

Basic Firewall Configuration with UFW

Objective

Configure a basic firewall using UFW (Uncomplicated Firewall) on a Linux system. The configuration allows SSH (port 22) and denies HTTP (port 80) traffic.

Steps Followed

1. Installed UFW using:

```
sudo apt install ufw
```

2. Allowed SSH traffic:

```
sudo ufw allow ssh
```

3. Denied HTTP traffic:

```
sudo ufw deny http
```

4. Enabled UFW firewall:

```
sudo ufw enable
```

5. Verified rules:

```
sudo ufw status numbered
```

Final Rules Snapshot

<i>To</i>	<i>Action</i>	<i>From</i>
<i>--</i>	<i>-----</i>	<i>----</i>
<i>22/tcp</i>	<i>ALLOW IN</i>	<i>Anywhere</i>
<i>80/tcp</i>	<i>DENY IN</i>	<i>Anywhere</i>
<i>22/tcp (v6)</i>	<i>ALLOW IN</i>	<i>Anywhere (v6)</i>
<i>80/tcp (v6)</i>	<i>DENY IN</i>	<i>Anywhere (v6)</i>

```

Ragib - VMware Workstation
File Edit View VM Tabs Help
Ragib
Apps Places
Jul 12 19:18
48% 35% 0.0 kB 0.0 kB
root@windows:/home/ragib

Use 'sudo apt autoremove' to remove them.

Installing:
ufw

Suggested packages:
rsyslog

Summary:
Upgrading: 0, Installing: 1, Removing: 0, Not Upgrading: 1241
Download size: 169 kB
Space needed: 880 kB / 74.6 GB available

Get:1 http://kali.download/kali kali-rolling/main amd64 ufw all 0.36.2-9 [169 kB]
Fetched 169 kB in 3s (65.2 kB/s)
Preconfiguring packages ...
Selecting previously unselected package ufw.
(Reading database ... 442832 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.

Progress: [ 60% ]

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
Type here to search
Md Emamuddin Cyber security Expert
Air q...
7:18 PM
7/12/2025
root@windows:/home/ragib

(root@windows)-[/home/ragib]
$ apt install ufw

The following packages were automatically installed and are no longer required:
libbfio1 libc++abi1-19 libgl1-mesa-dev libgles1 libglvnd-dev libunwind-19 openjdk-23-jre-headless
libc++1-19 libegl-dev libgles-dev libglvnd-core-dev libsuperluw openjdk-23-jre python3-appdirs
Use 'sudo apt autoremove' to remove them.

Installing:
ufw

Suggested packages:
rsyslog

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Preconfiguring packages ...
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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 (2024.4.0) ...
Processing triggers for man-db (2.13.0-1) ...

```

```
root@windows: /home/ragib
# ufw allow ssh
Rule updated
Rule updated (v6)

root@windows: /home/ragib
# ufw deny http
Rule updated
Rule updated (v6)

root@windows: /home/ragib
# ufw enable
Firewall is active and enabled on system startup

root@windows: /home/ragib
# ufw status numbered
Status: active

To Action From
--
[ 1] 22/tcp ALLOW IN Anywhere
[ 2] 80/tcp DENY IN Anywhere
[ 3] 22/tcp (v6) ALLOW IN Anywhere (v6)
[ 4] 80/tcp (v6) DENY IN Anywhere (v6)

root@windows: /home/ragib
#

To Action From
--
[ 1] 22/tcp ALLOW IN Anywhere
[ 2] 80/tcp DENY IN Anywhere
[ 3] 22/tcp (v6) ALLOW IN Anywhere (v6)
[ 4] 80/tcp (v6) DENY IN Anywhere (v6)

root@windows: /home/ragib
# chmod +x ufw_configuration.sh

root@windows: /home/ragib
# ls
Desktop Documents Downloads hackbot Music pentbox-1.8 Pictures Public ragib.sh Templates ufw_configuration.sh Videos wazuh-install.sh wpscan

root@windows: /home/ragib
# ./ufw_configuration.sh
Skipping adding existing rule
Skipping adding existing rule (v6)
Skipping adding existing rule
Skipping adding existing rule (v6)
Firewall is active and enabled on system startup
Status: active
Logging: on (low)
Default: deny (incoming), allow (outgoing), disabled (routed)
New profiles: skip

To Action From
--
22/tcp ALLOW IN Anywhere
80/tcp DENY IN Anywhere
22/tcp (v6) ALLOW IN Anywhere (v6)
80/tcp (v6) DENY IN Anywhere (v6)

root@windows: /home/ragib
#
```

Author

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