WEBINAR

Simplified IoT Operations with HiveMQ and Datadog

HIVEMQ &

WELCOME

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DATADOG HIVEMQ

HiveMQ MQTT Broker

- Connectivity and Messaging Platform
- Based on standard IoT protocol (MQTT)
- Scales to more than 10 million always-on devices
- Allow multi-cloud and Enterprise software integration

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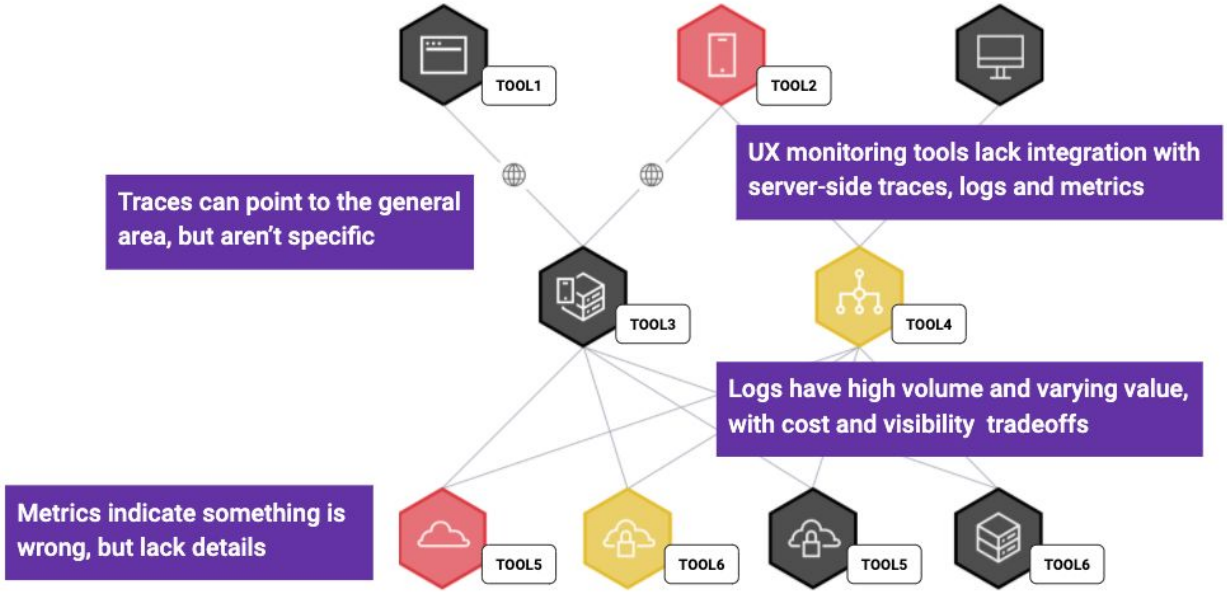
Traditional monitoring tools weren't designed for complex, modern environments



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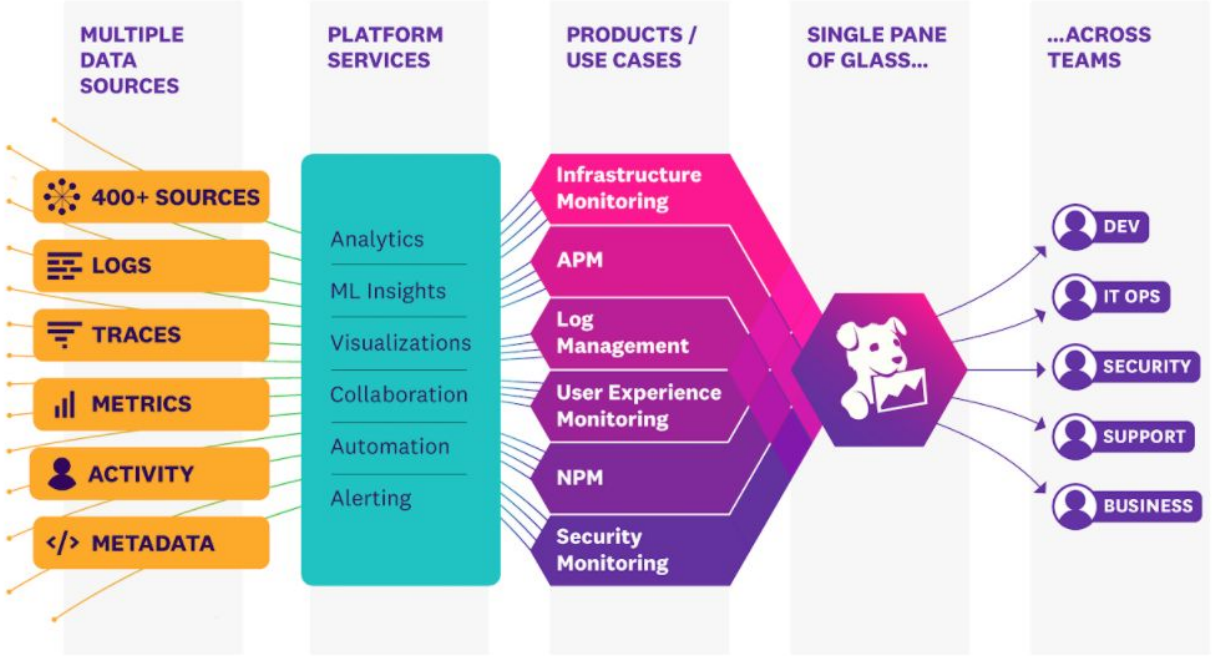
DATADOG HIVEMQ

Datadog: A unified observability platform



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Datadog and HiveMQ integration

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DATADOG HIVEMQ

Use Case

- Industrial IoT Use Case
- Connecting the factory floor with the cloud backend
- 2000 sensors connecting, sending data and disconnecting
- 20 shared backend subscribers
    - Receiving half the messages
- HiveMQ as connectivity layer for Kafka
    - Direct integration to Kafka - half the messages for Kafka
- Enterprise Security Extension /w Postgres - Whitelisted Permissions
- Datadog to monitor HiveMQ, Postgres and Kafka

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HiveMQ Enterprise Security Extension

HIVEMQ

Enterprise Security Extension

- Central management for IoT device and HiveMQ Control Center authentication and authorization
- Flexible and easy integration with multiple external authentication systems and data sources
- High Scalability and reliability
- Default Whitelisting Concept
- Access log (rolling on daily basis)
- Provides maximum flexibility in defining authorization rules

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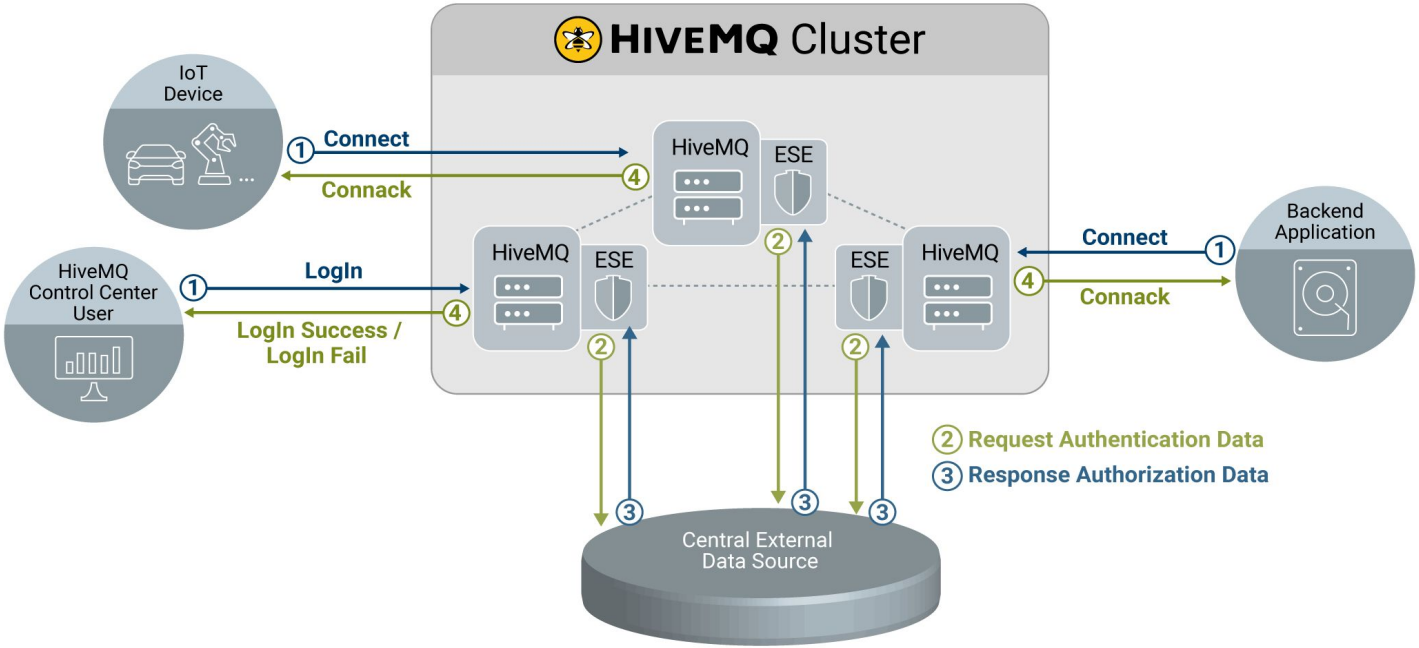
HiveMQ Enterprise Security Extension



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DATADOG HIVEMQ

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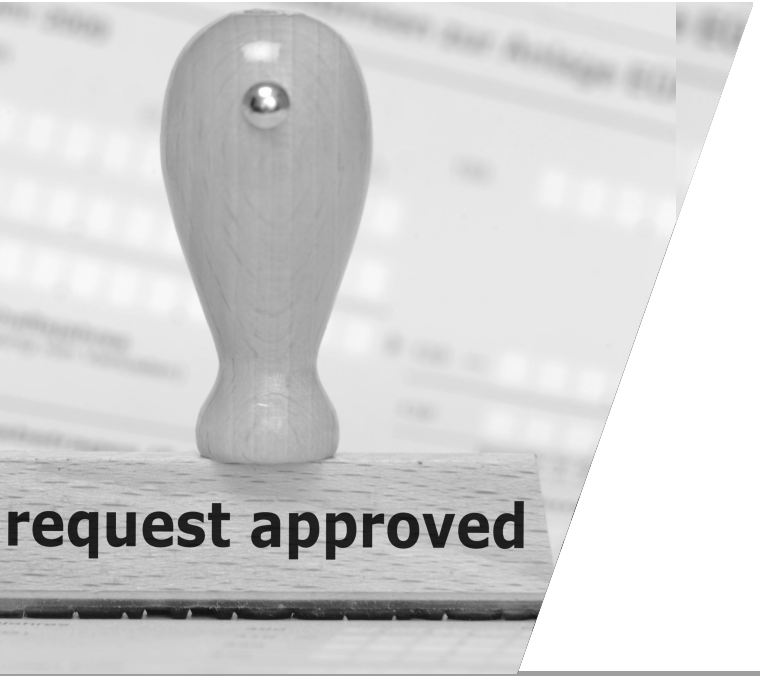

- Sensors = Frontend clients
  - Only allowed to Publish
  - Using topic filter **topic/{client_id}/+**
- Backend servers
  - Only allowed to Subscribe
  - Topic filer **topic/+/+**

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HiveMQ Enterprise Extension for Kafka

- Native implementation of Kafka protocol
- End to-end persistent messaging guarantees
- Bi-directional communication
- High Scalability and resilience
- Support of Local Schema Registry (Avro, JSON)
- Support of Confluent Schema Registry (Avro)
- Stream to multiple Kafka instances

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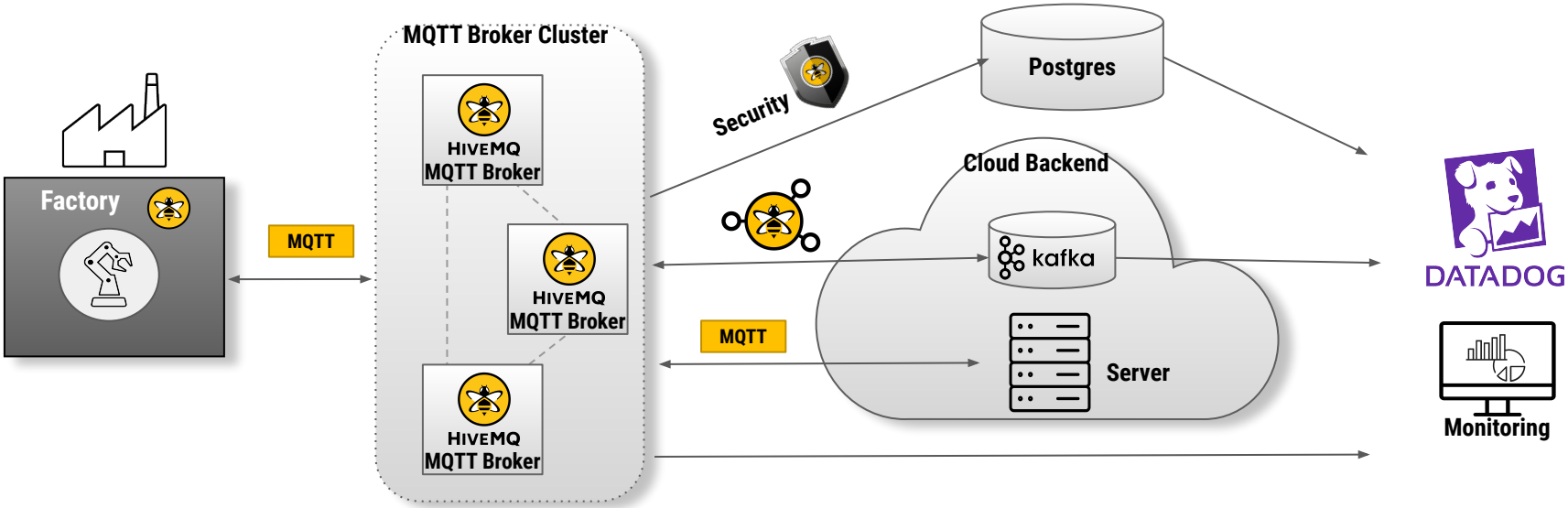
Architecture



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Summary

- HiveMQ provides a **scalable and resilient solution** for connecting IoT devices to backend services like Kafka
- HiveMQ **recovers automatically** from the loss of MQTT or Kafka broker nodes
- Datadog's integration provides **unified monitoring** across HiveMQ and other backend services
- Datadog helps you **rapidly detect and troubleshoot issues** so you meet your SLOs

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ANY QUESTIONS?

Reach out to community.hivemq.com

THANK YOU