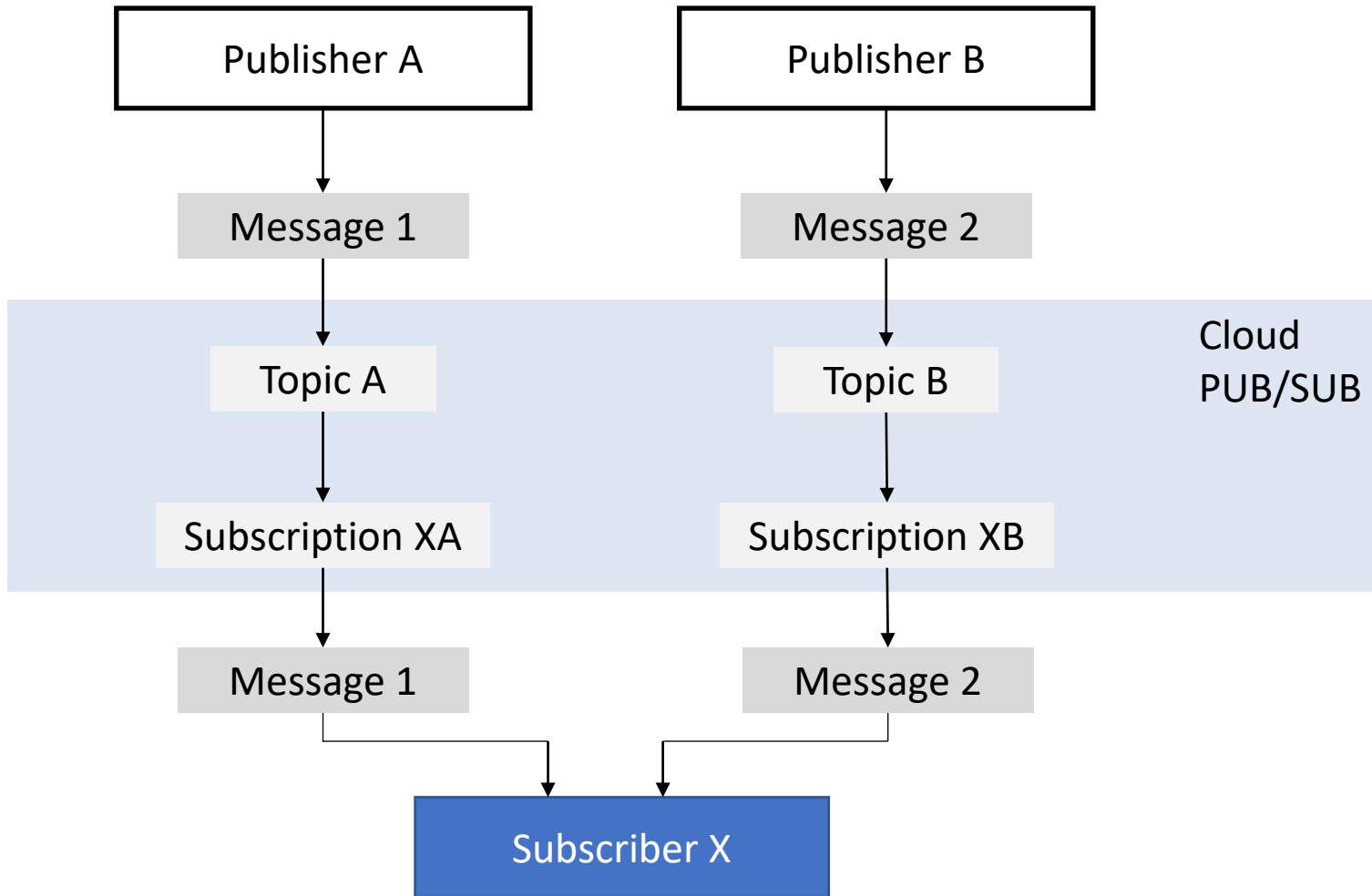# GOOGLE CLOUD PUB/SUB

- Google Cloud Pub/Sub is a messaging service

- By decoupling senders and receivers, it allows for secure and highly available communication between the applications

- Pub/Sub enables to create systems of event producers and consumers, called **publishers** and **subscribers**

- Publishers communicate with subscribers asynchronously by broadcasting events.

- Can be tightly coupled with other cloud services such as cloud storage and cloud dataflow

- Google Cloud Pub/Sub delivers low-latency messaging, and is commonly used by developers in implementing asynchronous workflows

- Pub/Sub consists of two services:

  ➢ Pub/Sub service

  ➢ Pub/Sub Lite service

GOOGLE CLOUD PUB/SUB

Important concepts

- **Publisher**

- **Message**

- **Topic**

- **Subscription**

- **Message attribute**

- **Subscriber**

GOOGLE CLOUD DATAPROC

- Google Cloud Dataproc is a fully managed and highly scalable service for running Apache Spark, Apache Flink, Presto, and 30+ open source tools and frameworks

- The Dataproc service allows users to create managed clusters that can scale from three to hundreds of nodes

- Users can create clusters on-demand, use them for the duration of the processing task and then turn them off when the task is complete

- Dataproc supports native versions of Hadoop, Spark, Pig and Hive, allowing users to employ the latest versions of each platform

- Google Cloud Dataproc is fully integrated with other Google Cloud Platform services