

## How to install

### Docker + Nginx Proxy Manager + Portainer

This document assumes you'll already create an LXC in proxmox. I configure my lxc as such:

OS: Ubuntu 22.04 standard

Unprivileged: Yes

Memory: 512

CPU: 1

Core: 1

HD space: 10GB (Honestly too much)

Network: A dedicated ip address

To install Docker on an LXC Ubuntu container, you'll need to follow these steps:

1. Update the package index:

```
sudo apt update
```

2. Install necessary packages to allow apt to use HTTPS:

```
sudo apt install apt-transport-https ca-certificates curl software-properties-common
```

3. Add Docker's official GPG key:

```
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg
```

4. Set up the stable Docker repository:

```
echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

5. Update the package index again:

```
sudo apt update
```

6. Install Docker Engine:

```
sudo apt install docker-ce docker-ce-cli containerd.io
```

7. Verify the installation:

```
sudo docker run hello-world
```

To install Nginx Proxy Manager on an LXC Ubuntu container, you'll need to follow these general steps:

Here's a more detailed guide:

1. Update and upgrade your system:

```
sudo apt update && sudo apt upgrade -y
```

2. Install Docker and Docker Compose:

```
sudo apt install docker.io docker-compose -y
```

3. Create a directory for Nginx Proxy Manager:

```
mkdir nginx-proxy-manager
```

```
cd nginx-proxy-manager
```

4. Create a docker-compose.yml file:

```
nano docker-compose.yml
```

5. Add the following content to the file:

```
version: '3'
```

```
services:
```

```
  app:
```

```
    image: 'jc21/nginx-proxy-manager:latest'
```

```
    restart: unless-stopped
```

```
  ports:
```

```
    - '80:80'
```

```
    - '81:81'
```

```
    - '443:443'
```

```
  volumes:
```

```
    - './data:/data'
```

```
    - './letsencrypt:/etc/letsencrypt'
```

6. Save and exit the file (Ctrl+X, then Y, then Enter in nano)

7. Start Nginx Proxy Manager:

```
docker-compose up -d
```

After these steps, Nginx Proxy Manager should be running. You can access the admin panel by navigating to `http://your\_server\_ip:81` in your web browser.

The default login credentials are:

- Email: admin@example.com

- Password: changeme

Installing Portainer on your LXC Ubuntu container is straightforward, especially since you already have Docker installed. Here's how to do it:

1. First, create a volume for Portainer to store its data:

```
docker volume create portainer_data
```

2. Now, run the Portainer container:

```
docker run -d -p 8000:8000 -p 9443:9443 --name portainer \  
  --restart=always \  
  -v /var/run/docker.sock:/var/run/docker.sock \  
  -v portainer_data:/data \  
  portainer/portainer-ce:latest
```

This command does the following:

- Runs Portainer in detached mode (`-d`)
- Maps ports 8000 and 9443 from the container to the host
- Names the container "portainer"
- Sets it to always restart unless stopped manually

- Mounts the Docker socket and the Portainer data volume

- Uses the latest Community Edition of Portainer

3. After running this command, Portainer should be up and running. You can access it by opening a web browser and navigating to:

`https://your_server_ip:9443`

4. On first access, you'll be prompted to create an admin user. Make sure to use a strong password.

5. After logging in, you'll be asked to choose which environment to manage. Select the local Docker environment.

That's it!