



7 - Create Pub/Sub Topic and Subscription

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Mark Lesson Complete



Create Pub/Sub Topic and Subscription

Google **Cloud Pub/Sub** is a message queueing service that allows you to send messages between different services. We will use it to send messages from our Cloud Storage bucket to our Cloud Run service.

Full Stack Development

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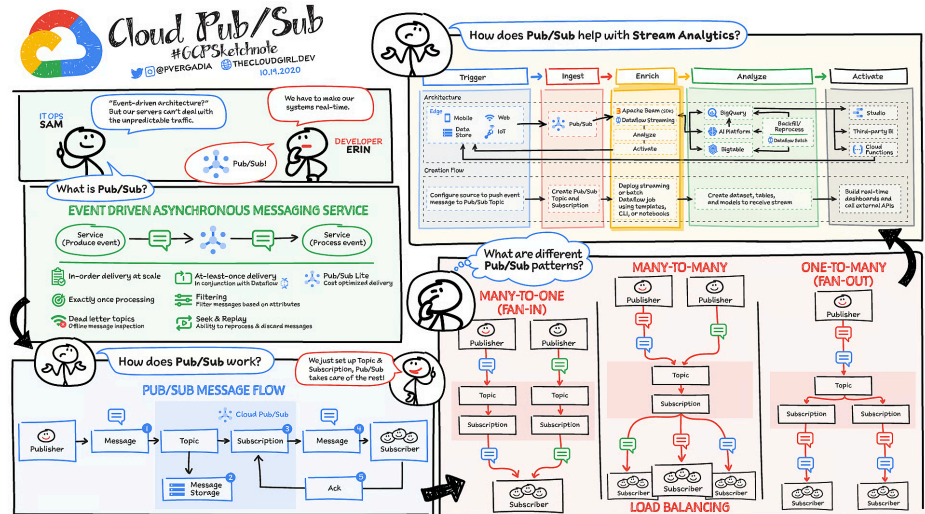
Intro

- 0 Demo and Architecture 8 min FREE
- 1 Prerequisites 4 min FREE

Video

Processing Service

- Initialize Video Processing Service 11 min FREE
- Process Videos Locally 13 min FREE
- Containerize Video Processing Service 15 min
- Convert Videos Hosted on Google Cloud Storage 24 min



The benefits of this architecture are:

1. It's event-driven. We *don't* need to *poll* our bucket to see if a new video has been uploaded. Instead, the message is *pushed* to our Cloud Run service.
2. Pub/Sub has a durability layer. If our Cloud Run service is down, Pub/Sub will store the messages until it comes back up.
3. If our Cloud Run service is at capacity, Pub/Sub will attempt to redeliver the messages at a later time (configurable).
4. Pub/Sub is a managed service. We don't need to worry about scaling it or managing it.
5. In the future we have the capability to 'fan out' our messages to multiple services. For example, we may want to record all video uploads in a database for analytics purposes.

1. Create Pub/Sub topic

```
gcloud pubsub topics create <TOPIC_NAME>
```

2. Create Pub/Sub subscription

Google Cloud

Deploy

Video

Using the endpoint URL of the video processing service from Cloud Run, create a Pub/Sub subscription.

```
gcloud pubsub subscriptions create  
SUBSCRIPTION_NAME \  
  --topic=TOPIC_NAME \  
  --push-endpoint=SERVICE_URL \  
  --ack-deadline=600
```

You can also do this in the Google Cloud Console:

<https://console.cloud.google.com/cloudpubsub/topicList>