

# Setting up Anthos on multi-cloud

This page shows you how to set up Anthos on multiple public clouds, including Google Cloud and AWS. If you also need to set up GKE on-prem, see the [hybrid cloud setup guide](/anthos/docs/setup/hybrid) (/anthos/docs/setup/hybrid).

## Before you start

1. [Sign in](https://accounts.google.com/Login) (https://accounts.google.com/Login) to your Google Account.

If you don't already have one, [sign up for a new account](https://accounts.google.com/SignUp) (https://accounts.google.com/SignUp).

2. In the Cloud Console, on the project selector page, select or create a Cloud project.

[Go to the project selector page](https://console.cloud.google.com/projectselector2/home/dashboard) (https://console.cloud.google.com/projectselector2/home/dashboard)

3. Make sure that billing is enabled for your Google Cloud project. [Learn how to confirm billing is enabled for your project](/billing/docs/how-to/modify-project) (/billing/docs/how-to/modify-project).

4. Enable the Anthos API.

[Enable the API](https://console.cloud.google.com/flows/enableapi?apiid=anthos.googleapis.com&re) (https://console.cloud.google.com/flows/enableapi?apiid=anthos.googleapis.com&re)

5. [Install and initialize the Cloud SDK](/sdk/docs) (/sdk/docs).

## Installing GKE on AWS

Follow the [GKE on AWS installation guides](/anthos/gke/docs/aws/how-to#installing-anthos-gke-on-aws)

(/anthos/gke/docs/aws/how-to#installing-anthos-gke-on-aws) to set up your management and user clusters on AWS.

## Google Cloud cluster requirements

Anthos on Google Cloud supports both [release channels](/kubernetes-engine/docs/concepts/release-channels)

(/kubernetes-engine/docs/concepts/release-channels) and static versions. However, we recommend

the use of release channels whenever possible, as they provide additional benefits such as automated updates to GKE clusters.

## Registering clusters to the environ

Regardless of where your clusters are, you need to register any clusters that you want to use with Anthos with your project's environ by using [Connect](#) (/anthos/multicluster-management/connect/overview). An environ provides a unified way to view and manage multiple clusters and their workloads as part of Anthos. You can find out more about environs and the functionality that they enable in our [Environments guide](#) (/anthos/multicluster-management/environs).

You don't need to register all your clusters at once, but you need to do so each time that you create a new cluster to make sure that it's visible on your [Anthos Clusters page](#) (https://console.cloud.google.com/anthos/clusters/) in the Cloud Console, and so that you can use all Anthos features. Anthos charges apply only to your registered clusters.

Using the `gcloud` command-line tool provides you with some more advanced cluster registration options that are not available in the Cloud Console, including downloading and applying the Connect Agent manifest yourself. To find out more about these options, see [advanced registration options](#) (/anthos/multicluster-management/connect/registering-a-cluster#advanced\_registration\_options\_command\_line\_only) in the Connect documentation.

## Registering GKE on AWS clusters

You don't need to do anything to register your GKE on AWS clusters with Anthos. As part of the setup process, each GKE on AWS cluster that you create automatically runs the Connect Agent and is registered to your project environ. You then [log in to the cluster from the Google Cloud Console](#) (/anthos/gke/docs/aws/how-to/connecting-to-a-cluster) by using an authentication token, which lets you manage the cluster from Anthos.

If you need to manually register a GKE on AWS cluster (for example, if you want to move the cluster's membership to a different environ, or if you unregistered it by mistake), follow the instructions in [Registering a cluster](#) (/anthos/multicluster-management/connect/registering-a-cluster).

## Registering Google Cloud clusters

Google Cloud clusters currently need to be manually registered. To ensure that you have the relevant permissions and enabled APIs to register a cluster, check the [Connect prerequisites](#) (/anthos/multicluster-management/connect/registering-a-cluster#before\_you\_begin) before registering your cluster.

### Consolegcloud (#gcloud)

To register a cluster:

1. In the Google Cloud Console, go to the **Anthos Clusters** page. This page shows all your registered clusters.

[Go to the Anthos Clusters page](https://console.cloud.google.com/anthos/clusters) (https://console.cloud.google.com/anthos/clusters)

2. Click **Register existing cluster**.
3. Click **Register** next to the unregistered cluster that you want to add to your environ.
4. Specify the service account that you want to use when registering the cluster. We recommend keeping the default behavior and creating a new service account.
  - If you select **Create a new service account**:
    - Specify a **Service account ID** to identify your new service account.
    - Choose if you want to download its service account key as a JSON file. We recommend keeping the default behavior and downloading the key because you won't be able to download it later.
  - If you select **Use existing service account**, paste in the account's [service account key](#) (/iam/docs/creating-managing-service-account-keys#creating\_service\_account\_keys) in JSON format.
5. Optional: Specify a new **membership name** for your cluster. By default, a cluster's membership name is its current name. However, if your cluster's name is not unique within your project, you must specify a new unique membership name because all clusters require a unique identifier within their environ.
6. To register your cluster, click **Submit**.

## Enabling Anthos features

After you set up your project and your GKE clusters, use the following guides to enable additional Anthos features for your applications. For complete documentation sets for all Anthos components, including tutorials, reference material, and more, see [Anthos components \(/anthos/docs/components\)](/anthos/docs/components).

## Enabling features on Google Cloud

- Anthos Service Mesh:
  - [Using istioctl to install Anthos Service Mesh \(/service-mesh/docs/gke-install-asm\)](/service-mesh/docs/gke-install-asm)
  - [Using the Anthos CLI to install Anthos Service Mesh \(/service-mesh/docs/install-anthos-cli\)](/service-mesh/docs/install-anthos-cli) (beta)
- Anthos Config Management:
  - [Installing Anthos Config Management \(/anthos-config-management/docs/how-to/installing\)](/anthos-config-management/docs/how-to/installing)
  - [Installing Config Connector \(/anthos-config-management/docs/how-to/installing-config-connector\)](/anthos-config-management/docs/how-to/installing-config-connector)
  - [Installing Policy Controller \(/anthos-config-management/docs/how-to/installing-policy-controller\)](/anthos-config-management/docs/how-to/installing-policy-controller)
- [Ingress for Anthos \(/kubernetes-engine/docs/concepts/ingress-for-anthos\)](/kubernetes-engine/docs/concepts/ingress-for-anthos):
  - [Set up Ingress for Anthos \(/kubernetes-engine/docs/how-to/ingress-for-anthos-setup\)](/kubernetes-engine/docs/how-to/ingress-for-anthos-setup)
- [Set up Cloud Run for Anthos \(/run/docs/gke/setup\)](/run/docs/gke/setup)
- [Set up Binary Authorization \(/binary-authorization/docs/setting-up\)](/binary-authorization/docs/setting-up)

## Enabling features on AWS

- Anthos Config Management:
  - [Installing Anthos Config Management \(/anthos-config-management/docs/how-to/installing\)](/anthos-config-management/docs/how-to/installing)
  - [Installing Config Connector \(/anthos-config-management/docs/how-to/installing-config-connector\)](/anthos-config-management/docs/how-to/installing-config-connector) (beta)

- [Installing Policy Controller](#)  
(/anthos-config-management/docs/how-to/installing-policy-controller) (beta)

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