This page explains how to install the Kubernetes Service Catalog (/kubernetes-engine/docs/concepts/add-on/service-catalog) and register the Google Cloud Service Broker (/kubernetes-engine/docs/concepts/google-cloud-platform-service-broker) in your Google Kubernetes Engine cluster.

Service Catalog enables you to provision other Google Cloud services (/kubernetes-engine/docs/how-to/add-on/service-catalog/use-service-catalog), such as Cloud Pub/Sub (/pubsub/), from within your GKE cluster by connecting to Service Broker.

As of June 12, 2019, Google Cloud Platform Service Broker (Beta) feature is deprecated. For more information, refer e Cloud Platform Service Broker (/kubernetes-engine/docs/concepts/google-cloud-platform-service-broker) and Goo Platform Services Subject to the Deprecation Policy (/terms/deprecation).

For more information on the Service Catalog, refer to the Kubernetes Service Catalog documentation (https://kubernetes.io/docs/concepts/service-catalog/).

The Service Catalog requires a cluster running Kubernetes 1.7 or higher.

- Ensure that you have installed and initialized (https://cloud.google.com/sdk/docs/quickstarts) the Cloud SDK.
- Run `gcloud components install kubectl` to install the `kubectl` component.
- Run `gcloud auth application-default login` to get credentials used in calling Google APIs.
- Follow the Kubernetes Quickstart (https://cloud.google.com/kubernetes-engine/docs/quickstart) to enable billing, configure default settings, create a Kubernetes cluster, and get the authentication credentials necessary to access the cluster.
- Ensure that the Google Cloud project you are using with the Kubernetes Service Catalog is set as default with `gcloud` by running `gcloud config set project [PROJECT_ID]`.

Service Catalog installer (`sc`) is command-line tool that allows you to easily install Service Catalog and add Service Broker to a Kubernetes cluster. Service Catalog enables you to list, provision, and bind with other Google Cloud services.

Download the Service Catalog installer (https://github.com/GoogleCloudPlatform/k8s-service-catalog/releases) archive for your platform and install the contents in your `PATH`. The archive contains the `sc` installer tool.

For your convenience, the archive also contains `cfssl` and `cfssljson` binaries from CloudFlare's PKI toolkit (https://cfssl.org). You can also download `cfssl` and `cfssljson` for your platform from CloudFlare's releases (https://pkg.cfssl.org/) page and install them in your `PATH`.

Check if all of the dependencies for `sc` have been installed:

If the check is successful, it will output the following message:

Grant the *cluster admin* role (`cluster-admin`) to your Google Cloud account. This command gives you permission to install the Service Catalog in your cluster:

Additional information on Role-Based Access Control is available in Kubernetes documentation (https://kubernetes.io/docs/admin/authorization/rbac/).

Install the Kubernetes Service Catalog into your Kubernetes cluster by running:

This command creates several Kubernetes deployments inside a `service-catalog` namespace. These deployments support integrating Open Service Brokers with Kubernetes.

It may take a few minutes after the `sc install` command succeeds for the Service Catalog to start up in your cluster. To check on the status, run:

The Service Catalog components are ready once all deployments report as `AVAILABLE` as in the example output:

To register Service Broker with the Kubernetes Service Catalog, run:

This command:

- Enables several Google Cloud APIs.
- Creates a service broker resource specific to your project.
- Registers Google Cloud Platform Service Broker with the Service Catalog in your cluster.

- Installs an OAuth authentication extension, which enables Kubernetes Service Catalog to authenticate with brokers that require OAuth.

If successful, it will output the following message:

Verify that Service Broker is available and ready:

The `STATUS` of the `gcp-broker` may change through several values as the Service Catalog establishes communication with the broker and fetches its catalog of services. If successful, this command outputs the `FetchedCatalog` status as shown below:

Find your Project ID (https://support.google.com/cloud/answer/6158840) and Project number (https://support.google.com/cloud/answer/6158840):

Alternatively, you can find these values from Cloud Console (https://console.cloud.google.com).

Grant the *Owner* role (`roles/owner`) to the cloudservices service account so that the service account can grant Cloud Identity and Access Management (Cloud IAM) permissions. Service Broker grants Cloud IAM permissions as part of *binding* to the service instances.

The `svcat` command line tool is the recommended way to interact with the Service Catalog. It simplifies interacting with the Kubernetes Service Catalog, including provisioning and binding services.

You can find `svcat` installation instructions (https://github.com/kubernetes-incubator/service-catalog/blob/master/docs/install.md#installing-the-service-catalog-cli) in the Service Catalog documentation.

- Learn how to discover and use Google Cloud services (/kubernetes-engine/docs/how-to/add-on/service-catalog/use-service-catalog) with Service Catalog.
- Try our end-to-end samples on GitHub (https://github.com/GoogleCloudPlatform/kubernetes-engine-samples/tree/master/service-catalog).