

IBM Technology



G-Cloud 15 IBM – MQ on Cloud Service Definition Document

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Overview

Service Description

IBM MQ on Cloud provides a messaging transport and delivery service for applications. It is the gold standard for enterprise messaging, providing security-rich and reliable messaging across multiple clouds. You connect applications to it, and then easily send and receive messages in real time. Messaging paradigms include point-to-point and publish-subscribe.

Why the service is needed.

Service features

- Application to application real-time messaging
- Assured once and once-only message delivery
- Asynchronous message processing and transfer
- Transactional message processing
- End-to-end message encryption and signing
- Point-to-point and publish-subscribe paradigms
- File Transfer
- Very wide range of APIs and language support

Service benefits

- Transfer data in real-time between applications running anywhere
- Ensure transactional processing across multiple applications
- Optimise business processes through asynchronous processing
- Assure end-to-end security for sensitive data
- Provision the service within a matter of minutes

Service Options

IBM MQ Service Options

Option	Deployment Model	Core Capabilities	Typical use-case
IBM MQ on Cloud (Managed Service)	Fully-managed SaaS on IBM Cloud (single-tenant or multitenant)	• Zero-admin provisioning, automatic patching, built-in high-availability • TLS/mTLS encryption, IAM-based authentication • Integrated monitoring & alerting	Organizations that want messaging without any infrastructure ops.
IBM MQ on Cloud (VPC/Private Cloud)	Dedicated VPC with isolated network and storage	• Full control of network security groups, custom DNS • Same managed-service reliability with stricter data-sovereignty	Regulated industries (banking, healthcare) requiring private networking.

Option	Deployment Model	Core Capabilities	Typical use-case
IBM MQ for z/OS	Runs on IBM Z mainframes (z/OS)	• Enterprise-grade throughput, sub-millisecond latency • Native integration with CICS, IMS, Db2 • Hardware-level HA/DR (parallel sysplex)	Large-scale transaction processing, legacy mainframe workloads.
IBM MQ Appliance	Pre-configured hardware box (M2002/M2003)	• Turn-key installation, built-in HA/DR, encrypted storage • Simplified lifecycle (firmware updates, licensing)	Sites that need an on-premise, low-maintenance messaging backbone

IBM MQ (on-premises/VM)	Installable software on any supported OS (Linux, Windows, AIX)	• Full feature set (Advanced Message Security, clustering) • Deploy in VMs, containers, or bare metal • Custom sizing & integration with existing CI/CD pipelines	Enterprises with existing data-center or hybrid-cloud strategies
IBM MQ as part of Cloud Pak for Integration	Containerised operator on Red Hat OpenShift	• Git-ops style lifecycle, automated scaling, unified observability • Can be combined with other CP4I services (App Connect, Event Automation)	Teams adopting a Kubernetes-native integration platform.

