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EXPERIMENT:9

INSTALL AND CONFIGURE IPTABLES FIREWALL

AIM:

To install iptables and configure it for variety of options.

COMMON CONFIGURATIONS AND OUTPUT:

1.start/stop/restart firewalls

```
[root@localhost~]#systemctl start firewalld  
[root@localhost~]#systemctl restart firewalld  
[root@localhost~]systemctl stop firewalld
```

2.check all existing IPTables Firewall Rules

```
[root@localhost~]#iptables -L -n -v
```

3.Block specific IP address(eg.172.16.8.10)in IPTables Firewall

```
[root@localhost~]iptables -A INPUT -s 172.16.8.10 -j DROP
```

4.Block specific port on IPTables Firewall

```
[root@localhost~]#iptables -A OUTPUT -p tcp --dport xxx -j DROP
```

5.allow specific network range on particular port on iptables

```
[root@localhost~]#iptables -A OUTPUT -p tcp -d 172.16.8.0/24 --dport xxx -j ACCEPT
```

6.block Facebook on IPTables

```
[root@localhost~]#host facebook.com  
Facebook.com has address 157.240.24.35  
Facebook.com has IPv6 addrfess 2a03:2880:f10c:283:face:b00c:0:25de  
Facebook mail is handled by 10 smtpin.vvv.facebook.com
```

```
[root@localhost~]#whois 157.240.24.35 | grep CIDR
CIDR: 157.240.0.0/16
```

```
[root@localhost~]#whois 157.240.24.35
[Querying whois.arin.net]
[whois.arin.net]
```

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#available at: <https://www.arin.net/resources/registry/whois/tou/>

#If you see inaccuracies in the results, please report at

https://www.arin.net/resources/registry/whois/inaccuracy_reporting/

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NetRange: 157.240.0.0 - 157.240.255.255

CIDR: 157.240.0.0/16

NetName: THEFA-3

NetHandle: NET-157-240-0-0-1

Parent: NET157 (NET-157-0-0-0-0)

NetType: Direct Assignment

OriginAS:

Organization: Facebook, Inc. (THEFA-3)

RegDate: 2015-05-14

Updated: 2015-05-14

Ref: <https://rdap.arin.net/registry/ip/157.240.0.0>

OrgName: Facebook, Inc.

OrgId: THEFA-3

Address: 1601 Willow Rd. City: Menlo Park StateProv: CA PostalCode: 94025 Country: US RegDate: 2004-08-11 Updated: 2012-04-17 Ref: <https://rdap.arin.net/registry/entity/THEFA-3>

OrgTechHandle: OPERA82-ARIN

OrgTechName: Operations

OrgTechPhone: +1-650-543-4800

OrgTechEmail: domain@facebook.com

OrgTechRef: <https://rdap.arin.net/registry/entity/OPERA82-ARIN>

OrgAbuseHandle: OPERA82-ARIN

OrgAbuseName: Operations

OrgAbusePhone: +1-650-543-4800

OrgAbuseEmail: domain@facebook.com

OrgAbuseRef: <https://rdap.arin.net/registry/entity/OPERA82-ARIN>

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[root@localhost ~]# iptables -A OUTPUT -p tcp -d 157.240.0.0/16 -j DROP

Open browser and check whether <http://facebook.com> is accessible

To allow facebook use -D instead of -A option

[root@localhost ~]# iptables -D OUTPUT -p tcp -d 157.240.0.0/16 -j DROP

[root@localhost ~]#

6.Block access to your system from MAC address

[root@localhost~]#iptables -A INPUT -m mac --mac-source 0F:22:1E:00:02:30 -j DROP

7.save iptables rules to file

[root@localhost~]#iptables-save>-iptables.rules

[root@localhost~]#vi iptables.rules

8.restrict number of concurrent connections to server

[root@localhost~]# iptables -A INPUT -p tcp --syn --dport 22 -m connlimit -above 3 -j REJECT

9.disable outgoing mails through IPtables

[root@localhost~]#iptables -A OUTPUT -p tcp --dport 25 -j REJECT

10.flush IPtables Firewall chains or rules

[root@localhost~]#iptables -F

RESULT:

Thus, the iptables has been installed successfully and configured for variety of options.

