

**Ex. No.: 6**

**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 |
```

Reg no: 210701092    Name: Jeffrey Jesudasan R

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

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

```
#
```

```
# ARIN WHOIS data and services are subject to the
Terms of Use # 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/ #
```

```
# Copyright 1997-2019, American Registry for Internet
Numbers, Ltd. #
```

```
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:
```

Reg no: 210701092    Name: Jeffrey Jesudasan R

200

4-08-11

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>

#

# ARIN WHOIS data and services are subject to the Terms  
of Use

# 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/](https://www.arin.net/resources/registry/whois/inaccuracy_reporting/#) #

# Copyright 1997-2019, American Registry for Internet  
Numbers, 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:**