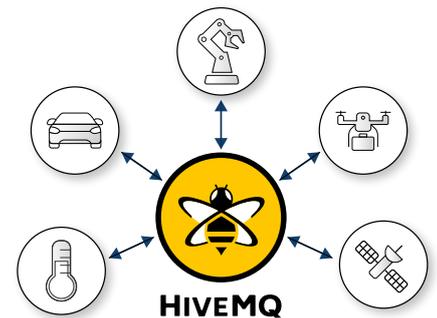**HIVEMQ**

Reliable Data Movement for Connected Devices

HiveMQ is a 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 instant, bi-directional push of data between your device and your enterprise systems.

HiveMQ is built to address some of the key technical challenges organizations face when building new IoT applications, including:

- Building reliable and scalable business critical IoT applications
- Fast data delivery to meet the expectations of end users for responsive IoT products
- Lower cost of operation through efficient use of hardware, network and cloud resources
- Integrating IoT data into existing enterprise systems

Key Features

✅ Scalable MQTT Broker

HiveMQ broker instances scale with the underlying hardware. The non-blocking and multi-threaded approach allows up to 10,000,000 concurrent device connections while maintaining extremely fast throughput and adding minimal latency.

✅ Real-time Data Monitoring

Administrators can use HiveMQ dashboard to monitor the real-time data and MQTT clients connected to your IoT application. For each MQTT client, an administrator can see a 360° overview of the client status, disconnect a client, remove the MQTT session, and add/remove subscriptions. For advanced troubleshooting, HiveMQ allows you to use distributed tracing or create trace recordings that can be used to identify issues and bottlenecks in your deployed IoT applications. An overall summary dashboard gives an operation team the complete real-time overview of the broker cluster and general health of the system.

✅ Efficient Network Utilization

Unlike HTTP, HiveMQ and MQTT is based on a pub-sub architecture so the total network traffic is reduced since there is no client polling. MQTT message size is also significantly smaller than HTTP so the amount of data passing through the network is reduced.

✅ Reliable Data Delivery

Data delivery over unreliable networks can be a challenge. HiveMQ implements all MQTT Quality of Service levels, including *at most once, at least once* and *exactly once* delivery. HiveMQ's support for advanced message retention policies and offline message queuing are essential to accommodate network latency.

✅ Elastic Clustering

HiveMQ is architected with a truly distributed and masterless cluster architecture, which means there is no single point of failure and the cluster can grow and shrink at runtime without losing data or availability. Support for AWS, Azure, Kubernetes, OpenShift and other platforms makes it possible to automatically scale HiveMQ to meet the requirements of your IoT application.

✅ Enterprise-grade security

HiveMQ is designed to secure the IoT data from device to enterprise systems. Data transport is secured by industry standards like TLS 1.3, secure websockets and state-of-the-art cipher suites. Support for authentication and authorization includes, X.509 certs, username/password, IP-based authentication, and an API that allows for custom authentication, authorization and permission logic such as OAuth 2.0 integration.

✅ Enterprise Data Integration @ Scale

Enterprise data integration is achieved through bi-directional transmission of data between a HiveMQ broker and an enterprise system that act as an MQTT client.

Using MQTT pub-sub protocol, each enterprise systems' MQTT client subscribes to the data that needs to be integrated. HiveMQ's MQTT Shared Subscription implementation makes it possible to horizontally scale the MQTT clients so the enterprise integration is scalable and reliable.

✅ Extension Framework and Marketplace

A flexible extension framework makes it possible to integrate HiveMQ and your IoT data into existing enterprise systems and Multi-cloud environments. Our open-standards extension framework allows developers to quickly create extensions for custom data processing, cloud ingestion, device authentication and device authorization mechanisms. HiveMQ also provides a marketplace of pre-built extensions including integration with Kafka, Google PubSub, Amazon Kinesis, and Splunk. You can also trace MQTT data end-to-end, in real-time, using OpenTelemetry with our Distributed Tracing Extension. Explore more extensions in the marketplace here.
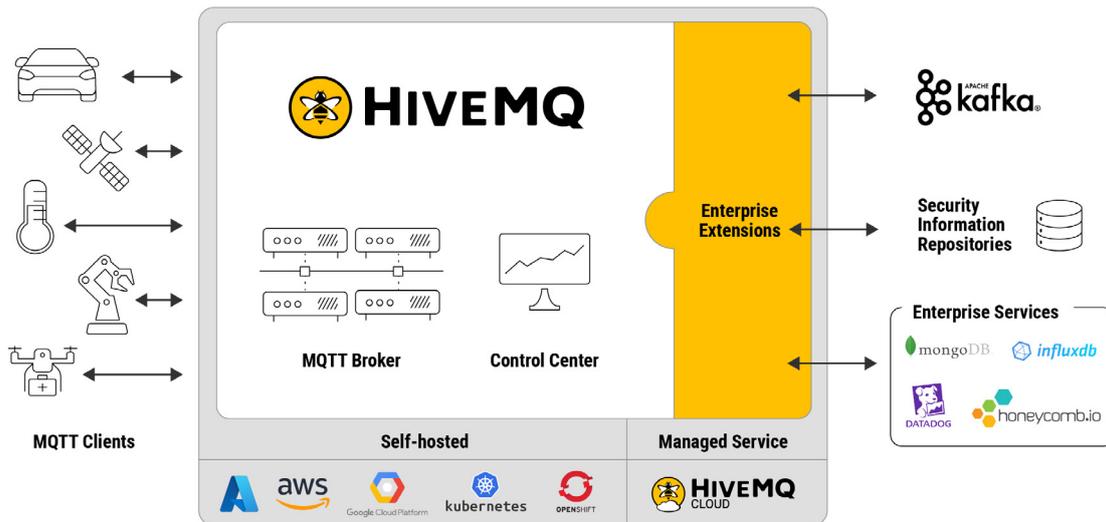
✅ MQTT Client Libraries

Any MQTT compliant client library can be used with HiveMQ. HiveMQ provides our own Java client library but you can also use Eclipse Paho C/C++, JavaScript or Python libraries. Some of our customers also create their own custom MQTT clients. Different options for MQTT client means you don't get locked-in to one vendor.

✅ 100% MQTT Compliant

HiveMQ is 100% compliant with the MQTT 3.1, MQTT 3.1.1 and MQTT 5 specification. We also allow MQTT 3 and MQTT 5 clients to communicate with HiveMQ at the same time. All advanced features like topic wildcards, persistent sessions with offline queuing, retained messages and all Quality of Service levels are available at scale.

✅ Deploy Everywhere

HiveMQ is available as self-managed software or our HiveMQ Cloud managed service. Our self-managed HiveMQ software can be deployed on a private, hybrid and public cloud. Pre-built images can be deployed on private clouds using Kubernetes, OpenShift and DC/OS. The supported public cloud platforms include AWS, Google Cloud and Azure. HiveMQ can also run natively on Linux, Windows and OS X.

✅ 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.

HiveMQ is used by over 130 companies to build 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.

Email: sales@hivemq.com | Website: hivemq.com

Some of our customers

NETFLIX   BMW   SIEMENS   T···   Mercedes-Benz   LIBERTY GLOBAL   M /Flughafen München

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