

241901023

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Ex.No:9

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INSTALL AND CONFIGURE IPTABLES FIREWALL

AIM:

To install iptables and configure it for variety of options.

COMMON CONFIGURATIONS & OUTPUTS:

Check all existing IPTables Firewall Rules:

```
(root@Captain)-[/home/JackSparrow]
# iptables -L -n -v
Chain INPUT (policy ACCEPT 0 packets, 0 bytes)
  pkts bytes target     prot opt in     out     source                   destination
Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)
  pkts bytes target     prot opt in     out     source                   destination
Chain OUTPUT (policy ACCEPT 0 packets, 0 bytes)
  pkts bytes target     prot opt in     out     source                   destination
```

Block specific IP Address(eg. 172.16.8.10) in IPTables Firewall:

```
(root@Captain)-[/home/JackSparrow]
# iptables -A INPUT -s 172.16.8.10 -j DROP
```

Block specific port on IPTables Firewall:

```
(root@Captain)-[/home/JackSparrow]
# iptables -A OUTPUT -p tcp --dport 444 -j DROP
```

Allow specific network range on particular port on iptables:

```
(root@Captain)-[/home/JackSparrow]
# iptables -A OUTPUT -p tcp -d 172.16.8.0/24 --dport 448 -j ACCEPT
```

Block Facebook on IPTables:

```
(root@Captain)-[/home/JackSparrow]
# host facebook.com
facebook.com has address 157.240.23.35
facebook.com has IPv6 address 2a03:2880:f369:1:face:b00c:0:25de
facebook.com mail is handled by 10 smtpin.vvv.facebook.com.
facebook.com has HTTP service bindings 1 . alpn="h2,h3"
facebook.com has HTTP service bindings 2 star-mini.fallback.c10r.facebook.com. alpn="h2,h3"
```

```
(root@Captain)-[/home/JackSparrow]
# whois 157.240.23.35 | grep CIDR
CIDR:          157.240.0.0/16
```

```
(root@Captain)-[/home/JackSparrow]
# whois 157.240.23.35

#
# 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 1997-2025, 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 Allocation
OriginAS:
Organization:  Facebook, Inc. (THEFA-3)
RegDate:       2015-05-14
Updated:       2021-12-14
Ref:           https://rdap.arin.net/registry/ip/157.240.0.0

OrgName:       Facebook, Inc.
OrgId:         THEFA-3
```

```
(root@Captain)-[/home/JackSparrow]
# iptables -A OUTPUT -p tcp -d 157.240.0.0/16 -j DROP
```

```
(root@Captain)-[/home/JackSparrow]
# iptables -D OUTPUT -p tcp -d 157.240.0.0/16 -j DROP
```

***Block Access to your system from specific MAC Address(say
0F:22:1E:00:02:30):***

```
(root@Captain)-[/home/JackSparrow]
# iptables -A INPUT -m mac --mac-source 0F:22:1E:00:02:30 -j DROP
```

Save Iptables rules to a file:

```
(root@Captain)-[/home/JackSparrow]
# iptables-save > ~/iptables.rules
```

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

```
(root@Captain)-[/home/JackSparrow]
# iptables -A INPUT -p tcp --syn --dport 22 -m connlimit --connlimit-above 3 -j REJECT
```

Disable outgoing mails through Iptables:

```
(root@Captain)-[/home/JackSparrow]
# iptables -A OUTPUT -p tcp --dport 25 -j REJECT
```

```
(root@Captain)-[/home/JackSparrow]
# iptables -L -n -v
Chain INPUT (policy ACCEPT 0 packets, 0 bytes)
 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 REJECT    tcp  --  *      *       0.0.0.0/0             0.0.0.0/0
                                     MAC 0f:22:1e:00:02:30
                                     tcp dpt:22 flags:0x17/0x02 #con
n src/32 > 3 reject-with icmp-port-unreachable

Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)
 pkts bytes target    prot opt in     out     source                 destination

Chain OUTPUT (policy ACCEPT 0 packets, 0 bytes)
 pkts bytes target    prot opt in     out     source                 destination
  0      0 REJECT    tcp  --  *      *       0.0.0.0/0             0.0.0.0/0
                                     tcp dpt:25 reject-with icmp-por
t-unreachable
```

Flush Iptables Firewall chains or rules:

```
(root@Captain)-[/home/JackSparrow]
# iptables -F
```

RESULT:

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