

IBM System z Software Pricing Reference Guide



October 2008

IBM System z Software Pricing Overview

IBM System z™ software pricing methodologies are designed to offer:

- *Price-to-value*
- *Flexibility to run software where it is most efficient*
- *Capability to predict software charges*
- *Help with cost of new applications*
- *Flexibility to pay for software based on workload requirements*

Monthly License Charge Pricing Metrics

Monthly License Charge (MLC) metrics are those where a recurring charge applies each month. This charge includes the right to use the product, and also access to IBM product support during the support period.

IBM offers a variety of MLC pricing metrics to meet the diverse needs of our mainframe customers. An IBM pricing metric establishes both the prices and the applicable terms and conditions for IBM software products. Select an MLC pricing metric, based on your goals and/or your environment (see the “Key MLC Metrics” table below). The selected metric will be used to price MLC products, such as z/OS®, middleware, compilers and selected systems management tools and utilities.

Table 1: Key MLC Metrics

	z10 EC™, z9 EC, z900 & z990	z10 BC, z9 BC & z890	z800	Multiprise® 3000	All others
Workload License Charges (WLC)	X	X ¹	X ¹		
Entry Workload License Charges (EWLC)		X ²	X		
Tiered Entry Workload License Charges (TWLC)		X ²			
System z New Application License Charges (zNALC)	X	X	X		
Parallel Sysplex License Charges (PSLC)	X	X ¹	X ¹		X
Midrange Workload License Charges (MWLC)	X	X			
zSeries Entry License Charges (zELC)			X		
Growth Opportunity License Charges (GOLC)				X	

Table 1 notes:

1. WLC and PSLC are only available on IBM System z10® Business Class (z10™ BC) or IBM System z9® Business Class (z9™ BC) or IBM eServer® zSeries® 890 (z890) or IBM eServer zSeries 800 (z800) when that machine is participating in a qualified Parallel Sysplex® environment.
2. The z10 BC model A01, z9 BC model A01 and the z890 model 110 are priced using zSeries Entry License Charges (zELC).

International Program License Agreement Pricing Metrics

International Program License Agreement (IPLA) metrics are those where customers pay an up-front charge for an entitlement to use the product. A separate, optional annual charge called Subscription and Support (S&S) provides customers with future releases and versions at no additional charge and access to IBM product support during the support period.

- *IPLA exists across all IBM servers but the references in this document refer exclusively to IPLA on IBM System z servers.*

There are three pricing metrics that generally apply to System z IPLA products:

- *Value Unit pricing applies to the IPLA products that run on z/OS. Value Unit pricing is typically based upon a number of MSUs and allows for lower cost of incremental growth.*
- *z/VM® V5 and certain z/VM middleware have pricing based on the number of engines. Engine-based Value Unit pricing allows for a lower cost of incremental growth with additional engine-based licenses purchased.*
- *Most Linux® middleware is also priced based on the number of engines. The number of engines is converted into Processor Value Units under the Passport Advantage® terms and conditions.*

Table 2: System z IPLA Metrics

	IMS™ Tools, CICS® Tools & DB2® Tools	Application Development Tools	WebSphere® Products for z/OS & OS/390®	z/VM V5	Linux Middleware
Value Unit Pricing	X	X	X		
Engine-Based Value Unit Pricing				X	
Engine-Based Processor Value Unit Pricing					X

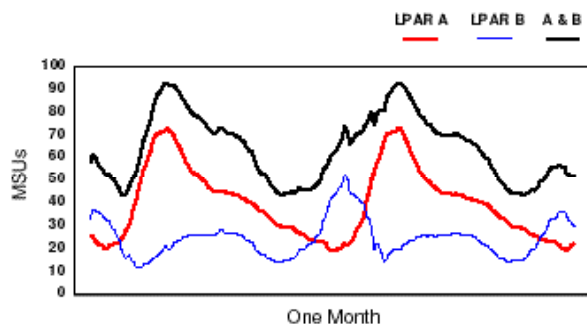
Sub-Capacity Pricing

Traditionally, software licenses in the mainframe environment have been based upon the full mainframe capacity. Sub-Capacity pricing provides a mechanism to license and pay for select IBM software products at a level less than the full capacity of the mainframe.

Mechanics of Sub-Capacity

Sub-Capacity pricing allows select IBM software products to be licensed based upon the capacity of the Logical Partitions (LPAR) or LPARs where a product executes. To support the on demand needs of today's marketplace, LPAR capacity is determined each month by measuring the highest rolling 4-hour average utilization of the LPAR each month in Millions of Service Units (MSUs). By establishing a link between LPAR utilization and software charges, monthly variations in LPAR utilization may result in changes in software billing.

For example, in the illustration below, LPAR A's highest rolling four-hour average during the month is 73 MSUs. Products running in a given month solely in partition A would have Sub-Capacity charges based on that 73 MSU value. Similarly, LPAR B's highest rolling four-hour average is 52 MSUs. Products running in a given month solely in partition B would have Sub-Capacity charges based on that 52 MSU value. Lastly, products running in both LPARs at the same time in a given month would be charged based on the highest simultaneous rolling four-hour average utilization of both LPARs, which is shown at 98 MSUs.



Sub-Capacity Benefits

Sub-Capacity pricing can allow for many benefits, such as the ability to:

- Pay for select IBM software with LPAR-level granularity
- Vary charges each month, based on monthly variations in LPAR utilizations
- Increase installed hardware capacity without necessarily increasing software charges
- Manage software costs by managing workload utilizations
- Pay for software based on the highest 4-hour rolling average utilization (a benefit when compared with the measured peak utilization)

Sub-Capacity Eligible Products

Select IBM products are eligible for Sub-Capacity pricing. IBM offers both MLC products and IPLA products with Sub-Capacity eligibility. For MLC products, licensed capacity may increase or decrease each month. However, for IPLA products, the licensed capacity cannot decrease once the license has been purchased. The following are some examples of Sub-Capacity eligible MLC/IPLA products:

- *Monthly License Charge - z/OS, DB2, IMS, CICS, WebSphere MQ, NetView®, Lotus® Domino™ and more. For a complete list, visit ibm.com/zseries/library/swpriceinfo/mlc.html*
- *IPLA - The majority of IPLA programs now qualify for Sub-Capacity pricing. Execution-based IPLA programs, such as IBM Fault Analyzer, may be charged based upon the utilization of the LPAR(s) where they execute. Reference-based IPLA programs, such as DB2 Tools, CICS Tools and IMS Tools, may be charged based upon the sub-capacity MSUs of their parent program (DB2, CICS or IMS) across the environment. For a complete list, visit ibm.com/zseries/library/swpriceinfo/ipla.html*

Sub-Capacity Metrics for MLC Software

IBM offers four Sub-Capacity capable pricing metrics for MLC software:

- *Workload License Charges (WLC) - Sub-Capacity charging for IBM System z10 Enterprise Class (z10™ EC), IBM System z9 Enterprise Class (z9 EC), IBM eServer zSeries 990 and 900 (z990 and z900) customers. WLC is also available on the z10 BC, z9 BC, z890 and z800, if those machines participate in a qualified Parallel Sysplex cluster.*
- *Entry Workload License Charges (EWLC) - Sub-Capacity charging for z10 BC, z9 BC, z890 and z800 customers.*
- *Midrange Workload License Charges (MWLC) - Sub-Capacity charging for z10 BC, z10 EC, z9 BC and z9 EC customers running z/VSE™ V4.*
- *System z New Application License Charges (zNALC) - Sub-Capacity charging for the z/OS operating system on LPARs dedicated to 'new workload' applications such as Java™ Language business applications running under WebSphere Application Server, Domino, SAP, PeopleSoft, and Siebel, assuming all applicable terms and conditions are met. For more information about zNALC see page 9 of this document*

These four price metrics may each be implemented in one of two ways:

- *Full-Capacity - the price points of the metric are used; charges are based upon the full (rated) capacity of the machine.*
- *Sub-Capacity - the price points of the metric are used; charges are based upon the utilization of the LPAR(s) where each Sub-Capacity eligible product executes.*

Only when Sub-Capacity MLC pricing is successfully implemented on a particular machine will that machine also be eligible for Sub-Capacity charging on eligible IPLA products, subject to IBM terms and conditions.

Full-capacity WLC/EWLC/MWLC Prerequisites

Eligibility is assessed on a machine-by-machine basis.

WLC: For a z/OS machine to qualify for Full-Capacity WLC pricing, it must be a z/Architecture® (64-bit) machine. Any z10 BC, z9 BC, z890 or z800 machines must participate in a qualified Parallel Sysplex cluster to qualify for WLC. All instances of z/OS on the machine must be executing in 64-bit mode.

EWLC on z9 BC and z890: All z10 BC, z9 BC and z890 machines qualify for Full-Capacity EWLC pricing, except the z10 BC model A01, z9 BC model A01 and the z890 model 110 which have zELC. All instances of z/OS (and z/OS.e) on a z10 BC, z9 BC or z890 must be executing in 64-bit model.

EWLC on z800: For a z800 machine to qualify for Full-Capacity EWLC pricing, it must have a z/OS or z/OS.e license. All instances of z/OS (and z/OS.e) on the z800 must be executing in 64-bit mode.

MWLC: All z10 EC, z10 BC, z9 EC and z9 BC machines running z/VSE V4 qualify for Full-Capacity MWLC pricing, except the z10 BC model A01 and z9 BC Model A01 which have zELC.

The presence of OS/390, z/VM, z/VSE V3 or older, or Linux does not affect Full-Capacity WLC/EWLC/MWLC eligibility.

Sub-Capacity WLC/EWLC/MWLC Prerequisites

Eligibility is assessed on a machine-by-machine basis for each Sub-Capacity eligible operating system environment.

For a machine running z/OS to qualify for Sub-Capacity pricing, it must be a z/Architecture (64-bit) machine fully migrated to z/OS. All instances of z/OS (and z/OS.e) on the machine must be executing in 64-bit mode. The license and the use of OS/390 must be discontinued.

The presence of z/VM, z/VSE, z/TPF or Linux does not affect Sub-Capacity eligibility for z/OS.

For a machine running z/VSE V4 to qualify for Sub-Capacity pricing, it must be a System z10 or System z9 machine fully migrated to z/VSE V4. The license and the use of VSE/ESA™ and z/VSE V3 must be discontinued. The presence of z/VM, z/OS, z/TPF or Linux does not affect Sub-Capacity eligibility for z/VSE V4.

For a machine running z/TPF to qualify for Sub-Capacity pricing, it must be a z/Architecture (64-bit) machine fully migrated to z/TPF. All instances of z/TPF on the machine must be executing in 64-bit mode. The license and the use of TPF V3 and TPF V4 must be discontinued. The presence of z/VM, z/OS, z/VSE or Linux does not affect Sub-Capacity eligibility for z/TPF.

Sub-Capacity Reporting Tool (SCRT)

Sub-Capacity Pricing requires the use of the Sub-Capacity Reporting Tool (SCRT). Customers must use SCRT each month to generate a monthly Sub-Capacity Report for each z/Architecture (64-bit) machine with Sub-Capacity pricing. The Sub-Capacity Reports summarize the number of MSUs to be charged per product. Customers must submit to IBM, via e-mail or the Web, one Sub-Capacity Report per machine per month. These reports are used as the basis for Sub-Capacity pricing. For more information on SCRT, visit ibm.com/zseries/swprice/scrt

Getting Started Sub-Capacity Pricing

IBM Getting Started Sub-capacity Pricing for z/OS IPLA software offers entry pricing for customers with low usage on select IBM WebSphere® programs by requiring less than the full LPAR sub-capacity license charge for up to 10% of the LPAR utilization consumed by the workload.

Getting Started Sub-capacity Pricing requires sub-capacity implementation of:

- *Workload License Charges (WLC)*
- *Entry Workload License Charges (EWLC)*

Machines with either sub-capacity WLC or sub-capacity EWLC are eligible for Getting Started Sub-capacity Pricing on eligible z/OS IPLA programs. For a list of eligible programs, visit ibm.com/zseries/library/swpriceinfo/ipla_exe.html

Parallel Sysplex Aggregation

Parallel Sysplex aggregated pricing complements the function and flexibility provided by the Parallel Sysplex architecture. Significant capabilities of a coupled Parallel Sysplex cluster include data sharing, high availability and the ability to dynamically balance work across the sysplex.

Aggregated pricing is designed to provide improved price/performance as you grow. This lower cost of incremental growth is provided via the decreasing unit cost per MSU, a key element of all the aggregation-capable price structures: WLC, PSLC and zNALC.

In a qualified sysplex environment, aggregated MLC software charges are based on the total MSU values for those machines where the products execute. This provides you the flexibility to grow your sysplex either horizontally (add a new server) or vertically (grow an existing server) and experience similar incremental software costs. For more information about Parallel Sysplex aggregation qualification, visit ibm.com/zseries/swprice/sysplex.

In an uncoupled environment, MSU values are not aggregated with those of any other machines.

Workload License Charges (WLC)

Workload License Charges (WLC) is one of IBM's Sub-Capacity capable MLC pricing metrics, available for z10 EC, z9 EC, z990 and z900 machines both when in a qualified Parallel Sysplex environment or when stand-alone. WLC is available on z10 BC, z9 BC, z890 or z800 machines only if that machine participates in a qualified Parallel Sysplex cluster. For more information about Parallel Sysplex aggregation, see the "Parallel Sysplex Aggregation" section of this document.

When customers adopt the WLC pricing metric, all existing PSLC/ULC* priced products will be moved to the WLC pricing metric. The WLC pricing metric has two charging categories: Variable WLC and Flat WLC..

Variable WLC

Under WLC, all Sub-Capacity eligible products have Variable WLC pricing. Variable WLC offers MSU-based pricing, with lower cost of incremental growth. Aggregation of MSUs is allowed across a qualified Parallel Sysplex cluster, subject to IBM terms and conditions.

Variable WLC Price Structure (Cumulative)

Base WLC	3 MSUs
Level 0	4 - 45 MSUs
Level 1	46 - 175 MSUs
Level 2	176 - 315 MSUs
Level 3	316 - 575 MSUs
Level 4	576 - 875 MSUs
Level 5	876 - 1315 MSUs
Level 6	1316 - 1975 MSUs
Level 7	1976+ MSUs

Flat WLC

Non-Sub-Capacity eligible Flat WLC products will have one simple "flat" charge per product, per machine. This flat charge is independent of machine capacity.

* WebSphere MQ may be priced using SALC, see page 11 of this document.

Entry Workload License Charges (EWLC)

Entry Workload License Charges (EWLC) is another Sub-Capacity capable MLC pricing metric, available for z10 BC, z9 BC, z890 and z800 machines.

The EWLC price structure, for sub-capacity-eligible products, offers MSU-based cumulative pricing, with lower cost of incremental growth. Aggregation of MSUs is not allowed under the EWLC metric.

Standalone z10 BC, z9 BC and z890

z10 BC, z9 BC and z890 standalone z/OS customers will have EWLC pricing**. All sub-capacity eligible z/OS products will be priced using the EWLC pricing metric. The remaining, non-sub-capacity eligible products will be priced using the Tiered EWLC (TWLC) price. TWLC pricing, for non-sub-capacity products, offers flat pricing based on the server capacity using a tiered structure. TWLC pricing is exclusive to the z10 BC, z9 BC and z890 servers. (Please note that Tiered EWLC pricing is sometimes also known as EWLC Tiered pricing.)

z800 Standalone

z800 standalone customers may choose to adopt EWLC pricing. If they choose to adopt the EWLC pricing metric, then all sub-capacity eligible products must be moved to the EWLC pricing metric. The remaining, non-sub-capacity eligible products will be priced using zSeries Entry License Charge (zELC) pricing. For more information on zELC, see page 10 of this document.

** The z10 BC model A01, z9 BC model A01, and the z890 model 110 are priced using zELC, see page 10 of this document.

EWLC Price Structure (Cumulative)

Base EWLC	3 MSUs
Level 1	4 - 17 MSUs
Level 2	18 - 30 MSUs
Level 3	31 - 45 MSUs
Level 4	46 - 87 MSUs
Level 5	88 - 175 MSUs
Level 6	176 - 260 MSUs
Level 7	261+ MSUs

Tiered EWLC Price Structure (Flat)

Tier A	1 - 11 MSUs
Tier B	12 - 15 MSUs
Tier C	16 - 40 MSUs
Tier D	41 - 75 MSUs
Tier E	76 - 1500 MSUs
Tier F	1501+ MSUs

z/OS customers operating a z10 BC, z9 BC, z890 or a z800 in a qualified Parallel Sysplex cluster may elect to have that machine priced as a standalone machine (EWLC and TWLC, or zELC) or may elect aggregated PSLC or aggregated WLC pricing, subject to applicable terms and conditions. If the z/OS customer selects aggregated pricing, then zELC, EWLC and TWLC price structures do not apply.

Midrange Workload License Charges (MWLC)

Midrange Workload License Charges (MWLC) is a monthly license charge pricing metric designed especially to support z/VSE V4 customers with System z10 or System z9 servers. IBM introduced Midrange Workload License Charges to deliver software price/performance for a variety of z/VSE customer needs.

The MWLC price structure, for sub-capacity-eligible products, offers MSU-based cumulative pricing, with lower cost of incremental growth. Aggregation of MSUs is not allowed under the MWLC metric.

Under MWLC, z/VSE V4 and twelve key VSE middleware programs will be priced using the MWLC pricing metric. The remaining, non-sub-capacity eligible products will be priced using the TWLC price structure. For more information about TWLC pricing, please see the Entry Workload License Charges section of this document.

MWLC Price Structure (Cumulative)

Base EWLC	3 MSUs
Level 1	4 - 17 MSUs
Level 2	18 - 30 MSUs
Level 3	31 - 45 MSUs
Level 4	46 - 87 MSUs
Level 5	88 - 175 MSUs
Level 6	176 - 260 MSUs
Level 7	261+ MSUs

Parallel Sysplex License Charges (PSLC)

Parallel Sysplex License Charges (PSLC) is a monthly license charge pricing metric where software charges are based upon the full rated capacity of the machine(s) where a product executes.

PSLC may be applied to a standalone mainframe environment, or aggregation benefits may apply across a qualified Parallel Sysplex environment. For more information about Parallel Sysplex aggregation, see the "Parallel Sysplex Aggregation" section of this document

In a qualified sysplex environment, PSLC software charges are based on the total MSU value for all those machines where the products execute.

For a standalone (uncoupled) z10 EC, z9 EC, z990 or z900 machine, PSLC charges are based on the MSU capacity of that machine. Standalone z10 BC, z9 BC, z890 and z800 machines are not eligible for PSLC charges.

PSLC Price Structure (Cumulative)

Base Charge	3 - MSUs
Level A	4 - 45 MSUs
Level B	46 - 175 MSUs
Level C	176 - 315 MSUs
Level D	316+ MSUs

System z New Application License Charges (zNALC)

System z New Application License Charges (zNALC) offers a reduced price for the z/OS operating system on LPARs where you are running a qualified 'new workload' application such as Java business applications running under WebSphere Application Server, Domino, SAP, PeopleSoft, and Siebel, subject to IBM terms and conditions.

As with WLC, EWLC and MWLC, zNALC can be implemented in one of two ways;

- *Full-Capacity* - the price points of the metric are used; charges are based upon the full (rated) capacity of the machine.
- *Sub-Capacity* - the price points of the metric are used; charges are based upon the utilization of the LPAR(s) where each Sub-Capacity eligible product executes.

z/OS with zNALC can provide benefits over previous 'new workload' pricing offers such as the original New Application License Charges (NALC) and the z/OS.e operating system. It provides a strategic pricing model available on the full range of System z servers, with price performance benefits similar to both z/OS.e pricing and z/OS with NALC pricing. zNALC allows for aggregation across a qualified Parallel Sysplex environment, which can provide a lower cost of incremental growth across "new workloads" that span a Parallel Sysplex environment. zNALC is the IBM strategy, replacing the z/OS.e operating system and the NALC pricing metric. For more information about zNALC, visit ibm.com/zseries/swprice/znalc.html

zNALC Price Structure (Cumulative)

Base WLC	3 MSUs
Level 0	4 - 45 MSUs
Level 1	46 - 175 MSUs
Level 2	176 - 315 MSUs
Level 3	316 - 575 MSUs
Level 4	576 - 875 MSUs
Level 5	876 - 1315 MSUs
Level 6	1316 - 1975 MSUs
Level 7	1976+ MSUs

New Application License Charges (NALC)

The older pricing metric called New Application License Charges (NALC) is no longer available for new workloads* though it remains available on those machines which already have NALC pricing. NALC was designed for customers who dedicated an entire mainframe server to a qualifying On Demand Business application, such as WebSphere or a qualifying enterprise application such as SAP or PeopleSoft. For a product with the NALC pricing metric, there was a single low price per MSU per product and software charges were based upon the capacity of the machine where the product executed. NALC was available to PSLC and WLC customers. NALC provided low price points for z/OS, OS/390 and Lotus Domino Version 5.

NALC was also available on a dedicated mainframe that participated in a Parallel Sysplex environment. While NALC-priced products were not eligible for aggregation, other non-NALC middleware on the NALC machine could aggregate with middleware across the Parallel Sysplex environment, if all applicable IBM terms were met.

In the case that a machine was dedicated to e-business and also Sub-Capacity WLC, then the billable z/OS and/or Domino NALC MSUs would be based on the values that appeared on the monthly Sub-Capacity Reports. This was the only time when IBM terms permitted NALC MSUs to be less than full machine capacity.

With the introduction of zNALC pricing for "new workload" applications, customers interested in running new workloads on the System z platform should consider zNALC as an alternative to NALC. zNALC offers price performance improvements as well as sub-capacity pricing..

* Please see the 4 December 2007 Announcement Letter "Software withdrawal: Selected IBM System z products — Some replacements available" regarding the withdrawal of the NALC price metric.

zSeries Entry License Charges (zELC)

zSeries Entry License Charges (zELC) is a monthly license charge pricing metric designed especially to support the z800 server. IBM introduced zSeries Entry License Charge to deliver appropriate software price/performance for a variety of z800 customer needs.

zELC is determined based on the particular z800 model (0E1, 0A1, 0B1, 0C1, 001, 0X2, 0A2, 002, 003, 004) where the software is licensed. For a z800 that actively participates in a Parallel Sysplex environment, customers may choose for that z800 either zELC or the applicable aggregated base pricing metric, either Parallel Sysplex License Charge or Workload License Charge, depending on PSLC/WLC terms and conditions. zELC is offered only on the z800 machine models, and also on the z10 BC model A01, z9 BC model A01, and z890 model 110 machines.

Growth Opportunity License Charges (GOLC)

Growth Opportunity License Charges (GOLC) is a monthly license charge pricing metric designed especially to support the Multiprise 3000 server. GOLC is determined based on the particular Multiprise 3000 model (H30, H50, H70) where the software is licensed. GOLC is only offered on Multiprise 3000 machines

System z Lifecycle Extension Charge (zLEC)

The System z Lifecycle Extension Charge (zLEC) metric is used for pricing of the IBM Lifecycle Extension for z/OS V1.7. While zLEC is not actually a Monthly License Charge (MLC) metric which is used for product pricing, it is a support charge for z/OS which is an MLC product.

IBM Lifecycle Extension for z/OS 1.7 is priced based on the total permanent MSU capacity of each server running z/OS V1.7 using the following zLEC tier structure:

zLEC Price Structure (Flat)

Tier	MSU Range
Tier A	4 - 11
Tier B	12 - 21 MSUs
Tier C	22 - 43 MSUs
Tier D	44 - 71 MSUs
Tier E	72 - 128 MSUs
Tier F	129 - 214 MSUs
Tier G	215 - 357
Tier H	358 - 714
Tier I	715+

z/OS.e Operating System

z/OS.e was a specially priced offering of the z/OS operating system providing select z/OS function. Exclusive to z10 BC, z9 BC, z890 and z800 machines, z/OS.e is no longer available* for new e-business workloads. z/OS and z/OS.e were the same code, except certain z/OS functionality was not available in a z/OS.e environment, such as the ability to execute CICS or IMS transactions.

For zELC, WLC and PSLC customers, z/OS.e had a single monthly license charge per engine, regardless of the engine size. For EWLC customers, z/OS.e was a sub-capacity-eligible product and had EWLC MSU-based pricing. Middleware executing in a z/OS.e environment was priced according to the base pricing metric (zELC, PSLC, WLC, EWLC) selected for that z10 BC, z9 BC, z890 or z800 machine.

z/OS.e also allowed customers to divide a machine into two portions: "new workload" and "traditional." Applicable MLC software products which were only executing on the "new workload" portion of the machine only required a license for that portion of the machine. Likewise, applicable MLC software products only executing on the "traditional" portion of the machine only required a license for that portion of the machine. To divide a machine between traditional workload and new workload required that the machine must have the z/OS.e operating system and at least one other operating system. For machines with zELC, WLC or PSLC, the machine must have had two or more physical engines and this logical division had to occur on an engine boundary.

With the introduction of zNALC pricing it is suggested that customers interested in running new workloads on the System z platform no longer rely on z/OS.e but rather upon zNALC to obtain price performance improvements for their environments with qualified "new workload" applications.

*Please see the 9 January 2007 Announcement Letter "System z New Application License Charges" for details of the Statements of Direction regarding the planned withdrawal of the z/OS.e operating System.

Other Pricing Information

- *S/390® Usage Pricing (ULC)*
- *Select Application License Charges (SALC)*
- *VSE and VM Middleware Pricing*
- *Linux Middleware*
- *Version to Version Upgrades*

S/390 Usage Pricing (ULC)

IBM S/390 Usage Pricing, also known as Usage License Charges (ULC), offers an attractive pricing alternative on machines with either PSLC or GOLC. ULC provides a mechanism to deploy low-utilization software products across an enterprise, with excellent price/performance. For a product with ULC, software charges are based upon the utilization of that product. ULC price points are available for DB2, CICS, IMS and WebSphere MQ.

Select Application License Charges (SALC)

Select Application License Charges (SALC) is available solely for WebSphere MQ and only on machines with either WLC or EWLC. SALC may be a good price/performance option on very-low utilization installations of WebSphere MQ. SALC is available for either Sub-Capacity or Full Capacity WLC/EWLC machines. For a WebSphere MQ installation with the SALC pricing metric, software charges are based upon the utilization of WebSphere MQ.

Implementation of ULC and SALC

ULC and SALC require submission of a yearly "Software Usage Report." IBM provides a reporting tool (which ships with OS/390 V2 and z/OS) that analyzes 12 months of Systems Measurement Facility (SMF) data, record type SMF89, and generates the "Software Usage Report." This annual report summarizes the use over the past 12 months and establishes the ULC/SALC MSU level for the next 12 months.

To determine the billable ULC/SALC MSUs for a given product, the following algorithm is applied to each product set. A product set encompasses all the active versions of a given product.

- *Daily value: In a given day, MSUs from highest hour of utilization each day*
- *Monthly value: In a given month, MSUs from the fourth highest daily value*
- *Yearly (billable) value: In a given year, MSUs from the highest monthly value*

VSE and VM Middleware Pricing

VSE middleware on systems not eligible for MWLC pricing and certain VM/ESA® middleware products have two pricing metrics which have not yet been discussed in this document:

- *Graduated Monthly License Charges (GMLC) is model group pricing for machines that are rated up to 80 MSUs*
- *Extended License Charges (ELC) is MSU-based pricing for machines that are rated at greater than 80 MSUs*

Refer to the following table to determine whether GMLC or ELC pricing should apply (excluding when MWLC are in effect):

Table 3: MLC Pricing Metrics for VSE and VM middleware

	System z with WLC	z10 BC, z9 BC, z890 standalone	z800 standalone	Multiprise 3000	All Others
Flat WLC	X				
TWLC		X			
zELC			X		
GOLC				X	
GMLC/ ELC					X

Table 3 notes:

1. z/VM V4 and z/VM V5 are engine-based IPLA, they do not have monthly license charges. However, certain VM middleware in a z/VM environment would follow the rules in Table 3.
2. If a VM or VSE product does not have GOLC/zELC/Flat WLC/TWLC price, then the GMLC/ELC price applies.

Linux Middleware

The Linux operating system is not an IBM product. IBM middleware products that run in a Linux environment are licensed through IBM's Passport Advantage program. Linux middleware is typically licensed using an Engine-based Processor Value Unit metric.

Version to version upgrades

Customers moving to a new version of a licensed program may require continued use of an earlier version of the same program during the transition. Under some circumstances, such use may be permitted without payment for the earlier version, for a transition or migration period. For MLC products this is known as Single Version Charging (SVC). Contact your IBM representative to determine SVC eligibility.



To learn more

Visit the zSeries Software Pricing Web site at
ibm.com/zseries/swprice or call IBM DIRECT at
1 800 IBM-CALL in the United States and Canada.

Australia	132 426
Austria	0660.5109
Belgium	02-225.33.33
Brazil	0800-111426
China	(20) 8755 3828
Denmark	4520 8222
France	0800-03-03-03
Germany	01803-313233
Hong Kong	(20) 2825 6222
Hungary	165-4422
India	(80) 526 9050
Indonesia	(21) 252 1222
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