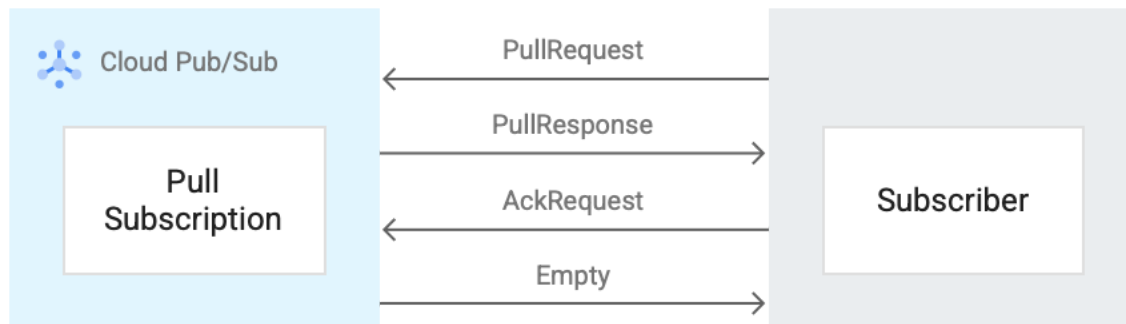


First Things First:

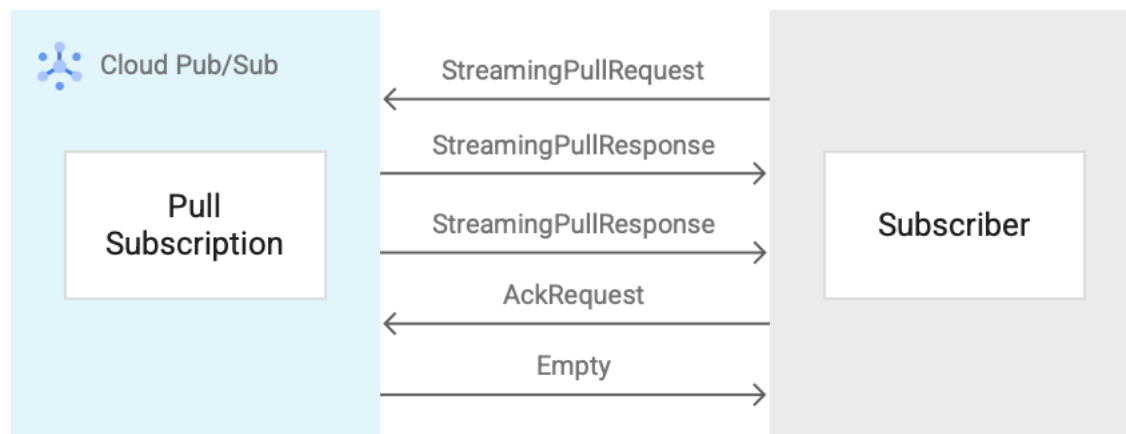
Install Python >= 3.7

Pub/Sub Important concepts:

1. Pull Subscription Workflow:



2. StreamingPull

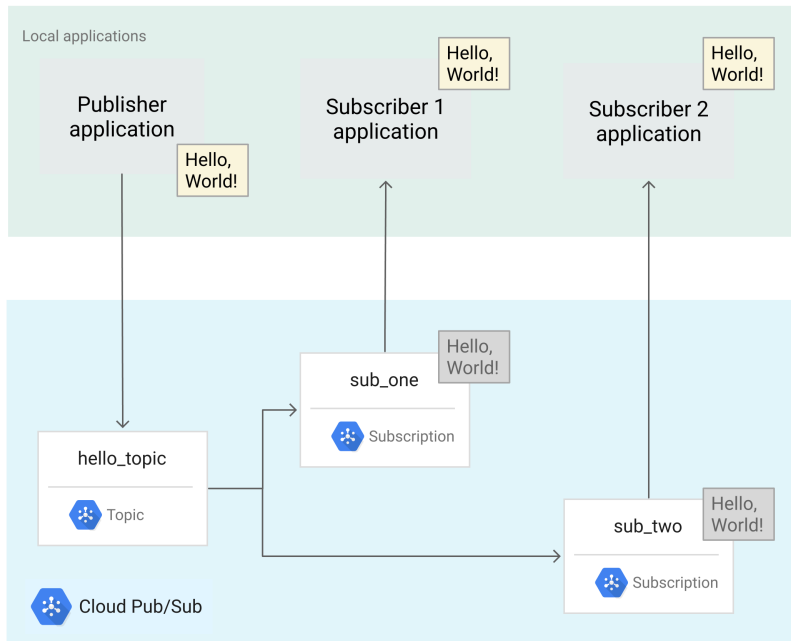


You can send messages through Pub/Sub rather than synchronous RPCs

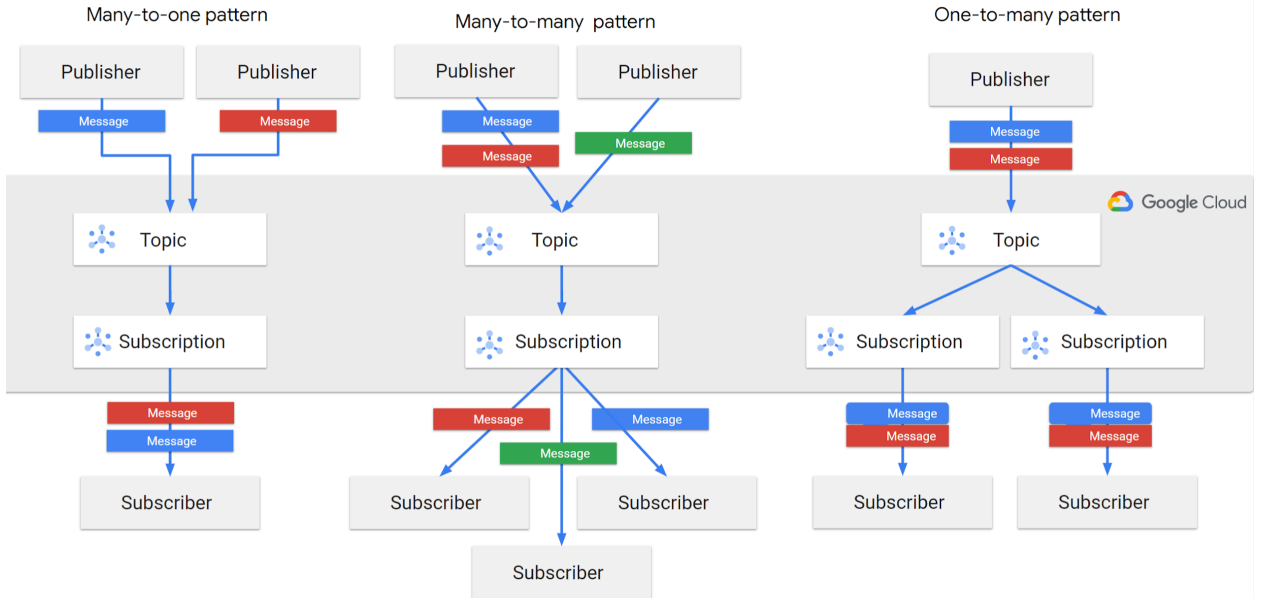
Decoupling applications:

- Makes applications more robust
- Might simplify development

One to many simple pattern:



4. General Pub/Sub publish and subscribe pattern:



5. Pub/Sub Cost Saving best practices

Best Practices	Description	Example
Exclude logs	Exclude certain logs based on high volume or the lack of practical value.	Common exclusions: <ul style="list-style-type: none">• Load balancers• VPC Flow Logs (still incurs costs)• Web applications
Export logs	Export logs yet exclude them from being ingested into Cloud Logging.	Export logs to: <ul style="list-style-type: none">• Cloud Storage• BigQuery• Pub/Sub
Reduce Ops Agent usage	Choose not to add agents in nonessential environments.	Reduce log volumes by not sending the additional logs generated by the Ops Agent to Cloud Logging.

Cloud Code Samples and Documentation:

Cloud Scheduler documentation:

<https://cloud.google.com/scheduler/docs>

Terraform with Pub/Sub

<https://cloud.google.com/docs/samples/?language=nodejs%2Cterraform&product=pubs>
[ub](#)

Terraform

[Code Samples](#)

Pub/Sub API Docs:

[Pub/Sub API Overview](#)

Google Kubernetes Engine documentation:

<https://cloud.google.com/kubernetes-engine/docs>

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