

# VMware vFabric tc Server

The Best Place to Build and Run Spring Applications

## OPTIMIZED FOR SPRING

Quickly diagnose the root cause of performance problems for Java applications built with the Spring Framework, Spring Java applications, whether in development or production, using Spring Insight.

## IDEAL FOR VIRTUAL AND CLOUD

With a memory footprint of just 10MB and Elastic Memory for Java (EM4J) enabling dynamic memory sharing among Java Virtual Machines (JVMs), tc Server lets you deploy more virtual machines per VMware vSphere® ESXi host and economically scale out your Java tier.

## COMMERCIAL TOMCAT

VMware is the leader in Apache Tomcat support, with more than 400 of the world's largest organizations relying on our Tomcat experts. A significant proportion of Tomcat code is committed by VMware employees.

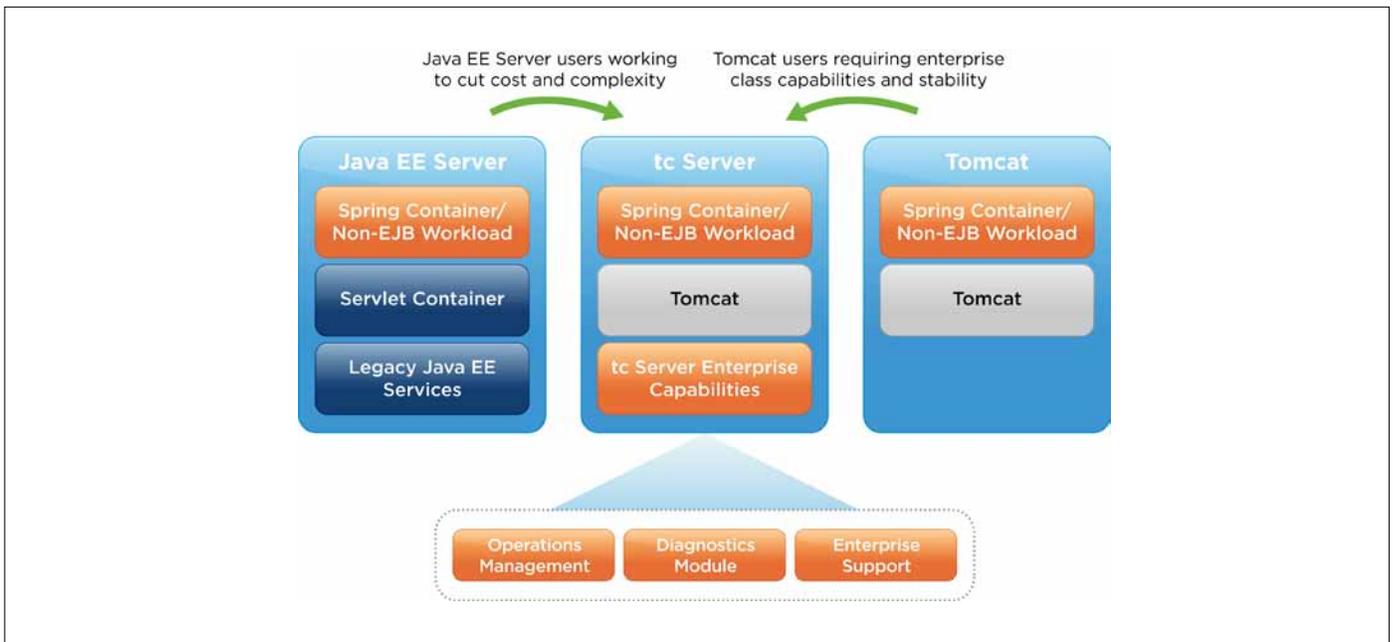
## VMware Overview

VMware vFabric™ tc Server is the runtime server at the heart of the VMware vFabric Cloud Application Platform. Available in Spring Edition, Standard Edition and Developer Edition, tc Server is the best place to build and run your Spring applications. With a lightweight footprint, it is ideally suited for virtual and cloud environments. As an enterprise version of Apache Tomcat, tc Server is enhanced with core capabilities that increase developer efficiency, operational control and deployment flexibility—all backed by 24/7/365 support.

Spring has replaced the heavyweight Enterprise JavaBeans (EJB) container to become the de facto standard for the majority of enterprise Java applications. Spring has also been a key driver in the adoption of Tomcat, now used by more than 70 percent of organizations, according to Evans Data.\* Today, the Spring-Tomcat stack powers many of the world's most demanding applications across retail, banking, manufacturing, health care and other industries.

tc Server provides the powerful, lightweight benefits of Tomcat along with important enterprise-class features that organizations require. It is ideal for enterprises currently using Spring with legacy Java Enterprise Edition (EE) servers but looking for a lean and affordable alternative. It is also good for Tomcat users who need additional operational management and diagnostic capabilities with enterprise support.

\* November 2008



## Key Highlights

tc Server supports the entire application life cycle with a lightweight platform ideally suited for building and running modern applications.

### Developer Efficiency

tc Server includes core capabilities that enhance the efficiency of developers using Spring, the world's most popular Java development framework:

- The Spring Insight console provides a dashboard view of real-time Spring application performance metrics. Without changing code, developers can detect, analyze and diagnose application performance issues right from their desktops.
- tc Server is immediately familiar to developers, because it is based on the popular Tomcat server in use at nearly 70 percent of organizations today.\*

### Operations Management

From a single console, tc Server provides management and monitoring of servers and applications for a single instance or across many nodes. Capabilities include:

#### Application management

- Perform fine-grained application monitoring in production using native Spring instrumentation.
- List all applications running in a distributed collection of server instances.
- Target, deploy and undeploy applications to distributed server instances.
- Control application parameters such as caching and JavaServer Pages (JSP) behavior.

#### Server management

- Control configuration of remote server instances.
- Define virtual hosts, access logs and Web server integration.
- Configure JVM parameters such as Java heap size and garbage collection.
- Dynamically control and resize thread pools without server restart.
- Define server groups to quickly administer multiple tc Server instances.

\* Evans Data Study, November 2008

### Advanced Server Diagnostics

tc Server provides advanced diagnostics, such as thread lock detection and automatic and on-demand failure logging, to for swift isolation, diagnosis and repair of issues. Features include

- Application thread lock detection to warn when threads compete for restricted resources in a way that threaten application integrity.
- Configurable automatic and on-demand thread and heap dumping for failure and exception analysis.
- Thread to URL association for faster diagnosis when analyzing problems with request processing.

### Deployment Flexibility

Deploy your applications to physical or virtual hosts:

- Lightweight (10 MB) server ideal for virtual and cloud environments.
- Template-driven server instance creation to simplify and accelerate deployment.

### Elastic Memory Management

- Dynamically share memory across JVMs to accommodate burst workloads.
- Reduce memory allocations for each JVM to increase the number of Java applications per vSphere host and improve server density.

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*“Test and live deployments are taking the developers literally a couple of minutes with vFabric tc Server – where they used to take up to two hours on Oracle WebLogic. The throughput on vFabric tc Server is at least 3X greater than WebLogic and the CPU and load on the production servers is about half”*

— Shaun Perkinson, Associated Newspapers\*\*

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*“Without vFabric tc Server, I could not have deployed my web-based applications into the private cloud environment I created. vFabric tc Server’s small footprint allows me to deploy a dozen app server instances on one physical box virtualized by VMware, with plenty of capacity left over”*

— John Brisbin, NPC International†

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\*\* February 2010

† April 2010

