

EMQX

An open-source, highly scalable & distributed
MQTT platform



Presented by
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INTRODUCTION

Overview

EMQX is an open-source **MQTT Enterprise platform** suited for IoT projects & Industry automation.

Key features

- EMQX delivers high-performance thanks to horizontal scalability and multiple-nodes support
- Ensures robust security through TLS/SSL and authorization policies
- Multiple protocol support, such as MQTT, CoaP, HTTP Webhooks
- Provides a rich set of extensions and plugins to further customize its functionality



USE CASES

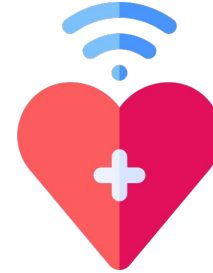


Smart Homes and Smart Cities

Enables smooth communication between heterogeneous devices, simplifying home and city applications such as traffic control and environment monitoring

Industrial Automation

Facilitates real-time monitoring of industrial machines and process, improving efficiency

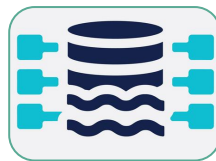


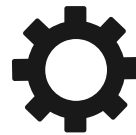
HealthCare IoT

Ensures reliable and redundant data transmission for remote patient monitoring

MANAGEMENT & CUSTOMIZATION

- **Cluster Management:** clustering support for horizontal scalability and load balancing
- **Management tools:** EMQX includes a web Dashboard and exposes APIs for easy configuration and management
- **Monitoring and Analytics:** provides analytic tools to track system performance and detect possible issues
- **Plugins and Extensions:** EMQX can be customized through plugins and synchronized with external systems, such as *InfluxDB* and *Kafka*
- **Stream processing:** EMQX offers multiple tools to further enrich and process your data





EMQX DEPLOYMENT

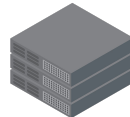
Cloud Marketplace

EMQX can easily be deployed on cloud from the marketplace of all the major cloud providers, such as AWS, Azure and Google Cloud



Bare Metal

It can be installed on most operating system through package manager or pre-compiled binary packages



Docker Container

Fast deploy EMQX using the official docker image, ideal for local testing and configuration



Kubernetes

Deploy EMQX in a Kubernetes cluster through the official Helm Chart or with a custom Deployment



EMQX DEPLOYMENT ON KUBERNETES




Install dependencies and EMQX operator

```
helm repo add jetstack https://charts.jetstack.io
helm repo update
helm upgrade --install cert-manager \
  jetstack/cert-manager \
  --namespace cert-manager \
  --create-namespace \
  --set installCRDs=true

helm repo add emqx https://repos.emqx.io/charts
helm repo update
helm upgrade --install emqx-operator \
  emqx/emqx-operator \
  --namespace emqx-operator-system \
  --create-namespace
```

Create EMQX resource

```
apiVersion: apps.emqx.io/v2beta1
kind: EMQX
metadata:
  name: emqx
spec:
  image: emqx:5
```

A green dot followed by the text "emqx-core-6cf74b9668".

emqx-core-6cf74b9668

DEMO EMQX



1

**Dashboard
Overview**

2

**Topic and
Subscriptions**

3

**MQTT Settings
and listeners**

4

**WebSocket
Client**

5

**Flow Designer
and Webhooks**

6

**Security
Settings**

CONCLUSIONS

- EMQX is a **versatile** and **extensible** platform that supports multiple protocols and can be integrated with most of the data streaming system, such as Apache Kafka, InfluxDB and much more
- It provides a very user-friendly experience, thanks to the many installation methods and the Web UI, that allows also non-technical people to manage and use a MQTT broker
- EMQX offers a comprehensive solution for IoT connectivity for both Enterprise and Home users, thanks to its constant development and the open-source community





THANKS FOR YOUR ATTENTION

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