

Ex. No.: 11

Date:

INSTALL AND CONFIGURE IPTABLES FIREWALL

Aim:

To install iptables and configure it for variety of options.

Common Configurations & outputs:

1. Start/stop/restart firewalls

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

2. Check all existing IPtables Firewall Rules

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

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
[root@localhost ~]#
```

4. Block specific port on IPtables Firewall

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

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
[root@localhost ~]#
```

6. Block Facebook on IPTables [root@localhost ~]# host facebook.com facebook.com has address 157.240.24.35

facebook.com has IPv6 address 2a03:2880:f10c:283:face:b00c:0:25de
facebook.com 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 ~]#

[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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Ltd. #
[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 specific MAC Address(say 0F:22:1E:00:02:30)
[root@localhost ~]# iptables -A INPUT -m mac --mac-source 0F:22:1E:00:02:30 -j DROP
[root@localhost ~]#

7. Save IPtables rules to a file
[root@localhost ~]# iptables-save > ~/iptables.rules
[root@localhost ~]# vi iptables.rules
[root@localhost ~]#

8.Restrict number of concurrent connections to a Server(Here restrict to 3 connections only)

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

9. Disable outgoing mails through IPtables

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

10. Flush IPtables Firewall chains or rules

```
[root@localhost ~]# iptables -F  
[root@localhost ~]#
```

Result: