

How to use UFW with Docker

// ufw-docker

Why you need it

Docker publishes ports by inserting its own iptables rules before UFW can see them. A normal `ufw deny 8080` does nothing. `ufw-docker` fixes this by making Docker traffic go through UFW's rules.

PrerequisitesUbuntu / Debian (or any distro with UFW)

Docker already installed and working UFW preferably already enabled

Make sure Docker's iptables management is enabled (default):

```
# Check (should NOT have "iptables": false)
cat /etc/docker/daemon.json
```

##. Install ufw-docker

```
# Download the script
sudo wget -O /usr/local/bin/ufw-docker \
  https://github.com/chaifeng/ufw-docker/raw/master/ufw-docker

# Make it executable
sudo chmod +x /usr/local/bin/ufw-docker
```

Install the necessary UFW rules:

```
sudo ufw-docker install
```

This backs up `/etc/ufw/after.rules` and adds the required Docker-aware rules. Reload UFW:

```
sudo ufw reload
# or
sudo systemctl restart ufw
```

(Optional but recommended) Install the systemd service so rules stay updated:

```
sudo ufw-docker install-service
```

Basic UFW setup

```
# Set defaults
sudo ufw default deny incoming
sudo ufw default allow outgoing

# Always allow SSH (change port if needed)
sudo ufw allow 22/tcp
# or: sudo ufw allow 2222/tcp

# Enable UFW
sudo ufw enable
```

How to allow / deny Docker containers

Important concept:

You allow the container port, not the host port.

Example:

```
docker run -d --name web -p 8080:80 nginx
```

→ You allow port 80 (the container's port).

Allow a container

```
# Allow all published ports of the container
sudo ufw-docker allow web
```

```
# Allow only a specific port
sudo ufw-docker allow web 80
sudo ufw-docker allow web 80/tcp
sudo ufw-docker allow web 53/udp
```

Allow only from a specific IP / network

```
sudo ufw-docker allow web 80 from 203.0.113.50
sudo ufw-docker allow web 80 from 192.168.1.0/24
```

Delete rules

```
# Remove all rules for the container
sudo ufw-docker delete allow web

# Remove a specific port
sudo ufw-docker delete allow web 80
```

Useful commands

<code>ufw-docker status</code>	<code># Show current Docker-related rules</code>
<code>ufw-docker list web</code>	<code># Show rules for a specific container</code>
<code>ufw-docker check</code>	<code># Verify installation</code>
<code>ufw-docker help</code>	<code># Full help</code>

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