

Integration and infrastructure software  
To support your business objectives



WebSphere® software



**IBM WebSphere Application Server family:  
Flexible infrastructure for today's business world.**

## ***Build On Demand Business solutions with a more-flexible infrastructure***

### **Reuse and connect applications with a more-flexible infrastructure**

Today's organizations face a tough set of challenges.

Markets around the world have become increasingly volatile.

Competition is more intense. Mergers, acquisitions and

divestitures demand revisions in business plans and the IT

infrastructures that support them. And IT departments have to

keep doing more—and better—with budgets and resources

that are already stretched to the limit.

To meet these critical challenges, your organization needs much greater flexibility in its business models and business processes. For IT, a flexible infrastructure has become essential to capitalize on changing market opportunities and to manage costs in the face of increased budgetary pressures.

### **The SOA revolution—IBM solutions increase flexibility, agility and responsiveness**

Implementing a service oriented architecture (SOA) based on IBM solutions can help your organization address a rapidly changing business world. These solutions help integrate your enterprise's business processes across your company and with key partners, suppliers and customers so that you can respond with flexibility and speed to customer demands, market opportunities or external threats.

Building a strong, yet flexible application infrastructure can help:

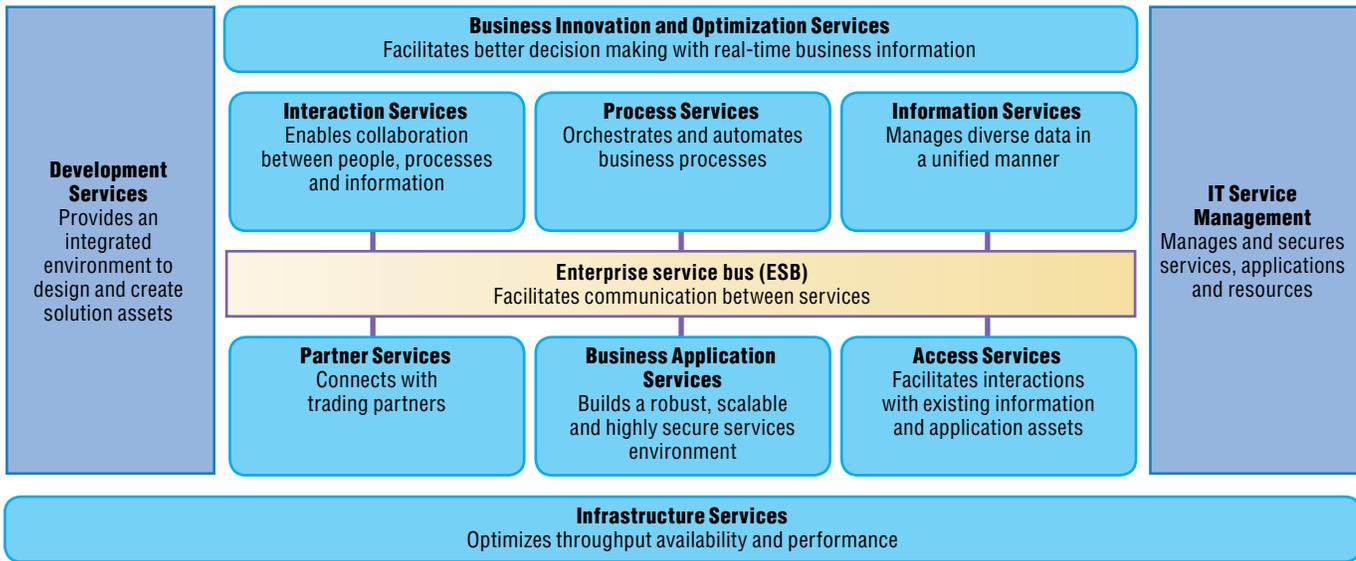
- *Align business models and processes with strategic goals and objectives to compete more effectively.*
- *Standardize, automate and integrate business processes and the underlying infrastructure to improve time to market.*
- *Scale quickly and cost-effectively to meet business demands while controlling risks.*

By following SOA principles, your organization will respond faster, more effectively and far more efficiently to changing business conditions. Your IT department will gain the ability to find, use and optimize existing assets to improve customer service as well as IT services within the enterprise. In addition, your SOA environment will have the flexibility to support rapid development and deployment of new technology.

*“... a flexible infrastructure that can cope with constant change enables an organization to better manage market volatility and unpredictability.”*

D.H. Brown Associates, Inc.\*





The IBM SOA reference architecture

### A strategic foundation

IBM WebSphere® software provides a strategic foundation for SOA through a comprehensive development platform that is implemented through service orientation. IBM WebSphere Application Server is a key building block of the IBM SOA reference architecture, providing a Java™ 2 Platform, Enterprise Edition (J2EE) offering for assembling, deploying and managing applications.

With standards-based messaging and support for the latest Web services standards, WebSphere Application Server enables you to reuse existing assets and helps you increase your return on existing investments. These benefits, in turn, enable you to get the most out of your current IT environment while implementing new applications.

An IBM implementation for Goodyear, one of the world's largest tire manufacturers, illustrates how a company can reduce application-management costs, and more rapidly and effectively respond to value-chain demands by using products from the WebSphere Application Server family. In the past, Goodyear dealers were sometimes unable to get information about products, prices, specials, inventory availability and order status when they needed it. Goodyear responded to this need with an IBM SOA solution, including products from the WebSphere Application Server family, that provided dealers with product and marketing information, as well as the ability to place and track orders—all in real time.

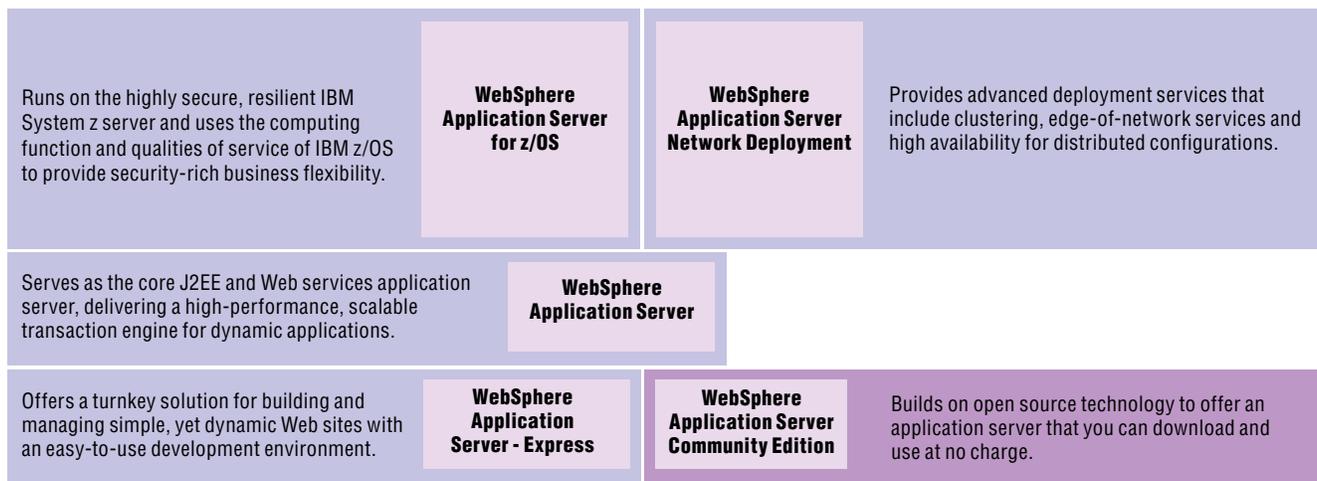
Since implementing the solution, Goodyear has seen a four-fold increase in volume while providing nearly 100-percent uptime. In addition, because WebSphere Application Server is ready to use, it enabled Goodyear to lower application management costs. By employing a standardized solution, Goodyear has also been able to rapidly and cost-effectively respond to dealer requests for new services.

## An integrated family of products

The WebSphere Application Server family of products offers multiple configuration options and support for multiple business models and deployment platforms. This wide range of function enables products from the WebSphere Application Server family to support a variety of business scenarios. Most WebSphere Application Server offerings are built on a common code base, which provides features that can enable you to:

- *Build and deploy powerful Web services and messaging applications quickly and easily.*
- *Reduce the skills and programming steps required to build an application with rapid-deployment features.*
- *Enable your existing Java assets for reuse and extend their reach with extensive Web services support and a pure Java Message Service (JMS) engine.*
- *Enhance flexibility through broad, cross-platform support and common, Web browser-based administration across the product family.*
- *Build a security-rich, robust IT infrastructure based on open, industry standards with J2EE compliance.*

IBM recognizes that technologies and business needs change quickly. Because of that, IBM is proud to offer a new and simple way for you to rapidly consume the latest application server technology through the addition of IBM WebSphere Application Server Feature Pack solutions. Feature packs balance our clients' desire for less-frequent releases while still making available the latest open standards and innovations to our clients who need them. With feature packs, clients can selectively take advantage of new features while maintaining a more-stable internal release cycle. Feature packs are available at no charge and include superior support for technologies such as Web services, Enterprise JavaBeans (EJB) 3 and Ajax.



The WebSphere Application Server family of products

Each product in the WebSphere Application Server family offers benefits geared toward organizations of different sizes with differing needs.

### **WebSphere Application Server Community Edition**

IBM WebSphere Application Server Community Edition is a lightweight Java EE 5 compliant application server built on Apache Geronimo technology. Available at no charge, WebSphere Application Server Community Edition harnesses the latest innovations from the open source community to deliver an integrated, readily accessible and flexible foundation to develop and deploy Java applications. Through the use of best-of-breed, open source applications such as Eclipse, Apache Tomcat, Apache Axis2 and Apache Derby, WebSphere Application Server Community Edition delivers a clear path to the advanced capabilities of the WebSphere middleware portfolio. You can take advantage of technical support through an annual subscription, priced per server.

### **WebSphere Application Server - Express**

IBM WebSphere Application Server - Express can help boost productivity quickly and easily, providing a cost-effective entry point to the development and deployment of dynamic Web applications. It includes easy-to-use development and administration tools that can help you make the most of existing skills. And with integrated applications, such as the IBM Telephone Directory application, you can deploy quickly to realize immediate value.



### **Recent awards for the WebSphere Application Server family of products**

- Top Application Server, *Network Computing* (2005)
- Gold Award for Application Server – IBM WebSphere Application Server, *Asia Computer Weekly* (2005)
- Channel Champion, Integration Middleware category, *CRN* (2005)

### **WebSphere Application Server**

The industry's leading J2EE and Web services application server, IBM WebSphere Application Server delivers a high-performance and extremely scalable transaction engine for dynamic business applications. A good choice for stand-alone, departmental applications and Web services, WebSphere Application Server offers a robust foundation and a service-oriented building blocks to support integrated WebSphere implementations. Also, WebSphere Application Server is optimized for ease of administration in a single-server deployment environment.

### **WebSphere Application Server for Developers**

IBM WebSphere Application Server for Developers is the functional equivalent of the core WebSphere Application Server configuration, providing an easy-to-use development environment to build and test applications.

### **WebSphere Application Server Network Deployment**

IBM WebSphere Application Server Network Deployment helps ensure 24x7 availability of critical business applications with extensive high-availability capabilities and backup, which allows it to be used as part of an overall, continuous-availability solution. The built-in high-availability manager is responsible for running key services on available servers, rather than on one dedicated server, based on user-selectable high-availability policies.

WebSphere Application Server Network Deployment can take advantage of technologies that help significantly lower the cost and complexity of high-availability configurations. It offers hot standby and peer failover for critical services. And with WebSphere Application Server Network Deployment, configuring high-availability systems is simplified. It works immediately, without requiring additional administration for the most commonly used topology. The high-availability manager and unified clustering framework can help eliminate lost business opportunities with near-continuous uptime for critical applications. Furthermore, WebSphere Application Server Network Deployment provides extended Web services through a Web services gateway, which can help developers and IT managers externalize a Web service so that users can invoke it from outside of the firewall.

### **WebSphere Extended Deployment**

IBM WebSphere Extended Deployment adds to the capabilities of WebSphere Application Server Network Deployment to deliver a manageable, dynamically scalable, high-performance environment for distributed WebSphere applications. Because WebSphere Extended Deployment can scale as your business needs dictate, it can help simplify operation management and improve the quality of service for applications running very high transaction volumes. WebSphere Extended Deployment can dynamically accommodate variable and unpredictable business demands, while helping to reduce the time and cost associated with managing a complex deployment environment.

### **WebSphere Application Server for z/OS**

IBM WebSphere Application Server for z/OS combines the features of WebSphere Application Server Network Deployment with the reliability and availability of IBM System z™ products. Using IBM System z Application Assist Processor (zAAP), a specialized Java processor for System z servers, gives you the potential to help drastically reduce the total cost of running new Java workloads on the mainframe. By integrating with the System z portfolio of hardware and IBM z/OS® software assets, and by using the qualities of service of the platform—such as close proximity to data, intense scalability and rich security—WebSphere Application Server for z/OS provides a strong application server environment.

## Addressing business needs with the WebSphere Application

### Server family

The WebSphere Application Server family of products successfully addresses a variety of business needs. One example involves FUJI Market, a large supermarket chain in Shikoku, Japan. Hampered by an outdated inventory system that relied heavily on manual processes and mainframe technology, FUJI wanted a streamlined Web infrastructure that would not require dedicated terminals and their associated costs. The company worked with IBM to develop a flexible, open and reliable architecture with WebSphere Application Server Network Deployment as its foundation.

The increased efficiency that has been the result of the WebSphere Application Server and IBM System i™ solution has helped FUJI reduce its overall cost structure and improve customer service. By avoiding the installation of specialized terminals and software at each store, the company has realized a one-time savings of 70 million yen (US\$600 000), and avoided associated ongoing maintenance costs. FUJI also has the ability to keep system management simple, speed application development and help ensure that it can easily integrate new components as its infrastructure grows.

## What you can gain

A secure, scalable, manageable SOA foundation is within your reach. The WebSphere Application Server family of products enables you to:

- *Increase return on investment (ROI) and lower total cost of ownership (TCO) by reusing existing IT assets through standards-based messaging and the latest SOA technology.*
- *Do more with less by scaling quickly and securely across the broadest set of platforms in the industry.*
- *Choose the standards technology support you need most through the use of WebSphere Application Server Feature Pack solutions.*
- *Eliminate lost business opportunities with near-continuous uptime for critical applications.*
- *Improve time to value and makes the most of existing technology skills with features that facilitate usability and immediate performance improvement.*

### For more information

With IBM and the award-winning WebSphere Application Server family of products, you can fully address the challenges of a rapidly changing business world.

To learn more about the IBM WebSphere Application Server family of solutions, contact your IBM representative or IBM Business Partner, or visit:

[ibm.com/software/webservers/appserv/was](http://ibm.com/software/webservers/appserv/was)

To join the Global WebSphere Community, visit:

[www.websphere.org](http://www.websphere.org)



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Software Group  
Route 100  
Somers, NY 10589  
U.S.A.

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\* *IBM WebSphere Application Server, Version 6 Delivers Business Flexibility*. D.H. Brown Associates, Inc., white paper prepared for IBM. September 2004.