IBM Tivoli OMEGAMON XE on z/OS V4.2.0 extends z/OS management capabilities and integration of OMEGAMON throughout the enterprise

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At a glance

IBM® Tivoli® OMEGAMON® XE on z/OS® V4.2 delivers:

• Improved cross-component and cross-product integration for leveraging efficiency and cost savings
• Expanded capabilities for the management of vital z/OS workloads and resources
• Stronger historical reporting capability with Tivoli Common Reporting to enable the analysis of integrated workloads for z/OS environments
• OMEGAMONs overall breadth and depth of monitoring and management abilities for greater visibility, control, and automation
• Expanded capability in both the TEP and 3270 user interfaces
• Continued product vitality providing z/OS day-one currency in support of advanced technology adopters
• The use of a zIIP speciality processor to reduce CPU costs for data collection

For ordering, contact:
Your IBM representative. For more information, contact the Americas Call Centers at 800-IBM-CALL (426-2255).

Reference: LE001

Overview

IBM Tivoli OMEGAMON XE on z/OS V4.2, a powerful management tool, helps users optimize the performance and availability of their vital z/OS operating systems. It delivers a single point of control over individual logical partitions and in Parallel Sysplex® environments. It integrates with other IBM solutions to provide a cohesive management capability in your z/OS environment. This integration extends to application management, distributed management, and is a key component in the IBM Tivoli Service Management for System z® strategy and integration via the Tivoli Enterprise Portal (TEP). OMEGAMON XE on z/OS also contains a 3270 interface that continues to be enhanced.
Key enhancements:

- Improved workload management capabilities that now provide CPU loop detection, Workload Manager blocked throughput, and restructured work spaces. This translates to better visualizing and control of your workload running on z/OS.
- Improved resource management capabilities with Capacity On Demand to provide information on provisioning of physical processors, support of Extended Address Volumes (EAV), enhancements to UNIX® System Services reporting, HyperDispatch z10 support, and restructured work spaces.
- Has zIIP enabled parts of it's data collection routines for reduced general processor usage.
- Increased integration with more Dynamic Workspace Linking (DWL) to other IBM products. We also now provide links to Classic (3270) in context for greater leveraging of Classic monitoring.
- Includes reports that run under Tivoli Common Reporting (TCR), a reporting tool and strategy common across Tivoli products.
- Provides enhanced customization, replication, and maintenance capabilities, making it easier to deploy and maintain the product.

Key prerequisites

Refer to the Software requirements and Hardware requirements sections

Planned availability date

- March 6, 2009

Refer to the complete letter for national language availability.

Description

IBM Tivoli OMEGAMON XE on z/OS V4.2 enhancements:

- Detects CPU looping address spaces, so that you can optimize the resource utilization and save wasted MIPs.
- Provides zIIP enabled parts of its data collection routines. This capability allows for offloading usage of general processors to the zIIP specialty processors thus reducing collection overhead.
- Restructured existing workspaces provide greater capability in managing and identifying workloads and resources. This restructuring eliminates navigation hops and displays more information in the OMEGAMON workspaces.
- Identifies Workload Manager (WLM) blocked workloads. This provides a way to see when higher priority workloads are hindered (blocked) due to lower priority workloads, which have allocated a resource but can not release that resource due to higher priority workloads dominating CPU utilization.
- Includes UNIX System Services enhancements for TCP/IP and file system support. OMEGAMON XE on z/OS now reports on USS socket availability and the zFS file system files.
- Provides dynamic linking capability from the Tivoli Enterprise Portal (TEP) user interface in OMEGAMON XE on z/OS to the underlying component interface call Classic OMEGAMON (3270) in context. This is a seamless way to navigate from the OMEGAMON XE to Classic. More Dynamic Workspace Linking to other OMEGAMONs is also being provided for even more integration within the portfolio for more effective management.
- Includes reports that run under Tivoli Common Reporting (TCR), which is a reporting tool and strategy common across Tivoli products.
- Includes System z10 enhancements for Capacity on Demand to provide information on provisioning of physical processors, support for Extended Addressed Volumes (EAV) in the I/O subsystem and z10, HyperDispatch support that show HyperDispatch workflow and resource usage and issuing of MVS™ HDSP commands for even more details.
• Delivers multiple customization, replication, and maintenance enhancements. These enhancements will provide faster and easier deployment and maintenance of the product.

Accessibility by people with disabilities

A U.S. Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at


Value Unit-based pricing

Value Unit pricing for eligible IBM 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 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

The overriding value associated with this product is that it shares a common goal (performance and availability management) and was originally designed to achieve that goal by integrating information, alerts, usage and actions. For example, the OMEGAMON family of products rely on the TEP to provide the same graphical interface, which allows various end users from different domains (storage, operating systems, and online subsystems, and so on) to utilize the same user interface and the same skill set to perform their function. This integrated approach enables the ability to leverage information from multiple OMEGAMON sources to quickly and efficiently identify and correct complex problems that occur in all companies. In addition, the TEP provides
Dynamic Workspace Linking (DWL) so that two or more products with TEP share data and linkages between products, which improves productivity and lowers costs. The OMEGAMON portfolio is key to the IBM Tivoli Service Management for System z initiative (SMCz) providing the operational management monitoring capabilities critical to managing your enterprise.

**Availability of national languages**

IBM Tivoli OMEGAMON XE on z/OS is enabled for worldwide availability in the group 1 languages.

**Product identification number**

<table>
<thead>
<tr>
<th>Program number</th>
<th>Subscription and Support PID number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5698-A33</td>
<td>5608-S81</td>
</tr>
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**Program number**

<table>
<thead>
<tr>
<th>Program number</th>
<th>VRM</th>
<th>Program name</th>
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</thead>
<tbody>
<tr>
<td>5698-A33</td>
<td>4.2</td>
<td>IBM Tivoli OMEGAMON XE on z/OS</td>
</tr>
</tbody>
</table>

**Education support**

Comprehensive education for IBM Tivoli products is offered through Worldwide Tivoli Education Delivery Services. A wide range of training options are available, including classes led by instructors, learning on demand, on-site training, and blended learning solutions.

For additional information, visit


**Offering Information**

Product information is available via the Offering Information Web site

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

**Publications**

The following publications will be available on the DVD and the Publications Center on March 3, 2009:

<table>
<thead>
<tr>
<th>Title</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Tivoli OMEGAMON XE on z/OS: Planning and Configuration Guide</td>
<td>SC27-2354</td>
</tr>
<tr>
<td>IBM Tivoli OMEGAMON XE on z/OS: Troubleshooting Guide</td>
<td>GC27-2355</td>
</tr>
<tr>
<td>IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS: End-to-End Response Time Feature Reference</td>
<td>SC27-2303</td>
</tr>
<tr>
<td>IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS: Reports for Tivoli Common Reporting</td>
<td>SC27-2304</td>
</tr>
<tr>
<td>IBM Tivoli OMEGAMON XE Monitoring Agents on z/OS: Quick Start Guide</td>
<td>GI11-8918</td>
</tr>
<tr>
<td>IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS: Upgrade Guide</td>
<td>SC23-9745</td>
</tr>
</tbody>
</table>
Technical information

Specified operating environment

Hardware requirements
IBM Tivoli OMEGAMON XE on z/OS can be deployed on any IBM System z hardware system capable of running z/OS V1.8, or later and other requisite software for that product.

Software requirements
Versions of all the required OMEGAMON products are provided in the product package. However, if you already have a supported version of an OMEGAMON product installed in your enterprise, you can use the currently installed product.

The following list contains the versions, releases, and maintenance levels of the components and products that you need in order to install and use these products.

Mandatory requisites:

One of the following:

- 5694-A01 z/OS V1.8, or later
- IBM Tivoli Monitoring V6.2.1

The program’s specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a README file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

Planning information

Packaging
IBM Tivoli Omegamon XE on z/OS is distributed with:

- International Program License Agreement (Z125-3301)
- License Information document (GC32-1961-02)
- Media
- Publications (refer to the Publications section)

Security, auditability, and control
IBM Tivoli OMEGAMON XE on z/OS uses the security and auditability features of the operating system software. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.
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 extensive portfolio of capabilities. Together, we provide the global reach, intellectual capital, industry insight, and technology leadership to support a wide range of critical business needs.

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


IBM Tivoli Enhanced Value-Based Pricing

Tivoli software products are priced using Tivoli's Enhanced Value-Based Pricing. The Enhanced Value-Based Pricing system is based upon the Tivoli Environment-Managed Licensing Model, which uses a managed-environment approach -- whereby price is determined by what is managed rather than the number and type of product components installed.

For example, all servers monitored with Tivoli's monitoring product (IBM Tivoli Monitoring) require entitlements sufficient for those servers. Other Tivoli products may manage clients, client devices, agents, network nodes, users, or other items, and are licensed and priced accordingly.

Unlike typical systems management licensing models that require entitlements of specific software components to specific systems, the IBM Tivoli Environment-Managed Licensing Model provides the customer flexibility to deploy its Tivoli software products within its environment in a manner that can address and respond to the customer's evolving architecture. That is, as the architecture of a customer's environment changes, the customer's implementation of Tivoli software can be altered, as needed, without affecting the customer's license requirements (as long as the customer does not exceed its entitlements to the software).

Under Enhanced Value-Based Pricing, licensing and pricing of server-oriented applications are determined based upon the server's use in the customer's environment. Typically, such applications are licensed and priced in a manner that corresponds to each installed and activated processor of the server managed by the Tivoli application to help correlate price to value while offering a simple solution.

For servers with physical or logical (sometimes called virtual) partitions, entitlements are required for all installed and activated processors on the server. For each Tivoli application managing a clustered environment, licensing is based on the cumulative number of installed and activated processors on each server in the cluster.

Enhanced Value-Based Pricing recognizes the convergence of RISC and UNIX and Microsoft® Windows® and Intel® technologies, in order to simplify the customer's licensing requirements, and to provide a smoother, more scalable model. Pricing and licensing do not differentiate between non-System z server platforms or operating systems. For some products, this platform neutrality extends to System z and other host servers as well.

IBM Tivoli Enhanced Value-Based Pricing terminology definitions

Asset

Tangible resource or item of value that is managed, including production equipment, facilities, transportation, IT hardware and software.

Authorized User

An Authorized User is an individual within or outside of your enterprise. The program may be installed on one or more computers or servers and accessed by the number of users authorized by the Proof of Entitlement (PoE). You must have an entitlement for each Authorized User.
accessing the program or any program component in any manner directly or indirectly (for example, via a multiplexing program, device, or application server) through any means.

- Specifics to affected security products
  - An Authorized User of IBM Tivoli Federated Identity Manager is any ID that accesses an application or service managed or protected by IBM Tivoli Federated Identity Manager.
  - An Authorized User of IBM Tivoli Directory Integrator is one whose identity can be synchronized by IBM Tivoli Directory Integrator or that can access a connected system that can be synchronized by IBM Tivoli Directory Integrator.
  - An Authorized User of IBM Tivoli Identity Manager is any user whose identity is recorded in the Tivoli Identity Manager ID store.
  - An authorized user of IBM Tivoli Access Manager for e-business is any ID that accesses an application or service managed or protected by IBM Tivoli Access Manager for e-business.
  - Quantities of authorized users of IBM Tivoli Federated Identity Manager or Tivoli Access Manager for e-business will only include users that have usable Tivoli Federated Identity Manager or Tivoli Access Manager for e-business accounts. If their accounts have been made unusable, then those users do not have to count against the quantities of users that need to be licensed. Such accounts must remain unusable for a minimum of six months in order to not count against the quantities of users that need to be licensed.

**Application instance**

A license entitlement is required for each instance of the application being connected.

**Client device or client**

A client device is a computing device that requests the execution of a set of commands, procedures, or applications from another computer system that is typically referred to as a server. Multiple client devices may share access to a common server. A client device generally has some processing capability or is programmable to allow a user to do work. Examples include, but are not limited to, notebook computers, desktop computers, desk side computers, technical workstations, appliances, automated teller machines, point-of-sale terminals, tills and cash registers, and kiosks.

**Concurrent user**

A concurrent user is one and only one individual within or outside the customer's enterprise. The number of PoEs required is for the highest number of users simultaneously accessing the program or any program components either directly or indirectly (via a multiplexing program, device, or application server) through any means on behalf of the user.

**Concurrent user (limited user)**

A concurrent user limited to read-only operation. Refer to Concurrent user definition.

**Engine**

An engine is also referred to as a central processor (CP) or processor. Engines for traditional workloads are called General Purpose CPs. Engines for Linux® workloads are called Integrated Facility for Linux (IFL) engines or Linux-only engines. Engines for Coupling Facility workloads are called ICF engines.

**Enterprise**

An enterprise is a person or single entity and those subsidiaries with more than 50 percent ownership.

**External User**

An External User is an Authorized User that is not part of the enterprise.

**IBM Integrated Facility for Linux (IFL)**

This optional facility enables additional processing capacity exclusively for Linux workload, with no effect on the model designation of a System z or OS/390® server. Consequently, executing
Linux workload on the IBM IFL will not, in most cases, result in any increased IBM software charges for z/OS, OS/390, VM, VSE, or TPF operating systems and applications. There is, as indicated, a charge associated with the IFL, and there may also be a charge for applications which run on the IFL.

The IFL may be dedicated to a single Linux-mode logical partition or it may be shared by multiple Linux-mode logical partitions. Installations should note that the Linux workspace enabled by this facility will not support any of the traditional S/390® operating systems (OS/390, TPF, VSE, or VM). Only Linux applications or Linux operating in conjunction with the Virtual Image Facility, an environment that operates within a logical partition or in native S/390 mode and provides the capability to create multiple Linux images, are supported by IBM S/390 IFL.

Install

An install is a copy or instance of the program in the enterprise.

Internal User

An Internal User is an authorized user that is part of the enterprise.

Managed processor (charging under full capacity in the managed environment)

Managed processor charges are based on the active processors on the machines in the computing environment affiliated with the program rather than on the server where the program is run. The managed processors, which require PoEs, are defined in the License Information's program-unique terms.

Notes:

1. IBM defines a physical processor in a computer as a functional unit that interprets and executes instructions. A physical processor consists of at least an instruction control unit and one or more arithmetic and logic units.
2. Multicore technology allows two or more processors (commonly called cores) to be active on a single silicon chip. With multicore technology, IBM considers each core to be a physical processor. For example, in a dual-core chip, there are two physical processors residing on the single silicon chip.
3. The program may not run on some or all of the processors for which PoEs are required by the program's valuation method.
4. In the System z IFL environment, each IFL engine is considered a single physical processor.
5. Threading, a technique which makes a single processor seem to perform as two or more, does not affect the count of physical processors.
6. Where blade technology is employed, each blade is considered a separate server and charging is based upon the total number of processors on the blades with which the program is affiliated.
7. Not all processors require the same number of Value Unit entitlements. To determine the number of Value Unit entitlements required, refer to the processor Value Unit conversion table on the Passport Advantage® Web site
   http://www.ibm.com/software/passportadvantage

Millions of Service Units (MSUs)

Millions of Service Units (MSU) is defined as millions of CPU service units per hour; the measure of capacity used to describe the computing power of the hardware processors on which S/390 or System z software runs. Processor MSU values are determined by the hardware vendor, IBM, or Software Compatible Vendors (SCVs).

For more detailed information about System z software pricing, visit

Network node or node

Network nodes include routers, switches, hubs, and bridges that contain a network management agent. A single network node may contain any number of interfaces or ports.
Network security device

Network security device is any network-based security appliance or server running network security software that provides a source of security events or logs. Examples include, but are not limited to, firewalls, application firewalls, intrusion detection systems, intrusion protection systems, virtual private networks (VPNs), threat protection products (antivirus gateways), content filtering (Web, e-mail), identity and access management, directory servers, network anomaly behavior products, and multifunction security appliances.

Port

A port is the physical connection between a device and the network.

Processor (per processor charging under full capacity)

In full capacity charging, PoEs must be acquired for all activated processors (available for use) that are on the server where the program or a component of the program is run.

Notes:

1. IBM defines a physical processor in a computer as a functional unit that interprets and executes instructions. A physical processor consists of at least an instruction control unit and one or more arithmetic and logic units.
2. Multicore technology allows two or more processors (commonly called cores) to be active on a single silicon chip. With multicore technology, IBM considers each core to be a physical processor. For example, in a dual-core chip, there are two physical processors residing on the single silicon chip.
3. In the System z IFL environment, each IFL engine is considered a single physical processor.
4. Threading, a technique which makes a single processor seem to perform as two or more, does not affect the count of physical processors.
5. Where blade technology is employed, each blade is considered a separate server and charging is based upon the total number of processors on the blade on which the program is run.
6. When a server is shipped with six processors, but two of them are inactive, four processors are active for the customer.
7. Not all processors require the same number of Value Unit entitlements. To determine the number of Value Unit entitlements required, refer to the processor Value Unit conversion table on the Passport Advantage Web site

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

Resource Value Unit

Resource Value Unit is a pricing charge metric for program license entitlements which is based upon the quantity of a specific designated measurement used for a given program. Refer to the Value Units definition.

Server

A server is a computer system that executes requested procedures, commands, or applications to one or more user or client devices over a network. A PoE must be obtained for each server on which the program or a component of the program is run or for each server managed by the program. Where blade technology is employed, each blade is considered a separate server.

Standby or backup systems

For programs running or resident on backup machines, IBM defines three types of situations: cold, warm and hot. In cold and warm situations, a separate entitlement for the copy on the backup machine is normally not required and typically no additional charge applies. In a hot backup situation, the customer needs to acquire other license or entitlements sufficient for that server. All programs running in backup mode must be solely under the customer's control, even if running at another enterprise's location.

As a practice, the following are definitions and allowable actions concerning the copy of the program used for backup purposes.
Cold: A copy of the program may reside, for backup purposes, on a machine as long as the
program is not started. There is no additional charge for this copy.

Warm: A copy of the program may reside for backup purposes on a machine and is started, but
is idling, and is not doing any work of any kind. There is no additional charge for this copy.

Hot: A copy of the program may reside for backup purposes on a machine, is started, and is
doing work. The customer must acquire a license or entitlements for this copy and there will
generally be an additional charge.

Doing work includes, for example, production, development, program maintenance, and
testing. It also could include other activities such as mirroring of transactions, updating of files,
synchronization of programs, data or other resources (for example, active linking with another
machine, program, database or other resource, and so on), or any activity or configurations
that would allow an active hot switch or other synchronized switch over between programs,
databases, or other resources to occur.

In the case of a program or system configuration that is designed to support a high availability
environment by using various techniques (for example, duplexing, mirroring of files, or
transactions, maintaining a heartbeat, active linking with another machine, program, database, or
other resource), the program is considered to be doing work in the hot situation and a license or
entitlement must be purchased.

Tivoli Management Points

A Tivoli Management Point is a metric used to compute license quantities and is program
specific.

Value Units

A Value Unit is a pricing charge metric for program license entitlements, which is based upon the
quantity of a specific designated measurement used for a given program. Each program has a
designated measurement. The most commonly used designated measurements are processor
cores and MSUs. However, for select programs, there are other designated measurements such
as servers, users, client devices, and messages. The number of Value Unit entitlements required
for your specific implementation of the given program must be obtained from a conversion table
associated with the program. You must obtain a PoE for the appropriate number of Value Unit
entitlements for your implementation. The Value Unit entitlements of a given program cannot
be exchanged, interchanged, or aggregated with Value Unit entitlements of another program.
Whenever the designated measurement is a processor core, not all processors require the same
number of Value Unit entitlements. To determine the number of Value Unit entitlements required,
refer to the processor Value Unit conversion table on the Passport Advantage Web site

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

Product and licensing Web sites

A complete list of IBM Tivoli products is available at

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

IBM Tivoli product licensing documents are available at


Pricing examples

System z software pricing examples (MSU based)

The pricing example below should be used to determine required license entitlements for the
following System z software products:

- IBM Tivoli OMEGAMON XE on z/OS
System z server:

1,500 MSU System z server

All products in this example employ Value Unit slope VUE007 (VUE = Value Value Unit Exhibit). If the customer has installed 1,500 MSUs, the applicable number of Value Units will be:

<table>
<thead>
<tr>
<th>MSUs</th>
<th>Value Units/MSU</th>
<th>Value Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>3</td>
<td>3.00</td>
</tr>
<tr>
<td>Tier A</td>
<td>42</td>
<td>18.90</td>
</tr>
<tr>
<td>Tier B</td>
<td>130</td>
<td>46.80</td>
</tr>
<tr>
<td>Tier C</td>
<td>140</td>
<td>37.80</td>
</tr>
<tr>
<td>Tier D</td>
<td>1,185</td>
<td>237.00</td>
</tr>
<tr>
<td>Total</td>
<td>1,500</td>
<td>343.50</td>
</tr>
</tbody>
</table>

When calculating the total number of Value Units, the sum is rounded up to the next integer. So the customer will need to license 344 Value Units in this example.

Value Units for non-MSU-based S/390 processors:

<table>
<thead>
<tr>
<th>System</th>
<th>Value Units/System</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP3000 H30</td>
<td>6</td>
</tr>
<tr>
<td>MP3000 H50</td>
<td>8</td>
</tr>
<tr>
<td>MP3000 H70</td>
<td>12</td>
</tr>
<tr>
<td>ESL Models</td>
<td>2</td>
</tr>
</tbody>
</table>

Value Units for IBM 9672 processors are based upon the full capacity of these systems. This is applicable to all System z systems measured on MSU capacity. Information on MSU capacities can be found in the IBM System/370™, System/390® and System z Machine Exhibit, Z125-3901.

Ordering information

The z/OS program in this announcement has Value Unit-Based pricing.

Program number | Program name                           | Value Unit exhibit |
---------------|----------------------------------------|--------------------|
5698-A33       | IBM Tivoli OMEGAMON XE on z/OS         | VUE007             |

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

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 [http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp](http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp)

**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.
Current licensees

New licensees
Orders for new licenses will be accepted now.

Shipment will begin on the planned availability date.

Basic license

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</td>
</tr>
<tr>
<td>Tier A</td>
<td>4-45</td>
</tr>
<tr>
<td>Tier B</td>
<td>46-175</td>
</tr>
<tr>
<td>Tier C</td>
<td>176-315</td>
</tr>
<tr>
<td>Tier D</td>
<td>316+</td>
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</tbody>
</table>

On/Off Capacity on Demand (On/Off CoD) for the z/OS host product

The products in this announcement are eligible for On/Off CoD with a Temporary Use Charge calculated based on MSUs-per day usage.

Product name

<table>
<thead>
<tr>
<th>Product name</th>
<th>PID</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Tivoli OMEGAMON XE on z/OS V4.2</td>
<td>5698-A33</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.

Program name: IBM Tivoli OMEGAMON XE on z/OS V4.2
Program PID: 5698-A33

Entitlement identifier Description                  License option/ Pricing metric

<table>
<thead>
<tr>
<th>S012LL1 Tivoli OMEGAMON XE on z/OS Basic OTC, per Value Unit</th>
<th>Tivoli OMEGAMON XE on z/OS Basic OTC, per Value Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>S012LL2 Tivoli OMEGAMON XE on z/OS Basic ASC, per Value Unit SW S&amp;S</td>
<td>Tivoli OMEGAMON XE on z/OS Basic ASC, per Value Unit SW S&amp;S</td>
</tr>
</tbody>
</table>

Orderable supply ID Description Language Distribution medium

<table>
<thead>
<tr>
<th>S012LL2 Tivoli OMEGAMON XE on z/OS</th>
<th>English</th>
<th>3480 tape cartridge</th>
</tr>
</thead>
<tbody>
<tr>
<td>S011KX1 Tivoli OMEGAMON XE on z/OS Basic ASC, per Value Unit SW S&amp;S</td>
<td>Tivoli OMEGAMON XE on z/OS Basic ASC, per Value Unit SW S&amp;S</td>
<td></td>
</tr>
</tbody>
</table>

Orderable supply ID Language Distribution medium

<table>
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<tr>
<th>S011KX2 Tivoli OMEGAMON XE on z/OS Basic ASC, per Value Unit SW S&amp;S</th>
<th>English</th>
<th>Hardcopy Pub</th>
</tr>
</thead>
</table>

The following table is for Caribbean North countries only.

Program name: IBM Tivoli OMEGAMON XE on z/OS V4.2
Program PID: 5698-A33

Feature description One-time charge feature number

1 Value Unit 4530
250 Value Units 4531
MSU-DAYS 4532
MSU-DAY Qty 250 4533
Subscription and Support

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

To order, specify the Subscription and Support program product number 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 Support Maintenance. 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 automatically renew annually unless cancelled by the customer.

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, 3592*
- ServerPacs - 3480, 3480 Compressed, 3490E, 3590, 3592*
- SystemPacs - 3480, 3480 Compressed, 3490E, 3590, 3592*

*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.

Terms and conditions

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 IBM International Program License Agreement, IBM International Passport Advantage Agreement, and the IBM Agreement for Acquisition of Software Maintenance.

Licensing

IBM International Program License Agreement including the License Information document and PoE govern your use of the program. PoEs are required for all authorized use.

Agreement for Acquisition of Software Maintenance

The following agreement applies for Software Subscription and Support (Software Maintenance) and does not require customer signatures:

• IBM Agreement for Acquisition of Software Maintenance (Z125-6011)

These programs are licensed under the IBM Program License Agreement (IPLA) and the associated Agreement for Acquisition of Software Maintenance, which provide for support with ongoing access to releases and versions of the program. 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.

IBM System z Operational Support Services - SupportLine is an option if you desire added services.

License Information form number

GC32-1961-02

The program's License Information will be available for review on the IBM Software License Agreement Web site


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. For further information, consult the IBM Software Support Handbook found at
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 (On/Off CoD) software offerings, this term does not apply since these offerings apply to programs already acquired and in use by you.

**Authorization for use on home/portable computer**
You may not copy and use this program on another computer without paying additional license fees.

**Other terms**

**Volume orders (IVO)**
No

**IBM International Passport Advantage Agreement**
Passport Advantage applies
No

**Software Subscription and Support (Software Maintenance) applies**
No. For operating system software, the revised IBM Operational Support Services - SupportLine offering will provide support for those operating systems and associated products that are not available with the Software Subscription and Support (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 offering, visit

http://www.ibm.com/services/sl/products

**IBM Operational Support Services - SupportLine**
Yes

**System i Software Maintenance applies**
No

**Variable charges apply**
No
Educational allowance available
Yes. A 15% education allowance applies to qualified education institution customers.

Academic use allowance: Yes

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>5698-A33</td>
<td>IBM Tivoli OMEGAMON XE on z/OS</td>
<td>z/OS-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 machines where the System z IPLA program executes.

For more information on mainframe MSU-rated capacities, visit


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 LPARs 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 machines 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 machines where the System z IPLA program executes.

For more information on mainframe MSU-rated capacities, refer to The IBM System z Machines Exhibit, Z125-3901, or visit the Mainframes section of the System z Exhibits Web site

http://ibm.com/zseries/library/swpriceinfo/
For more information on sub-capacity System z IPLA terms and conditions, refer to Software Announcement A04-1077, dated August 10, 2004.

For 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 the environment the System z IPLA program executes.

An environment is defined as either a single or stand-alone machine or a qualified Parallel Sysplex. You may have one or more different environments across the 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 Hardware Announcement A98-0009, dated January 13, 1998
- Where MLC pricing is aggregated across the sysplex

**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:

http://ibm.com/zseries/swprice

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 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 IBM eServer™ System z 890 and 800 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 IBM System z9® and eServer zSeries® 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.

**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.
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**Corrections**

(Corrected on March 11, 2009)
Change made in the Sub-capacity terms and conditions section.