



Last updated  
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# MongoDB + HiveMQ

## Reference architecture guide



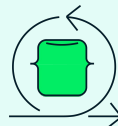
**HiveMQ**

*MQTT networking for resilient  
edge data transmission to  
enterprise systems*

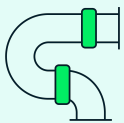
HiveMQ is an MQTT platform built for network-constrained environments and devices. Enable seamless communication and control of IoT data, even under real-world stress. Power your automotive, energy, logistics, smart manufacturing, and transportation use cases with the enterprise-grade HiveMQ MQTT Platform.



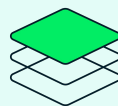
HiveMQ ensures reliable data transmission, offering low-latency communication with multi-platform SDKs keeping systems running efficiently in real-time



HiveMQ enables real-time IoT data streaming between devices and applications, minimizing bandwidth while maintaining consistent performance across networks

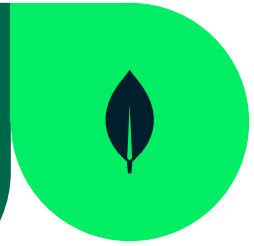


All data is aggregated into MongoDB Atlas, providing an ACID-compliant database for advanced queries and complex aggregations

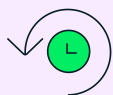
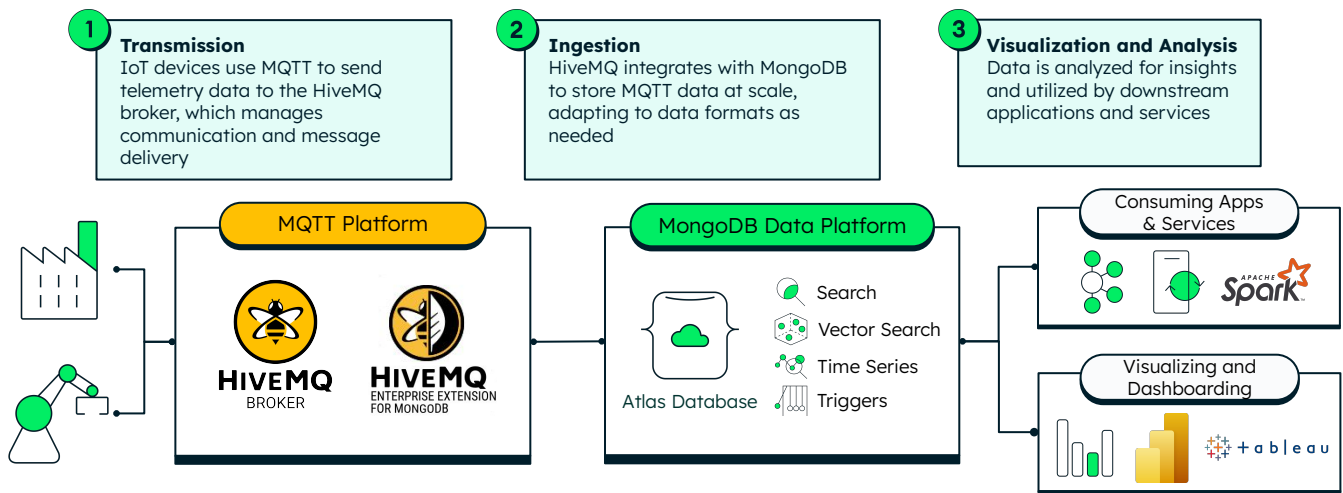


MongoDB's developer data platform includes services like Time Series, Search, and Atlas SQL, enabling advanced analytics and real-time insights for your application

# MongoDB + HiveMQ Integration

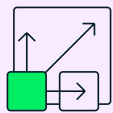


Seamlessly integrated with MongoDB, HiveMQ enables real-time transmission of edge data, providing businesses with access to critical operational data. Together, HiveMQ and MongoDB allow you to unify data in motion and at rest, driving smarter decision-making across industries like automotive, energy, and manufacturing.



## Reliable Messaging for IoT

HiveMQ ensures reliable, real-time messaging for IoT devices, providing secure, low-latency data transmission even in constrained network environments. With support for MQTT's Quality of Service levels, it guarantees message delivery for critical IoT applications.



## Real-time Communication at Scale

HiveMQ scales to handle millions of connected devices, offering real-time data transmission across distributed systems. Its clustering capabilities ensure high availability, making it ideal for industries with large-scale IoT deployments.

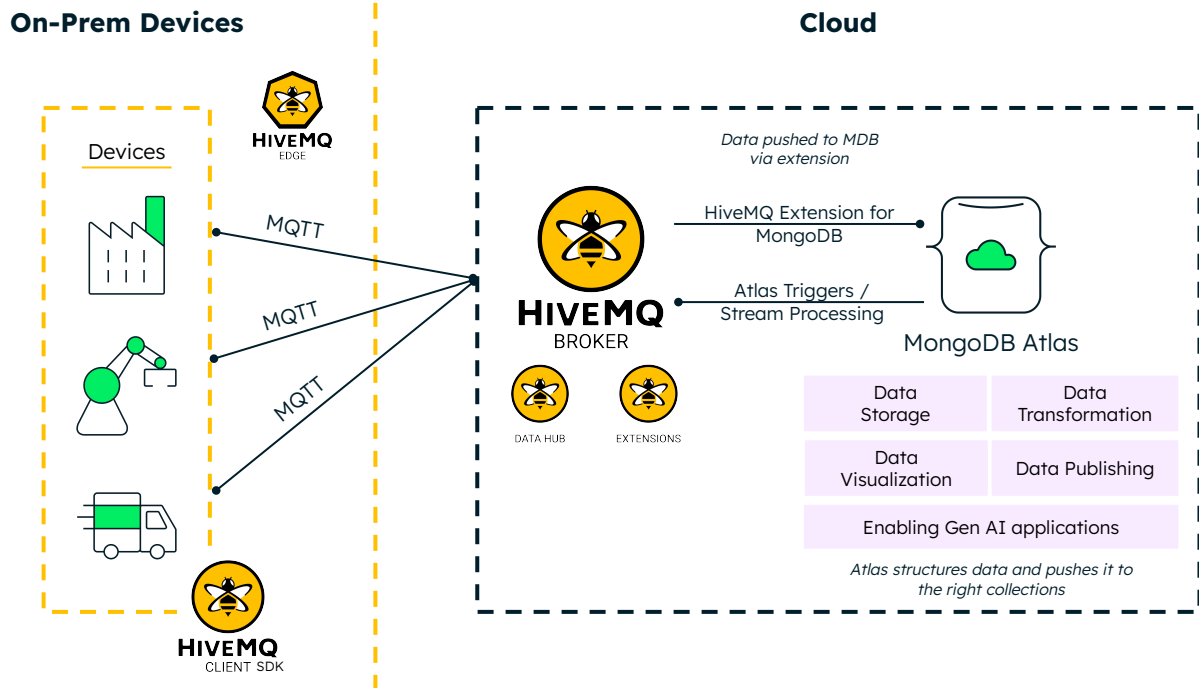


## Edge-to-Cloud Data Integration

HiveMQ bridges data between edge devices and cloud systems, enabling seamless IoT data flow to enterprise applications. By securely managing data at the edge, HiveMQ reduces latency and ensures reliable cloud integration for analytics and decision-making.

# Reference Architecture

## Industrial Connectivity with HiveMQ and MongoDB



## Use Cases

### Logistics and Fleet Management

Real-time communication between vehicles and central systems, enabling route optimization, asset tracking, and fuel efficiency, even in areas with poor connectivity

### Smart City Infrastructure

Power real-time data from IoT sensors to monitor traffic, manage energy grids, and enhance public safety, enabling smarter and more efficient city management

### Energy Grid Monitoring

Connect distributed energy grid sensors to centralized systems, enabling real-time data transmission for consumption management, outage detection, and load optimization across large networks

“

*HiveMQ has delivered the stability and reliability that we required for our system. We have been running the VDS using HiveMQ for 4 years and the HiveMQ broker has not gone down. It is rock solid, completely reliable. When we do have to restart the broker, it is a very fast process so our downtime is minimal.*

”

— Marius Hertfelder,  
Chief Software Architect, Mercedes Benz