

# MESSAGING ACROSS THE ENTERPRISE WITH RED HAT JBOSS A-MQ

TECHNOLOGY BRIEF

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

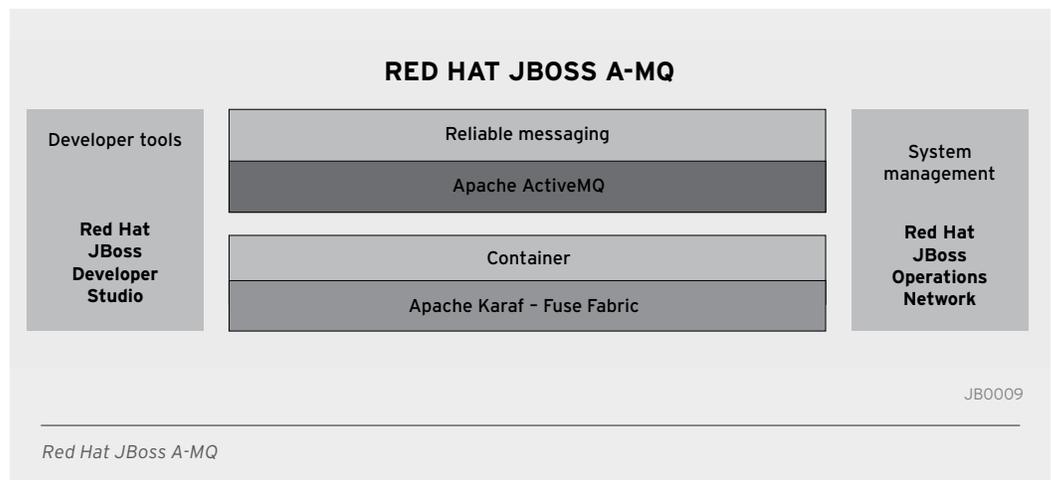
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## INTRODUCTION

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, JBoss A-MQ enables 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.

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 requires minimal proprietary knowledge, uses knowledge from a large development community, and reduces training costs.
- **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.



## KEY FEATURES AND BENEFITS

### RED HAT JBOSS A-MQ MESSAGE BROKER

| FEATURE  | BENEFIT   |
|--|---|
| <p><b>Standards-based</b></p> <p>Support for JMS 1.1, TCP, SSL, UDP, STOMP, NMS, MQTT, AMQP 1.0, multicast transport protocols, and other standards</p>  | <p><b>Near-universal connectivity</b></p> <p>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><b>Cross-language clients</b></p> <p>Connectivity from client programs written in languages other than Java™</p>  | <p><b>Supports many development environments</b></p> <p>Allows native connectivity from applications written in non-Java languages like C or C++</p>  |
| <p><b>Pluggable transports</b></p> <p>Multiple transport protocols for exchanging data between the broker and client or between multiple brokers</p>   | <p><b>Supports many networking environments</b></p> <p>Flexibility to meet the demands of different networking environments and use cases</p>   |
| <p><b>Flexible persistence</b></p> <p>Supports a variety of persistence options including no persistence, file system persistence, using a database via Java Database Connectivity (JDBC), and using embedded LevelDB (preview only)</p> | <p><b>Balances reliability and performance</b></p> <p>Allows the user to maximize reliability and performance, and adds shared-nothing high availability (HA) for individual applications</p>                           |
| <p><b>REST API</b></p> <p>A technology-neutral, web-based API to the message broker service</p>  | <p><b>Simplified integration</b></p> <p>Easy integration with RESTful web services</p>  |
| <p><b>Ajax support</b></p> <p>Support for streaming to web browsers using pure DHTML</p>   | <p><b>Increased integration options</b></p> <p>Allows web developers to use the browser as a messaging client</p>   |
| <p><b>JMS streams for very large messages</b></p> <p>Eliminates the bottleneck that would occur as the JMS client tries to keep an entire 1GB+ message in memory</p>   | <p><b>Supports application scalability</b></p> <p>Allows the messaging platform to deliver truly massive files (of many GBs) across the network in a reliable manner</p>  |
| <p><b>GZIP message compression</b></p> <p>Allows highly verbose messages to be compressed</p>  | <p><b>Supports application scalability</b></p> <p>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 70 offices spanning the globe, empowering its customers' businesses.

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## RED HAT JBOSS A-MQ MANAGEMENT

| FEATURE  | BENEFIT  |
|--|--|
| <b>Available as OpenShift cartridge</b><br>Allows for provisioning, managing, and monitoring in the OpenShift by Red Hat Platform-as-a-Service (PaaS) environment (preview only)   | <b>Deployment in the cloud</b><br>Simplify deployment, hosting, and scaling of integration infrastructure                |
| <b>Integration service management</b><br>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                     | <b>Unified management</b><br>Management of all services – regardless of deployment location – through a single interface |
| <b>Configuration profiles</b><br>Multiple transport protocols for exchanging data between the broker and client or between multiple brokers  | <b>Configuration profiles</b><br>Guaranteed consistency between identically configured nodes and simplified maintenance  |
| <b>Security framework</b><br>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 | <b>Simplified security administration</b><br>Can use a single security framework   |