Traefik (docker-compose)
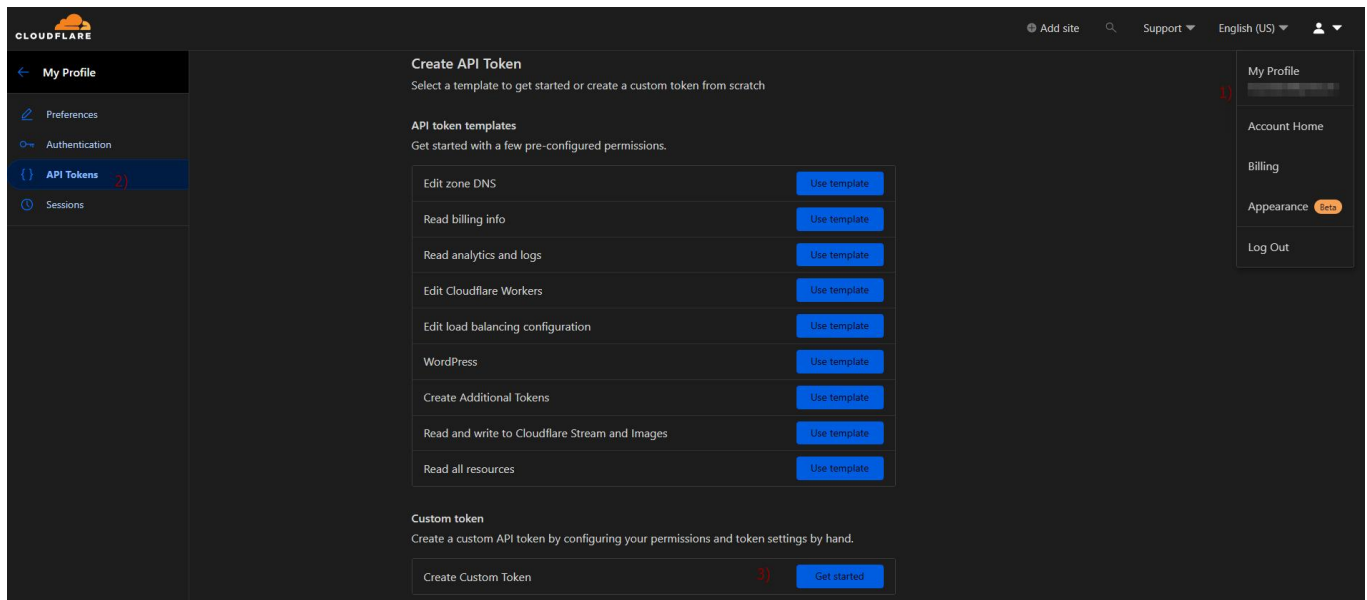
Cloudflare config

Create a free cloudflare account
Register a domain
Generate a cloudflare token

docker-compose.yml config

Create a docker-compose directory

```
mkdir /docker-compose/traefik
```

Create the docker-compose.yml file below using the editor of your choice

```
nvim docker-compose.yml
```

Past the file contents

```
version: '3'

services:
  traefik:
    image: traefik:latest
    container_name: traefik
```

```yaml
        restart: unless-stopped
        security_opt:
          - no-new-privileges:true
        networks:
           proxy:
        ports:
          - 80:80
          - 443:443
        environment:
          - CF_API_EMAIL=your@email.com
          - CF_DNS_API_TOKEN=your-api-key
          # - CF_API_KEY=YOU_API_KEY
          # be sure to use the correct one depending on if you are using a
token or key
        volumes:
          - /etc/localtime:/etc/localtime:ro
          - /var/run/docker.sock:/var/run/docker.sock:ro
          - /home/ubuntu/docker/traefik/traefik.yml:/traefik.yml:ro
          - /home/ubuntu/docker/traefik/acme.json:/acme.json
          - /home/ubuntu/docker/traefik/config.yml:/config.yml:ro
          - /home/ubuntu/docker/traefik/logs:/var/log/traefik
        labels:
          - "traefik.enable=true"
          - "traefik.http.routers.traefik.entrypoints=http"
          - "traefik.http.routers.traefik.rule=Host(`traefik-
dashboard.yourdomain.co.uk`)"
          - "traefik.http.middlewares.traefik-
auth.basicauth.users=YOUR_USERNAME_PASSWORD"
          - "traefik.http.middlewares.traefik-https-
redirect.redirectscheme.scheme=https"
          - "traefik.http.middlewares.sslheader.headers.customrequestheaders.X-
Forwarded-Proto=https"
          - "traefik.http.routers.traefik.middlewares=traefik-https-redirect"
          - "traefik.http.routers.traefik-secure.entrypoints=https"
          - "traefik.http.routers.traefik-secure.rule=Host(`traefik-
dashboard.yourdomain.co.uk`)"
          - "traefik.http.routers.traefik-secure.middlewares=traefik-auth"
          - "traefik.http.routers.traefik-secure.tls=true"
          - "traefik.http.routers.traefik-secure.tls.certresolver=cloudflare"
          - "traefik.http.routers.traefik-
```

```
secure.tls.domains[0].main=yourdomain.co.uk"
            - "traefik.http.routers.traefik-
secure.tls.domains[0].sans=*.yourdomain.co.uk"
            - "traefik.http.routers.traefik-secure.service=api@internal"



    networks:
      proxy:
```

Contents to modify (docker-compose.yml)

Change you your cloudflare email

```
- CF_API_EMAIL=your@email.com
```

Change to your cloudflare generated token

```
- CF_DNS_API_TOKEN=your-api-key
```

Change to your directory, see below

```
- /home/ubuntu/docker/traefik/traefik.yml:/traefik.yml:ro
- /home/ubuntu/docker/traefik/acme.json:/acme.json
- /home/ubuntu/docker/traefik/config.yml:/config.yml:ro
- /home/ubuntu/docker/traefik/logs:/var/log/traefik
```

Your domain for your dashboard

```
- "traefik.http.routers.traefik.rule=Host(`traefik-dashboard.yourdomain.co.uk`)"
```

Your generated password, see below

```
- "traefik.http.middlewares.traefik-auth.basicauth.users=YOUR_USERNAME_PASSWORD"
```

Your domain

```
- "traefik.http.routers.traefik-secure.rule=Host(`traefik-
dashboard.yourdomain.co.uk`)"
- "traefik.http.routers.traefik-secure.tls.domains[0].main=yourdomain.co.uk"
- "traefik.http.routers.traefik-secure.tls.domains[0].sans=*.yourdomain.co.uk"
```

Traefik.yml config

Navigate to your directory where you want to keep you traefik mount points

You will have to modify the "volumes" section in the docker compose file to reflect this location

```
mkdir /docker/traefik
```

Use command below to create the traefik mount points

```
touch acme.json traefik.yml config.yml
```

Change permissions on the acme.json file to 600

```
sudo chmod 600 acme.json
```

Open traefik.yml file using the editor of your choice**

```
nvim traefik.yml
```

Paste the file contents

```
api:
  dashboard: true
  debug: true
entryPoints:
  http:
    address: ":80"
    http:
      redirections:
        entryPoint:
          to: https
          scheme: https
  https:
    address: ":443"
serversTransport:
  insecureSkipVerify: true
providers:
  docker:
    endpoint: "unix:///var/run/docker.sock"
    exposedByDefault: false
```

```
            file:
                filename: /config.yml
            certificatesResolvers:
                cloudflare:
                    acme:
                        email: your@email.com #add your email
                        storage: acme.json
                        dnsChallenge:
                            provider: cloudflare
                            #disablePropagationCheck: true # uncomment this if you have issues
pulling certificates through cloudflare, By setting this flag to true disables the
need to wait for the propagation of the TXT record to all authoritative name
servers.
                            resolvers:
                                - "1.1.1.1:53"
                                - "1.0.0.1:53"
```

Contents to modify (traefik.yml)
Your cloudflare email

```
email: your@email.com #add your email
```

Create a network for traefik

```
sudo docker network create proxy
```

Generate dashboard password

```
sudo apt update
sudo apt install apache2-utils
echo $(htpasswd -nb "USERNAME" "PASSWORD" | sed -e s/\\$/\\$\\$/g)
```

Copy the generated code and paste in the docker-compose file in this location

```
"traefik.http.middlewares.traefik-auth.basicauth.users=YOUR_USERNAME:PASSWORD"
```

Spin up the docker-compose file

```
cd /docker-compose/traefik
sudo docker compose up -d
```