

# VMware vFabric RabbitMQ

Messaging That Just Works

## MESSAGING FOR MODERN APPLICATIONS

- Improves the scalability, speed and user experience of your custom Web applications by decoupling application components and enabling asynchronous interapplication communications
- Provides unprecedented connectivity, due to protocol-based messaging that enables the integration of heterogeneous application components and systems—unlike traditional, API-based enterprise message bus (ESB) software
- Supports a full range of standard Internet protocols, including AMQP, HTTP, HTTPS, STOMP, XMPP and SMTP
- Requires very little memory, enabling messaging to be embedded at any point in an application's architecture
- Enables a full range of messaging patterns, including point-to-point, point-and-shoot, work queues, publish-subscribe, routing, topics, multicast, remote procedure call (RPC), and more
- Has a straightforward design that enables easy adoption by developers across many teams, with clients and adaptors available for Java, C#, C, C++, Python, Ruby, PHP, Perl and more

## TESTIMONIALS

"We couldn't have been done without RabbitMQ. Integrating that early in our system was one of the best things we could have done to handle our bursty growth."

—Sean Treadway, Chief Architect, Soundcloud

"Openness is the number one advantage we gain from RabbitMQ. The open standards enable us to avoid lock-in with specific technology vendors and platforms. RabbitMQ saves us money because we have not had to purchase expensive message oriented middleware. The fact that RabbitMQ is backed by VMware gives us confidence in the technology. Being able to gain the advantages of using open source, while still having the protection of commercial support, is very important to us."

—Kristoffer Sheather, CTO, CloudCentral

"RabbitMQ has been phenomenal, both in performance and reliability. RabbitMQ is very lightweight and very reliable. We are talking about a system that is 24/7. There is no scheduled downtime for a system like this. It is completely mission-critical. So RabbitMQ's reliability is vital."

—Edwin Fine, Integrat

## VMware vFabric RabbitMQ Overview

To improve scalability, flexibility and the end-user experience, modern Web applications make extensive use of messaging—both to communicate among their own components and to connect to other services. Without messaging, an application runs at the speed of its slowest component. Messaging decouples application components so that they can work asynchronously and get their respective jobs done more quickly.

Modern Web application architectures require a fundamentally different type of messaging software, one that is:

- Lightweight enough to embed throughout an application
- Easy enough to use that many developers across many teams will adopt it
- Flexible enough to integrate heterogeneous application components and systems

VMware® vFabric™ RabbitMQ™ meets these requirements to provide robust messaging for custom Web applications. It is easy to use, fit for purpose at cloud scale, and supported on all major operating systems and developer platforms.

RabbitMQ provides the robust and reliable intersystem messaging that is critical for cloud-based applications. A key element of the VMware vFabric Cloud Application Platform, RabbitMQ delivers highly available, scalable and portable messaging with predictable and consistent throughput and latency. RabbitMQ is open sourced under the Mozilla Public License. VMware offers services and support designed to enable RabbitMQ customers to meet their needs quickly and safely.

### Complete and Extensible Messaging

VMware vFabric RabbitMQ is the leading implementation of Advanced Message Queuing Protocol (AMQP), an open-standard messaging protocol created as an alternative to costly, proprietary commercial messaging technologies. Through protocol adaptors, RabbitMQ also supports a full range of Internet protocols for lightweight in-browser messaging—including Extensible Messaging and Presence Protocol (XMPP), Simple Mail Transfer Protocol (SMTP), Streaming Text Oriented Messaging Protocol (STOMP), HTTP, and HTTPS. To meet the needs of many use cases and application environments, VMware vFabric RabbitMQ is fully extensible via a plug-in mechanism. RabbitMQ supports the messaging patterns that today's users demand: point-to-point, point-and-shoot, work queues, publish-subscribe, routing, topics, multicast, remote procedure call (RPC) and more. All are available as durable or nondurable message types.

**Robust at Cloud Scale**

Messaging is critical to next-generation cloud-based applications built to take advantage of pools of shared infrastructure. Messaging allows data to be routed among widely distributed applications independently of their physical location and operational availability. RabbitMQ is designed to scale and operate in such environments, making it the de facto standard for cloud messaging. It is used by private clouds such as NASA's Nebula and public clouds such as Heroku. RabbitMQ intelligently uses a combination of memory and disk to provide an optimal combination of throughput and scalability.

**Portable and Interoperable**

VMware vFabric RabbitMQ is based on a proven platform and open-standard protocols, freeing users from dependence on proprietary vendor-supplied libraries. Its wide protocol and platform support make RabbitMQ unique, offering customers choice and driving down integration costs over time.

Like traditional messaging middleware and enterprise service bus (ESB) software based on Java Message Service (JMS), RabbitMQ can connect Java applications and components. But unlike JMS-based messaging, RabbitMQ can also connect

applications and components built using completely different technologies—such as an application written in Java to one written in .NET's C# language; a Python application to Amazon Web Services (AWS); or a Ruby application to a Representational State Transfer (REST) Web service.

All major operating systems support RabbitMQ, and more than 200 client interfaces are available for Java, C#, Python, Ruby, PHP, Perl, and other languages. The breadth of the RabbitMQ universe offers customers and developers a consistent approach to messaging across multiple stacks and platforms.

**VMware vFabric RabbitMQ Key Attributes**

- Highly reliable and robust at cloud scale
- Supports a broad range of operating systems and languages
- Based 100 percent on open-standard protocols
- Extensible and portable
- Includes built-in management and monitoring capabilities
- Includes security and access control
- Commercially supported by VMware

