

# The Best MQTT Broker for Google Cloud

Seamless integration with the Google Cloud for data ingestion at hyper-scale



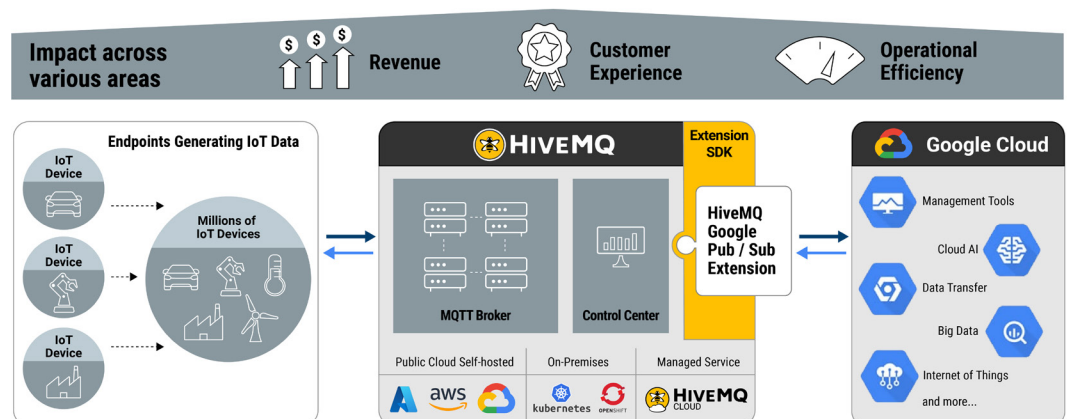
HiveMQ is an MQTT-based messaging platform designed for the fast, efficient and reliable movement of data to and from connected IoT devices. It uses the MQTT protocol for an instant, bi-directional data exchange between your device and your enterprise systems.

HiveMQ's Enterprise MQTT platform is based on Open Standards and deployed in hybrid and multi-cloud environments in multiple industries.

## Google Cloud and HiveMQ: Scale and Flexibility

It's easy to get started

- ➔ HiveMQ runs natively in Google Cloud (including in GKE) and integrates seamlessly with services via its Google Pub/Sub extension.
- ➔ Leverage the power of the Google Cloud Platform without relying on Google IoT Core.
- ➔ Smooth transition – simply plug HiveMQ's MQTT broker and the Google Pub/Sub extension into your IoT environment and continue business as usual.
- ➔ Ingest data from 10s of millions of connected devices and feed it directly into existing data Google Cloud pipelines.
- ➔ Manipulate MQTT device data in Google Cloud Platform analysis tools (e.g. BigQuery) to uncover crucial insights from their IoT devices in the field, all within their existing data pipeline.
- ➔ Build reliable and scalable business-critical IoT applications.
- ➔ Fast routing and delivery help build responsive applications.
- ➔ Low cost of operation through efficient use of hardware, network, and cloud resources to integrate IoT data into existing enterprise systems.



HiveMQ's broker utilizes Google's Pub/Sub extension to connect seamlessly with your Google Cloud infrastructure. You can leverage GCP's data lake, query, and manipulation tooling with your MQTT-driven device data to create additional business value.

## Key Features - HiveMQ Broker for the Google Cloud



### Exceptional Reliability

HiveMQ's reliability has been tested and proven with large enterprise customers globally. These enterprise networks have millions of connected devices running on hybrid or Multi-Cloud environments.

#### Fault tolerance:

- Advanced features of MQTT 3.1.1 and 5.0 versions to prevent and manage outages and disruptions.
- Optimized to write directly to disk (versus memory)
- Built-in queuing for slower connections and unavailable clients.

#### High availability:

- A highly distributed cluster architecture with no single point of failure.
- Add and remove nodes without downtime.

#### Proficient Support and Services:

HiveMQ provides 24/7 support for enterprise customers that operate 24/7 IoT systems.

- Many out-of-the-box integrations with Enterprise systems: Google Pub/Sub, Apache Kafka, InfluxDB, etc.
- Extensions SDK for building custom integrations with enterprise apps.



### Proven Scalability

HiveMQ is built for IoT data ingestion at scale, in hybrid or Multi-cloud environments

- Maintain Concurrent and total connections – Keep tens of millions of devices connected reliably, ready for action.
- Fan-in/Fan-out messages
- Manage Topics at scale: Transmit Millions of dynamic and hierarchical topics throughout your IoT environment.



### Simplicity

Tools and strategies to implement and scale with ease

- Kubernetes operator and helm charts for easy deployment in GKE
- Send MQTT traffic directly to Google Pub/Sub and onwards in the Google Cloud services
- Full MQTT specification compliance makes learning and implementation easy



### IoT Observability

With HiveMQ's OpenTelemetry integration, MQTT data is now instrumented to trace MQTT data from device to cloud – in real-time.

- *Control Center* gives the big picture of your deployment and direct access to individual clients
- Open Telemetry based Distributed Tracing Instruments MQTT to enable:
  - Device-to-cloud tracing on your IoT applications
  - Finding opportunities to improve performance
  - Unlock value from your APM investments with deep integration into your MQTT broker.
- 1500+ metrics, detailed logs, and traceability



### Security at IoT Scale

HiveMQ's platform offers industry-leading security features.

- TLS Encryption on all data between client and broker and between brokers
- Common and advanced Authentication and Access Control including:
  - Username & password
  - OAuth 2.0
  - X.509 certificates
  - Enhanced Authentication (MQTT 5)
  - Role-based access controls
  - Fine-grained authorization
  - OCSP Stapling
- Prevent Denial of Service with *Dynamic Connect Overload Protection* that helps:
  - Prevent Cascading failures
  - Smooths out service degradations
  - Minimizes the number of impacted MQTT clients – i.e. in a cloud infrastructure degradation incident.
- Human-readable logs for analysis of incidents



### Flexibility

Avoiding the risks of a homogenous technology stack by diversifying it is essential.

Avoiding 'Vendor Lock-in' by adopting a platform-agnostic solution is vital – HiveMQ is a platform-agnostic solution.

- Runs natively on all popular hyper-scale cloud providers.
- Open-Standards based build offers wider compatibility and integration.
- Hybrid and Multi-Cloud deployments.
- Self-managed and fully-managed Cloud variants.
- Deep integration with the Google Cloud Pub/Sub service.
- Easy integration with existing data pipelines, including the Google Cloud.

## Key Features – HiveMQ Google Pub/Sub Extension



### Configurability

HiveMQ's Google Pub/Sub extension can be easily configured according to your requirements.

- Send Pub/Sub messages to MQTT topics via configurable adaptation of their content
- The extension is easily configurable using HiveMQ's Customization SDK



### Customization

Control the entire MQTT <-> Pub/Sub pipeline with smart customization features.

- Allows for fully customizable Transformers, giving customers complete control of the MQTT Pub/Sub process

## Some of our customers

DAIMLER



M / Flughafen  
München



NETFLIX



**HiveMQ is used by over 120 companies to build Industry 4.0 solutions, connected devices, such as connected cars, drones, industrial dishwashers, and many more.** HiveMQ is also available as a fully managed Cloud solution. In addition to our HiveMQ platform, we provide expert consulting services to help customers design and deploy reliable and scalable connected devices. Contact us to discover how we may be able to help create your next IoT use case.

### 24x7 Support

HiveMQ provides 24/7 support to enterprise customers that operate 24/7 IoT systems. Our world-class team of support experts have years of experience supporting IoT deployments and bring a set of best practices to optimizing application performance, security, and reliability.

### Professional Services

HiveMQ technology is made extensible by design and customers have the option to work with our experienced team to create and certify their self-developed extensions. Engineers feel more comfortable enhancing their applications with professional support that advocates the latest best practices.

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