

**Ex. No.: 9**

**Date:25/10/24**

## **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]

#  
# 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/)  
#  
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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](mailto: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](mailto: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 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:** Thus, the iptables has been installed successfully and it has been configured for variety of options.