

MESSAGING ACROSS THE ENTERPRISE WITH RED HAT JBOSS A-MQ

TECHNOLOGY OVERVIEW

“In addition to reduced licensing costs, Red Hat JBoss A-MQ delivered stability, scalability, and performance improvement.”

DUC DOAN
DIRECTOR, SYSTEM ENGINEERING
E*TRADE

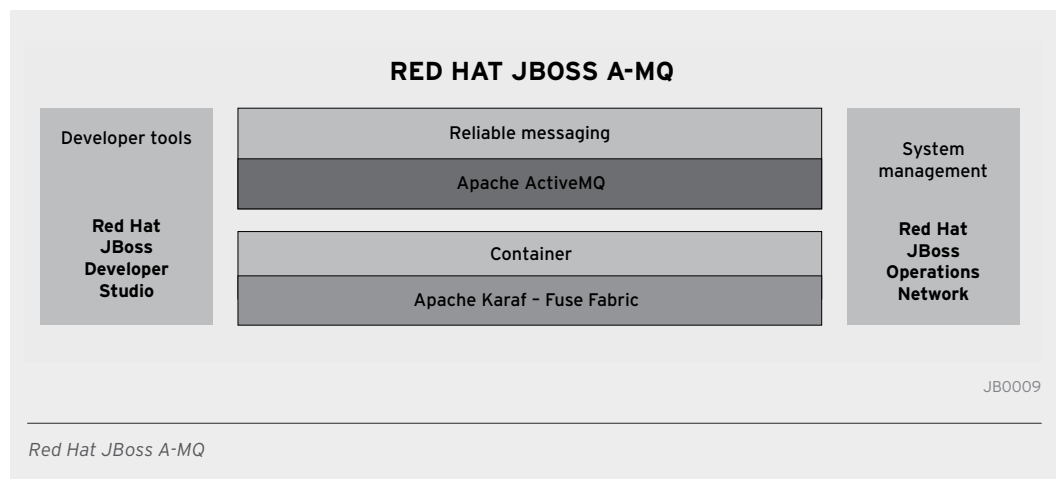
INTRODUCTION

Red Hat® JBoss® A-MQ is a standards-based, reliable open source messaging platform that enables real-time communication between different applications, services, and devices. With near-universal compatibility, support for multiple protocols, and lightweight architecture, JBoss A-MQ connects the Internet of Things. The cost-effective subscription and flexible footprint makes it practical to deploy and maintain a broker where you have been previously locked out of real-time integration. And with the ease of deployment and extensive interoperability you can now extend your datacenter to include every device, distributor, outlet, and partner.

Red Hat JBoss A-MQ for xPaaS extends the messaging capabilities to Red Hat’s Platform-as-a-Service (PaaS) solution, OpenShift by Red Hat. Messaging solutions can be seamlessly designed, developed, deployed, and managed in the cloud. Reliably and efficiently connect business processes and applications located on-premise or in the cloud

Key Red Hat JBoss A-MQ features include:

- **Reliable messaging.** JBoss A-MQ’s foundation is a high-performance message broker, based on Apache ActiveMQ, that deploys with a very small footprint.
- **Standards-based platform.** With adherence to open standards including Java™ Message Service (JMS) 1.1, Transmission Control Protocol (TCP), Secure Sockets Layer (SSL), User Datagram Protocol (UDP), Streaming Text Oriented Messaging Protocol (STOMP), network management systems (NMS), AMQP 1.0, MQTT, multicast transport protocols, and many others, JBoss A-MQ enables universal compatibility and connects everything.
- **Tooling.** Red Hat JBoss A-MQ is supported by tooling including Red Hat JBoss Developer Studio (includes Fuse IDE) for development, Red Hat JBoss Operations Network for monitoring, and Fabric Management Console for management.



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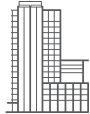
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Red Hat JBoss A-MQ

KEY FEATURES AND BENEFITS

RED HAT JBOSS A-MQ MESSAGE BROKER

FEATURE	BENEFIT
<p>Standards-based Support for JMS 1.1, TCP, SSL, UDP, STOMP, NMS, MQTT, AMQP 1.0, multicast transport protocols, and other standards</p>	<p>Near-universal connectivity Wire-level compatibility that allows a mix of brokers and clients to connect, allowing nearly anything to seamlessly and reliably interact with the Internet of Things</p>
<p>Cross-language clients Connectivity from client programs written in languages other than Java™</p>	<p>Supports many development environments Allows native connectivity from applications written in non-Java languages like C or C++</p>
<p>Pluggable transports Multiple transport protocols for exchanging data between the broker and client or between multiple brokers</p>	<p>Supports many networking environments Flexibility to meet the demands of different networking environments and use cases</p>
<p>Flexible persistence Supports a variety of persistence options including no persistence, file system persistence, using a database via Java Database Connectivity (JDBC), and using embedded LevelDB</p>	<p>Balances reliability and performance Allows superior reliability and performance with flexible persistence and high availability options and maximum performance with shared-nothing high availability (preview only)</p>
<p>REST API A technology-neutral, web-based API to the message broker service</p>	<p>Simplified integration Easy integration with RESTful web services</p>
<p>Ajax support Support for streaming to web browsers using pure DHTML</p>	<p>Increased integration options Allows web developers to use the browser as a messaging client</p>
<p>JMS streams for very large messages Eliminates the bottleneck that would occur as the JMS client tries to keep an entire 1GB+ message in memory</p>	<p>Supports application scalability Allows the messaging platform to deliver truly massive files (of many GBs) across the network in a reliable manner</p>
<p>GZIP message compression Allows highly verbose messages to be compressed</p>	<p>Supports application scalability Efficient transporting of large amounts of data encapsulated in SOAP and other XML formats</p>



ABOUT RED HAT

Red Hat is the world's leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services.

Red Hat is an S&P company with more than 80 offices spanning the globe, empowering its customers' businesses.

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RED HAT JBOSS A-MQ MANAGEMENT

FEATURE	BENEFIT
Available as OpenShift cartridge Allows for provisioning, managing, and monitoring in an OpenShift by Red Hat PaaS environment	Deployment in the cloud Simplify deployment, hosting, and scaling of messaging infrastructure and solutions
Integration service management Unified console, which uses Fuse Fabric, can start, stop, measure, trace, and debug all Red Hat JBoss Fuse and JBoss A-MQ integration routes on-premise or in the cloud	Unified management Management of all services – regardless of deployment location – through a single interface
Configuration profiles Method of defining the configuration of a specific broker type, which can then be replicated across multiple brokers	Simplifies management of uniquely configured nodes Guaranteed consistency between identically configured nodes and simplified maintenance
Security framework Access control to the broker through JAAS, SSL encryption, and plug-in points to support custom and third-party authentication providers, firewalls, proxy servers, HTTP(S) tunneling, and DMZ products	Simplified security administration Can use a single security framework

Red Hat JBoss xPaaS services for OpenShift enable middleware capabilities in the OpenShift PaaS solution, for a unified experience across development, deployment, management, monitoring, flexibility and scalability.

With Red Hat JBoss A-MQ for xPaaS, you'll have:

- **Rapid integration:** Seamlessly create messaging solutions using the robust, lightweight, multi-protocol messaging platform and align with DevOps and continuous integration practices.
- **Quick prototyping:** Prototype integration solutions without worrying about the right environment. Develop quickly, test, learn, and innovate to get solutions to market faster.



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