

Deploy docker-compose apps (Wordpress, MySQL, Redis, Keycloak ...)

You are about to learn how to deploy docker-compose applications to a CI/CD target. This is useful when you don't need a Git workflow and your images are already available on a public or private docker registry.

Use cases:

- Deploy one or multiple instances of stateful apps like Wordpress / Directus / MySQL / Redis / RabbitMQ / ...
- Deploy an internal service available only to your private network
- Deploy an app built somewhere else and published to a private docker registry

First, open the [Elestio dashboard and click on CI/CD](#)

1) Select your app to deploy

When you select Docker to compose the deployment method, we provide a few samples of applications that you can deploy

PROJECT: elestio-services

Services
Volumes
Load Balancer
CI/CD
Domains
Members
Billing
Project Setting
Audit Trail
Account

Create CI/CD pipeline

1 Source

2 Target

3 Configuration

1. Deployment Method

Select the deployment method of your Service between Github, Gitlab and Docker.
When using the Github/Gitlab deployment method, each time a change is pushed to your repository, a new deployment of your service will occur.

Github
Github, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and...

Gitlab
GitLab Inc. is the open-core company that provides GitLab, the DevOps software that combines the ability to develop, secure, and...

Docker compose
Compose is a tool for defining and running multi-container Docker applications. With Compose, you use a YAML file to configure your...

Select a docker-compose template

Search templates by name

Custom docker-compose
Add your custom docker-compose content

Redis + RedisInsight
Redis is the most popular in-memory database, cache and message broker.

Postgres + PgAdmin
Postgres is a relational database system known for reliability and performance.

TimescaleDB + PgAdmin
TimescaleDB is the leading relational database with support for time-series data.

MySQL + PhpMyAdmin
MySQL is a relational database that runs on almost all platforms.

MariaDB + PhpMyAdmin
The open source relational database.

MongoDB + MongoExpress
MongoDB is a document-oriented NoSQL database used for high-volume data storage.

ClickHouse + Tabix
ClickHouse is a column-oriented DBMS for online analytical processing.

OpenSearch + Dashboards
Open source distributed and RESTful search engine.

MSSQL + SQLPad
Microsoft SQL Server is a relational database management system developed by Microsoft

RabbitMQ
RabbitMQ is the most widely deployed message broker

Squid
Lightweight, Fast & powerful proxy server

WG-Easy
The easiest way to run WireGuard VPN + Web-based Admin UI

Ubuntu Desktop
Full Desktop experience in the browser with a selection of tools + Windows compatibility with Wine.

MetaTrader 5
Trade on Forex & stock markets in a virtual desktop from your browser

Airbyte
Airbyte is an ETL platform that helps you replicate your data in your warehouses, lakes and databases.

Documize
Modern Confluence alternative designed for internal & external docs, built with Go + EmberJS

MinIO
MinIO is a leader in hybrid cloud and multi-cloud object storage.

Guacamole
Apache Guacamole is a clientless remote desktop gateway. It supports standard protocols like VNC, RDP, and SSH.

MeshCentral
Connect to your home or office devices from anywhere with MeshCentral. Management and Remote desktop.

Keycloak
Identity and access management solution

Metabase
Simply and quickly gathers business intelligence and analytics for your company.

Bookstack
Easy-to-use platform for organising and storing information.

Directus
Open Data Platform for managing the content of any SQL database.

Uptime-Kuma
Uptime Kuma is a self-hosted monitoring tool like Uptime Robot

SFTPGo
Fully featured SFTP server with optional HTTP/S, FTP/S and WebDAV support

Ghost
More than a blog. Turn your audience into a business.

WORDPRESS
Create a beautiful website, blog or app.

WooCommerce
WooCommerce is a customizable, open-source eCommerce platform built on WordPress.

From there click on Github or Gitlab, and you will be asked to provide authorization to list your projects in Elestio.

Then you will be able to browse Organizations & Repositories detected on your account. You can also use the search to find directly your project to deploy. Once you found it, click on Import, then click on next.

2) Select your target (where to deploy)

Here you have to indicate where the app should be deployed, it can be a "New infrastructure", in that case, you can select your preferred provider/region/instance size. Or an existing infrastructure, then you just have to pick it from the list.

The screenshot displays the 'Create CI/CD pipeline' workflow in the Elestio dashboard. The interface is divided into three main steps: 1. Source, 2. Target (currently active), and 3. Configuration. The left sidebar contains navigation options: PROJECT: shared-dev, Services, Volumes, Load Balancer, CI/CD (highlighted), Members, Billing, Settings, and Audit Trail. At the bottom of the sidebar, account details are shown: \$426.12 CREDITS and \$0.0420/hour SPENDING, with an 'Add credits' link.

1. Choose Deployment Targets

Where do you want this service to be deployed?

☒ New Infrastructure ☐ Existing Infrastructure

Deployment mode

☒ Single Node ☐ Cluster

2. Select Service Cloud Provider

Available providers: HETZNER, DigitalOcean, Amazon Lightsail (selected), linode, VULTR, and a generic monitor icon.

3. Select Service Cloud Region

Regions: Europe, North America (selected), Asia.

Selected region details:

- ca-central-1
🇨🇦 Canada - Montreal
- us-east-1
🇺🇸 USA - N. Virginia

PROJECT:
shared-dev

Services

Volumes

Load Balancer

CI/CD

Members

Billing

Settings

Audit Trail

\$426.12

CREDITS

\$0.0420/hour

SPENDING

us-west-2

USA - Oregon

4 . Select Service Plan

SMALL-1C-2G

1 CPU 2 GB RAM 60 GB Storage 3 TB Bandwidth included

MEDIUM-2C-4G

2 CPU 4 GB RAM 80 GB Storage 4 TB Bandwidth included

LARGE-2C-8G

2 CPU 8 GB RAM 160 GB Storage 5 TB Bandwidth included

XLARGE-4C-16G

4 CPU 16 GB RAM 320 GB Storage 6 TB Bandwidth included

2XLARGE-8C-32G

8 CPU 32 GB RAM 640 GB Storage 7 TB Bandwidth included

3) Configure your app

This is the last step of the process where you can adjust the app settings, docker-compose, env vars, and reverse proxy configuration.

a) Docker-compose stack

PROJECT:
 shared-dev

Services

Volumes

Load Balancer

CI/CD

Members

Billing

Settings

Audit Trail

\$422.19
 CREDITS

\$0.0280/hour
 SPENDING

[Add credits](#)

Create CI/CD pipeline



1. Docker compose

docker-compose.yml

```

1 version: '3'
2 services:
3
4   postgres:
5     image: timescale/timescaledb:${SOFTWARE_VERSION_TAG}
6     restart: always
7     environment:
8       POSTGRES_DB: postgres
9       POSTGRES_USER: postgres
10      POSTGRES_PASSWORD: ${SOFTWARE_PASSWORD}
11      PGDATA: /var/lib/postgresql/data
12      TS_TUNE_MAX_CONNS: 100
13     volumes:
14       - ./data:/var/lib/postgresql/data
15     ports:
16       - '172.17.0.1:5432:5432'
17
18   pgadmin4:
19     image: dpage/pgadmin4:latest
20     restart: always
21     environment:
22       PGADMIN_DEFAULT_EMAIL: ${ADMIN_EMAIL}
23       PGADMIN_DEFAULT_PASSWORD: ${ADMIN_PASSWORD}
24       PGADMIN_LISTEN_PORT: 8080
25     ports:
26       - "172.17.0.1:8080:8080"
27     volumes:
28       - ./servers.json:/pgadmin4/servers.json
29

```

☐ Use Private Repository

Environment variables



Reverse proxy configuration



b) Environment variables

In most cases, you will have to indicate configuration for your app through env vars. This is useful to pass various configurations to your app like database connection string, S3 bucket details, email address to use, and other global configurations.

Environment variables



Use Environment variables to store configuration values. API keys and secrets. You can access them in your service like regular environment variables.

.env

```
1 ENV=production
2 MY_PARAM_1=true
3
```

c) Reverse proxy

To make your app accessible on the internet, indicate in the target port the same thing you have configured on the host port in the docker-compose ports binding.

Reverse proxy configuration



Configure the ports which should be exposed. When the ports are not exposed publicly, they are only accessible to other Services of the same App via the internal network.

Listen

Target

Protocol

Port

HTTPS



443



Protocol

IP

Port

Path

HTTP



172.17.0.1

8001

/



☒ Require Basic Auth

Login

root

Password

azfhwglF-dq83-9dfSa8Hi

Protocol

Port

TCP



26379



Protocol

IP

Port

Path

TCP



172.17.0.1

6379


/



☐ Require Basic Auth

[+ Add Another](#)

Finally, click on "Create CI/CD pipeline" to complete your deployment.



Provider
Amazon Lightsail


Region
North America, Canada
Montreal

Estimated Monthly Price*
\$0

*Estimated monthly price is based on 730 hours of usage.

Create CI/CD pipeline

After a few minutes, your app should be accessible on the CI/CD pipeline url, you can find it in the dashboard overview of your pipeline. Your generated credentials are visible in the "Build & Deploy" tab in the env var section or reverse proxy section if you have activated basic authentication.



PROJECT: shared-dev

- Services
- Volumes
- Load Balancer
- CI/CD**
- Members
- Billing
- Settings
- Audit Trail

\$426.04 CREDITS

\$0.0420/hour SPENDING

[Add credits](#)

← Back to target

wp (karpeto-dev)

CI/CD Deployed Success

Open terminal Delete Pipeline

Details Tools Build & Deploy History Domain Management

Pipeline Details CNAME: wp-u3.vm.appdrag.net
Deployment method: Docker Compose

Credentials Display your auth credentials [Display credentials](#)

Manage Stack [View running logs](#) [Restart Stack](#) [Stop Stack](#)

Move Pipeline Move pipeline to new and existing target [Move Pipeline](#)

Created By You

Last Deployment June 27th 2022, 12:21 pm

Creation time June 27th 2022, 12:21 pm

\$426.04

CREDITS

\$0.0420/hour

SPENDING

[Add credits](#)

← Back to target

wp (karpeto-dev)

CI/CD

Deployed

Success

>_ Open terminal

🗑 Delete Pipeline

Details

Tools

Build & Deploy

History

Domain Management

Resync Pipeline

Apply Changes

1. Docker Compose

docker-compose.yml

```
17 wordpress:
18   depends_on:
19     - database
20   image: wordpress:${SOFTWARE_VERSION_TAG}
21   restart: always
22   user: "root:root"
23   ports:
24     - 172.17.0.1:9000:80
25   env_file:
26     - .env
27   environment:
28     - WORDPRESS_DB_HOST=database:3306
29     - WORDPRESS_DB_USER=${MYSQL_USER}
30     - WORDPRESS_DB_PASSWORD=${MYSQL_PASSWORD}
31     - WORDPRESS_DB_NAME=blog_wp
32   volumes:
33     - ./php.ini:/usr/local/etc/php/conf.d/custom.ini
34     - ./wordpress:/var/www/html
35   networks:
36     - hloa-network
```

Environment variables

Use Environment variables to store configuration values, API keys and secrets. You can access them in your service like regular environment variables.

.env

```
1 SOFTWARE_VERSION_TAG=latest
2 MYSQL_ROOT_PASSWORD=0kdRw1oa-C5r1-LtTpZ48x
3 MYSQL_USER=wpdbuser
4 MYSQL_PASSWORD=0kdRw1oa-C5r1-LtTpZ48x
5
```

Revision #13

Created 29 June 2022 15:21:33 by Joseph Benguira

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