



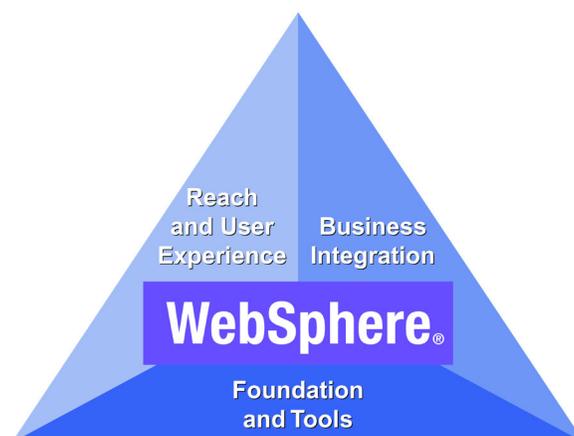
Principles of dynamic e-business:

Agile deployment and administration

WebSphere Application Server Version 5

Jeff Reser

IBM WebSphere Application Server



Agile deployment and administration

An area of pressure points for businesses and business integration today is administration and management of the new network-aware Web application server infrastructures. Businesses need to be able to deploy applications and transactions efficiently and effectively. IBM WebSphere® software provides a central and open management interface to help administer multiple applications and components from the same environment, thus reducing the complexity inherent in true application and systems management.

The administration of the servers, the infrastructure and the middleware applications needs to be intuitive and as automated as possible, with a clean and user-friendly interface. *IBM WebSphere Application Server Version 5* offers that and more, with open interfaces to other management and monitoring products from Tivoli® as well as third-party partners and software vendors.

By offering several different and flexible configurations, you can seamlessly grow from basic implementations to very sophisticated ones and expand capabilities beyond wherever you decide to start building your infrastructure – all depending upon how your business needs change and evolve. *WebSphere Application Server Version 5* offers the right value to most closely match your needs – and not make you pay for more than you'll ever use or want. Whether starting out with a more complex and diverse IT infrastructure or moving to one, WebSphere has the configuration to meet your deployment needs to support your integration and dynamic e-business requirements.

Deploy with efficiency

So what specifically in *WebSphere Application Server Version 5* addresses the requirements around agile and flexible deployment options and easier, more intuitive administration and management? *WebSphere Application Server Version 5* delivers a centralized user interface to manage multiple applications and/or middleware, reducing complexity and management costs. It has more migration aids that help move server and administrative data from one database to another, to better automate server-to-server and application-to-application migration scenarios. Also, an updated administrative client with an intuitive and friendly user interface provides a comprehensive look at applications, servers and resources within Web Application Server environment – allowing for efficient and effective application deployment.

To efficiently reuse the new Java™ applications and components, *WebSphere Application Server Version 5* implements a service-oriented architecture to achieve reusability of critical business processes. A service-oriented architecture allows virtually any software resource to be seen through the lens of a business service interface. This generalized notion of services builds upon the Web services value proposition to provide a consistent and inclusive programming model that easily incorporates existing assets into new solutions. The result is faster assembly and deployment of new applications with re-use of existing investments.

Manage with ease

WebSphere Application Server Version 5 delivers automation across many application server management functions, enhancing productivity and reducing the cost of administration.

Administration of the server(s) is easy with an expanded XML-based administration console that works over HTTP. This console gives the WebSphere administrator more capabilities than ever through a simpler interface that renders the tasks associated with administering a WebSphere Application Server environment more efficient. With the enhanced administration capabilities, WebSphere Application Server clusters can be created and managed, and new components, applications and services can be deployed quickly and easily. An IBM DB2® database is included in the base WebSphere Application Server for session persistence and container-managed persistence – enhancing the performance and scale characteristics of the application server environment.

From an application and server management perspective, *WebSphere Application Server Version 5* supports Java Management Extensions (JMX), recording and logging statistics on usage and resources which can in turn be picked up and used by more extensive system monitors and management products from Tivoli and others that also support the JMX standard. *WebSphere Application Server Version 5* supports JMX in a distributed, quality of service context with operating environments involving:

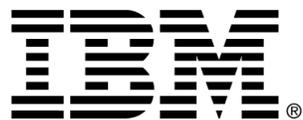
- Multiple processes
- Multiple Web application server nodes
- Distributed events
- Performance Monitoring Interfaces through JMX

The JMX standard provides a simple, lightweight method of assigning Java objects. Throughout the WebSphere platform, manageable objects are being exposed through JMX so that compliant management systems will be able to manage WebSphere resources in a standard way. A resource that has been instrumented with JMX can expose its read only and read/write attributes, expose methods that can be invoked to perform operations on the objects within the managed resource, and enforce event notification registration to allow management systems to be notified when a particular event occurs within the managed resource.

Grow from any starting point

With *WebSphere Application Server Version 5*, you can grow your business starting from anywhere in the family of servers. It provides flexible configurations to seamlessly grow from basic to sophisticated or to expand on the capabilities within your starting point as business needs change and evolve. Upward compatibility and migration paths are clear. For simple servlet or JavaServer Pages (JSP) deployment one can start with WebSphere Application Server - Express. For a more distributed environment with diverse platforms and multiple enterprise systems on the "back-end", one can start with the fully J2EE 1.3-compliant *WebSphere Application Server Version 5* base. For advanced needs involving higher levels of performance, scale, clustering and security you might want to start with *WebSphere Application Server Version 5* with the Network Deployment option and if increasingly higher levels of performance, scale, clustering and security are required, you can add the Extended Deployment option. For all that *WebSphere Application Server Version 5* base offers – plus

additional workflow and business process management capabilities – you might want to start at the very top end of the spectrum with WebSphere Application Server Enterprise. If you are looking to consolidate Web application serving within an IBM z/OS™ system-based infrastructure, WebSphere Application Server for z/OS offers optimization within the IBM OS/390® and z/OS operating system for even better Quality of Service characteristics such as near-linear scalability, highest availability and security, and tightest interoperability with OS/390 system-based resources. These *WebSphere Application Server Version 5* configurations are available to match your requirements for handling dynamic e-business, whether starting simple or dealing with more complex environments. As your needs change, your e-business infrastructure won't have to.



© Copyright IBM Corporation 2002

IBM Corporation
Software Group
Route 100
Somers, NY 10889
U.S.A.

Produced in the United States of America
06-02
All Rights Reserved

DB2, the e-business logo, IBM, the IBM logo, OS/390, Tivoli, WebSphere and z/OS are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries or both.

Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States, other countries or both.

Other company, product and service names may be trademarks or service marks of others.

This document contains information relating to future or anticipated releases of products and represents IBM's current intentions, goals and objectives. The information in this document is subject to change or withdrawal without additional or prior notice. This Product will be available in multiple configurations and for that reason not all functions discussed in this document are included in all configurations of this Product or will be available upon the initial release of a configuration of the Product.