

Setup and Use a Firewall on Windows/Linux

Objective

To configure and test basic firewall rules to allow or block network traffic using **Windows Firewall** or **UFW (Uncomplicated Firewall)** on Linux.

Tools Used

- **Operating System:** Kali Linux
- **Firewall Tool:** UFW
- **Terminal**

Steps Performed

1. Checked Firewall Status

Command used (for Linux): `sudo ufw status`

```
(root@kali)-[~]  
# ufw status verbose  
Status: inactive
```

2. Enabled the Firewall

Command: `sudo ufw enable`

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

3. Listed Current Firewall Rules

Command: `sudo ufw status numbered`

```
(root@kali)-[~]  
# ufw status numbered  
Status: active
```

4. Added Rule to Block a Specific Port (e.g., 23 - Telnet)

Command:

`sudo ufw deny 23`

```
(root@kali)-[~]  
# ufw deny 23/tcp  
Rule added  
Rule added (v6)
```

Test Performed:

Attempted to connect to port 23 using telnet localhost 23 (or any similar method)

✅ Connection was blocked as expected.

5. Allowed SSH (Port 22)

Command: `sudo ufw allow 22`

```
(root@kali)-[~]
# ufw allow 22/tcp
Rule added
Rule added (v6)
```

Test: Verified SSH connection — it worked successfully.

6. Verified Final Firewall Configuration

Command: `sudo ufw status`

```
(root@kali)-[~]
# ufw status
Status: active
```

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

Summary / Explanation

- **Firewall Function:**
A firewall filters incoming and outgoing network traffic based on defined security rules. It helps block unauthorized access while permitting legitimate communication.
- **In this task:**
 - I learned how to enable and manage firewall rules.
 - Verified blocking/allowing specific ports.
 - Observed how firewall rules directly control network connections.

Conclusion

The firewall was successfully configured and tested.

Blocking and allowing specific ports demonstrated how traffic filtering works effectively. The system's security posture improved by restricting unnecessary open ports.