

Deploy to Kubernetes with Load Balancing

Overview

This type of deployment is typically used for production: tools such as failover and horizontal scaling can be used with this environment.

Adding Traefik to the environment provides a reverse proxy, load balancing and sticky sessions.

Remember, Yellowfin cluster deployments require a load balancer or a reverse proxy so that sticky sessions are available, but single Yellowfin instance deployments don't require load balancing nor a reverse proxy, as they are already stand-alone.

Choose your preferred deployment from the table below, then follow the instructions.

Deployment	Image	Description
Yellowfin sandbox	All-In-One	A self-contained instance of Yellowfin. This is the simplest type of deployment. All content will be lost when the container is destroyed.
Yellowfin single instance	App-Only	A single instance with a separate database, so data stored in the database will not be lost when the container is destroyed.
Yellowfin multiple discrete instances	App-Only	Multiple instances each with their own dedicated database. This could be used to stage a development environment and a production environment during a proof of concept.
Yellowfin cluster	App-Only	Multiple instances sharing a single database to form a Yellowfin cluster. This could be used to stage a clustered environment during a proof of concept.

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Install a load balancer/reverse proxy

Before installing Yellowfin, install your preferred load balancer or reverse proxy server. If you don't have a preference, we have provided some instructions below to install Traefik.

Install Traefik using Helm

Traefik works as a reverse proxy, load balancer and sticky sessions manager.

To install Traefik on Kubernetes, we recommend using the Kubernetes package manager, Helm. This will help to get Traefik up and running on your cluster. Please note that these are third-party tools, so the steps below are provided as a guide only. For further details of each product, please visit their websites.

1. Start Kubernetes in your preferred terminal
2. Type the following command to check that your terminal has a connection to the Kubernetes Cluster that you wish to manage:

```
kubectl get svc
```

3. If you have multiple Kubernetes clusters and you're in the wrong one, see the Kubernetes guide to switch clusters:

<https://kubernetes.io/docs/tasks/access-application-cluster/configure-access-multiple-clusters/>

4. Cut and paste the following commands into your terminal to install Helm3

```
curl https://raw.githubusercontent.com/helm/helm/master/scripts/get-helm-3 > get_helm.sh
chmod 700 get_helm.sh
./get_helm.sh
```

5. Cut and paste the following commands into your terminal to add Traefik's Helm chart repository:

```
helm repo add traefik https://containous.github.io/traefik-helm-chart
helm repo update
```

6. Cut and paste the following command into your terminal to install Traefik on your Kubernetes cluster:

```
helm install traefik traefik/traefik
```

Helm will now set up Traefik to be an available Ingress type into your Kubernetes cluster. Once complete, a Traefik service will be running in the Kubernetes cluster, using the Kubernetes service type "LoadBalancer".

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