

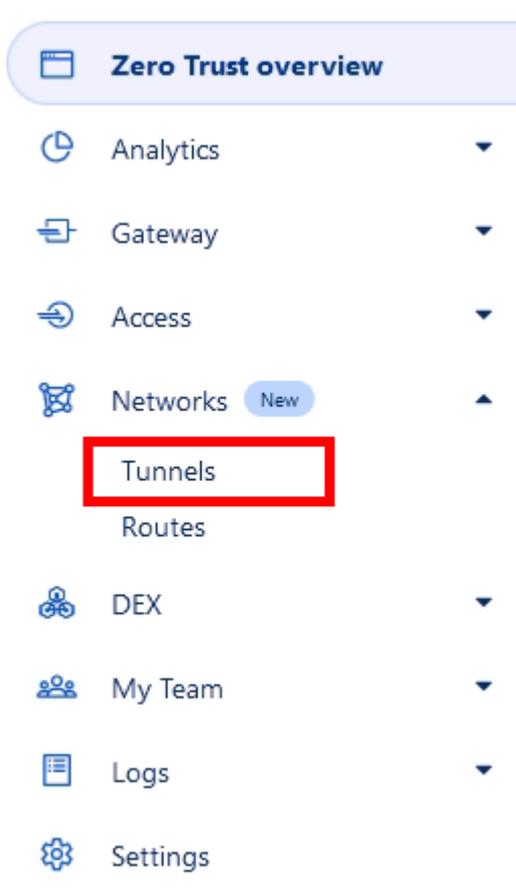
Docker Compose Deployments

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Backup Architecture

Cloudflare Tunnel Configuration

1. Navigate and sign in to the [Cloudflare Zero Trust dashboard](#).
2. Using the sidebar, navigate to `Networks -> Tunnels`.



3. Click the blue 'Create a tunnel' button.

Your tunnels *Showing 1 - 1*

Manage the configurations of your existing tunnels.

[+ Create a tunnel](#)

4. Select the default 'Cloudflared' connector type, and then click 'Next'.

Select your connector

Choose the method used to connect your resources to Cloudflare's global network.

Cloudflared

Recommended

Establishes a secure, outbound-only connection to Cloudflare for user-to-network connectivity.

 [Learn more](#)

WARP Beta

Linux distros only

Supports on-ramping and off-ramping traffic for site-to-site, bidirectional, and mesh networking connectivity.

 [Learn more](#)

[Back](#)

[Next](#)

5. Give the tunnel a name, then click 'Save tunnel'.

Name your tunnel

Use a descriptive name based on the network you want to connect. We recommend creating only one tunnel for each network.

Tunnel name (Required)

[Back](#)

[Save tunnel](#)

You will then be presented with a list of connector installation options.

6. Copy the token and use it with your preferred connector. For Docker instructions, see [Docker Compose Template](#)

Install and run a connector

To connect your tunnel to Cloudflare, copy-paste one of the following commands into a terminal window. Remotely managed tunnels require that you install cloudflared 2022.03.04 or later.

Store your token carefully. This command includes a sensitive token that allows the connector to run. Anyone with access to this token will be able to run the tunnel. ✕

```
$ docker run cloudflare/cloudflared:latest tunnel --no-autoupdate run --token eyJhIjoizD...
```

[View Frequently Asked Questions](#) ↗

8. Once connected, your connector should appear at the bottom of the page. Click 'Next'.

Connectors

Connector ID	Status	Version
a3497c42-e0dd-473f-9362-0b7edf21ddb4	Connected	2024.4.0

9. Finally, assign your service a subdomain, and point it to the backend.

Add public hostname for test

Public hostname

Subdomain

Domain (Required)

Path

Service

Type (Required)

URL (Required)

For example, <https://localhost:8001>

[Additional application settings](#) ▶

Please note, when using Docker networking (as per [Docker Compose Template](#)), there is no requirement to 'expose' the port with a port mapping. You can use the name of the container, as defined in the `docker-compose.yml` file with the appropriate listening port.

Docker Compose Template

Guidelines

These guidelines are suggested in order to maximise reliability of hosted services.

- Store secrets and tokens in a `.env` file adjacent to the `docker-compose.yml` file.
 - The environment variables are automatically interpolated when `docker compose up` is called.
 - If multiple `.env` files are required (for separation of secrets), then use `.env.<CONTAINER_NAME>` (e.g. `.env.gitea`) and add an override in the `docker-compose.yml` file. See the [Docker documentation](#) for more details.
- Always use tagged images.
 - Avoid using `latest`. By default, Docker hub automatically tags the most recently pushed image as `latest`, unless overridden by the image maintainer. This means that you might be running bleeding edge/alpha/vulnerable versions.
 - Often images expect a specific version of a container to be running in order for DB migrations to work. This is especially important with Postgres where major versions are not always forwards compatible.
- Separate frontend and backend services using different networks.
 - Docker Compose manages the creation/destruction of these networks for you. Please see the examples below.
- Volumes should be placed in a volumes directory adjacent to the `docker-compose.yml` file.
 - Prefix volume directories with the name of the container.
 - See the directory structure below for an example.
- Mount `/etc/timezone` and `/etc/localtime` where timestamps are used by the container.
 - See below for an example.

An example directory structure is shown below:

```
.
├── .env.db
├── .env.gitea
├── .env.tunnel
├── docker-compose.yml
├── start.sh
├── volumes/
│   └── gitea_config/
```

```
| └─ ...
└─ gitea_data/
| └─ ...
└─ postgres_data/
   └─ ...
```

See [Cloudflare Tunnel Configuration](#) for instructions on how to configure a tunnel and get a tunnel token.

Gitea

`.env.db`

```
POSTGRES_USER=gitea
POSTGRES_PASSWORD=gitea
POSTGRES_DB=gitea
```

`.env.gitea`

```
GITEA__database__DB_TYPE=mysql
GITEA__database__HOST=db:3306
GITEA__database__NAME=gitea
GITEA__database__USER=gitea
GITEA__database__PASSWD=gitea
```

`.env.tunnel`

```
TUNNEL_TOKEN=abc...
```

`docker-compose.yml`

```
services:
  tunnel:
    image: cloudflare/cloudflared:2024.4.0    # Use version tags to ensure only stable software is used.
    restart: unless-stopped                # This restart command helps with crashing services.
    command: tunnel run
```

```
depends_on:
  - gitea          # Ensure dependencies start in the correct order.
networks:
  - frontend      # Use multiple networks to isolate services.
env_file:
  - .env.tunnel   # Use environment variables loaded via a .env file for tokens.
gitea:
  image: gitea/gitea:1.21-rootless
  restart: unless-stopped
  healthcheck:      # Use healthchecks if possible.
    test: curl --fail http://localhost:3000/api/healthz || exit 1
    interval: 60s
    retries: 5
    start_period: 20s
    timeout: 10s
  depends_on:
    - db
  networks:
    - frontend
    - backend
  volumes:
    - './volumes/gitea_data:/var/lib/gitea' # Mount volumes into the ./volumes directory.
    - './volumes/gitea_config:/etc/gitea'   # Relative volumes must be wrapped in single quotes.
    - '/etc/timezone:/etc/timezone:ro'     # Mount timezone/localtime so that timestamps are correct.
    - '/etc/localtime:/etc/localtime:ro'
  env_file:
    - .env.gitea
db:
  image: postgres:14
  restart: unless-stopped
  healthcheck:
    test: ["CMD-SHELL", "pg_isready", "-d", "db_prod"]
    interval: 60s
    retries: 5
    start_period: 20s
    timeout: 10s
  networks:
    - backend
  volumes:
    - './volumes/postgres_data:/var/lib/postgresql/data'
  env_file:
```

- .env.db

networks:

backend:

frontend: