

WebSphere. software



Building the foundation of your e-business with comprehensive tools.

“IBM isn’t just talking about e-business on demand; with the latest release of WebSphere Application Server and WebSphere Studio, it’s delivering the technologies needed to execute the vision today....It’s going to open up all kinds of new possibilities for the way our customers do business.”

– Loren Abdulezer, CEO, Evolving Technologies Corporation, November 2002



Start with a strong foundation and robust tools

Your customers require you to be more responsive, flexible and resilient than ever before. They expect you to build products as they order them. To deliver customized technologies and capabilities on the fly. And to support the requirements today's on demand era places on your business, it is imperative that you use the right tools to establish a reliable yet economical self-managing foundation. One on which you can develop, integrate and deploy e-business applications. IBM WebSphere® software platform for e-business on demand™ provides the solid foundation and robust tools to help you move to the Web with the speed, scalability and flexibility your business needs. Right now and in the future.

Getting new e-business applications to market quickly and leveraging existing applications are essential to succeeding in e-business. Start with an infrastructure that lets you build applications within multivendor environments. And enjoy continuing success as your business grows because that infrastructure is based on industry standards.

IBM WebSphere Application Server, Version 5 and IBM WebSphere Studio, Version 5 together can help you make new products and services available more rapidly. Simplify application development now and scale applications easily later on. Provide your customers with access to your e-business virtually anywhere, anytime. Whatever your e-business needs, WebSphere software can meet them with award-winning, time-tested, integrated platforms, tools and runtime environments.



The cornerstone of e-business on demand

With the WebSphere software platform, you can build a dynamic e-business that provides the flexibility and scalability to meet the demands of an ever-changing marketplace.

WebSphere Application Server, along with tools for application, site and device development, provides a foundation to help you extend your business to the Web—marketing, sales and customer service—so you can compete more effectively.

Link back-end systems to front-end Web presentation sites, helping to lower administration costs and increase business efficiency. Take advantage of current skill sets by simplifying application development now. And as business increases, you can refine these applications easily in the future. Introduce new products and services faster. And consistently beat the competition to market.

WebSphere software—designed to help you streamline business processes. Accommodate high volumes of transactions. Meet customer demand to capture new customers. And keep familiar customers loyal.

WebSphere Application Server: a flexible, e-business on demand infrastructure

WebSphere Application Server is a fast, scalable and reliable server based on Java™ 2 Platform, Enterprise Edition (J2EE) technology. It creates an environment that can boost developers' productivity in deploying dynamic e-business applications, handling high transaction volumes and extending back-end business data and applications to the Web. It delivers flexible configuration and deployment options to meet needs from entry-level to highly dynamic, distributed environments. Whether you are just getting started or looking for

extended integration capabilities for sophisticated cross-enterprise use, WebSphere Application Server is the right application server to meet your needs. And as your e-business requirements change, you can migrate smoothly to greater function and higher qualities of service included in other configurations.

By offering a collection of leading-edge enterprise services that plug into and augment WebSphere Application Server, IBM can deliver significant value to your base application server. These enterprise services can give you the flexibility to quickly develop and adapt e-business applications to meet your emerging business requirements. Respond quickly to changing market conditions on the fly. Experience less downtime caused by time-consuming updates. Gain a competitive advantage in the process. And with WebSphere Application Server, you can reach new markets and create new opportunities on the Web, while taking full advantage of your IT investments—no matter what type of systems you have.

Choose a configuration of WebSphere Application Server and WebSphere Studio tailored to fit your business needs, so you can:

- *Get to market faster by quickly designing new applications ready to integrate as Web services.*
- *Leverage existing software through built-in customizable and programmable adapter technology.*
- *Administer, deploy and manage applications with agile setup options and administration features.*
- *Boost developer productivity with an integrated, open-standards-based development environment, featuring customizable high-end tools that promote reuse of modular resources.*

WebSphere Application Server

WebSphere Application Server offers the following configurations that can help you establish a foundation for your e-business.

Product	Benefit
IBM WebSphere Application Server — Express*	Lets you convert ordinary, static Web sites into dynamic Web experiences that add and retain customers, while providing important information to employees. It's based on the latest Java technology and Web services standards, so you have cutting-edge tools at your fingertips.
IBM WebSphere Application Server*	Integrates enterprise data and transactions for the dynamic e-business world. It provides a rich e-business application deployment environment, along with a set of application services that includes enhanced capabilities for enabling and managing heterogeneous Web services, rich security features, performance, availability, connectivity and scalability.
IBM WebSphere Application Server for Developers	Helps enterprise customers that use third-party development tools create applications for WebSphere Application Server.
IBM WebSphere Application Server Network Deployment*	Helps solidify your network with extensive clustering, caching and high availability. It also offers advanced Web services capabilities, including a private Universal Description, Discovery and Integration (UDDI) registry for easier deployment of internal applications and a Web services gateway for external applications that request Web services provider applications.
IBM WebSphere Application Server Enterprise	Helps you meet the needs of customers that require advanced build-to-integrate capabilities with robust application adapters, extended messaging, application flow composition and choreography, along with dynamic rules-based application adaptability and internationalization. It extends the J2EE infrastructure to deliver enhanced build-to-integrate capabilities.
IBM WebSphere Application Server for z/OS	Provides you with the J2EE 1.3 technology-compliant Web services and application programming model consistency you need for your business-critical e-business offerings. It provides robust, enterprise-level capabilities for workload management, availability and scalability.

* Also available for IBM @server™ iSeries™ platform

Delivering technology advances

Based on open standards like J2EE technology and IBM Web services, WebSphere Application Server enhances application integration with other departments, companies or platforms through its common approach to leveraging multiple application assets. WebSphere Application Server complies with open standards and is J2EE 1.3 technology-compliant, leveraging proven IBM technology. For example, an integrated Java Message Service (JMS) subsystem based on market-leading IBM WebSphere MQ technology.

WebSphere Application Server extends the J2EE 1.3 programming model by providing a comprehensive infrastructure to support production-ready deployment of Web services-based applications. It supports core Web services standards like

XML, Simple Object Access Protocol (SOAP) and Web Services Description Language (WSDL). And it offers a private UDDI registry—facilitating easier deployment of internal Web services applications.

WebSphere Application Server leverages Eclipse technology—an open-source initiative driven by IBM and other development tool vendors—that helps to tightly integrate multiple vendors' tools and enhance developer productivity. WebSphere Application Server leverages the proven experience of IBM to deliver the most scalable, available and security-rich e-business platform. Through added performance and availability features with edge-of-network technology, such as load balancing and dynamic caching, as well as advanced security capabilities, WebSphere

“The sophisticated workload balancing capabilities of WebSphere Application Server enables us to keep our e-business application, Tonnage Broadcast Exchange, available for our agents and partners around the clock. Orders that typically took up to several hours to broker can now be broadcast to and accepted by Bekins business partners in minutes. We expect to achieve total annual cost savings of [US] \$1 million with our WebSphere solution.”

- Randall Mowen, director of Data Management & e-business Architecture, Bekins, Inc., November 2002



Application Server, Version 5 can react on the fly to network pressures. It provides an intelligent, optimized application platform that benefits your business today and lays the foundation for e-business on demand environments in your future.

Take advantage of third-party technology

A recent addition to the WebSphere portfolio, Macromedia ColdFusion MX for WebSphere lets ColdFusion developers obtain greater performance, scalability and reliability for their applications. By integrating existing ColdFusion and WebSphere applications, businesses can reuse existing applications and skills. Macromedia ColdFusion Version 5 applications can run “as much as 2.5 times faster” on Microsoft® Windows®.”

Improve development and deployment with Web services

You can dynamically and efficiently integrate and connect business functions and processes to the Web with Web services from IBM. These services can help you generate operating and cost efficiencies, as well as create advantages in integrating with customer, supplier and trading partner systems.

Web services further advance the IBM vision and leadership in the delivery of comprehensive e-business infrastructure and business process integration solutions that are reliable and scalable. Web services use open standards to increase customer choice and flexibility to meet changing business needs.

WebSphere Studio: comprehensive development tools

To create engaging Web applications and grow your e-business, you depend on the diverse, collaborative input of your graphic designers, programmers, analysts and others in your development team. You want your developers to leverage independent vendor tools and proprietary tools to build high-performance applications. And they should have a variety of plug-in components at their fingertips to enhance function while they work across different platforms.

WebSphere Studio offers a comprehensive tool set to help you develop and deploy compelling Web applications. At the same time you can reduce your cost and time to market because you're combining new and existing applications. Create competitive advantage by entering new markets. Build upon an extendable platform that can help you realize even greater e-business benefits.

WebSphere Studio provides a collaborative environment that enables your developers to work more effectively as a team, simplifying project management. Everyone has a better perspective of individual roles—from Web site administrator to business model architect. WebSphere Studio delivers a platform of integrated tools for today's growing e-business, allowing team members to work together without disruption in a common environment.



WebSphere Studio

WebSphere Studio offers the following to help you expand the capabilities of your e-business.

Product	Benefit
IBM WebSphere Studio Homepage Builder	Helps you create highly functional Web sites without advanced authoring experience. It features integrated tools to help you create interactive Web pages with the function of professionally designed sites. And you can automate time-consuming maintenance tasks with the site management feature.
IBM WebSphere Studio Site Developer	Brings together aspects of Web application development into a common interface. This comprehensive Web development environment is designed to Java 2 Platform, Standard Edition (J2SE) and J2EE technology specifications and includes support and tools for developing rich media applications, JavaServer Pages (JSP), servlets, HTML, JavaScript components, Web services, XML and DHTML.
IBM WebSphere Studio Application Developer	Provides an integrated development environment based on open standards for building, testing, integrating and deploying J2EE applications and Web services. WebSphere Studio Application Developer Integration Edition accelerates development by adding visual workflow to build and integrate complex applications.
IBM WebSphere Studio Enterprise Developer	Provides support to diverse enterprise IT organizations, significantly lowering the technological requirements of entry to modern application development and architecture. It enables a development community with support of rapid construction of J2EE technology-based applications, as well as with enhancement of developer productivity when integrating or maintaining existing systems.
IBM WebSphere Studio Device Developer	Helps make your applications accessible to cellular phones, personal digital assistants (PDAs) and pervasive computing devices by allowing developers to extend existing e-business applications. Information can be shared by a wide spectrum of users and over numerous devices.
IBM WebSphere Studio Asset Analyzer	Helps you enhance and manage your core assets during the discovery phase of the development lifecycle. It shortens the application development process by reusing previously tested code, requiring less new code. It's also a tool for maintaining and extending existing assets through impact analysis, connector builder assistance and graphical application understanding.
IBM WebSphere Studio Application Monitor	Helps developers and quality assurance personnel locate and resolve performance problems with J2EE applications running on the IBM WebSphere for z/OS™ platform, without requiring modification to the application code. It is nonintrusive and serves as a problem-determination tool for J2EE applications for use in the development and deployment phases of the development lifecycle.
Toolkits for IBM WebSphere Studio	Lets you quickly and easily add new function and tools targeted at application development needs. Plug-ins and toolkits are available for IBM WebSphere Portal, pervasive computing, IBM WebSphere Commerce, IBM WebSphere MQ, IBM Host Access, IBM DB2®, IBM Tivoli®, IBM Lotus®, IBM CrossWorlds®, IBM @server products, IBM Business Components and IBM Voice products.



WebSphere Studio is based on Eclipse technology, which gives your developers the ability to use tools from IBM and other vendors. The open-source Eclipse community creates royalty-free technology, a universal open platform for tools integration. Eclipse framework-based tools give developers freedom of choice in a multilanguage, multiplatform, multi-vendor supported environment. Eclipse technology delivers a plug-in-based framework that makes it easier to create, integrate and use software tools, helping you save time and money. Because you're not locked into proprietary standards, you can speed the development process—and get to market faster.

By exploiting the WebSphere Studio family of products and Eclipse technology, IBM also provides complementary toolkits to support the full spectrum of application development, including database, integration, wireless, collaboration and systems management. Toolkits to support emerging technologies in several areas include voice recognition and portal development, so you can deploy your products faster.

Several vendors also provide tools that further extend WebSphere Studio through the use of Eclipse technology. These vendors include Rational, Genuitec, Instantiations, Object Edge, Parasoft, Verant, Merant, Serena, Starbase, Telelogic Technologies and others. Their tools include modeling, testing, business logic, source and configuration management, and work smoothly with Eclipse and WebSphere Studio environments. They allow you to choose the development options that work best for your business.

To enable vendor plug-ins to meet WebSphere Studio integration criteria, IBM has established the Ready for WebSphere Studio program, an initiative to verify that vendors' solutions correctly integrate with WebSphere Studio.

Benefit from IBM services and support

To reduce the time it can take you to get your e-business up and running, IBM offers a wide range of skills transfer, training and mentoring services that build on your existing software and personnel investments. IBM service consultants—armed with deep technical skills and extensive field experience—can work with you to implement WebSphere Application Server and WebSphere Studio, so you can lower development costs and speed time to market.

IBM also offers extensive education resources, to help you understand proven methods of incorporating WebSphere software with your IT portfolio. The IBM technical community is dedicated to providing end-to-end training and certification, Web-enabled support and developer enablement. For example, through IBM WebSphere Developer Domain—a centralized and interactive repository for developer resources—you can view the most up-to-date technical resources for WebSphere Application Server and WebSphere Studio.

To learn more about IBM services and support, visit www.software.ibm.com/wsdd.

“IBM continues to extend the WebSphere platform in ways that support faster, more highly integrated application development. With the release of WebSphere Application Server and WebSphere Studio, Version 5, there’s almost no limit to the level of business integration that’s now possible for our clients....It’s a complete tool; everything needed to make an e-business more agile and resilient is here, ready to go, in one seamless application server and tooling environment.”

– David Moskowitz, President/CEO, Productivity Solutions, Inc., November 2002



A total e-business on demand solution

From creating a dynamic, interactive Web site to conducting large volumes of e-commerce transactions—the IBM WebSphere software platform for e-business can help you build, manage and launch robust, security-rich, portable e-business applications that meet your unique business requirements:

- *Provide products and services to your customers upon request, allowing them to have an on demand buying experience.*
- *Get your e-business up and running with new applications that integrate smoothly with existing ones.*
- *Enhance customer satisfaction by delivering a meaningful purchasing experience and prompt, personalized service.*
- *Adapt business practices as markets shift and business goals evolve.*
- *Conduct business on a global scale, whether your company is a startup or a large enterprise.*
- *Streamline your supply chain by collaborating with trading partners and suppliers.*

The WebSphere software platform has the proven offerings you need to create a total e-business solution—regardless of the business you're in.

For more information

The IBM WebSphere software platform for e-business. Innovative technologies. Flexible, plug-and-play, modular solutions that let you leverage your existing investments in applications, systems and skill sets. All designed to help you gain—and maintain—a competitive advantage.

To learn more about WebSphere software, visit **ibm.com/websphere**.

To learn about WebSphere Application Server, visit **ibm.com/websphere/appserver**.

To learn more about WebSphere Studio, visit **ibm.com/websphere/studio**.





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** ColdFusion MX for IBM WebSphere Application Server Performance Brief; Macromedia, Inc.; November 2002.