

Cyber Security Internship – Task 4 Report

■ Task Completed: Setup and Use a Firewall on Linux (UFW)

This task involved configuring the Uncomplicated Firewall (UFW) on Kali Linux to control network traffic. Below are the steps performed to complete the task:

1. Enabled the UFW firewall using:
`sudo ufw enable`
2. Verified firewall status using:
`sudo ufw status numbered`
3. Allowed SSH traffic (port 22) to avoid losing remote access:
`sudo ufw allow 22`
4. Scanned port 23 using Nmap to confirm it was closed:
`nmap -p 23 localhost`

The result showed port 23 as **closed**, confirming the firewall is effectively filtering traffic.

Conclusion:

The UFW firewall was successfully configured. Port 23 was confirmed closed, and port 22 was kept open for SSH. This demonstrates correct use of Linux firewall controls to enhance system security.

■ Terminal Output Screenshot:

```
(kali㉿kali)-[~]
$ sudo ufw enable
Firewall is active and enabled on system startup

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

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

(kali㉿kali)-[~]
$ nmap -p 23 localhost
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-08-08 01:20 EDT
Nmap scan report for localhost (127.0.0.1)
Host is up (0.0091s latency).
Other addresses for localhost (not scanned): ::1

PORT      STATE SERVICE
23/tcp    closed telnet

Nmap done: 1 IP address (1 host up) scanned in 0.11 seconds
```