

# **ECARX connects 2 million Geely cars with HiveMQ**







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ECARX is a subsidiary of the Chinese automaker Geely. Located in Hubei, China, the 1,600 employee company provides intelligent solutions for smart connected vehicles. Its primary businesses include GKUI, a smart ecosystem for Geely automobiles, R&D of car-level chips, a car-sharing service, and an IoT product line that spans connected cars to home automation.

ECARX's Telematic Service Platform (TSP) architecture, the core of the IoT product line, manages the connectivity between the connected car and the cloud. HiveMQ and MQTT are used in this architecture to manage the connectivity and bi-directional data movement between a car and the cloud. ECARX collects telemetry data from the car, including remote status, driving log, and x-call. They can also send commands to a car such as a digital key for car sharing, remote engine start, remote climate control, and remote lock/unlock. ECARX is expected to support up to one million simultaneously connected cars with minimum connection time and latency to ensure a positive end-user experience.

Today, the ECARX platform is connected to over 2 million Geely cars. The average number of simultaneously connected cars currently exceeds 350,000.

"Compared to other MQTT solutions, HiveMQ's friendly extension development framework saves us a lot of money. In the construction of 100,000 to 1 million concurrent-connection systems this has reduced our cost by 30%," explains Tang Neng, Cloud Platform Center Technical Director. "HiveMQ extension development makes it easy for developers to get into the message flow of an MQTT connection."

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*Tang Neng, ECARX  
Cloud Platform Center Technical Director.*

## ECARX

**Location**  
Hubei, China

**Application**  
Connected Car Platform

**Key Challenge**  
Manage connectivity between car and cloud

**Results**

- 2 million Geely cars connected
- Average of 350,000 simultaneous connections
- 30% cost reduction



ECARX deploys HiveMQ to Alibaba Cloud SLB in a clustered environment. The clustered environment is powered by 3 nodes, each containing 8 core 16G Centos EC2 servers. MQTT messages are forwarded from HiveMQ to a Kafka cluster for event streaming into the enterprise system. HiveMQ accesses vehicle authentication and authorization data that is stored in Redis and Postgres databases.

“We appreciate HiveMQ’s commitment to supporting the latest MQTT standard, especially MQTT 5. We see MQTT 5 as an important improvement in the reliability of our overall system. We are also looking forward to adding MQTT-SN in the future.” says Tang Neng, Cloud Platform Center Technical Director

NOTE: MQTT-SN is a proposed new OASIS standard for a messaging solution between very constrained devices operating within unstructured data networks.

## Partners in Creating the Connected Car

HiveMQ is being used today by 2 of the top 3 German car manufacturers to build connected car platforms that deliver fast, reliable and cost efficient connected car services. In addition to our HiveMQ platform, we also provide expert consulting services to our automotive partners. Our staff are experts in designing and deploying scalable and reliable connected car services.

Contact us to discover how we may be able to help create your next connected car service.

Contact us [✉ sales@hivemq.com](mailto:sales@hivemq.com)

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