

# Pub/Sub

Ingest events for streaming into BigQuery, data lakes or operational databases.

New customers get \$300 in free credits to spend on Pub/Sub. All customers get up to 10 GB for ingestion or delivery of messages free per month, not charged against your credits.

- Ingest analytic events and stream them to [BigQuery](#) with [Dataflow](#)
- No-ops, secure, scalable messaging or queue system
- In-order and any-order at-least-once message delivery with pull and push modes
- Secure data with fine-grained access [controls](#) and always-on encryption

## BENEFITS

### High availability made simple

Synchronous, cross-zone message replication and per-message receipt tracking ensures reliable delivery at any scale.

### No-planning, auto-everything

Auto-scaling and auto-provisioning with no partitions eliminates planning and ensures workloads are production ready from day one.

### Easy, open foundation for real-time data systems

A fast, reliable way to land small records at any volume, an entry point for real-time and batch pipelines feeding BigQuery, data lakes and operational databases. Use it with ETL/ELT pipelines in Dataflow.

## Key features

### Stream analytics and connectors

Native [Dataflow](#) integration enables reliable, expressive, exactly-once processing and integration of event streams in Java, Python, and SQL.

### In-order delivery at scale

Optional per-key ordering simplifies stateful application logic without sacrificing horizontal scale—no partitions required.

## Cost-optimized ingestion with Pub/Sub Lite

Complementing Pub/Sub, [Pub/Sub Lite](#) aims to be the lowest cost option for high-volume event ingestion. Pub/Sub Lite offers zonal storage and puts you in control of capacity management.

## All features

At-least-once delivery	Synchronous, cross-zone message replication and per-message receipt tracking ensures at-least-once delivery at any scale.
Open	Open APIs and client libraries in seven languages support cross-cloud and hybrid deployments.
Exactly-once processing	Dataflow supports reliable, expressive, exactly-once processing of Pub/Sub streams.
No provisioning, auto-everything	Pub/Sub does not have shards or partitions. Just set your quota, publish, and consume.
Compliance and security	Pub/Sub is a HIPAA-compliant service, offering fine-grained access controls and end-to-end encryption.
Google Cloud–native integrations	Take advantage of integrations with multiple services, such as Cloud Storage and Gmail update events and Cloud Functions for serverless event-driven computing.
Third-party and OSS integrations	Pub/Sub provides third-party integrations with Splunk and Datadog for logs along with Striim and Informatica for data integration. Additionally, OSS integrations are available through Confluent Cloud for Apache Kafka and Knative Eventing for Kubernetes-based serverless workloads.
Seek and replay	Rewind your backlog to any point in time or a snapshot, giving the ability to reprocess the messages. Fast forward to discard outdated data.

Dead letter topics	Dead letter topics allow for messages unable to be processed by subscriber applications to be put aside for offline examination and debugging so that other messages can be processed without delay.
Filtering	Pub/Sub can filter messages based upon attributes in order to reduce delivery volumes to subscribers.