

Simplifying Self-Hosting: Setting Up Nextcloud, MariaDB, and phpMyAdmin with Docker Compose

In today's digital age, privacy and control over our data are becoming increasingly important. Self-hosting solutions offer a way to regain control by hosting applications like cloud storage and databases on your own servers. In this guide, we'll walk you through setting up Nextcloud, MariaDB, and phpMyAdmin using Docker Compose, making self-hosting accessible and manageable for everyone.

Why Self-Host?

Self-hosting allows you to store your data on your own infrastructure, providing greater control, privacy, and security compared to relying on third-party services. By hosting applications like Nextcloud for file storage, sharing, and collaboration, and MariaDB for database management, you can tailor the setup to your specific needs while maintaining full ownership of your data.

Prerequisites

Before we dive into the setup process, ensure you have the following prerequisites:

- Docker installed on your system
- Docker Compose installed on your system
- Basic understanding of Docker and Docker Compose

Docker Compose Configuration

We'll use Docker Compose to define and run our multi-container application. Below is the `docker-compose.yml` file that orchestrates Nextcloud, MariaDB, and phpMyAdmin:

```
version: '3.8'

services:
  mariadb:
    container_name: nextcloudodb
    deploy:
      resources:
        limits:
          memory: 2603M
    environment:
      - MYSQL_DATABASE=nextcloud
      - MYSQL_PASSWORD= # Blank password for security reasons
      - MYSQL_ROOT_PASSWORD= # Blank password for security reasons
      - MYSQL_USER=ncloud-admin
      - PGID=1000
      - PUID=1000
      - TZ=Europe/Berlin
    image: linuxserver/mariadb:10.11.4
    ports:
      - "3306:3306"
    restart: unless-stopped
    volumes:
      - /DATA/AppData/mariadb/config:/config

  nextcloud:
    cpu_shares: 90
    command:
      - apache2-foreground
    container_name: n-cloud
    deploy:
      resources:
        limits:
          memory: 7751M
    environment:
      - MYSQL_HOST=mariadb
      - MYSQL_DATABASE=nextcloud
```

```
- MYSQL_PASSWORD= # Blank password for security reasons
- MYSQL_USER=ncloud-admin
- PHP_OPCACHE_MEMORY_CONSUMPTION=256 # PHP OPcache memory consumption
image: nextcloud:latest
labels:
  icon: https://cdn.jsdelivr.net/gh/IceWhaleTech/CasaOS-AppStore@main/Apps/Nextcloud/icon.png
ports:
  - target: 443
    published: "443"
    protocol: tcp
  - target: 80
    published: "45289"
    protocol: tcp
privileged: true
restart: unless-stopped
volumes:
  - type: bind
    source: /mnt/cloud/nextcloud
    target: /var/www/html

phpmyadmin:
  container_name: phpmyadmin
  image: phpmyadmin/phpmyadmin
  environment:
    - PMA_ARBITRARY=1
  ports:
    - "8080:80"
  restart: always
  depends_on:
    - mariadb
```

Understanding the Configuration

- **MariaDB Service:** Provides the database backend for Nextcloud.
- **Nextcloud Service:** Offers cloud storage and collaboration features.
- **phpMyAdmin Service:** Enables convenient management of the MariaDB database through a web interface.

Conclusion

Self-hosting applications like Nextcloud, MariaDB, and phpMyAdmin with Docker Compose empowers you to take control of your data while maintaining privacy and security. With this setup, you can enjoy the benefits of cloud storage and database management on your own terms. Simply run `docker-compose up` in the directory containing the `docker-compose.yml` file, and your services will be up and running. Embrace the freedom and control of self-hosting today!

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