roduct or feature is in a pre-release state and might change or have limited support. For more information, see the pr
stages (/products/#product-launch-stages).

You can enable Stackdriver Trace for Go applications by using OpenCensus (https://opencensus.io/). OpenCensus is a set of instrumentation libraries for collecting trace and metric data that work with multiple backends. For the latest details about OpenCensus for Go, along with additional documentation and examples, see opencensus-go (https://github.com/census-instrumentation/opencensus-go).

Retrieve the OpenCensus trace package:

In order to export the collected Trace data, use a Stackdriver exporter:

tHub (https://github.com/GoogleCloudPlatform/golang-samples/blob/master/trace/trace_snippets/snippets.go)

If you are running on Google Cloud infrastructure, then you don't need to set the `ProjectID` field to your Google Cloud project ID because the client library for Go automatically gathers this data from a Google Cloud metadata server.

If you aren't running on Google Cloud infrastructure, then you must set the `ProjectID` field to your Google Cloud project ID. In the example code, an environment variable is used and the application has been modified to read this variable.

You can use Trace on Google Cloud and when your application runs outside of Google Cloud.

When your application is running on Google Cloud, your application is automatically authenticated and you don't need to provide authentication credentials. However, you do need to ensure that your Google Cloud platform has the Stackdriver Trace API access scope
(https://developers.google.com/identity/protocols/googlescopes#cloudtracev2) enabled.

For the following configurations, the default settings for the access scopes have the Stackdriver Trace API enabled:

- App Engine flexible environment

- App Engine standard environment

- Google Kubernetes Engine

- Compute Engine

If you use custom access scopes, then you must ensure that Stackdriver Trace API access scope (https://developers.google.com/identity/protocols/googlescopes#cloudtracev2) enabled. For `gcloud` users, specify access scopes using the `--scopes` flag and include the `trace.append` Stackdriver Trace API access scope. For example, to create a GKE cluster with only the Stackdriver Trace API enabled, do the following:

When your application is running outside of Google Cloud, you must provide authentication credentials in the form of a service account to the client library. The service account must contain the Cloud Trace agent role (/trace/docs/iam#roles). For instructions, see Creating a service account (/iam/docs/creating-managing-service-accounts).

Google Cloud client libraries use Application default credentials (ADC) (/docs/authentication/production) to find your application's credentials. You provide these credentials by setting the `GOOGLE_APPLICATION_CREDENTIALS` environment variable:

[GitHub](https://github.com/GoogleCloudPlatform/golang-samples/blob/master/trace/trace_quickstart/main.go)

After deployment, you can view the traces in the Cloud Console Trace Viewer.

[Go to the Trace Viewer page](https://console.cloud.google.com/traces/overview) (https://console.cloud.google.com/traces/overview)

- OpenCensus (https://opencensus.io/)

- GitHub: `census-instrumentation/opencensus-go`
  (https://github.com/census-instrumentation/opencensus-go)

- Trace API V1 package (https://godoc.org/cloud.google.com/go/trace/apiv1)

- Trace API V2 package (https://godoc.org/cloud.google.com/go/trace/apiv2)

- Source code (https://github.com/googleapis/google-cloud-go)

- GitHub issue tracker (https://github.com/GoogleCloudPlatform/google-cloud-go/issues)

- Stack Overflow (https://stackoverflow.com/questions/tagged/google-cloud-trace)