

LINUX FIREWALL SETUP

```
(root@kali)-[/home/kali]
# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.0.122 netmask 255.255.255.0 broadcast 192.168.0.255
    inet6 fe80::a00:27ff:fe22:5df2 prefixlen 64 scopeid 0<20<link>
    ether 08:00:27:22:5d:f2 txqueuelen 1000 (Ethernet)
    RX packets 1861 bytes 241927 (236.2 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 6514 bytes 422557 (412.6 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0<10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 8523 bytes 388604 (379.4 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 8523 bytes 388604 (379.4 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

(root@kali)-[/home/kali]
# sudo systemctl enable ssh
Synchronizing state of ssh.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable ssh

(root@kali)-[/home/kali]
# sudo systemctl start ssh

(root@kali)-[/home/kali]
# sudo systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/usr/lib/systemd/system/ssh.service; enabled; preset: disabled)
   Active: active (running) since Fri 2025-08-08 15:19:39 IST; 37min ago
  Invocation: 20575d1cd7d9494184a71a7e75cf6522
     Docs: man:sshd(8)
           man:sshd_config(5)
   Main PID: 715 (sshd)
      Tasks: 1 (limit: 12572)
     Memory: 6.8M (peak: 26.5M)
        CPU: 537ms
   CGroup: /system.slice/ssh.service
           └─715 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

Aug 08 15:33:22 kali sshd-session[8462]: pam_unix(sshd:session): session opened for user kali(uid=1000) by kali(uid=0)
Aug 08 15:33:57 kali sshd-session[8753]: pam_unix(sshd:auth): password check failed for user (kali)
Aug 08 15:33:57 kali sshd-session[8753]: pam_unix(sshd:auth): authentication failure; logname= uid=0 euid=0 tty=ssh ruser= rhost=192.168.0.103 user=kali
Aug 08 15:33:57 kali sshd-session[8753]: pam_winbind(sshd:auth): getting password (0x00000389)
Aug 08 15:33:57 kali sshd-session[8753]: pam_winbind(sshd:auth): pam_get_item returned a password
Aug 08 15:33:57 kali sshd-session[8753]: pam_winbind(sshd:auth): request wbcLogonUser failed: WBC_ERR_WINBIND_NOT_AVAILABLE, PAM error: PAM_AUTHINFO_UNAVAIL
Aug 08 15:33:57 kali sshd-session[8753]: pam_winbind(sshd:auth): internal module error (retval = PAM_AUTHINFO_UNAVAIL(9), user = 'kali')
Aug 08 15:33:59 kali sshd-session[8753]: Failed password for kali from 192.168.0.103 port 64065 ssh2
Aug 08 15:34:02 kali sshd-session[8753]: Accepted password for kali from 192.168.0.103 port 64065 ssh2
Aug 08 15:34:02 kali sshd-session[8753]: pam_unix(sshd:session): session opened for user kali(uid=1000) by kali(uid=0)

(root@kali)-[/home/kali]
# nmap 192.168.0.122
Starting Nmap 7.95 ( https://nmap.org ) at 2025-08-08 16:00 IST
Nmap scan report for 192.168.0.122
Host is up (0.0000040s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE SERVICE
22/tcp    open  ssh
Nmap done: 1 IP address (1 host up) scanned in 0.15 seconds

(root@kali)-[/home/kali]
# ufw status
Status: inactive

(root@kali)-[/home/kali]
# ufw enable
Firewall is active and enabled on system startup

(root@kali)-[/home/kali]
# ufw allow 22/tcp
Skipping adding existing rule
Skipping adding existing rule (v6)

(root@kali)-[/home/kali]
#
```

LINUX FIREWALL SETUP

```
root@kali: /home/kali
PS C:\Users\vamsi> ssh kali@192.168.0.122
kali@192.168.0.122's password:
Linux kali 6.12.13-amd64 #1 SMP PREEMPT_DYNAMIC Kali 6.12.13-1kali1 (2025-02-11) x86_64

The programs included with the Kali GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Kali GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
You have new mail.
Last login: Fri Aug 8 15:34:02 2025 from 192.168.0.103
(kali@kali)~
$ whoami
kali

(kali@kali)~
$ sudo su
[sudo] password for kali:
(root@kali)~/home/kali
# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.0.122 netmask 255.255.255.0 broadcast 192.168.0.255
    inet6 fe80::a00:27ff:fe22:5df2 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:22:5d:f2 txqueuelen 1000 (Ethernet)
    RX packets 2542 bytes 315187 (307.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 6909 bytes 462769 (451.9 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 10524 bytes 472648 (461.5 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

(kali@kali)~/home/kali
# ufw deny 22/tcp
Skipping adding existing rule
Skipping adding existing rule (v6)

Windows PowerShell
kali

(kali@kali)~
$ sudo su
[sudo] password for kali:
(root@kali)~/home/kali
# ifconfig
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(kali@kali)~/home/kali
# exit
(kali@kali)~
$ exit
Connection to 192.168.0.122 closed.
PS C:\Users\vamsi> ssh kali@192.168.0.122
ssh: connect to host 192.168.0.122 port 22: Connection timed out
```