DROP	all	--	*	*		0.0.0.0/0	0.0.0.0/0
0	0 DROP	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 DROP	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
98	18324 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
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104 16040 ACCEPT all -- * * 0.0.0.0/0 0.0.0.0/0

END Test 5B: DON'T drop all incoming traffic TO port 80 from ports !1-1024

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:68
5	200	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
117	22865	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
5	200	CUSTOMDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:0
10	400	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:!1:1023 dpt:80
5	200	HTTPDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
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Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
5	200	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
124	19825	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
1	40	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0
0	0	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
5	220	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

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pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	40	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
10	400	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	220	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

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2	312	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0
---	-----	--------	-----	----	---	---	-----------	-----------

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
122	23065	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
129	20025	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

START Test 6A : Allow outbound HTTP

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0
5	200	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0
117	22865	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	SSHIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0
5	200	CUSTOMDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0
10	400	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0
5	200	HTTPDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
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Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

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2  135 OTHEROUT  udp -- *   *   0.0.0.0/0      0.0.0.0/0      udp dpt:53
0   0 OTHEROUT  tcp -- *   *   0.0.0.0/0      0.0.0.0/0      tcp dpt:53
0   0 OTHEROUT  udp -- *   *   0.0.0.0/0      0.0.0.0/0      udp dpt:68
0   0 OTHEROUT  tcp -- *   *   0.0.0.0/0      0.0.0.0/0      tcp dpt:68
5  200 SSHOUT   tcp -- *   *   0.0.0.0/0      0.0.0.0/0      tcp spt:22
124 19825 SSHOUT tcp -- *   *   0.0.0.0/0      0.0.0.0/0      tcp dpt:22
0   0 SSHOUT    udp -- *   *   0.0.0.0/0      0.0.0.0/0      udp dpt:22
1   40 CUSTOMDENYOUT tcp -- *   *   0.0.0.0/0      0.0.0.0/0      tcp dpt:0
0   0 HTTPOUT    tcp -- *   *   0.0.0.0/0      0.0.0.0/0      multiport dports 80,443
5  220 HTTPOUT  tcp -- *   *   0.0.0.0/0      0.0.0.0/0      multiport sports 80,443

```

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	40	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

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0	0 DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
---	--------	-----	----	---	---	-----------	-----------

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
10	400	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	220	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	312	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
2	135	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
122	23065	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
129	20025	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

END Test 6A: Allow outbound HTTP

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination	
3	452	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0	udp spt:53
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp spt:53
0	0	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0	udp spt:68
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp spt:68
5	200	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:22
117	22865	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp spt:22

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```

0    0 SSHIN  udp -- * * 0.0.0.0/0 0.0.0.0/0 udp dpt:22
5    200 CUSTOMDENYIN tcp -- * * 0.0.0.0/0 0.0.0.0/0 tcp spt:0
10   400 HTTPIN  tcp -- * * 0.0.0.0/0 0.0.0.0/0 tcp spts:!1:1023 dpt:80
5    200 HTTPDENYIN tcp -- * * 0.0.0.0/0 0.0.0.0/0 tcp spts:1:1023 dpt:80
5    220 HTTPIN  tcp -- * * 0.0.0.0/0 0.0.0.0/0 multiport sports 80,443
0    0 HTTPIN  tcp -- * * 0.0.0.0/0 0.0.0.0/0 multiport dports 80,443

```

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
3	195	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
5	200	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
124	19825	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
1	40	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0
10	400	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
5	220	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

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Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	40	DROP	all	--	* *	0.0.0.0/0		0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	* *	0.0.0.0/0		0.0.0.0/0
0	0	DROP	all	--	* *	0.0.0.0/0		0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	* *	0.0.0.0/0		0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
15	620	ACCEPT	all	--	* *	0.0.0.0/0		0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
15	620	ACCEPT	all	--	* *	0.0.0.0/0		0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
3	452	ACCEPT	all	--	* *	0.0.0.0/0		0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
3	195	ACCEPT	all	--	* *	0.0.0.0/0		0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
122	23065	ACCEPT	all	--	* *	0.0.0.0/0		0.0.0.0/0

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Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
129	20025	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

START Test 6B: Allow inbound HTTP

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
3	452	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:68
5	200	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
117	22865	SSHIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
5	200	CUSTOMDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:0
10	400	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:!1:1023 dpt:80
5	200	HTTPDENYIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
5	220	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
------	-------	--------	------	-----	----	-----	--------	-------------

Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
3	195	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:68
5	200	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp spt:22
124	19825	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0 udp dpt:22
1	40	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 tcp dpt:0
10	400	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport dports 80,443
5	220	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0 multiport sports 80,443

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Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	40	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
15	620	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
15	620	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

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Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
3	452	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
3	195	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
122	23065	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
129	20025	ACCEPT	all	--	* *		0.0.0.0/0	0.0.0.0/0

END Test 6B: Allow inbound HTTP

Chain INPUT (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
3	452	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:53
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:53
0	0	OTHERIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp spt:68
0	0	OTHERIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:68
5	200	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp dpt:22
141	27638	SSHIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:22
0	0	SSHIN	udp	--	* *		0.0.0.0/0	0.0.0.0/0 udp dpt:22
5	200	CUSTOMDENYIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spt:0
20	800	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spts:!1:1023 dpt:80
5	200	HTTPDENYIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 tcp spts:1:1023 dpt:80
5	220	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 multiport sports 80,443
0	0	HTTPIN	tcp	--	* *		0.0.0.0/0	0.0.0.0/0 multiport dports 80,443

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
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Chain OUTPUT (policy DROP 16 packets, 3146 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination	
3	195	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0	udp dpt:53
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:53
0	0	OTHEROUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0	udp dpt:68
0	0	OTHEROUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:68
5	200	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp spt:22
149	23810	SSHOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:22
0	0	SSHOUT	udp	--	*	*	0.0.0.0/0	0.0.0.0/0	udp dpt:22
1	40	CUSTOMDENYOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	tcp dpt:0
10	400	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	multiport dports 80,443
10	440	HTTPOUT	tcp	--	*	*	0.0.0.0/0	0.0.0.0/0	multiport sports 80,443

Chain CUSTOMALLOWIN (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMALLOWOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0	ACCEPT	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain CUSTOMDENYOUT (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
1	40	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

Chain HTTPDENYIN (1 references)

pkts	bytes	target	prot	opt	in	out	source	destination
5	200	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0
0	0	DROP	all	--	*	*	0.0.0.0/0	0.0.0.0/0

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Chain HTTPDENYOUT (0 references)

pkts	bytes	target	prot	opt	in	out	source	destination
0	0 DROP	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain HTTPIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
25	1020 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain HTTPOUT (2 references)

pkts	bytes	target	prot	opt	in	out	source	destination
20	840 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain OTHERIN (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
3	452 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain OTHEROUT (4 references)

pkts	bytes	target	prot	opt	in	out	source	destination
3	195 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain SSHIN (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
146	27838 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0

Chain SSHOUT (3 references)

pkts	bytes	target	prot	opt	in	out	source	destination
154	24010 ACCEPT	all	--	*	*		0.0.0.0/0	0.0.0.0/0