

# VMware vFabric Cloud Application Platform

Engineered for Spring and Ideally Suited for VMware vSphere

## AT A GLANCE

VMware® vFabric™ is a lean, fit-to-purpose platform for building and running modern applications in physical, virtual and cloud environments. It eliminates the exorbitant costs, high complexity, functional limitations, and lengthy coding and testing cycles of dated, heavyweight application development and production environments. With VMware vFabric, you can easily and rapidly build applications that scale elastically, deliver massive amounts of data quickly and reliably, and incorporate the latest Web and mobile-oriented features.

## KEY BENEFITS

- Develop Web-oriented, data-intensive applications up to 50 percent faster.
- Build and run applications that can scale elastically at every infrastructure layer.
- Gain greater VM density and higher utilization rates on existing hardware.
- Run applications on your own private cloud or on public cloud services.

## What is the VMware vFabric Cloud Application Platform?

The VMware vFabric cloud application platform is a complete solution that fills IT's need for a fast, efficient and lightweight approach to building applications and running them on virtualized and cloud-based infrastructure. While leapfrogging the limitations of traditional platforms, VMware vFabric draws on the expertise developers already have with popular frameworks and tools. VMware vFabric also works seamlessly with the world's most trusted and widely used virtualization engine—VMware vSphere®—making it ideally suited for applications that need to scale dynamically to address unpredictable spikes in user demand.

VMware vFabric integrates all the essentials of a modern application platform:

- A **proven development framework** that bypasses the complexity of overweight platforms such as Java Platform, Enterprise Edition (JEE) to simplify and accelerate the development of modern applications
- A **lean runtime platform** optimized for both the development framework and virtual infrastructure
- A set of **runtime services** tailored to the needs of modern applications

## How is VMware vFabric Used?

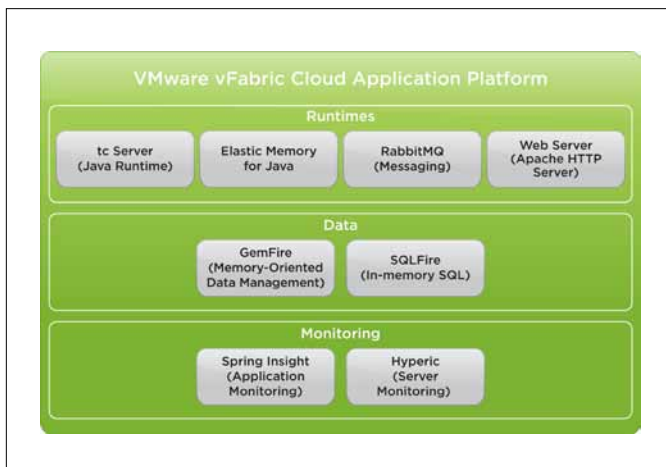
### Building Applications

VMware vFabric includes the open source Spring Framework, used by more than 3 million developers to build half of all Java applications running today, and deployed in 90 percent of the Fortune 1000. Spring has demonstrated dramatic advantages in every phase of the application life cycle. It eliminates much of the complexity of application development—reducing coding by 50 percent, increasing portability across multiple environments, ensuring high reusability and simplifying testing.

Unlike traditional JEE platforms, Spring provides a range of capabilities for creating all application types, including enterprise Java, rich Web and enterprise integration. Spring open source projects (such as Spring Mobile, Spring Android and Spring Social) extend the framework with new capabilities, making it ideal for equipping applications with the latest must-have features and the ability to run on the newest generation of devices.

### Deploying Applications in a Spring-Optimized Runtime Environment

VMware vFabric incorporates Apache Tomcat—a lightweight, small-footprint runtime server already deployed in 64 percent of corporate enterprises. The VMware version of Tomcat, vFabric tc Server, is enhanced with built-in operational management, advanced diagnostics for Spring-built applications and mission-critical support. The built-in Spring instrumentation accelerate



VMware vFabric is the best place to run Spring Java applications, and is ideally suited for virtual infrastructure.

development and deployment by as much as 50 percent compared to JEE servers. vFabric tc Server provides a single application server for all phases of the application lifecycle, eliminating myriad issues that arise when developers and operations use different application servers.

### Equipping Applications for Modern Infrastructure

VMware vFabric provides a complete set of runtime services that give applications the capabilities they require to perform superbly in highly distributed cloud-based environments:

- **Global data management** – The distributed data management platform in VMware vFabric harnesses advanced in-memory processing to deliver what databases cannot: real-time, elastically scalable data distribution and caching for virtualized and cloud-based applications. Users experience subsecond response times, and IT gets all the reliability and data-management capabilities of a database.
- **Cloud messaging** – VMware vFabric supplies the intersystem messaging that is critical for making cloud-based applications highly available, scalable and portable, with predictable and consistent throughput and latency. Featuring support for the proven Advanced Message Queuing Protocol (AMQP) as well as other messaging technologies like HTTP, HTTPS, STOMP, XMPP, and SMTP, vFabric messaging is easy to use and supported by all major operating systems and development environments.
- **Dynamic load balancing** – VMware vFabric includes the popular and comprehensive Apache HTTP Server, offering superior performance, scalability, security and simplicity. With VMware vFabric, Apache comes precompiled, easy to deploy, tuned for performance and backed by full VMware support.
- **Performance management** – VMware vFabric provides continuous monitoring of application performance across physical, virtual and cloud infrastructure, giving you insight into 50,000 metrics spanning 75 Web technologies. You get the deep and complete visibility you need to rapidly fix performance problems at practically any layer of your application infrastructure, ensure optimum application performance, and meet SLAs.

### Key Advantages

#### Multiply the Benefits of Virtualization

VMware vFabric works synergistically with VMware vSphere to deliver even higher VM density and hardware utilization than virtualization achieves on its own. vFabric tc Server's small footprint and rapid start times enable the dynamic scaled-out

performance that today's highly variable application loads require. tc Server's elastic memory management enables JVMs to share unused Java heap space, which further increases server consolidation ratios and reduces out of memory errors that can cripple applications.

Close-knit integration with VMware vSphere-based virtual infrastructure provides yet another benefit: VMware vFabric-built applications can leverage underlying VMware cloud-computing architecture, such as VMware Cloud Director, to provide unmatched deployment automation and self-service user provisioning.

#### Tailor Your Applications for the Cloud

Spring Framework, included in VMware vFabric, has proven to be the most complete, nimble and cost-effective Java development environment. Spring enables developers to quickly build a full range of modern applications that incorporate such innovations as social media, mobile-device capabilities, new data types and improved methods of data access. Through VMware partnerships with Google, CSC, and other public-cloud providers, Spring has become the de facto development framework for Java cloud applications.

Similarly, modern applications would not be fully capable without the functionality offered by the runtime services in VMware vFabric. You can build elastic scalability into the data tier to handle unpredictable traffic spikes, eliminating the bottleneck of databases that cannot scale flexibly with demand. The VMware vFabric messaging technology is specifically designed for virtual and cloud environments—providing all the message types users want plus Internet protocol support for lightweight in-browser messaging. And with the robust, comprehensive and unified application monitoring that VMware Fabric provides, development teams can target virtualized environments with confidence.

#### Deploy in Hybrid Cloud Environments

VMware vFabric is both a standalone application platform and the development layer of the complete VMware cloud-computing IT stack. Through its integration with VMware vCloud infrastructure solutions, VMware vFabric is the only platform that offers application portability and vendor choice across private and public cloud infrastructures.

### Find Out More

For information or to purchase VMware products, call 877-4-VMWARE, visit [www.vmware.com](http://www.vmware.com), or search online for an authorized reseller. For detailed specifications and requirements, refer to the product documentation.

