IBM WebSphere Enterprise Service Bus for z/OS, WebSphere Process Server for z/OS, and WebSphere Integration Developer V6.1 accelerate SOA through standards-based connectivity and

At a glance

WebSphere Enterprise Service Bus (ESB) for z/OS, WebSphere Process Server for z/OS, and WebSphere Integration Developer deliver:

- Single, integrated platform for deploying and executing business process management (BPM) solutions, service hosting, mediations, and orchestration with end-to-end transactionality
- Ease of use during installation and management
- Comprehensive advanced human workflows capabilities with a new wizard for generating user interface portlets and integrated electronic forms designer for enhanced people interaction
- Improved traceability of model artifacts and process flows with WebSphere Business Modeler, so you can take models from vision to implementation easily and to change them quickly
- Extended connectivity and standards support
- Integration with third-party Java™ Message Service (JMS) 1.1 Application Server Facilities-compliant providers
- Support for the generic HTTP binding
- Advanced mediation primitives for improved request handling and flow of responses and faults
- Additional platform support for the i5/OS™ operating systems, including support for WebSphere Process Server customers to run on i5/OS
- Ability to exploit 64-bit leveraging in the latest version of the WebSphere platform foundation WebSphere Application Server for z/OS V6.1

For ordering, contact:
Your IBM representative or the Americas Call Centers at

800-IBM-CALL Reference: LE001

Overview

WebSphere® Enterprise Service Bus for z/OS®

WebSphere Enterprise Service Bus (ESB) for z/OS is a flexible connectivity infrastructure for integrating applications and services, designed to enable the development of a service-oriented architecture (SOA). Built on top of WebSphere Application Server for z/OS, WebSphere ESB delivers a standards-based connectivity and integration solution that allows you to create and deploy interactions quickly and easily between applications and services, with a reduced number and complexity of interfaces. You can focus on your core business, rather than on your IT.
WebSphere Process Server for z/OS

WebSphere Process Server for z/OS is the very heart of your business process automation and management solutions. It ensures that the processes you design in WebSphere Business Modeler or WebSphere Integration Developer are executed consistently, reliably, securely, and with transactional integrity. Built on open standards, WebSphere Process Server deploys and executes processes that orchestrate services (people, information, systems, and trading partners) within your SOA or non-SOA infrastructure.

When combined with the power of WebSphere Business Monitor, processes can be optimized to meet changing business requirements, giving your business a competitive advantage. WebSphere Process Server is built upon and contains WebSphere ESB for z/OS functionality.

WebSphere Integration Developer

WebSphere ESB for z/OS and WebSphere Process Server for z/OS are both supported by WebSphere Integration Developer as the Eclipse-based tool for building SOA-based business process management (BPM) and integration solutions for deployment on any server platform including z/OS.

Key prerequisites

z/OS V1.7, or later

Planned availability date

February 1, 2008

Description

WebSphere ESB for z/OS

WebSphere ESB for z/OS is a flexible connectivity infrastructure for integrating applications and services. It allows the development of an SOA. WebSphere ESB powers the SOA by reducing the complexity of integrating the applications and services. WebSphere ESB for z/OS is ideal if you have other solutions on WebSphere Application Server, WebSphere Portal, or the BPM platform. You may achieve efficiencies in skills, cost, and time-to-value across middleware products by adding WebSphere ESB to your standards-based IT environment. Built as a service bus based upon the backbone of WebSphere Platform Messaging, WebSphere ESB for z/OS is packaged both as part of WebSphere Process Server and as a stand-alone product. It is implemented as a J2EE application running on WebSphere Application Server for z/OS:

• Provides Web services connectivity, MQ and MQ/JMS messaging, and service-oriented integration using WebSphere Adapters.
• Integrates seamlessly with the industry-leading WebSphere platform for streamlined IT operations
• Delivers business-critical qualities of service of WebSphere Application Server for z/OS
• Easily extends to WebSphere Process Server for service orchestration and BPM
• Delivers an integrated solution for both service mediation and service hosting

WebSphere ESB for z/OS is easy to use from both a tools and a runtime perspective. WebSphere Integration Developer, the development tool of choice for WebSphere ESB, delivers an integrated, interactive, and visual development experience that requires minimal programming skills. You can get up and running quickly with a compelling out-of-the-box experience that is supported by easy-to-understand samples and comprehensive documentation.

By simplifying the task of declaring services, defining interconnections, and visually composing mediation functions (with first-class tool support for intelligent message routing, enrichment, and transformation) makes development easier. New role-based administration support makes it easy to manage WebSphere ESB deployments through a simplified user experience for solution administrators.

You can also reduce the time required to see a return on your investment. WebSphere ESB facilitates the dynamic reconfiguration of service interactions to meet changing business needs.
Extensive WebSphere Adapter support provides connection to hundreds of ISV solutions. Prebuilt mediation function saves time and development costs.

For details on hardware and software requirements for WebSphere ESB, visit

http://www.ibm.com/software/integration/wsesb/sysreqs

New features in WebSphere ESB for z/OS V6.1 platform alignment and currency include:

- 64-bit exploitation leveraging WebSphere Application Server for z/OS V6.1
- Support for zFS as the strategic z/OS file system for installation and configuration of WebSphere ESB and WebSphere Application Server (in addition to the older Hierarchical File System)
- Support for i5/OS and remote DB2® support for System I systems enable integration with i5/OS applications and with the i5/OS Relational Database Management System (RDBMS)
- Support for Windows™ Vista as a design, development, and test platform (not for production) that enables use of Microsoft's latest version of their desktop operating system

Easier administration and management of the WebSphere ESB is key to a successful deployment of your SOA infrastructure. New installation, configuration, and profile management enhancements increase the usability of WebSphere ESB:

- Installation Factory enhancements for defining and building installations at a specific fix level, adding additional files to the installation and leaving out features that are not required
- Installation flexibility allowing installations at a specific fix level, adding additional files to the installation and leaving out features not required
- Eclipse-based profile management tool that is consistent for all WebSphere platforms
- Enhanced configuration management for deployment
- Support for pattern-based configurations, improving productivity for administrators configuring WebSphere Application Server Network Deployment clusters and all required resources for WebSphere ESB environments

Connectivity: Reuse and connectivity are necessary for any SOA deployment to reduce cost and allow for business responsiveness and flexibility. WebSphere ESB V6.1 increases the ability to connect with additional environments with increased service component architecture (SCA) bindings:

- Enables integration with any third-party JMS 1.1 ASF-compliant messaging provider and automatic setup of WebSphere Application Server generic JMS resources
- Enables connection with applications and services via generic HTTP 1.0 and 1.1 bindings
- Supplies the data bindings for easy integration into WebSphere Transformation Extender
- Provides custom data samples with sample scenarios for Export/Import and several formats
- Includes enhancements to Business Fault support enabling differentiation between business and runtime exceptions
- Includes enhancements to XML Schema and Web Services Description Language (WSDL) support
- Delivers a Business Object Instance Validator with implicit interface qualifier-based validation and explicit programmatic validation

Additional mediation support includes:

- New Business Object Map primitive makes it easy to embed a map inside a mediation flow.
- New ServiceInvoke primitive invokes a target service from within a request or response flow.
- New splitting and aggregating primitives allow enhanced processing of single or composite messages by splitting parts of the message and invoking multiple services.
- Custom mediations now allow for new terminals to be defined.
- Refinement of message elements are delivered.
• System-wide common database support and schema qualifier on MessageLogger primitive.
• Performance enhancements are included.

**WebSphere Process Server for z/OS**

WebSphere Process Server for z/OS delivers a unique integration framework that simplifies existing IT. Often, as IT assets grow to support business demand, so too does their complexity and manageability. WebSphere Process Server helps deliver an SOA infrastructure that offers one common model to orchestrate, mediate, connect, map, and execute the underlying IT functions. With this, WebSphere Process Server simplifies integration of business processes by leveraging existing IT assets as reusable services, but without the complexities associated with traditional integration methodologies.

One of the biggest challenges for businesses is to have the agility to respond on demand to business processes. Unlike traditional integration methodologies, WebSphere Process Server allows you to respond dynamically to business demands and adapt to business conditions. This is made possible with rich features like business rules, business state machines, and interface mapping. Its open standards-based services architecture allows customers to change underlying IT assets, with minimal impact on business processes.

WebSphere Process Server for z/OS is part of an entire integration platform that reaches to the very core of business applications such as SAP, Oracle, and many others by using predefined business and technology WebSphere adapters.

WebSphere Process Server for z/OS is built using a common platform and tools that inherit the capabilities of WebSphere ESB and WebSphere Application Server, which provides rich capability. It also exploits technology from other IBM software such as DB2, IBM Tivoli®, Lotus®, and IBM Rational®, as well as third-party platforms such as Microsoft™ .NET and Java.


New features in WebSphere Process Server for z/OS V6.1 include platform alignment and currency:

• 64-bit exploitation leveraging WebSphere Application Server for z/OS V6.1
• Support for zFS as the strategic z/OS file system for installation and configuration of WebSphere Process Server and WebSphere Application Server (in addition to the older Hierarchical File System (HFS))
• Support for i5/OS and remote DB2 support for System I systems enable integration with i5/OS business user applications and with the i5/OS Relational Database Management System (RDMS)
• Support for Windows Vista as a design, development, and test platform (not for production) that enables use of Microsoft's latest version of their desktop operating system

Easier administration and management of the WebSphere Process Server is key to a successful deployment of your SOA infrastructure. New installation, configuration, and profile management enhancements increase the usability of WebSphere Process Server:

• Installation Factory enhancements for defining and building installations at a specific fix level, adding additional files to the installation and leaving out features that are not required
• Eclipse-based profile management tool consistent for all WebSphere platforms
• Enhanced configuration management for deployment
• Support for pattern-based configurations, improving productivity for administrators who configure WebSphere Application Server for z/OS clusters and all required resources for WebSphere Process Server environments.
• Necessary database tables that are now created when first accessed, eliminating the need to create the database manually during configuration

Enhanced human workflow
• New participant substitution capabilities that allow people to temporarily delegate work while they are unavailable
• Additional bulk APIs that ease transferring many tasks in a single operation
• Support for Virtual Member Manager, WebSphere Application Server's new component to integrate customer-specific people directories
• Ability to optionally restrict auto deletion to tasks that completed successfully
• Ability to leverage the forms created using IBM Workplace Forms Designer and Viewer (integrated into WebSphere Integration Developer) as the user interface for human tasks and processes
• Developer extend WebSphere Portal Server's My Task portlet

Business process enhancements

• The new generic JMS interface for Business Flow Manager allows for programmatic interaction with business process templates and instances.
• Web Services Business Process Execution Language (WS-BPEL) for each construct allows processing a dynamic number of multiple branches (either in parallel or serially.
• Suspend Until/For process builds upon the Suspend capabilities in earlier versions of WebSphere Process Server and provides the ability to suspend a business process instance while specifying a duration or point in time when process instance is to be resumed automatically.
• A new option is added to the process-level auto delete attribute that restricts auto deletion to only those processes that completed successfully. This only requires that you keep process instances that may need further analysis or repair.
• You can access the state of a previous activity for controlling the flow in the business process based on the state of that previous activity.
• You can optionally ignore missing data instead of throwing faults.
• There is support for back links in single-threaded flows.

Business rules

• Existing custom business user customers can be extended to administer business rules used in process flows with a new Business Rules Administration API for creating, reading, updating, and deleting rules as an alternative to using the Business Rules Manager.
• New custom properties can be assigned to Business Rule Groups and accessed from the rule logic of rule sets and decision tables to provide these rules with access to environment information captured in the properties. The properties can also be used for searching on Business Rule Groups through the Business Rules Manager or custom management customers.

Business Process Choreographer (BPC) Explorer and BPC Observer

• Enhancements to BPC Explorer leverage new WebSphere Process Server V6.1 capabilities and allow greater control for increased efficiency:
  – Handle absence and substitution of users
  – "Suspend until" option for processes and tasks
  – View/edit data with "any" typed content
  – Extend custom views to support sorting and controlling the amount of data presented to users
  – Use more and consistent search criteria
  – Navigate between related tasks (subtasks and follow-on),
  – Administer and view information about ad-hoc tasks
  – Include human task priority and type as filter criteria and list columns
  – Edit custom properties
– Include improved usability of graphical process view

• Reports in the BPC Observer can now be exported for further analysis in third-party tools, such as Microsoft Excel, as well as being saved for generation automatically at a later time based on schedule or on demand.

Connectivity: Reuse and connectivity are necessary for any SOA deployment to reduce cost and allow for business responsiveness and flexibility. WebSphere Process Server V6.1 increases the ability to connect with additional environments with increased SCA Service Component Architecture (SCA) bindings.

• Enables integration with any third-party JMS 1.1 ASF-compliant messaging provider and automatic setup of WebSphere Application Server generic JMS resources
• Enables connection with applications and services via generic HTTP 1.0 and 1.1
• Supplies data bindings for easy integration into WebSphere Transformation Extender
• Includes custom data samples with sample scenarios for Export/Import and fixed-width, delimited, and name-value pair formats
• Includes enhancements to business fault support enabling differentiation between
• Includes enhancements to XML Schema and Web Service Definition Language (WSDL) support
• Delivers a Business Object Instance Validator that can be invoked for either implicit interface qualifier-based validation or explicit programmatic validation

Additional mediation support

• New Business Object Map primitive makes it easy to embed a map inside a mediation flow.
• New ServiceInvoke primitive invokes a target service from within a request or response flow.
• New splitting and aggregating primitives allow enhanced processing of single or composite messages by splitting parts of the message and invoking multiple services
• Custom mediations now allow for new terminals to be defined
• Refinement of message elements are allowed.
• System-wide common database support and schema qualifier on the MessageLogger primitive.

Common Criteria evaluation: WebSphere Process Server for z/OS derives its security functionality from the WebSphere Application Server for z/OS V6.1 run-time environment, and does not include additional security functionality. Therefore, a Common Criteria evaluation is not necessary because this product relies on the underlying run-time environment for security function and is neither IA (Information Assurance) nor IA-enabled.

FIPS 140-2: The cryptographic functionality of WebSphere Process Server for z/OS is managed by the WebSphere Application Server Network Deployment V6.1 run-time environment.

WebSphere Integration Developer

• Simplifies integration with rich features that accelerate the adoption of SOA by rendering existing IT assets as service components, encouraging reuse and efficiency. It enables rapid assembly of business solutions by wiring reusable service components that can be discovered from multiple locations such as the WebSphere Services Registry and Repository. It also provides a component architecture that simplifies component interfaces and plug-and-play solutions.
• Enables integration developers to assemble complex business solutions — whether processes, mediations, adapters, or code components — with minimal skills. You can construct process and integration solutions using intuitive drag-and-drop technology to visually define the sequence and flow of business processes. The visual editors for Human Tasks, State Machines, Business Rules, Data mapping, and others minimize the need to write Java code.
• Delivers a team-based development environment with an integrated testing environment that
provides a visual debugger for all components and the ability to deploy solutions directly to WebSphere Process Server and WebSphere ESB. It includes refactoring support so that changes made in one place get reflected in other places that are dependent and reduces complexity to resolve errors and dependencies.

- Enables business-driven development, fully integrating with WebSphere Business Modeler to take a model of a business process and quickly and easily implement and deploy it. The tight integration between these tools lets you make incremental changes in the business model and apply them without loss of implementation. The integration with WebSphere Business Monitor lets you to create monitoring models that define events that can be monitored on a business dashboard.
- Provides comprehensive support for assembling composite applications based on standards.
- Allows you to develop executable processes based on WS-BPEL, including the IBM extensions.
- Delivers full support for specifying integrated fault and event handling.
- Includes compensation definition support that provides a logical "undo" capability for steps in process execution.
- Leverages industry-standard interfaces and schemas represented in WSDL and XML Schema Definition (XSD).
- Includes a wide range of adapters for interactions with people, data, and systems including e-mail, Flat File, FTP, Java Database Connectivity (JDBC) for development and production use. Bundles packaged application adapters (SAP, PeopleSoft, Oracle E-business, JD Edwards, and Siebel Business Applications for development use).

WebSphere Integration Developer offers a flexible generation framework for business user applications that can be used for human interactions within a business process. This comprehensive support includes wizards for generation JavaServer Faces-based, portlet-based, and forms-based user interfaces.

For details on hardware and software requirements for WebSphere Integration Developer, visit http://www.ibm.com/software/integration/wid/sysreqs

New features in WebSphere Integration Developer V6.1

- Increased developer productivity from ease-of-use enhancements
  - Overall adapter tooling experience improvements
  - Build time and memory footprint improvements
  - Test environment improvements in synchronization and publishing time
  - Refactoring support improvements

- Enhanced human workflow
  - Workplace Forms Designer and Viewer and integrated into WebSphere Integration Developer
  - New wizard for generating portlets quickly and easily
  - Support for participant substitution/delegation and integration with different people directories

- Enhanced business-driven development capabilities
  - Improved traceability of model artifacts and process flows with WebSphere Business Modeler
  - Enhanced Web Service Definition Language XML Schema Definition (XSD) for supporting standard industrial schemas
  - Improved integration with WebSphere Business Monitor with end-to-end event monitoring improvements
  - Support for customizing Mediation primitives and additional primitives for splitting and aggregating messages

- Enhanced connectivity
Generic (non-JCA) JMS provider binding support  
HTTP SCA binding support for exposing and leveraging services that use HTTP

- Platform updates
  - Includes IBM Rational Application Developer V7 and Eclipse V3.2.2
  - Supports and exploits WebSphere Application Server V6.1
  - Runs on Microsoft Vista

WebSphere ESB for z/OS and WebSphere Process Server for z/OS, V6.1 are the follow-on releases to WebSphere ESB for z/OS, V6.0.2 and WebSphere Process Server for z/OS, V6.0.2. With this announcement, WebSphere ESB for z/OS, V6.1 will replace WebSphere ESB for z/OS V6.0.2 and V6.0.2 will no longer be available. WebSphere Process Server for z/OS V6.1 is the replacement for WebSphere Process Server for z/OS, V6.0.2; however, V6.0.2 will remain available.

**Accessibility by people with disabilities**

Features of WebSphere Process Server for z/OS and WebSphere ESB for z/OS that support use by people with disabilities include:

- Using assistive technologies such as screen readers and screen magnifier software
- Customizing display attributes such as color, contrast, and font size
- Operating the system using only the keyboard

**Section 508 of the U.S. Rehabilitation Act**

WebSphere Process Server for z/OS and WebSphere ESB for z/OS software is fully accessible and Section 508 compliant. Both products are capable when used in accordance with the associated IBM documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assisting technology used with the products properly interoperate with them. A US Section 508 Voluntary Product Accessibility Template (VPAT) can be requested via the IBM Web site at


**Value Unit-based pricing**

Value Unit pricing for eligible IBM eServer® System z™ IBM International Program License Agreement (IPLA) programs enables a lower cost of incremental growth and enterprise aggregation. Each System z IPLA product with Value Unit pricing, has a single price per Value Unit and a conversion matrix, called Value Unit Exhibit, for converting from some designated measurement to Value Units. Most commonly, Millions of Service Units (MSUs) is the measurement designated by IBM to be converted to Value Units. Some other measurements are engines or messages. Since MSUs are the most common measurement, that measurement will be used for the remainder of this description.

Value Unit pricing offers price benefits for you. For each System z IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the **required license capacity**. Each of the various Value Unit Exhibits stipulate that the larger your required license capacity, the fewer Value Units per MSU you will need. Value Unit Exhibits are uniquely identified by a three digit code and referred to using the nomenclature VUExx, where xxx is the three digit code.

Subsequent acquisitions of Value Unit priced programs offer additional price benefits. The quantity of each System z IPLA program that you have acquired is referred to as the **entitled license capacity**. If you wish to grow your entitled license capacity for a System z IPLA program, the calculation to determine additional needed Value Units is based upon the number of Value Units already acquired.

For each System z IPLA program with Value Unit pricing, you should:

- Determine the required license capacity, in MSUs
- Aggregate the MSUs across the enterprise
- Convert the total MSUs to Value Units, using the applicable Value Unit Exhibit
• Multiply the price per Value Unit by the total number of Value Units to determine the total cost.

To simplify conversion from the designated measurement to Value Units or vice-versa, use the Value Unit Converter Tool. For additional information or to obtain a copy of the Value Unit Converter Tool, visit the Value Unit Converter Tool Web site:

http://ibm.com/zseries/swprice/vuctool

Note that Value Units of a given product cannot be exchanged, interchanged, or aggregated with Value Units of another product.

To determine the required license capacity for the System z IPLA program you selected, refer to the Terms and conditions section.

Product positioning

WebSphere ESB for z/OS

WebSphere delivers several software products to meet your diverse integration needs as they span varying programming models, qualities of service, and multiple data types. WebSphere products are designed to meet your requirements, from the creation of a single application to the implementation of an enterprise-wide SOA.

WebSphere ESB for z/OS delivers Web services connectivity, JMS messaging, and service-oriented integration on z/OS for fast implementation and deployment of an enterprise service bus without the need for programming.

WebSphere Process Server for z/OS

WebSphere Process Server or z/OS delivers a single, integrated runtime with the SOA-based process automation on z/OS with combined benefits of the industry's top application server and integration capabilities. It allows business flexibility on a highly scalable, reliable platform with z/OS class of service.

WebSphere Process Server for z/OS offers robust process automation, advanced human workflow, and business rules with rich integration capabilities all on a common, native SOA platform with full ESB Connectivity. WebSphere Process Server and ESB for z/OS extend and enrich your most mission-critical business applications and data, with new process automation and integration capabilities for an SAOA infrastructure that runs on the same platform to provide the same z/OS class of service.

WebSphere Integration Developer

WebSphere Integration Developer is the "one tool, one set of skills" solution for end-to-end integration in your SOA. It is the Eclipse-based tool for building SOA-based BPM and integration solutions across WebSphere Process Server, WebSphere ESB, and WebSphere adapters on any platform including z/OS.

WebSphere Integration Developer offers role-based development experience that specifically targets the integration developer role on a single and integrated Eclipse platform. It can be expanded to other roles like business analyst or J2EE developer or enterprise developer by adding other products from the IBM family of development tools.

Reference information

For ordering information on WebSphere Enterprise Server Bus for z/OS and WebSphere Process Server for z/OS, V6, refer to 206-088, dated April 25, 2006.


For information on WebSphere Integration Business Monitor V6.1, refer to 207-234, dated October 9, 2007.

For information on WebSphere Integration Modeler V6.1, refer to 207-233, dated October 9, 2007.

For information on WebSphere Integration Service Registry and Repository V6.1, refer to

For information on WebSphere Integration Service Fabric for z/OS, V6.1, refer to 207-238, dated October 9, 2007.

For information on WebSphere Adapters V6.1, refer to 207-247, dated October 9, 2007.

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld ID and password are required (use IBM ID).

BP Attachment for Announcement Letter 207-244


Trademarks

i5/OS and System z are trademarks of International Business Machines Corporation in the United States or other countries or both.

WebSphere, z/OS, DB2, Tivoli, Lotus, Rational, and eServer are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Windows and Microsoft are trademarks of Microsoft Corporation.

Java is a trademark of Sun Microsystems, Inc.

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

Education support

IBM delivers a comprehensive portfolio of education services to help customers successfully deploy and integrate WebSphere® Application and Integration middleware products to their maximum potential.

Education is a key component to ensuring software success. The IBM education team is committed to providing the highest quality education available to help your company prosper in today’s competitive marketplace. We take pride in our ability to deliver successful education programs that provide your people with the skills necessary to make your business profitable using IBM software.

The IBM education team works closely with IBM product developers and IBM services organizations to ensure that the courses we offer provide the most up-to-the-minute technical and product information. Our courses place an emphasis on the advanced knowledge and insight that only these sources can provide. We draw from a deep pool of IBM technical experience in the development of our courses, and pass that knowledge on to our students.

For more information about available education offerings, visit the Web site and search on the product name

http://www.ibm.com/software/education

Offering Information

Product information is available via the Offering Information Web site

http://www.ibm.com/common/ssi

Publications

WebSphere ESB: The primary delivery for product documentation for WebSphere ESB for z/OS® V6.1 can be found in the Information Center available on the Web at

The publication, The IBM WebSphere Enterprise Service Bus for z/OS V6.1 Program Directory (GI13-0527) is available with your order, and on the Web at


The publication, The IBM WebSphere Enterprise Service Bus for z/OS V6.1 License Information (LC23-4990) is available with your order, and on the Web at

http://www.ibm.com/software/sla

The license ID is L-SMKH-76LUE7

Note: Extension to the IBM International Program License Agreement (Z125-3301) contains terms and conditions specific to the WebSphere ESB for z/OS program. It also contains terms that supersede license terms which may be included with components of the program. This document details your rights and obligations for the software included in CD-ROM packages (LK4T-2590, LK4T-2591, LK4T-2592, LK4T-2593, LK4T-2594, LK4T-2595, LK4T-2596, LK4T-2597, and LK4T-2598).

WebSphere Process Server: The primary delivery for product documentation for WebSphere Process Server for z/OS V6.1 can be found in the Information Center available on the Web at


The publication, IBM WebSphere Process Server for z/OS V6.1 Program Directory (GI11-2880) is available with your order, and on the Web at


The publication, WebSphere Process Server for z/OS V6.1 License Information (LC23-4990) is available with your order, and on the Web at

http://www.ibm.com/software/sla

The license ID is L-SMKH-76LUE7

Note: This document is an extension to the IBM International Program License Agreement (Z125-3301) and contains terms and conditions specific to the WebSphere Process Server for z/OS program. It also contains terms that supersede license terms which may be included with components of the program. This document details your rights and obligations for the software included in CD-ROM package (LK4T-1484, LK4T-1485, LK4T-1486, LK4T-1487, LK4T-1488, LK4T-1489, LK4T-1490, and LK4T-1491).

Translations of WebSphere Process Server for z/OS documentation will be available no later than 90 days after planned availability at


Translations of WebSphere ESB for z/OS documentation will be available no later than 90 days after planned availability at


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Technical information

Specified operating environment

Hardware requirements: For details on hardware requirements for WebSphere Process Server,
For details on hardware requirements for WebSphere ESB, visit

http://www.ibm.com/software/integration/wsesb/sysreqs

**Software requirements:** For details on software requirements for WebSphere Process Server, visit

http://www.ibm.com/software/integration/wps/sysreqs

For details on software requirements for WebSphere ESB, visit

http://www.ibm.com/software/integration/wsesb/sysreqs

**Planning information**

**Globalization**

WebSphere Process Server for z/OS and WebSphere ESB for z/OS provide basic enablement support for all locales. In addition to English, both products provide translations for Japanese.

**Note:** WebSphere Process Server and WebSphere ESB include prerequisite and complementary products. These bundled prerequisite and complementary products will include translations for the following languages (if available):

- French
- Italian
- German
- Spanish
- Brazilian Portuguese
- Japanese
- Korean
- Simplified Chinese
- Traditional Chinese
- Czech
- Hungarian
- Polish
- Russian

**Common Criteria evaluation:** WebSphere Process Server for z/OS and WebSphere ESB for z/OS rely on security functionality from the WebSphere Application Server for z/OS V6.1 run-time environment, and there has been no direct security functionality added to these products. Therefore, a Common Criteria evaluation is not necessary because these products rely on the underlying runtime environment for security function and are neither Information Assurance (IA) nor IA-enabled.

**FIPS 140-2:** The cryptographic functionality of WebSphere Process Server for z/OS and WebSphere ESB for z/OS are managed by the WebSphere Application Server for z/OS V6 run-time environment.

**Extended entitlement**

IBM plans to protect customers’ investments and does not expect current customers to migrate immediately from currently entitled products to WebSphere Process Server for z/OS. In order to facilitate the extended migration periods that some customers may require, IBM is offering extended entitlement. Customers with active subscription to eligible products can activate extended entitlement to WebSphere Process Server for z/OS. For information on extended
entitlement activation, eligible products and their equivalent extended entitlement products, and general information about extended entitlement, visit the Entitlement section at


Customers should contact their IBM sales representatives for questions and additional assistance.

**Packaging:** The following information applies to both WebSphere Process Server for z/OS V6.1 and WebSphere ESB for z/OS V6.1.

Program components are delivered by traditional z/OS fulfillment:

- CBPDO
- ServerPac

Program components intended to run on the z/OS platform are delivered on a single tape. WebSphere Application Server for z/OS V6.1 (with the latest available service level) is included on both the WebSphere Process Server for z/OS and WebSphere ESB for z/OS product tapes.

In addition to the components intended to run on the z/OS platform, there are several which are intended to run on non-z/OS systems. They are described in the following paragraphs. In addition to the materials provided on tape, the following CD-ROMs and DVDs are included:

- Messaging Clients CD-ROMs
- Process Server Clients CD-ROMs and DVDs (included only with WebSphere Process Server for z/OS)
- WebSphere Application Server Network Deployment Supplements 6.1 CD-ROMs
- Application Server Toolkit 6.1 CD-ROMs
- Edge Components 6.1 CD-ROMs
- IBM Tivoli® Access Manager 6.0 CD-ROMs
- IBM Rational® Agent Controller CD-ROM

All of these CD-ROMs and DVDs are intended to be installed and run on non-z/OS platforms.

**Security, auditability, and control**

WebSphere Process Server for z/OS and WebSphere Enterprise Service Bus for z/OS use the security and auditability features of the host software. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

**Software Services**

IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based, software services team and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, we extend our IBM Software Services reach through IBM Business Partners to provide an unmatched portfolio of capabilities. Together, we provide the global reach, intellectual capital, industry insight, and technology leadership to support any critical business need.

To learn more about IBM Software Services or to contact a Software Services sales specialist, visit

http://www.ibm.com/software/sw-services/

**Ordering information**

<table>
<thead>
<tr>
<th>Program name</th>
<th>PID number</th>
<th>Charge metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM United States Announcement 207-244</td>
<td>IBM is a registered trademark of International Business Machines Corporation</td>
<td>13</td>
</tr>
</tbody>
</table>
The programs in this announcement all have Value Unit-based pricing.

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
<th>Unit Exhibit</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-R15</td>
<td>WebSphere Enterprise Service Bus for z/OS</td>
<td>VUE007</td>
</tr>
<tr>
<td>5655-N53</td>
<td>WebSphere Process Server for z/OS</td>
<td>VUE007</td>
</tr>
</tbody>
</table>

For each System z™ IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the "required license capacity." Your required license capacity is based upon the following factors:

- The System z IPLA program you select
- The applicable Value Unit Exhibit
- The applicable Terms
- Whether your current mainframes are full-capacity or sub-capacity

### Value Unit exhibit VUE007

<table>
<thead>
<tr>
<th>MSUs</th>
<th>MSUs</th>
<th>Value Units/MSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Tier A</td>
<td>4</td>
<td>0.45</td>
</tr>
<tr>
<td>Tier B</td>
<td>46</td>
<td>0.36</td>
</tr>
<tr>
<td>Tier C</td>
<td>176</td>
<td>0.27</td>
</tr>
<tr>
<td>Tier D</td>
<td>316</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Value Units for mainframes without MSU ratings:

- MP3000 H30: 6
- MP3000 H50: 8
- MP3000 H70: 12
- ESL Models: 2

### Ordering example

The total number of Value Units is calculated according to the following example.

If your required license capacity is 1,500 MSUs for your selected System z IPLA product, the applicable Value Units would be:

<table>
<thead>
<tr>
<th>Translation from MSUs to Value Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSUs</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Base</td>
</tr>
<tr>
<td>Tier A</td>
</tr>
<tr>
<td>Tier B</td>
</tr>
<tr>
<td>Tier C</td>
</tr>
<tr>
<td>Tier D</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

When calculating the total number of Value Units, the sum is to be rounded up to the next integer.

### Ordering z/OS through the Internet

ShopzSeries provides an easy way to plan and order your z/OS ServerPac or CBPDO. It will analyze your current installation, determine the correct product migration, and present your new configuration based on z/OS. Additional products can also be added to your order (including
determination of whether all product requisites are satisfied). ShopzSeries is available in the U.S. and several countries in Europe. In countries where ShopzSeries is not available yet, contact your IBM representative (or IBM Business Partner) to handle your order via the traditional IBM ordering process. For more details and availability, visit the ShopzSeries Web site at


Basic license: On/Off Capacity on Demand (On/Off CoD)

WebSphere ESB for z/OS is eligible for On/Off CoD with a temporary use charge (TUC) calculated based on MSUs per-day usage.

Program name: WebSphere Enterprise Service Bus for z/OS
Program PID: 5655-R15

<table>
<thead>
<tr>
<th>Entitlement</th>
<th>Description</th>
<th>License option/ Pricing metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>S012HBD</td>
<td>WebSphere ESB for z/OS Basic OTC, Per MSU-day TUC</td>
<td></td>
</tr>
</tbody>
</table>

On/Off Capacity on Demand (On/Off CoD)

WebSphere Process Server for z/OS is eligible for On/Off CoD with a TUC charge calculated based on MSUs per-day usage.

Program name: WebSphere Process Server for z/OS
Program PID: 5655-N53

<table>
<thead>
<tr>
<th>Entitlement</th>
<th>Description</th>
<th>License option/ Pricing metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>S0123H6</td>
<td>WebSphere Process Server for z/OS Basic OTC, Per MSU-day TUC</td>
<td></td>
</tr>
</tbody>
</table>

Translation from MSUs to Value Units

<table>
<thead>
<tr>
<th>MSUs</th>
<th>Value Units/MSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>1-3 x.xx</td>
</tr>
<tr>
<td>Tier A</td>
<td>4-45 x.xx</td>
</tr>
<tr>
<td>Tier B</td>
<td>46-175 x.xx</td>
</tr>
<tr>
<td>Tier C</td>
<td>176-315 x.xx</td>
</tr>
<tr>
<td>Tier D</td>
<td>316+ x.xx</td>
</tr>
</tbody>
</table>

To order, specify the program product number and the appropriate license or charge option. Also, specify the desired distribution medium. To suppress shipment of media, select the license-only option in CFSW.

WebSphere ESB for z/OS — Value Unit ordering

Program Name: WebSphere Enterprise Service Bus for z/OS
Program PID: 5655-R15

The following information is a summary of all license options and pricing metrics offered for the above PID number.

<table>
<thead>
<tr>
<th>Entitlement</th>
<th>Description</th>
<th>License options/ Pricing metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>S012HBD</td>
<td>WebSphere ESB for z/OS Basic OTC, Value Units</td>
<td></td>
</tr>
<tr>
<td>S012HBD</td>
<td>WebSphere ESB for z/OS Basic OTC, Value Units Trade-up from WebSphere Application Server for z/OS</td>
<td></td>
</tr>
</tbody>
</table>

Orderable supply ID Language Distribution medium

<table>
<thead>
<tr>
<th>Supply ID</th>
<th>Language</th>
<th>Distribution medium</th>
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</thead>
<tbody>
<tr>
<td>S012HBC</td>
<td>English</td>
<td>3480 tape</td>
</tr>
</tbody>
</table>
The following information is a summary of all license options and pricing metrics offered for the above PID number.

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License options/ Pricing metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>S012HBJ</td>
<td>WebSphere ESB S&amp;S</td>
<td>Basic ALC, Value Units SW S&amp;S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Basic MLC, Value Units SW S&amp;S (EMEA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Decline SW S&amp;S (no charge)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Per MSU SW S&amp;S Registration</td>
</tr>
</tbody>
</table>

Orderable supply ID: Language: Distribution medium
S012HBH: English: Paper

WebSphere Process Server for z/OS — Value Unit ordering

Program Name: WebSphere Process Server for z/OS
Program PID: 5655-N53

The following information is a summary of all license options and pricing metrics offered for the above PID number.

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License options/ Pricing metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>S0123H6</td>
<td>WebSphere Process Server for z/OS</td>
<td>Basic OTC, Value Units</td>
</tr>
<tr>
<td>S0123H6</td>
<td>WebSphere Process Server for z/OS</td>
<td>Basic OTC, Value Units</td>
</tr>
<tr>
<td></td>
<td>Trade-up from WebSphere Application Server for z/OS (5655-N01)</td>
<td></td>
</tr>
<tr>
<td>S0123H6</td>
<td>WebSphere Process Server for z/OS</td>
<td>Basic OTC, Value Units</td>
</tr>
<tr>
<td></td>
<td>Trade-up from WebSphere ESB for z/OS (5655-R15)</td>
<td></td>
</tr>
</tbody>
</table>

Orderable supply ID: Language: Distribution medium
S0149jZ: English: 3480 tape

Notes

1. When WebSphere ESB for z/OS is acquired as a program trade up from WebSphere Application Server z/OS and installed, then you may not use, or transfer use, of the program from which you traded.

2. After a trade-up from WebSphere Application Server z/OS, you will be entitled to use the version of WebSphere Application Server z/OS that is included with WebSphere ESB for z/OS. You will receive updates of WebSphere Application Server z/OS as part of updates to WebSphere ESB for z/OS.

3. Customers who need to always stay current with the latest version of release of WebSphere Application Server z/OS should be licensed to WebSphere Application Server z/OS independently in addition to WebSphere ESB for z/OS.
Subscription and Support

To receive voice technical support via telephone and future releases and versions at no additional charge, Subscription and Support must be ordered. The capacity of Subscription and Support (Value Units) must be the same as the capacity ordered for the product licenses.

To order, specify the Subscription and Support program number (PID) referenced above and the appropriate license or charge option.

IBM is also providing Subscription and Support for these products via a separately purchased offering under the terms of the IBM International Agreement for Acquisition of Software Maintenance (IAASM). This offering:

• Includes and extends the support services provided in the base support to include technical support via telephone.
• Entitles you to future releases and versions, at no additional charge. Note that you are not entitled to new products.

When Subscription and Support is ordered, the charges will renew automatically annually unless cancelled by you.

The combined effect of the IPLA license and the Agreement for Acquisition of Software Maintenance gives you rights and support services comparable to those under the traditional ICA S/390® and zSeries® license or its equivalent. To ensure that you continue to enjoy the level of support you are used to in the ICA business model, you must order both the license for the program and the support for the selected programs at the same Value Unit quantities.

Single version charging: To elect single version charging, you must notify and identify to IBM the prior program and replacement program, and the machine the programs are operating on.

Customized Offerings

Product deliverables are shipped only via Customized Offerings (for example, CBPDO, ServerPac, SystemPac®).

CBPDO and ServerPac are offered for Internet delivery, where ShopzSeries product ordering is available. Internet delivery of ServerPac may help improve automation and software delivery time. For more details on Internet delivery, refer to the ShopzSeries help information at http://www.software.ibm.com/ShopzSeries

Media type for this software product is chosen during the Customized Offerings ordering process. Based on your customer environment, it is recommended that the highest possible density tape media is selected. Currently offered media types are:

• CBPDOs — 3480, 3480 Compressed, 3490E, 3590, 3592¹
• ServerPacs — 3480, 3480 Compressed, 3490E, 3590, 3592¹
• SystemPacs — 3480, 3480 Compressed, 3490E, 3590, 3592¹

¹ 3592 is highest density media. Selecting 3592 will ship the fewest number of media.

Once a product becomes generally available, it will be included in the next ServerPac and SystemPac monthly update.

Production of software product orders will begin on the planned general availability date.

• CBPDO shipments will begin one week after general availability.
• ServerPac shipments will begin two weeks after inclusion in ServerPac.
• SystemPac shipments will begin four weeks after inclusion in SystemPac due to additional customization, and data input verification.
The information provided in this announcement letter is for reference and convenience purposes only. The terms and conditions that govern any transaction with IBM are contained in the applicable contract documents such as the IPLA, IBM International Passport Advantage® Agreement, and the IBM Agreement for Acquisition of Software Maintenance.

**Licensing:** IPLA including the license information (LI) document and proof of entitlement (PoE) govern your use of the program. PoEs are required for all authorized use.

**Agreement for Acquisition of Software Maintenance:** The IBM Agreement for Acquisition of Software Maintenance (Z125-6011) applies for maintenance and does not require customer signatures.

These programs are licensed under the IPLA and the associated Agreement for Acquisition of Software Maintenance, which provide for support with ongoing access to releases and versions of these programs. These programs have a one-time license charge for use of the program and an annual renewable 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.

For more information about the specific license terms that apply to these products, visit http://www.ibm.com/software/sla

Use the following IDs to locate the applicable product license which will be available on, or near, the planned availability:

- WebSphere Process Server for z/OS V6.1: L-SMKH-76LUE7
- WebSphere Enterprise Service Bus for z/OS V6.1: L-SMKH-76LUE7

**Note** When WebSphere Process Server for z/OS or WebSphere ESB for z/OS is acquired as a program trade up and installed, you may not use or transfer use of the program from which you traded.

S/390 and System z IBM Operational Support Services — SoftwareXcel is an option for those customers who desire added services.

**Limited warranty applies:** Yes

**Limited warranty:** IBM warrants that when the program is used in the specified operating environment, it will conform to its specifications. The warranty applies only to the unmodified portion of the program. IBM does not warrant uninterrupted or error-free operation of the program or that IBM will correct all program defects. You are responsible for the results obtained from the use of the program.

IBM provides you with access to IBM databases containing information on known program defects, defect corrections, restrictions, and bypasses at no additional charge. Consult the IBM Software Support Guide for further information at http://www.ibm.com/software/support

IBM will maintain this information for at least one year after the original licensee acquires the program (warranty period).

**Program support:** Enhanced support, called Subscription and Support, includes telephone assistance, as well as access to updates, releases, and versions of the program as long as support is in effect. You will be notified of discontinuance of support with 12 months’ notice.

**Money-back guarantee:** If for any reason you are dissatisfied with the program and you are the original licensee, you may obtain a refund of the amount you paid for it, if within 30 days of your invoice date you return the program and its PoE to the party from whom you obtained it. If you downloaded the program, you may contact the party from whom you acquired it for instructions on how to obtain the refund.

For clarification, note that for programs acquired under any of IBM's On/Off Capacity on Demand
Authorization for use on home/portable computer: You may not copy and use this program on another computer without paying additional license fees.

Volume orders (IVO): No

Passport Advantage applies: No

Software Maintenance applies: No. For operating system software, the revised IBM Operational Support Services — SoftwareXcel offering will provide support for those operating systems and associated products that are not available with the newly announced Software Maintenance offering. This will ensure total support coverage for your enterprise needs, including IBM and selected non-IBM products. For complete lists of products supported under both the current and revised SoftwareXcel offering, visit http://www.ibm.com/services/sl/products

For additional information on the revised IBM Operational Support Services, refer to 601-023, dated July 10, 2001.

IBM Operational Support Services — SoftwareXcel: Yes

System i™ Software Maintenance applies: No

Variable charges apply: Yes

Educational allowance available: Yes. A 15% education allowance applies to qualified education institution customers.

Sub-capacity terms and conditions

For each System z IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the 'required license capacity.' Your required license capacity is based upon the following factors:

- The System z IPLA program you select
- The applicable Value Unit Exhibit
- The applicable terms
- Whether your current mainframes are full-capacity or sub-capacity

For more information on the Value Unit Exhibit for the System z IPLA program you selected, refer to the Ordering information section.

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
<th>Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-N53</td>
<td>WebSphere Process Server for z/OS</td>
<td>Execution based</td>
</tr>
<tr>
<td>5655-R15</td>
<td>WebSphere ESB for z/OS</td>
<td>Execution based</td>
</tr>
</tbody>
</table>

Full-capacity mainframes: In cases where full-capacity is applicable, the following terms apply:

Execution-based, z/OS-based, Full-machine-based: The required capacity of a System z IPLA program with these terms equals the MSU rated capacity of the machine where the System z IPLA program executes.

For more information on mainframe MSU rated capacities, visit the Web site http://www-1.ibm.com/servers/eserver/zseries/library/swpriceinfo/

Reference-based: The required license capacity of a System z IPLA program with these terms equals the license capacity of the applicable monthly license charge (MLC) program. This MLC program is called the 'parent' program.
Sub-capacity mainframes

In cases where sub-capacity is applicable, the following terms apply:

**Execution-based**: The required capacity of a System z IPLA sub-capacity program with these terms equals the capacity of the LPAR where the System z IPLA program executes.

**z/OS-based**: The required license capacity of a System z IPLA program with these terms equals the license capacity of z/OS (and z/OS.e) on the machine where the System z IPLA program executes.

**Reference-based**: The required license capacity of a System z IPLA program with these terms equals the license capacity of the applicable monthly license charge (MLC) program. This MLC program is called the “parent: program.

**Full machine-based**: The required license capacity of a System z IPLA program with full machine-based terms equals the MSU rated capacity of the machine where the System z IPLA program executes.

For more information on mainframe MSU rated capacities, refer to "The System/370™, System/390®, and zSeries Machine Exhibit (Z125-3901)" or visit the “Mainframes” section of the System z Exhibits Web site


For more information on sub-capacity System z IPLA terms and conditions, refer to 204-184, dated August 10, 2004.

**Additional information for products with reference-based terms**

System z IPLA sub-capacity programs with reference-based terms adds value to the parent program across the environment, regardless of where in environment the System z IPLA program executes.

An environment is defined as either a single/stand-alone machine or a qualified Parallel Sysplex®. Customers may have one or more different environments across their enterprise. To determine the required license capacity for each System z IPLA program with referenced-based terms, each environment should be assessed separately.

When a System z IPLA sub-capacity program with reference-based terms is used in a qualified Parallel Sysplex environment the required license capacity of the System z IPLA program must equal with the license capacity of the parent program across the Parallel Sysplex. Qualified Parallel Sysplex refers to one that meets the criteria defined in 198-001, dated January 13, 1998.

**Sub-capacity eligibility**: To be eligible for sub-capacity charging on select System z IPLA programs, you must first implement and comply with all terms of either sub-capacity Workload License Charges (WLC) or sub-capacity Entry Workload License Charges (EWLC). To implement sub-capacity WLC or EWLC, a machine must be System z (or equivalent). On that machine:

- All instances of the OS/390® operating system must be migrated to the z/OS (or z/OS.e) operating systems
- Any licenses for the OS/390 operating system must be discontinued
- All instances of the z/OS operating (or z/OS.e) systems must be running in z/Architecture™ (64-bit) mode

For that machine, you must create and submit a Sub-Capacity Report to IBM each month. Sub-Capacity Reports must be generated using the Sub-Capacity Reporting Tool (SCRT). For additional information or to obtain a copy of SCRT, visit the System z Software Pricing Web site


You must comply with all of the terms of the WLC or EWLC offering, whichever is applicable:

- The complete terms and conditions of sub-capacity WLC are defined in the IBM Customer Agreement — Attachment for IBM System z Workload License Charges (Z125-6516).
- The complete terms and conditions for sub-capacity EWLC are defined in the IBM Customer Agreement — Attachment for EWLC, TWLC, zELC and z/OS.e License Charges (Z125-6587).
Additionally, you must sign and comply with the terms and conditions specified in the amendment to the IPLA contract — ‘Amendment for System z Programs Sub-Capacity Pricing (Z125-6929)’. Once the amendment is signed, the terms in the amendment replace any and all previous System z IPLA sub-capacity terms and conditions.

**Sub-capacity utilization determination**

Sub-capacity utilization is determined based on the product's own execution as reported to IBM in accordance with the requirements for reporting sub-capacity utilization for products.

**On/Off Capacity on Demand (CoD)**

To be eligible for On/Off CoD pricing, you must be enabled for temporary capacity on the corresponding hardware, and the required contract, Attachment for Customer Initiated Upgrade and IBM eServer On/Off Capacity on Demand — Software (Z125-6611) must be signed prior to use.

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**IBM Electronic Services**

IBM has transformed its delivery of hardware and software support services to help you achieve higher system availability. Electronic Services is a Web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services are designed to provide the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent™ is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer your questions or diagnose problems. Installation and use of IBM Electronic Service Agent for problem reporting enables IBM to provide better support and service for your IBM server.

To learn how Electronic Services can work for you, visit

http://www.ibm.com/support/electronic

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**Prices**

For all charges, contact your local IBM representative.

**Subscription and Support**

To receive voice technical support via telephone during normal business hours and future releases and versions at no additional charge, Subscription and Support must be ordered. The capacity of Subscription and Support (Value Units) must be the same as the capacity ordered for the product licenses.

To order, specify the Subscription and Support program number (PID) referenced above and the appropriate license or charge option.

IBM is also providing Subscription and Support for these products via a separately purchased offering under the terms of the IBM International Agreement for Acquisition of Software Maintenance (IAASM). This offering:

- Includes and extends the support services provided in the base support to include technical support via telephone during normal business hours.
- Entitles customers to future releases and versions at no additional charge. Note that the customer is not entitled to new products.

When Subscription and Support is ordered, the charges will renew automatically annually unless cancelled by the customer.
**Variable charges:** The applicable processor-based one-time charge will be based on the group of the designated machine on which the program is licensed for use. If the program is designated to a processor in a group for which no charge is listed, the charge of the next higher group listed applies. For movement to a machine in a higher group, an upgrade charge equal to the difference in the then-current charges between the two groups will apply. For movement to a machine in a lower group, there will be no adjustment or refund of charges paid.

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**IBM Global Financing**

IBM Global Financing offers competitive financing to credit-qualified customers to assist them in acquiring IT solutions. Offerings include financing for IT acquisition, including hardware, software, and services, from both IBM and other manufacturers or vendors. Offerings (for all customer segments: small, medium, and large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit [http://www.ibm.com/financing](http://www.ibm.com/financing).

IBM Global Financing offerings are provided through IBM Credit LLC in the United States, and other IBM subsidiaries and divisions worldwide to qualified commercial and government customers. Rates are based on a customer's credit rating, financing terms, offering type, equipment type, and options, and may vary by country. Other restrictions may apply. Rates and offerings are subject to change, extension, or withdrawal without notice.

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**Order now**

To order, contact the Americas Call Centers or your local IBM representative.

To identify your local IBM representative, call 800-IBM-4YOU (426-4968).

**Phone:** 800-IBM-CALL (426-2255)

**Fax:** 800-2IBM-FAX (242-6329)

**Internet:** callserv@ca.ibm.com

**Mail:** IBM Teleweb Customer Support

ibm.com Sales Execution Center, Americas North

3500 Steeles Ave. East, Tower 3/4

Markham, Ontario

Canada

L3R 2Z1

Reference: LE001

The Americas Call Centers, our national direct marketing organization, can add your name to the mailing list for catalogs of IBM products.

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

**Trademarks**

System z, System i, System/370, z/Architecture, and Electronic Service Agent are trademarks of International Business Machines Corporation in the United States or other countries or both.

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

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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](http://www.ibm.com)