

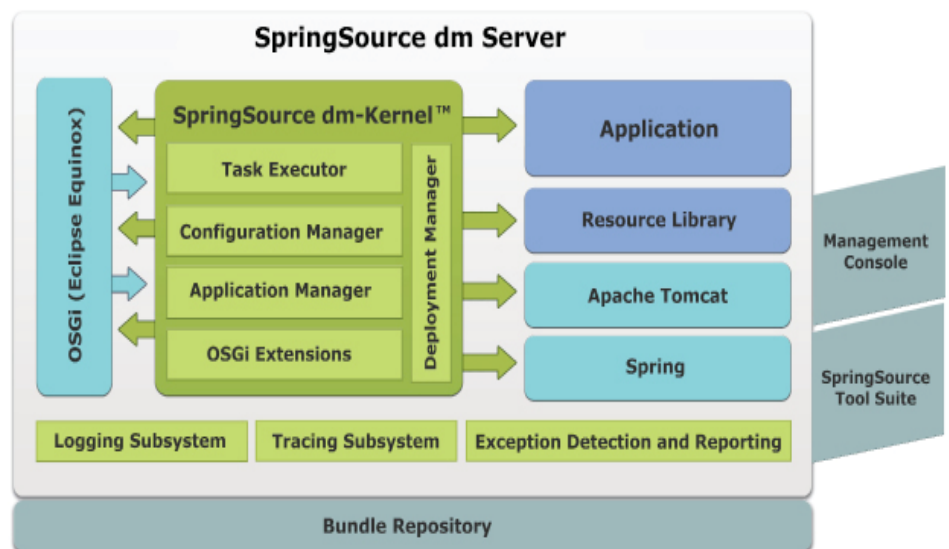


SpringSource dm Server

OVERVIEW

SpringSource dm Server is a completely module-based Java application server that is designed to run enterprise Java applications and Spring-powered applications with a new degree of flexibility and reliability. SpringSource dm Server is based on the new SpringSource Dynamic Module Kernel™ (dm-kernel). The dm-kernel provides a module-based backbone for the server, which also harnesses the power of Spring, Apache Tomcat and OSGi technologies.

The dm-kernel builds on Eclipse Equinox, extending its module and version control to include provisioning, configuration and application management. Essential subsystem-like logging and tracing have been designed and tested to provide maximum serviceability for a module-based environment. Together with the dm-kernel, these subsystems form the heart of the SpringSource dm Server.



FLEXIBLE APPLICATION SUPPORT

SpringSource dm Server supports applications composed of raw OSGi bundles as well as applications packaged as Java EE WAR files. At deployment time the WAR file is transformed into an OSGi bundle without having to change any application code and is installed into a modularized version of Apache Tomcat embedded in SpringSource dm Server. The server also supports the Platform Archive deployment unit that forms the logical collection of OSGi bundles grouped together in a standard JAR file, along with a name and a version that uniquely identifies the application. This provides all the power, visibility and control of OSGi modularity combined with the convenience of application-scoped packaging.

OPTIMAL MODULE LOADING

The dm-kernel uses its provisioning subsystem to install OSGi bundles on demand. This allows for an application to be installed into a running SpringSource dm Server and for its dependencies to be satisfied from already running modules in the server or loaded from a local repository as needed. Not only does this remove the need to install all application dependencies manually but it keeps memory usage to a minimum by loading only the modules needed and sharing trusted versions of enterprise libraries across the platform. Furthermore, since the SpringSource dm Server itself is completely modular, only the necessary subsystems need to be loaded. The resulting smaller memory footprint for the server means that more server resources can be devoted to processing client requests.

GREATER VISIBILITY AND CONTROL

Detailed information on module dependency gives greater operational control than legacy deployment units.

REAL-TIME UPDATES

Application components and even server infrastructure can be updated without restarting the dm Server.

EFFICIENT RESOURCE UTILIZATION

Intelligent provisioning loads a minimal module set for application execution resulting in a smaller run-time memory footprint.

SIDE-BY-SIDE VERSIONING

Multiple versions of the same module are supported in the server allowing flexible application updates.

FASTER ITERATIVE DEVELOPMENT

Module redeployment from within the IDE works without restarting the application or the server.

ENTERPRISE-READY OSGI

A comprehensive collection of common enterprise libraries is available in the Enterprise Bundle Repository.

SpringSource dm Server

SELECTED CUSTOMERS:



APPLICATIONS AND SERVER CHANGES IN REAL TIME

The OSGi module-based system makes it possible to install, uninstall, update and refresh modules independently in a running SpringSource dm Server instance. Updates to modules that comply with existing bundle dependencies can be made to production systems without redeploying the entire application or restarting the server. The modular architecture of SpringSource dm Server itself even makes it possible to apply some patches to the server without any production down time.

SIMULTANEOUS VERSION CONTROL

Each module in SpringSource dm Server specifies its dependencies with a range of versions with which it is compatible. The server allows for multiple versions of a Java package to be present at runtime simultaneously. Thus, upgraded applications can run at the same time as earlier versions, which enables a graceful migration path in production systems.

BETTER DEVELOPMENT PRODUCTIVITY

For the development team, SpringSource dm Server provides a flexible and resilient development server that solves the vexing application dependency problems that are a common challenge with legacy Java EE application packaging. SpringSource dm Server enables repeated incremental deployments without server restarts, shortening iterative development test cycles and providing an ideal platform for today's agile development approaches. Eclipse-based tools for bundle packaging and dependency management make it simple for developers to build new module-based applications or re-factor existing applications into more modular solutions.

SPRINGSOURCE ENTERPRISE BUNDLE REPOSITORY

The SpringSource Enterprise Bundle Repository is a collection of hundreds of open source libraries commonly used for developing enterprise Java applications with the Spring Framework. Each library in the repository is a valid OSGi bundle that can be deployed into the SpringSource dm Server. Every library has full version import and export compatibility information associated with it. The repository is transitively complete, guaranteeing that mandatory dependencies of any bundle are also in the repository. Most of the optional dependencies of any bundle in the repository will also be present. The repository can be used from Ivy and Maven-based builds and browsed by Eclipse-based tools that accompany the SpringSource dm Server. The repository frees developers from the drudgery of dependency management for enterprise Java libraries, allowing them to concentrate on building the business functionality of their application.

ABOUT SPRINGSOURCE

SpringSource provides a complete suite of software products that accelerate the entire **build, run, manage** enterprise Java application lifecycle. SpringSource employs the open source leaders who created and drive innovation for Spring, the de facto standard programming model for enterprise Java applications. SpringSource also employs the Java and web thought leaders within the Apache Tomcat, Apache HTTP Server, Hyperic, Groovy and Grails open source communities. Nearly half of the Global 2000, including many of the world's leading retail, financial services, manufacturing, healthcare, technology and public sector clients are SpringSource customers. For more information visit: www.springsource.com.



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