

# 1. Installation of UFW

```
kali@kali: ~$ sudo apt install ufw -y
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 0
[kali@kali] ~$ sudo apt install ufw -y
The following packages were automatically installed and are no longer required:
  libqt5x11extras5 linux-image-6.12.13-amd64 python3-packaging-whl python3-pyinstaller-hooks-contrib python3-wheel-whl
Use 'sudo apt autoremove' to remove them.

Installing:
  ufw

Suggested packages:
  rsyslog

Summary:
  Upgrading: 0, Installing: 1, Removing: 0, Not Upgrading: 0
  Download size: 169 kB
  Space needed: 880 kB / 21.6 GB available

Get:1 http://kali.download/kali kali-rolling/main amd64 ufw all 0.36.2-9 [169 kB]
Fetched 169 kB in 1s (185 kB/s)
Preconfiguring packages ...
Selecting previously unselected package ufw.
(Reading database ... 511247 files and directories currently installed.)
Preparing to unpack .../archives/ufw_0.36.2-9_all.deb ...
Unpacking ufw (0.36.2-9) ...
Setting up ufw (0.36.2-9) ...
Creating config file /etc/ufw/before.rules with new version
Creating config file /etc/ufw/before6.rules with new version
Creating config file /etc/ufw/after.rules with new version
Creating config file /etc/ufw/after6.rules with new version
update-rc.d: We have no instructions for the ufw init script.
update-rc.d: It looks like a non-network service, we enable it.
Created symlink '/etc/systemd/system/multi-user.target.wants/ufw.service' -> '/usr/lib/systemd/system/ufw.service'.
Processing triggers for kali-menu (2025.3.0) ...
Processing triggers for man-db (2.13.1-1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.
```

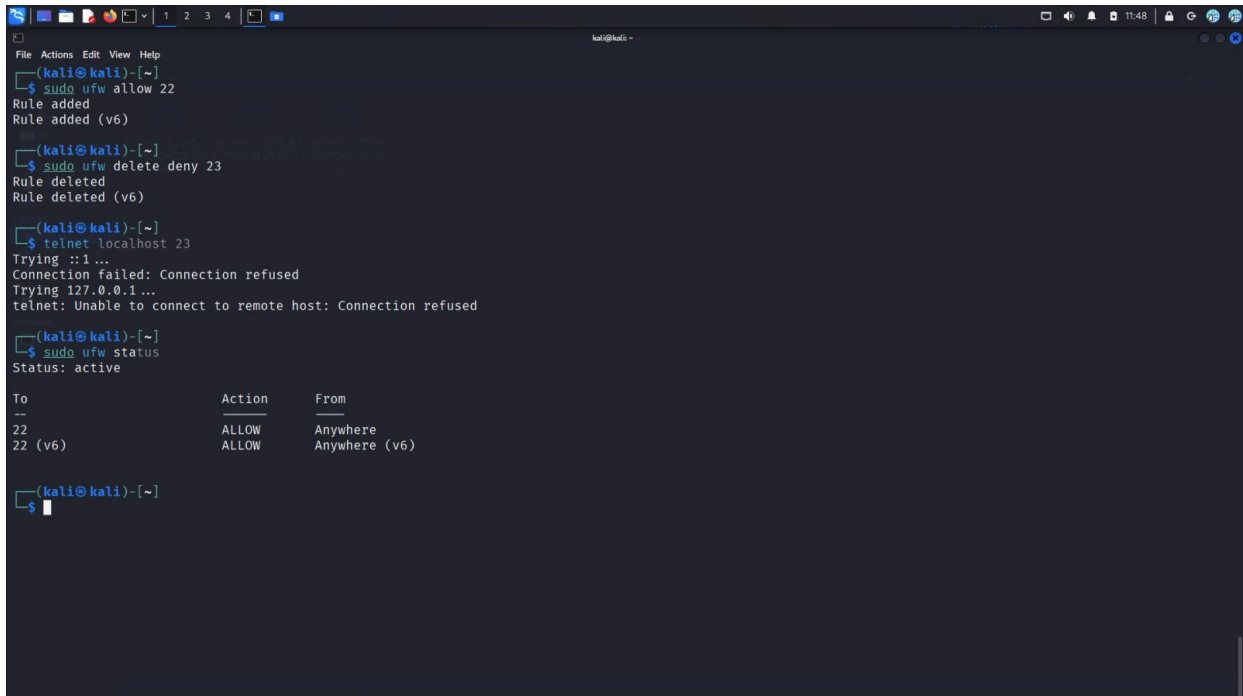
## 2. Firewall status before and after enabling

```
kali@kali ~  
File Actions Edit View Help  
Preparing to unpack .../archives/ufw_0.36.2-9_all.deb ...  
Unpacking ufw (0.36.2-9) ...  
Setting up ufw (0.36.2-9) ...  
Creating config file /etc/ufw/before.rules with new version  
Creating config file /etc/ufw/before6.rules with new version  
Creating config file /etc/ufw/after.rules with new version  
Creating config file /etc/ufw/after6.rules with new version  
update-rc.d: We have no instructions for the ufw init script.  
update-rc.d: It looks like a non-network service, we enable it.  
Created symlink '/etc/systemd/system/multi-user.target.wants/ufw.service' -> '/usr/lib/systemd/system/ufw.service'.  
Processing triggers for kali-menu (2025.3.0) ...  
Processing triggers for man-db (2.13.1-1) ...  
Scanning processes...  
Scanning linux images...  
  
Running kernel seems to be up-to-date.  
  
No services need to be restarted.  
  
No containers need to be restarted.  
  
No user sessions are running outdated binaries.  
  
No VM guests are running outdated hypervisor (qemu) binaries on this host.  
  
(kali@kali)-[~]  
$ sudo ufw status numbered  
Status: inactive  
  
(kali@kali)-[~]  
$ sudo ufw enable  
Firewall is active and enabled on system startup  
  
(kali@kali)-[~]  
$ sudo ufw status numbered  
Status: active  
  
(kali@kali)-[~]  
$
```



```
kali@kali ~  
File Actions Edit View Help  
limit ARGS          add limit rule  
delete RULE|NUM      delete RULE  
insert NUM RULE       insert RULE at NUM  
prepend RULE          prepend RULE  
route RULE           add route RULE  
route delete RULE|NUM delete route RULE  
route insert NUM RULE insert route RULE at NUM  
reload               reload firewall  
reset                reset firewall  
status               show firewall status  
status numbered      show firewall status as numbered list of RULES  
status verbose        show verbose firewall status  
show ARG             show firewall report  
version              display version information  
  
Application profile commands:  
app list              list application profiles  
app info PROFILE      show information on PROFILE  
app update PROFILE    update PROFILE  
app default ARG       set default application policy  
  
(kali@kali)-[~]  
$ sudo ufw deny 23  
Rule added  
Rule added (v6)  
  
(kali@kali)-[~]  
$ telnet localhost 23  
Trying ::1...  
Connection failed: Connection refused  
Trying 127.0.0.1...  
telnet: Unable to connect to remote host: Connection refused  
  
(kali@kali)-[~]  
$
```

### 3. Rules added and deleted

A terminal window on a Kali Linux system showing the configuration of UFW (Uncomplicated Firewall) rules. The user adds a rule to allow port 22, then deletes a rule to deny port 23. They then attempt to connect to localhost 23 and 127.0.0.1 using telnet, both failing with 'Connection refused'. Finally, they check the status of UFW, which is active, and view the current rules.

```
(kali@kali)-[~]
$ sudo ufw allow 22
Rule added
Rule added (v6)

(kali@kali)-[~]
$ sudo ufw delete deny 23
Rule deleted
Rule deleted (v6)

(kali@kali)-[~]
$ telnet localhost 23
Trying ::1...
Connection failed: Connection refused
Trying 127.0.0.1...
telnet: Unable to connect to remote host: Connection refused

(kali@kali)-[~]
$ sudo ufw status
Status: active

To      Action      From
--      -
22      ALLOW      Anywhere
22 (v6) ALLOW      Anywhere (v6)

(kali@kali)-[~]
$
```