



# IBM WebSphere Application Server Version 4.0.1 for z/OS and OS/390 is Designed in Compliance with J2EE 1.2 Specifications

## Overview

WebSphere™ Application Server V4.0.1 for z/OS™ and OS/390® (WebSphere for z/OS) is an e-business application deployment environment built on open standards-based technology.

## What's New

WebSphere for z/OS delivers on the promise of additional J2EE 1.2 and other functions available within the WebSphere family on other platforms.

WebSphere for z/OS now includes support for the following:

- Java™ Messaging Service (JMS), JavaMail, and Client Container
- Web Services equivalent to those in the Version 4 distributed family of servers
- Servlets, JavaServer Pages (JSPs), and Enterprise JavaBeans (EJBs) in compliance with J2EE specifications

Delivered as Web Services with SOAP and UDDI open standard support, WebSphere for z/OS Java 2 Enterprise Edition (J2EE) applications help strengthen your e-commerce presence.

This compliance solidifies the move to a single server family unified by Web Services and the J2EE programming model.

With the introduction of WebSphere for z/OS, the unified WebSphere family view demonstrates the continuing commitment by IBM to deliver dynamic e-business and open standard support.

In addition, WebSphere for z/OS delivers on the promise of JSP and servlet performance equivalent to, if not better than, that of WebSphere V3.5 SE performing the same function.

WebSphere for z/OS continues to support connector access to CICS®, IMS™, and DB2®, as well as connections to applications that run on Web servers and back-end systems such as DB2, CICS, and IMS.

Included with the application server is Software Development Kit (SDK) 1.3, providing the base support for applications at the Java 2 API level.

## Key Prerequisites

- Any hardware that supports OS/390 V2 R8, or later, or z/OS.
- Binary floating point hardware, such as S/390® Parallel Enterprise Server — Generation 5, and higher, systems, is highly recommended.
- Customers without binary floating point hardware, currently running applications on WebSphere V3.02 for OS/390, should consider a hardware upgrade to address performance concerns before upgrading to V4.0.1. Refer to the **Performance Considerations** section.
- DB2 Version 7.1, or later.
- SDK 1.3.
- MQSeries® 5.2 and support pack MA88.

## Planned Availability Date

October 26, 2001

## At a Glance

WebSphere Application Server V4.0.1 for z/OS and OS/390 offers:

- J2EE-compliant deployment platform for servlets, JavaServer Pages (JSPs), and Enterprise JavaBeans (EJBs)
- Java Messaging Service (JMS)
- Web Services
- Leadership in security, scalability, and price/performance value

### For ordering, contact:

Your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at

**800-IBM-CALL**

Reference: LE001

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## Description

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WebSphere for z/OS is delivered as a single offering, along with SDK 1.3.0.

It includes the following elements as part of its Web deployment environment:

- Support for deployment of J2EE, including:
  - EJB Version 1.1 specification level
  - Deployment of Java servlets written to the JavaSoft Version 2.2 specification level
  - Deployment of JSPs written to the JavaSoft Version 1.1 specification level
  - Remote method invocation using Internet inter-ORB protocol
  - Object by value
  - Access to J2EE services from Java Business Objects
  - Java Transaction API
- Integrated run time
- Customization dialog that improves the initial installation and customization of the WebSphere for z/OS product.
  - Enables single entry of customization options
  - Eliminates the need for hand-tailoring of numerous files
  - Generates a set of installation-specific jobs, reducing typos and inconsistencies and providing quicker customization
- Highly secure Web deployment environment with Kerberos as the backbone and SSL as the endpoints
- Java RAS services integrated with existing RAS services and quality of services for z/OS and OS/390
- Support for interoperability with:
  - WebSphere Application Server for distributed platforms
  - CICS TS V1.3, or later, for inbound IOP support
  - Products from other vendors that comply to the supported levels of the J2EE specification

After October 26, 2001, to see a list of products for which IBM has tested interoperability with WebSphere for z/OS, visit:

**<http://www.ibm.com/software/webservers/appserv/>**

- Workstation-based support for administration and operations applications used to install, deploy, and manage WebSphere for z/OS applications

SDK 1.3.0 is shipped with WebSphere Application Server V4.0.1 for z/OS and OS/390. This SDK provides the base support for applications at the Java 2 API level. You can use this level or one already installed at a higher service level.

This product includes software based on technology developed by the Apache Software Foundation. For more information, visit:

**<http://www.apache.org/>**

## *Accessibility by People with Disabilities*

The following features support use by people with disabilities:

- Operation by keyboard alone
- Optional font enlargement and high-contrast display settings
- Screen readers and screen magnifiers tested for use by people with visual impairment

## *Euro Currency*

This program is not impacted by euro currency.

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## Product Positioning

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WebSphere for z/OS extends the S/390 — IBM @server zSeries role as a premier server for enterprise e-business and exploits the IBM qualities of service such as scalability, performance, security, and availability.

By incorporating open industry standards (such as HTML, HTTP, IOP, and CORBA) and J2EE-compliant Java standards for servlets, JSPs, and EJBs, new e-business applications and transactions can now be scaled up for global deployment on the server of choice, regardless of the development platform. Furthermore, new applications can be integrated with the extensive inventory of existing OS/390 applications. The result is the rapid creation of production-ready e-business applications, along with the ability to evolve to the EJB- or CORBA-based deployment model of choice.

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## Reference Information

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For information on the Web, visit:

- WebSphere Application Server Family  
**<http://www.ibm.com/software/webservers/appserv/>**
- z/OS and OS/390 Internet libraries  
**<http://www.ibm.com/servers/eserver/zseries/zos/>**  
**<http://www.ibm.com/s390/os390/bkserv/>**
- zSeries and S/390 e-business Internet — for a wide range of information including the latest announcements, customer success stories, and technical information:  
**<http://www.ibm.com/servers/eserver/zseries/ebusiness/>**
- z/OS and OS/390 Planning Assistant for e-business — this interactive tool lets you access z/OS and OS/390 data:  
**<http://www.ibm.com/eserver/zseries/zos/wizards>**
- OS/390 Planning Assistant for e-business — this interactive tool lets you access OS/390 data:  
**<http://www.ibm.com/s390/os390/wizards/ebiz/>**

- z/OS and OS/390 Guides to e-Business Connectors — these white papers give z/OS and OS/390 customers advice on how to choose the e-business connectors for their existing subsystems (CICS, DB2, and IMS). Visit:

**<http://www.ibm.com/eserver/zseries/ebusconnectors>**

- Enterprise Connection Conference Calls provide an excellent way for you and your staff to keep current on zSeries and S/390 technology and solutions. These no-charge sessions allow you to listen and speak to recognized experts from the convenience of your own office.

**<http://www.ibm.com/servers/eserver/zseries/events/>**

- Patterns for e-business — this site is for anyone with a need to create an e-business solution.

**<http://www.ibm.com/software/developer/web/patterns/>**

For information on CICS Transaction Server for z/OS Version 2, refer to Software Announcement 201-060, dated March 13, 2001.

For information on DATABASE 2™ Universal Database Server for OS/390 and z/OS, Version 7, refer to Software Announcement 201-050, dated March 6, 2001.

#### **Trademarks**

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The e-business logo, WebSphere, z/OS, IMS, and DATABASE 2 are trademarks of International Business Machines Corporation in the United States or other countries or both.

OS/390, CICS, DB2, S/390, and MQSeries are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Java is a trademark of Sun Microsystems, Inc.

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



## IBM US Announcement Supplemental Information

September 25, 2001

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### Services

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**SmoothStart™/Installation Services:** SmoothStart Services, an on-site implementation and training startup service, is designed to accelerate productive use of your IBM solution. The service is provided by IBM Global Services or your Business Partner at an additional cost. SmoothStart Services for z/OS™ and OS/390® Web Servers offer installation, configuration, and customization of your HTTP Server and WebSphere™ Application Server software on the IBM @server zSeries and S/390® platforms. These services use the most current releases of IBM HTTP Server for OS/390 and WebSphere Application Server to customize your established host system component software and create an initial home page with up to four additional Web pages. For more information, visit:

<http://www.ibm.com/services/its/us/mus63a1.html>

**Global Services Offerings:** Performance Management and Capacity Planning Services for z/OS and OS/390 Web Servers

This service analyzes z/OS and OS/390 systems that support Web server implementation. Experts can help improve the performance of your z/OS and OS/390 operating systems by identifying performance problems or capacity exposures. To help you plan for the system resources required to support your Web servers, IBM can model configurations based on your projected business growth and performance objectives. When the performance analysis or capacity planning service is completed, you receive a documented report of the findings and recommendations. For more information, visit:

<http://www.ibm.com/services/ism/performance/>

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### Education Support

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Call IBM Education and Training at 800-IBM-TEACH (426-8322) for catalogs, schedules, and enrollments.

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### Offering Information

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Product information is available through Offering Information (OITool) at:

<http://www.ibm.com/wwoi>

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### Publications

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The publication *WebSphere Application Server V4.0.1 for z/OS and OS/390: Program Directory* (GI10-0680) is available.

The publication *WebSphere Application Server V4.0.1 for z/OS and OS/390: License Information* (LA22-7855) is available on the Web at:

<http://www.ibm.com/software/webservers/appserv/>

<http://www-3.ibm.com/software/sla/slabdb.nsf>

The following publications are available on the Web at:

<http://www.ibm.com/software/webservers/appserv/>

#### WebSphere Application Server V4.0.1 for z/OS and OS/390 Publications

- Program Directory
- License Information
- Installation and Customization
- Migration
- Assembling Java™ 2 Platform, Enterprise Edition (J2EE) Applications
- Assembling CORBA Applications
- Operations and Administration
- Messages and Diagnosis
- System Management User Interface
- Systems Management Scripting Application Programming Interface

#### Common Publications Between z/OS, OS/390, and the Windows® Platforms

- Component Broker Programming Guide
- Component Broker Advanced Programming Guide
- Component Broker Programming Reference
- Component Broker Application Development Tools Guide
- Component Broker Glossary

#### Common WebSphere Publications

- Getting Started with WebSphere Application Server
- Writing Enterprise Beans in WebSphere
- Building Business Solutions with WebSphere

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### Technical Information

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**Hardware Requirements:** For WebSphere Application Server V4.0.1 for z/OS and OS/390:

- Any hardware that supports OS/390 V2 R8, or later, or z/OS.
- Binary floating point hardware, such as S/390 Parallel Enterprise Server™ — Generation 5, and higher, systems, is highly recommended.
- Customers without binary floating point hardware, currently running applications on WebSphere Application Server V3.02 for OS/390, should consider a hardware upgrade to address performance concerns before upgrading to V4.0.1. Refer to the **Performance Considerations** section.

*This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: <http://www.ibm.com>.*

Workstation hardware requirements for workstation-based administration and operations applications:

- 400 MHz processor
- 256 MB memory
- 50 MB disk storage
- 800 x 600 capable display

#### **Software Requirements**

- OS/390 V2 R8, or later, or z/OS
- The following OS/390 elements, features, and components must be installed, enabled, and configured:
  - IBM HTTP Server for OS/390
  - Lightweight Directory Access Protocol (LDAP) Server
  - OS/390 Communications Server (TCP/IP)
  - OS/390 UNIX® System Services and the hierarchical file system (HFS)
  - SecureWay® Security Server (RACF®) or equivalent security management product
  - System logger
  - System SSL security
  - Workload management in goal mode
  - Resource recovery services
  - FTP server
- DB2 Universal Database® Server for OS/390 and z/OS, Version 7 (may coexist with existing levels of DB2® used by other applications).
- CICS® Transaction Server; if your application environment uses CICS, then CICS Transaction Server for OS/390 V1R3, or later, is required for CCF or PAA connectivity.
- IMS™: If your application environment uses IMS, IMS V5R1, or later, is required. If PAA is used, IMS V6R1, or later, is required.
- SDK:
  - IBM Developer Kit, Java 2 Technology Edition, SDK 1.3.
  - For Web Services security, the PTF for persistent reusable support that also includes the Sun standard extensions (JSSE and JCE) is required.
- JMS: If your application environment uses JMS, MQSeries® for OS/390 5.2, an enabling PTF and MQSeries Product Extensions MA88 are required.
- Application development and Web site development tools such as the following are optional:
  - WebSphere Application Server (distributed version)
  - VisualAge® for Java
  - Object Builder
  - WebSphere Studio
- One of the following operating systems for administration and operations applications:
  - Windows 2000
  - Windows NT® 4.0 (with server pack 3, or later)
  - Windows 95 (with server pack 1 or 2)
  - Windows 98

For further details, refer to the publications found at the Web site listed in the **Publications** section of this announcement.

**Performance Considerations:** WebSphere for z/OS runs on any hardware that supports the OS/390 operating system V2 R8, or later.

Because of changes introduced in SDK 1.3.0, there are significant performance advantages for those applications doing floating point arithmetic if the machine has binary floating point hardware, such as S/390 Parallel Enterprise Server™ — Generation 5, or higher, systems.

Applications currently running on a WebSphere V3.02 for OS/390 or WebSphere V3.5 SE for OS/390 server face performance degradation if moved to a V4.0.1 server running on a machine without binary floating point hardware. A hardware upgrade is highly recommended before moving these applications to V4.0.1.

Measurements and analysis indicate that for WebSphere for z/OS JSP and servlet performance will be equivalent, if not better, than that for WebSphere V3.5 SE performing the same function.

#### **Planning Information**

Version 4.0.1 can be installed into an existing Version 4.0 node. This means that you can install Version 4.0.1 on one system at a time, until all members of the WebSphere node are at the later level.

**Customer Responsibilities:** Customers who already have V3.02 running in production should review their Web applications to understand whether any code restructuring is required to run in a Java 2 environment. For a set of links containing known incompatibilities between JDK 1.1.8 and SDK 1.3, visit the Sun Microsystems Java Web page at:

<http://www.javasoft.com>

**Direct Customer Support:** Installation and technical support is provided by IBM Global Services. For more information on services, call 800-IBM-4YOU (426-4968).

**Packaging:** Product components are delivered either on tape or via the Web. All publications are delivered via the Web.

#### **Security, Auditability, and Control**

WebSphere for z/OS provides automated authorization checking and a very strong security implementation for authentication and authorization. It is also designed to provide authentication and authorization service to clients, automatically checking security credentials of all clients accessing WebSphere for z/OS services.

WebSphere for z/OS continues to derive its security services from the information provided by the hosting IBM HTTP server for OS/390. This is consistent with previous releases of the product. Support for basic or certificate-based authentication and support for SSL is implied by this support.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

## Ordering Information

**WebSphere Application Server V4.0.1 for z/OS and OS/390:** WebSphere Application Server V4.0.1 for z/OS and OS/390 is priced per physical system processor (engine).

**Software Subscription and Support:** The annual price of Software Subscription and Support for WebSphere Application Server V4.0.1 for z/OS and OS/390 (5655-F81) depends on the number of processor license entitlements purchased.

Description	Program Number	OTC <sup>1</sup> Feature Number	Medium Feature Number
WebSphere Application Server V4.0.1 for z/OS and OS/390 per processor	5655-F31	0001	5812

<sup>1</sup> One-time charge

### Upgrades

Description	OTC Feature Number	Medium Feature Number	Medium
<b>Program Number 5655-F31</b>			
WebSphere Application Server V4.0.1 for z/OS and OS/390 — Upgrade from WebSphere Application Server V3.02 Enterprise Edition for OS/390 (5655-A98 feature number 0002)	0003	5812	3480
WebSphere Application Server V4.0.1 for z/OS and OS/390 — Upgrade from WebSphere Application Server V3 Standard Edition for OS/390 (5655-A98 feature number 0004)	0002	5812	3480

**Basic License:** To order, specify the program number, feature number 9001 for asset registration, and the OTC feature number. Also specify the feature number of the desired distribution medium.

Description	OTC Feature Number	Medium Feature Number	Medium
<b>Program Number 5655-F31</b>			
WebSphere Application Server V4.0.1 for z/OS and OS/390	0001	5812	3480

**Software Subscription and Annual Support:** To order the Software Subscription and Annual Support, specify program number 5655-F81 and the feature number from the table below. The quantity of licenses must be equal to the number of OTC licenses ordered.

Existing WebSphere Application Server V4.0 for z/OS and OS/390 Software Subscription customers must order WebSphere Application Server V4.0.1 for z/OS and OS/390; shipment is not automatic.

Support for Program Name	Order Under PID 5655-F81 Standard Support Annual Charge Feature Number	Media Feature Number
WebSphere Application Server V4.0.1 for z/OS and OS/390	0001	6482

**Customization Options:** Select the appropriate feature numbers to customize your order with the delivery options you want. These features can be specified on the initial or MES orders.

**Example:** If publications are not wanted for the initial order, specify feature number 3470 to ship media only. If, in the future, publication updates are required, order an MES to remove feature number 3480; then, the publications will be shipped with the next release of the program.

### Customized Offerings

Product media is shipped only via customized offerings (that is, CBPDO, ServerPac, Systempac®). Non-customized items (CDs, diskettes, source media, media kits) will continue to be shipped via the stand-alone product.

## Terms and Conditions

**Licensing:** IBM International Program License Agreement (IPLA). Proofs of Entitlement are required for all authorized use.

These products are licensed under the IPLA, and the associated Agreement for Acquisition of Support, and the Addendum for Support (Z125-XXXX), which provides for support with ongoing access to releases and versions of the program. These programs have an OTC license charge for use of the program and an ongoing recurring charge for the enhanced support that includes telephone assistance (voice support for defects during normal business hours) as well as access to updates, releases, and versions of the program as long as support is in effect. S/390 and zSeries IBM Operational Support Services — Support Line is an option for those customers who desire added services.

### License Information

**Third-Party Code:** The Program, WebSphere Application Server V4.0.1 for z/OS and OS/390 contains, and future updates to the program may contain, certain third-party components that are provided to you under terms and conditions which are different from those provided under the IPLA, or which require IBM to provide you with certain notices and/or information. Such information will be provided in the License Information document.

**Limited Warranty Applies:** Yes

**Program Services:** Program service will be available until March 31, 2003.

**Money-Back Guarantee:** Two-month, money-back guarantee

**Copy and Use on Home/Portable Computer:** No

**Volume Orders (IVO):** No

**Passport Advantage Applies:** No

**Passport Advantage Subscription Applies:** No

**Upgrades:** Customers can acquire upgrades up to the currently authorized level of use of the qualifying programs.

**IBM Operational Support Services — Support Line:** Yes

**AIX®/UNIX Upgrade Protection Applies:** No

**Entitled Upgrade for Current AIX/UNIX Upgrade Protection Licensees:** No

**AS/400® Software Subscription Applies:** No

**Variable Charges Apply:** No

**Educational Allowance Available:** Yes, 15% education allowance applies to qualified education institution customers.

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## Prices

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The prices for WebSphere Application Server V4.0 for z/OS and OS/390 are unchanged.

For more information, refer to Software Announcement 201-058, dated March 13, 2001.

**Customer Financing:** IBM Global Financing offers attractive financing to credit-qualified commercial and government customers and Business Partners in more than 40 countries. IBM Global Financing is provided by the IBM Credit Corporation in the United States. Offerings, rates, terms, and availability may vary by country. Contact your local IBM Global Financing organization. Country organizations are listed on the Web at:

<http://www.financing.ibm.com>

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## Order Now

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Use Priority/Reference Code: LE001

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Mail: IBM Atlanta Sales Center  
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P.O. Box 2690  
Atlanta, GA 30301-2690

You can also contact your local IBM Business Partner or IBM representative. To identify them, call 800-IBM-4YOU.

**Note:** Shipments will begin after the planned availability date.

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Java is a trademark of Sun Microsystems, Inc.

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