



Cloud Functions

- Cloud Functions is a **serverless execution environment for building and connecting cloud services**
- With Cloud Functions you write simple, single-purpose functions that are attached to events emitted from your cloud infrastructure and services
- Function as a Service (FaaS) which are http based or event driven
- Serverless computing framework which is scalable and stateless

Use-Cases

- **Microservices** : Implementing pieces of logic in microservice based architecture
- **Data processing** : Applying transformation logic after a file was uploaded to **GCS Bucket** or logs processing
- **IOT** : Process and ingest data in real time as and when IOT devices generate them

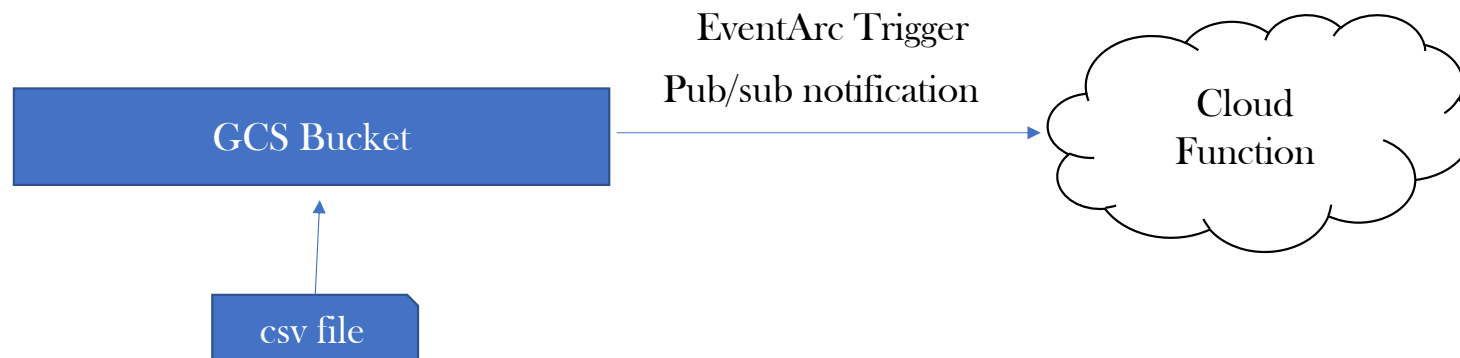


Cloud Functions

Feature	Cloud Functions (1st gen)	Cloud Functions (2nd gen)
Image registry	Container Registry or Artifact Registry	Artifact Registry only
Request timeout	Up to 9 minutes	<ul style="list-style-type: none">• Up to 60 minutes for HTTP-triggered functions• Up to 9 minutes for event-triggered functions
Instance size	Up to 8GB RAM with 2 vCPU	Up to 16GiB RAM with 4 vCPU
Concurrency	1 concurrent request per function instance	Up to 1000 concurrent requests per function instance
Traffic splitting	Not supported	Supported
Event types	Direct support for events from 7 sources	Support for any event type supported by Eventarc , including 90+ event sources via Cloud Audit Logs
CloudEvents	Supported only in Ruby, .NET, and PHP runtimes	Supported in all language runtimes

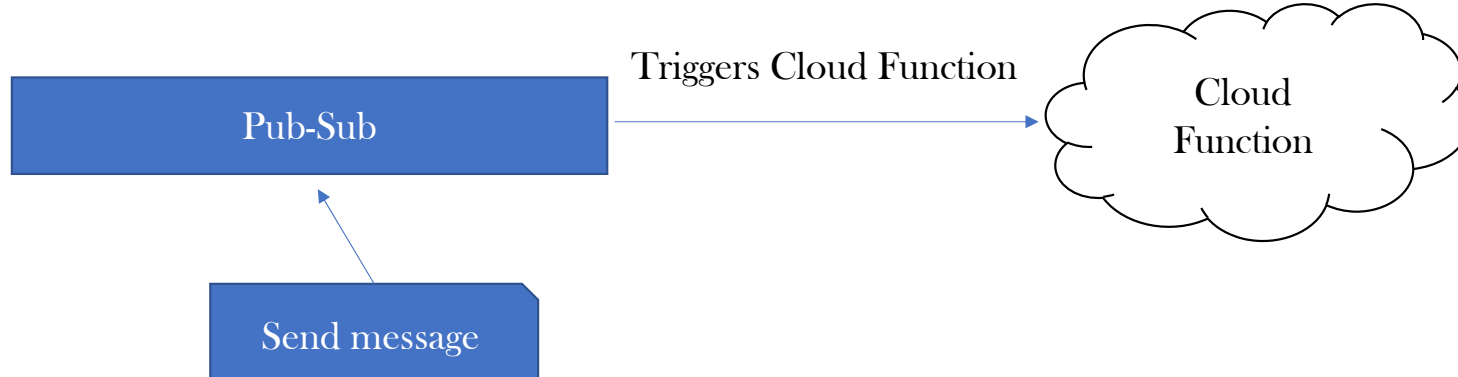


Cloud Functions





Cloud Functions





Cloud Functions - Scaling Parameters

--min-instances :

--max-instances

--memory

-- concurrency