



IBM DB2 for z/OS Value Unit Edition and IBM IMS Database Value Unit Edition deliver new and enhanced features

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At a glance

IBM® DB2® 11 for z/OS® Value Unit Edition and IBM IMS™ Database Value Unit Edition, V13 offer the base product and optional features using a one-time-charge (OTC) metric for Eligible Workloads (as defined) running in System z® New Application License Charges (zNALC) logical partitions (LPARs).

- Take advantage of this new pricing option specifically for Eligible Workloads.
- Achieve competitive advantage and cost savings by using the unique, industry-leading virtualization and workload management capabilities of IMS and System z .
- Consolidate and increase the number of various workloads onto a single System z ; save money through simplified system administration and maintenance while lowering power usage and floor space requirements.

Overview

IBM DB2 11 for z/OS Value Unit Edition (5697-P43) delivers the base product and optional features using an OTC price metric for a database product offering based on IBM DB2 11 for z/OS .

DB2 11 for z/OS expands the value offered to your business by IBM's industry-leading mainframe data server in the following ways:

- Saves money and time with additional DB2 CPU savings and operational efficiencies
- Enhanced superior availability and rock-solid security
- Can connect core operational data with big data to drive business value
- Sophisticated business analytics
- Simpler, faster migration for faster ROI
- Leverages secure connections to support increasing mobile device requests

The terms of DB2 11 Value Unit Edition limit its use to support net new applications or workloads on IBM System z servers that meet zNALC LPAR qualifications. Refer to Software Announcement [ZP13-0480](#), dated October 1, 2013 .

IBM IMS Database Value Unit Edition, V13 (5655-DSM) delivers an OTC price metric for a database product offering based on IBM IMS V13.

IMS clients on System z are facing the following challenges:

- Significant workload growth through the rapid and pervasive adoption of smartphones, tablets, and devices worldwide
- New ways to manage the cost of this growth
- Comprehensive business analytics results that include IMS operational data
- Identification of Java™ as a strategic language and implementation of new production-level Java applications that access IMS data using SQL

As these trends continue to accelerate, more mobile devices drive more transactions. More transactions drive the need not only for analytics that will inform business decisions, but also for applications built to deliver on those decisions.

IBM supports mobile applications that interact with transactional and data services through the use of lightweight data-interchange format JavaScript Object Notation (JSON). This support, plus the revolutionary IMS open access capabilities, prompted IBM to offer attractive OTC pricing for new qualified IMS workloads on zNALC LPARs.

Key prerequisites

DB2 11 for z/OS VUE operates on z10™ or later processors running z/OS V1.13, or later. The processors must have enough real storage to satisfy the combined requirements of:

- DB2
- z/OS
- The appropriate DFSMS storage management subsystem components, access methods, telecommunications, batch requirements, and other applications

IMS Database Value Unit Edition 13 requires:

- z/OS Version 1 Release 13 Base Services (5694-A01), or later, executing in 64-bit addressing mode
- Any processor that supports z/Architecture® with some limitations

Refer to the [Technical information](#) section for details on required microcode levels and to the [Hardware requirements](#) and [Software requirements](#) for all prerequisites.

Planned availability date

October 25, 2013

Description

IBM DB2 11 for z/OS Value Unit Edition consists of the base DB2 product and the following two chargeable features:

- IBM DB2 QMF™ Classic Edition Value Unit Edition, V11, which supports users working entirely on traditional mainframe terminals and emulators (including IBM Host On Demand) to access DB2 databases. QMF Classic Edition Value Unit Edition V11 consists of DB2 QMF for TSO and CICS® .
- IBM DB2 QMF Enterprise Edition Value Unit Edition, V11, which includes the entire DB2 QMF family of products, enabling enterprise-wide business information across user and database platforms. DB2 QMF Enterprise Edition Value Unit Edition V11 consists of these components:
 - IBM DB2 QMF for TSO and CICS
 - IBM DB2 QMF Analytics for TSO (new)

- IBM DB2 QMF High Performance Option (HPO)
- IBM DB2 QMF for Workstation
- IBM DB2 QMF for WebSphere®

DB2 11 Value Unit Edition also offers one nonchargeable feature:

- z/OS Application Connectivity to DB2 11 for z/OS Value Unit Edition that consists of DB2 Universal Database™ Driver for z/OS , Java Edition. It is a pure Java , type 4 JDBC driver designed to deliver high performance and scalable remote connectivity for Java-based enterprise applications on z/OS to a remote DB2 for z/OS database server.

Charges for DB2 11 Value Unit Edition are based on an OTC per value unit plus a charge per value unit for Subscription and Support (S&S). Value Unit entitlements for the program will be computed based on MSUs. The S&S is paid annually at the then-current prices. Usage may not exceed the number of value unit entitlements authorized by the applicable Proofs of Entitlement or authorized by each product authorization. If the total number of value units exceeds the quantity of value unit entitlements in your Proofs of Entitlement, you must notify your IBM representative or IBM Business Partner as stated in the IPLA.

DB2 11 Value Unit Edition use is limited to support net new applications or workloads on IBM System z servers that meet zNALC LPAR qualifications (Eligible Workloads).

Eligible Workloads are defined as workloads that meet the following criteria:

- A workload (excluding applications running under Lotus® Domino®) where DB2 11 for z/OS VUE has been qualified and approved through the zNALC qualification process as eligible to run in a zNALC LPAR.
- The workload must be a net new z/OS workload deployed in a zNALC LPAR at the time of licensing DB2 11 Value Unit Edition, and not an existing z/OS workload that is either of the following:
 - Transferred or migrated to the zNALC LPARs from z/OS elsewhere in the enterprise
 - Already deployed in a zNALC LPAR within the enterprise

For example, an existing z/OS workload that would be or has been shifted across a border from one country to another, or from one data center to another, or that has been renamed or rewritten does not qualify as an Eligible Workload. Workloads that are migrated from non-z/OS sources, such as Linux™ , UNIX™ , or Microsoft™ Windows™ , may qualify as Eligible Workloads.

Copies of a valid licensed DB2 11 Value Unit Edition can only be made in support of its authorized use:

- On a single machine, in any zNALC LPARs where the Eligible Workload is deployed for use.
- Within a Qualified Sysplex¹ , in any zNALC LPARs where the Eligible Workload is deployed for use.
- In addition, copies can be made for use as a backup copy. If you want to deploy DB2 11 Value Unit Edition in any other separate zNALC environment, another DB2 11 Value Unit Edition license, with its own separate entitlements, has to be acquired.

¹ Qualified Sysplex means a Parallel Sysplex® in which z/OS is eligible for aggregated zNALC charges as described in the Charges section of the Attachment for zNALC License Charges on IBM System z .

For more information on zNALC, visit:

<http://www-03.ibm.com/servers/eserver/zseries/swprice/znalc.html>

Charges for this program are based on Value Unit entitlements.

Refer to the [Terms and conditions](#) and [Prices](#) sections for a description of license and pricing terms.

IBM IMS Database Value Unit Edition, V13 (5655-DSM) offers an OTC metric for a database product offering based on IBM IMS V13. IMS Database Value Unit Edition can only be used to support Eligible Workloads (net new applications or workloads on System z that are deployed in qualified zNALC LPARs).

IMS Database Value Unit Edition terms limit its use to support of Eligible Workloads (net new applications or workloads on System z that are deployed in qualified zNALC LPARs) that meet the following criteria:

- A workload that includes IMS Database Value Unit Edition, where IMS Database Value Unit Edition has been qualified and approved through the zNALC qualification process as eligible to run in one or more zNALC LPARs.
- The workload must be a net new z/OS workload deployed in one or more zNALC LPARs at the time of licensing IMS Database Value Unit Edition, and not an existing z/OS workload that is either:
 - Transferred or migrated to the zNALC LPAR or LPARs from z/OS elsewhere in the enterprise.
 - Already deployed in one or more zNALC LPARs within the enterprise.

Charges for this program are based on an OTC per Value Unit plus a charge per Value Unit to obtain S&S. Value Unit entitlements for the program will be computed based on MSUs. The S&S is paid annually at the then-current prices. Usage may not exceed the number of Value Unit entitlements authorized by the applicable Proofs of Entitlement (PoEs) or authorized by each product authorization. If the total number of Value Units exceeds the quantity of Value Unit entitlements in your PoEs, you must notify your IBM representative or IBM Business Partner as stated in the IPLA.

Clients are achieving competitive advantage and cost savings by using the unique, industry-leading virtualization and workload management capabilities of IMS . Consolidating and increasing various workloads onto a single System z gives you an opportunity to save money through simplified system administration and maintenance while lowering power utilization and floor space requirements.

The following separately available product offers additional integration for IMS Database Value Unit Edition 13 users:

IMS Enterprise Suite V3.1 is designed to enhance your use of IMS applications and data. In this new version of the suite, components deliver innovative new capabilities for your IMS environment. Refer to Software Announcement [ZP13-0478](#), dated October 1, 2013 .

Separate tools available to support the use of IMS Database Value Unit

Eligible Workloads require management, recovery, performance, and migration support. IMS Tools are available today to help you analyze, maintain, and tune these new workloads.

IBM IMS Database Solution Pack for z/OS can help keep your IMS databases fully operational and expertly tuned. This solution pack uses the Administration Console that includes a single web interface. It enables DBAs to gather information that offers added insight into the health and availability of IMS databases. The administration console also communicates with various other IBM IMS tools that are running in the enterprise. The console brings this distributed information together into a dashboard-style interface that assists both experienced and new IMS DBAs in investigating, troubleshooting, and predicting future database health.

If your Eligible Workloads include IMS Fast Path databases (DEDDBs), then you need the IMS Fast Path Solution Pack for z/OS , which has all the functions a DBA needs to analyze, maintain, and tune IMS Fast Path databases. It exploits the same single web interface or administration console as the IMS Database Solution Pack,

implementing the automation of tools execution using detailed understanding of the current state of DEDBs. This offers the automation of ongoing IMS database monitoring and maintenance tasks.

Backing up and recovering the databases used by these Eligible Workloads is another essential task for DBAs. IMS Recovery Expert for z/OS delivers rapid backups with almost no application downtime, reduced recovery time, and simplified disaster recovery procedures while using less CPU, I/O, and storage resources. It validates backups to help users confirm that all data has a backup and that it is recoverable.

IBM IMS Explorer for Administration, a replacement for IMS Control Center, is introduced as a web-based console to operate and administer IMS . IMS Explorer for Administration can query, start, and stop IMS resources from an easy-to-use browser interface. It can discover IMS resources, show the health of the resources, and show relationships between them. Resources can be filtered and context sensitive help is provided.

IMS Explorer for Administration connects to the IMS Operations Manager through IMS Connect. Customers currently using the IMS Control Center should use IMS Explorer for Administration. IMS Explorer for Administration is available through APAR PM94292 as an extension of the Administration Console component of IBM Tools Base for z/OS , V1.4.

For more items that offer additional integration for IMS Database Value Unit Edition users, Refer to Software Announcement [ZP13-0478](#), dated October 1, 2013 .

Accessibility by people with disabilities

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

http://www.ibm.com/able/product_accessibility/index.html

Value Unit-based pricing

For the Value Unit based pricing applicable to IMS Database Value Unit Edition refer to the [Terms and conditions](#) section.

Program number

Program number	VRM	Program name
5697-P43	11.1.0	IBM DB2 for z/OS Value Unit Edition
5655-DSM	13.1.0	IBM IMS Database Value Unit Edition

Product identification number

Program PID number	Subscription and Support PID number
5697-P43	5697-P11
5655-DSM	5655-DSR

Offering Information

Product information is available via the Offering Information website

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

Publications

The IBM Publications Center portal is at

<http://www.ibm.com/e-business/linkweb/publications/servlet/pbi.wss>

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided. A large number of publications are available online in various file formats, and they can all be downloaded by all countries, free of charge.

One copy of each of the following publications is supplied automatically with the material.

Title	Order number
IBM DB2 11 for z/OS Value Unit Edition (5697-P43):	
License Information, English	GC19-4149
Program Directory, English	GI10-8951
License Information, Japanese Kanji	GC19-4059
Program Directory, Japanese Kanji	GI10-8945
DB2 11 for z/OS Product Kit	LK5T-8882
QMF Classic Edition VUE V11.1.0	
License Information	GC19-4151
Program Directory	GI10-8953
QMF Classic Edition VUE V11.1.0 Multilingual	
License Information	GC19-4152
Program Directory	GI10-8954
QMF Enterprise Edition VUE V11.1.0	
License Information	GC19-4153
Program Directory	GI10-8955
QMF Enterprise Edition VUE V11.1.0 Multilingual	
License Information	GC19-4154
Program Directory	GI10-8956
QMF for Workstation/WebSphere VUE Product Kit	LK5T-8897
z/OS Application Connectivity to DB2 11 for z/OS	
License Information	GC19-4150
Program Directory	GI10-8952
IBM IMS Database Value Unit Edition 13.1 (5655-DSM):	
License Information	GC19-4113
Program Directory	GI10-8966
IMS V13R1 Product Kit	SK5T-8864
IBM Installation Manager for z/OS, V1.5.2	
Program Directory	GI11-9487

The publications for products in this announcement cannot be ordered in hardcopy. All the publications in this announcement are available at

<http://www.ibm.com/support/docview.wss?uid=swg27020942>

The following softcopy publications are also available in the IBM Information Management Software for z/OS Solutions Information Center at

<http://pic.dhe.ibm.com/infocenter/dzichelp/v2r2/index.jsp>

Title	Order number
IMS Database Value Unit Edition 13 (5655-DSM):	
IMS Version 13 Application Programming	SC19-3646
IMS Version 13 Application Programming APIs	SC19-3647
IMS Version 13 Commands, Volume 1:	
IMS Commands A-M	SC19-3648
IMS Version 13 Commands, Volume 2:	

IMS Commands N-V	SC19-3649
IMS Version 13 Commands, Volume 3:	
IMS Component and z/OS Commands	SC19-3650
IMS Version 13 Communications and Connections	SC19-3651
IMS Version 13 Database Administration	SC19-3652
IMS Version 13 Database Utilities	SC19-3653
IMS Version 13 Diagnosis	GC19-3654
IMS Version 13 Exit Routines	SC19-3655
IMS Version 13 Installation	GC19-3656
IMS Version 13 License Programming Specifications	GC19-3663
IMS Version 13 Messages and Codes, Volume 1:	
DFS Messages	GC18-9712
IMS Version 13 Messages and Codes, Volume 2:	
Non-DFS Messages	GC18-9713
IMS Version 13 Messages and Codes, Volume 3:	
IMS Abend Codes	GC19-9714
IMS Version 13 Messages and Codes, Volume 4:	
IMS Component Codes	GC19-9715
IMS Version 13 Operations and Automation	SC19-3657
IMS Version 13 Release Planning	GC19-3658
IMS Version 13 System Administration	SC19-3659
IMS Version 13 System Definitions	GC19-3660
IMS Version 13 System Programming APIs	SC19-3661
IMS Version 13 System Utilities	SC19-3662

The following IMS Redbooks® are available now from Mechanicsburg or at

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

Title	Order number
IMS 12: The IMS Catalog red paper	REDP-4812
IMS 12 Technical Overview	SG24-7972
IMS 12 Selected Performance Topics	SG24-8071
IMS Performance and Tuning Guide	SG24-7324
Publishing IMS and DB2 Data Using WebSphere Information Integrator: Configuration and Monitoring Guide	SG24-7132
IMS Connectivity in an On Demand Environment: A Practical Guide to IMS Connectivity	SC24-6794

The following materials are available in PDF or HTML format and can be obtained from the IMS Resources section following the Product documentation link:

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

Title

IMS 13: IMS Presentations and White Papers on
Enterprise Integration, Performance, Connectivity,
and other IMS topics

The following book is available in hardcopy format from IBM Press:

Title

An Introduction to IMS - Second Edition

For details, visit

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

Ordering instructions and order processing availability will be communicated when IBM announces general availability of this product.

A memo and one copy of the following publication are supplied automatically with the basic machine-readable material.

All the IMS product information is available in the Information Center at

<http://pic.dhe.ibm.com/infocenter/dzichelp/v2r2/index.jsp>

Technical information

Specified operating environment

Hardware requirements

IBM DB2 11 for z/OS Value Unit Edition

Processors: Operates on z10 , or later, processors running z/OS V1.13, or later. The processors must have enough real storage to satisfy the combined requirements of:

- DB2
- z/OS

The appropriate DFSMS storage management subsystem components, access methods, telecommunications, batch requirements, and other applications DB2 11 will probably require increased real storage as compared to DB2 10 for z/OS .

The configuration must include sufficient I/O devices to support the requirements for system output, system residence, and system data sets. Sufficient disk storage must be available to satisfy the user's information storage requirements and can consist of any direct-access facility supported by the system configuration and the programming system.

In addition to listing auxiliary storage and data communications devices, this section identifies function-dependent hardware requirements and virtual storage requirements.

Auxiliary storage: DB2 is independent of both disk and tape device type. You can use any magnetic, optical, or tape device that is supported by the data facilities component of DFSMS or the DB2 data sets. Tape products are not supported for databases but can be used for the DB2 archive log and utility functions.

The following DB2 data sets are supported by the following device types:

- Active recovery log data sets: disk
- Archive recovery log data sets: disk, tape
- Image copy data sets: disk, tape
- Bootstrap data sets: disk
- User data sets: disk, tape (if migrated by HSM)
- DB2 catalog data sets: disk
- Work data sets (for utilities): disk, tape

If these data sets are on a disk that is shared with other z/OS systems, you should use global resource serialization to prevent concurrent access by more than one z/OS system.

The minimum disk space requirement, based on installing DB2 using the panel default values, is approximately 1.3 GB. You need additional disk space for your data.

If you use dual logging and tape for the log archiving device, you need at least two tape drives.

Data communications devices: DB2 operations can be controlled from:

- The system console
- Authorized CICS terminals
- TSO terminals (by authorized users)

Function-dependent hardware requirements:

DRDA® data stream encryption uses the following ICSF APIs: CSNECKM, CSNERNG, CSNFPKB, CSNFPKE, CSNEENC, and CSNEDEC.

For additional information on the use of these APIs, including hardware requirements, refer to the *z/OS ICSF Application Programmer's Guide*

DRDA AES user ID password encryption uses the following ICSF APIs: CSNEOWH, CSNERNG, CSNFPKB, CSNFPKE, CSNESYE, and CSNESYD. Refer to *z/OS ICSF Application Programmer's Guide* for additional information on the usage of these APIs including hardware requirements.

DSNLEUSR uses the following ICSF APIs: CSNBCKM, CSNBENC, CSNEDEC. Refer to *z/OS ICSF Application Programmer's Guide* for additional information on the usage of these APIs including hardware requirements.

Built-in functions for encryption and decryption require cryptographic hardware in a cryptographic coprocessor, cryptographic accelerator, or cryptographic instructions.

Refer to the latest Coupling Facility (CF) level recommended for your processor at

<http://www.ibm.com/systems/z/advantages/pso/cftable.html>

IBM IMS Database Value Unit Edition 13 Processors: A 64-bit IBM processors capable of running z/OS V1.13, or later, and supports the Long Displacement Facility of the z/Architecture .

Additional line item requirement information and a list of supported terminals is provided in the *IMS 13 Release Planning Information* found in the IMS Resources section and following the Product documentation link in

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

Software requirements

Mandatory installation requirements:

DB2 11 for z/OS Value Unit Edition requires:

- IBM z/OS , V1.13 (5694-A01), or later
- DFSMS V1.13
- Language Environment® Base Services
- z/OS V1.13 Security Server (RACF®)
- IRLM V2.3 (delivered with DB2 11)

If DB2 11 is installed with IRLM V2R3 into the same SMP zone as any version of IMS with IRLM V2R2, IRLM V2R2 will be deleted during the SMP/E installation of IRLM V2R3.

For a complete list of software requirements refer to Software Announcement [ZP13-0480](#), dated October 1, 2013 .

IMS Database Value Unit Edition, V13.1 requires z/OS V1.13 with the following base and optional elements:

- IBM z/OS , V1.13 (5694-A01), or later
- z/OS V1.13 Security Server (RACF)
- IBM High-Level Assembler Toolkit (5696-234), a separately orderable feature of z/OS

IMS Database Value Unit Edition, V13.1 also operates in a virtual machine under control of z/OS V1.13 and is intended for use in a customer program development, testing, and non-XRF production environment, with some restrictions.

Additional line item requirement information and a list of supported terminals is provided in the *IMS 13 Release Planning Information* found in the IMS Resources section and following the Product documentation link at

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

IMS Database Value Unit Edition, 13.1 can be connected using the appropriate interface to CICS Transaction Server for z/OS Value Unit Edition V5.1 (5722-DFJ), or later, WebSphere Application Server V7 (5724-J08), or later, and user-written software.

IMS Database Value Unit Edition is written in High Level Assembler, PL/X, C, C++, and JDK Version 6.

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.

Compatibility

DB2 11 for z/OS Value Unit Edition is upwardly compatible with earlier releases of DB2 for z/OS. Migration with full fallback protection is available for customers running on DB2 10. Existing customers should ensure they are successfully running on DB2 10 for z/OS (NFM) before migrating to DB2 11.

Compatibility items for IMS Database Value Unit Edition are the same as IMS 13. Refer to Software Announcement [ZP13-0485](#), dated October 1, 2013.

Performance considerations

Performance considerations for IMS Database Value Unit Edition are the same as IMS 13. Refer to Software Announcement [ZP13-0485](#), dated October 1, 2013.

Planning information

Packaging

The programs in this announcement are distributed with the following content:

- Basic machine-readable material
- Program Directory
- IBM International Program License Agreement (IPLA)
- IBM Agreement for Acquisition of Software Maintenance (IAASM)

This program, when downloaded from a website, contains the applicable IBM license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.

Security, auditability, and control

The announced program uses the security and auditability features of the host 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.

Global Technology Services®

Contact your IBM representative for the list of selected services available in your country, either as standard or customized offerings for the efficient installation, implementation, or integration of this product.

Ordering information

Consult your IBM representative.

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 US 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 website at

<http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp>

The products in this announcement have one charge unit - Value Units.

Translation from MSUs to value units example using VUE001

	MSUS	Value Units/MSU
Base	1-3	5.25
Tier A	4-45	.83
Tier B	46-175	.35
Tier C	176-315	.26
Tier D	316+	.20

Note: For the actual translation from MSUs to Value Units for this product, refer to the table that follows.

Ordering example

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

If the customer has installed 1,000 MSUs, the applicable Value Units would be:

Translation from MSUs to value units (VUE001)

	MSUS	*	Value Units/MSU	=	Value Units
Base	3	*	5.25	=	15.75
Tier A	42	*	.83	=	34.86
Tier B	130	*	.35	=	45.50
Tier C	140	*	.26	=	36.40
Tier D	685	*	.20	=	137.00
Total	1,000				270

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

Value Units for non-MSU-based S/390® processors using VUE001:

MP3000 models

H30	=	21.00 Value Units per machine
H50	=	22.00 Value Units per machine
H70	=	26.00 Value Units per machine
ESL models	=	9.00 Value Units per machine

Charge metric

Program name	PID number	Charge metric
IBM DB2 for z/OS Value Unit Edition	5697-P43	Value Unit
IBM IMS Database Value Unit Edition	5655-DSM	Value Unit

The following programs have Value Unit-Based pricing.

Program number	Program name	Value Unit exhibit
5697-P43	DB2 11 for z/OS Value Unit Edition, V11.1	VUE001
5655-DSM	IMS Database Value Unit Edition, V13.1	VUE001

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 VUE001

Level	Minimum	Maximum	Value Units/MSU
Base	1	3	5.25
Tier A	4	45	0.83
Tier B	46	175	0.35
Tier C	176	315	0.26
Tier D	316	+	0.20

Value Units for mainframes without MSU ratings:

Hardware	Value Units/machine
MP3000 H30	21
MP3000 H50	22
MP3000 H70	26
ESL models	9

Basic license

On/Off CoD

The products in this announcement are eligible for On/Off Capacity on Demand (CoD) with a temporary use charge calculated based on MSUs per-day usage.

Translation from MSUs to Value Units

	MSUs	Value Units/MSU
Base	1-3	1
Tier A	4-45	0.45
Tier B	46-175	0.36
Tier C	176-315	0.27
Tier D	316+	0.2

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: DB2 11 for z/OS Value Unit Edition V11.1.0
Program PID: 5697-P43

Entitlement identifier	Description	License option/ Pricing metric
S017911	DB2 11 Value Unit Edition V11.1	Basic OTC, Value Units Basic OTC, Per MSU-day TUC
Orderable supply ID	Language	Distribution medium
S01790W S017BKV	US English Japanese Kanji	3590 Tape cartridge

Entitlement identifier	Description	License option/ Pricing metric
S017910	QMF Classic Edition Value Unit Edition V11	Basic OTC, Value Units Basic OTC, Per MSU-day TUC
Orderable supply ID	Language	Distribution medium
S01790P S01790R	US English Multilingual	3590 Tape cartridge 3590 Tape cartridge

Entitlement identifier	Description	License option/ Pricing metric
S01790Z	QMF Enterprise Edition Value Unit Edition V11	Basic OTC, Value Units Basic OTC, Per MSU-day TUC
Orderable supply ID	Language	Distribution medium
S01790T S01790S	US English Multilingual	3590 Tape cartridge 3590 Tape cartridge

Entitlement identifier	Description	License option/ Pricing metric
S01790X	z/OS Application Connect Value Unit Edition	Basic OTC, Value Units Basic OTC, Per MSU-day TUC

Orderable supply ID	Language	Distribution medium
S01790V	US English	3590 Tape cartridge

Program name: IMS Database Value Unit Edition, V13.1.0
 Program PID: 5655-DSM

Entitlement identifier	Description	License option/ Pricing metric
S0178LH	IMS Database Value Unit Edition	Basic OTC, Value Units Basic OTC, Per MSU-day TUC

Orderable supply ID	Language	Distribution medium
S0178LG	US English	3590 Tape cartridge

Subscription and Support PID: 5697-P11

Entitlement identifier	Description	License option/ Pricing metric
S014P4N	DB2 for z/OS Value Unit Edition, S&S	Basic MSC, per Value Unit SW S&S No Charge, decline SW S&S Per MSU SW S&S Registration

Orderable supply ID	Language	Distribution medium
S014ZVF	US English	Hardcopy pub

Entitlement identifier	Description	License option/ Pricing metric
S0170DS	QMF Classic Edition Value Unit Edition, S&S	Basic MSC, per Value Unit SW S&S No Charge, decline SW S&S Per MSU SW S&S Registration

Orderable supply ID	Language	Distribution medium
S0170DR	US English	Hardcopy pub

Entitlement identifier	Description	License option/ Pricing metric
S016NGR	QMF Enterprise Edition Value Unit Edition, S&S	Basic MSC, per Value Unit SW S&S No Charge, decline SW S&S Per MSU SW S&S Registration

Orderable supply ID	Language	Distribution medium
S016NGT	US English	Hardcopy pub

Entitlement identifier	Description	License option/ Pricing metric
S014P4R	z/OS Application Connect Value Unit Edition S&S	Basic MSC, per Value Unit SW S&S No Charge, decline SW S&S Per MSU SW S&S Registration

Orderable supply ID	Language	Distribution medium
S014ZVP	US English	Hardcopy pub

Entitlement identifier	Description	License option/ Pricing metric
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S014P4P	DB2 Value Unit Edition Management Clients Pkg S&S	Basic MSC, per Value Unit SW S&S No Charge, decline SW S&S Per MSU SW S&S Registration
Orderable supply ID	Language	Distribution medium
S014ZVM	US English	Hardcopy pub

Subscription and Support PID: 5655-DSR

Entitlement identifier	Description	License option/ Pricing metric
S017864	IMS Database Value Unit Edition, SW S&S	Basic MSC, per Value Unit SW S&S No Charge, decline SW S&S Per MSU SW S&S Registration
Orderable supply ID	Language	Distribution medium
S017863	US English	Hardcopy pub

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. 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 automatically renew 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 System z 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.

Delivery services - Custom QuickShip Program

These products are eligible for the IBM Custom QuickShip Program.

Custom QuickShip combines flexible configurations with fast delivery. Customers and Business Partners are able to create product configuration of their choice by using a combination or stand-alone selection of hardware, software, and a menu of additional features, including the option for software preload. The inclusion of feature number 1748 will ensure Custom QuickShip delivery of the complete product configuration or stand-alone order.

The committed response time under Custom QuickShip is six business days from order acceptance by IBM to customer delivery.

Customized offerings

Product deliverables are shipped only via CBPDO, ServerPac, SystemPac®, FunctionPac, and ProductPac® .

All of these customized offerings are offered for Internet delivery in countries where Shopz product ordering is available. Internet delivery reduces software delivery time and allows you to install software without the need to handle tapes. For more details on Internet delivery, refer to the Shopz help information at

<http://www.software.ibm.com/ShopzSeries>

You choose the delivery method when you order the software. IBM recommends Internet delivery. In addition to Internet and DVD, the supported tape delivery options include:

- 3590
- 3592

Most products can be ordered in ServerPac, SystemPac , FunctionPac, and ProductPac the month following their availability in CBPDO. z/OS can be ordered via CBPDO, ServerPac, and SystemPac at general availability. Many products will also be orderable in a Product ServerPac without also having to order the z/OS operating system or subsystem. Shopz and CFS W will determine the eligibility based on product requisite checking. For more details on the Product ServerPac, visit the Help section on the Shopz website at

<http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp>

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 general availability.
- SystemPac , FunctionPac and ProductPac shipments will begin four weeks after general availability 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 Proof of Entitlement (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)

DB2 for z/OS Value Unit Edition

Qualified Sysplex means a Parallel Sysplex in which z/OS is eligible for aggregated zNALC charges as described in the Charges section of the Attachment for zNALC License Charges on IBM System z .

Your license authorizes use of the DB2 for z/OS VUE only in validly licensed System z New Application License Charge (zNALC) LPARs for Eligible Workloads, which are defined as workloads that meet the following criteria:

- A workload (excluding applications running under Lotus Domino) that includes DB2 for z/OS VUE, where the DB2 for z/OS VUE has been qualified and approved through the zNALC qualification process as eligible to run in a zNALC LPAR.
- The workload must be a net new z/OS workload deployed in a zNALC LPAR at the time of licensing DB2 for z/OS VUE, and not an existing z/OS workload that:
 - Is transferred or migrated to the zNALC LPAR(s) from z/OS elsewhere in the enterprise.
 - Is already deployed in a zNALC LPARs within the enterprise.

For example, an existing z/OS workload that would be or has been shifted across from one country to another, or from one data center to another, or that has been renamed or rewritten does not qualify as an Eligible Workload. Workloads that are migrated from non-z/OS sources, such as Linux , UNIX , or Windows , may qualify as Eligible Workloads.

Notwithstanding anything else in the IPLA, you are authorized to have copies of DB2 for z/OS VUE in support of your authorized use only:

- If qualified to be deployed on a single machine, in any zNALC LPARs in which the Eligible Workload is deployed for use.
- If qualified to be deployed within a Qualified Sysplex, in any zNALC LPARs in which the Eligible Workload is deployed for use.

In addition, you may make a backup copy. If you wish to deploy a copy of DB2 for z/OS VUE in any other separate zNALC environment, you must acquire another license to DB2 for z/OS VUE with its own separate entitlements.

Charges for this program are based on Value Unit entitlements.

Calculation of Value Unit entitlements for this program

For programs that will be deployed for use on a single machine not part of a Qualified Sysplex, the Value Unit entitlement will be determined as follows:

1. There will be a calculation of the number of Value Units which would equate to the total sum of the MSUs for any copies of DB2 for z/OS VUE on the machine, and the MSUs for all instances of the version of DB2 for z/OS that matches the version of DB2 for z/OS VUE (for instance, only where the version of DB2 for z/OS of such instances is the same as the version of DB2 for z/OS VUE on that machine.
2. There will be a calculation of the number of Value Units which would equate to the MSUs for all instances of the version of DB2 for z/OS that matches the version of DB2 for z/OS VUE (for instance, only where the version of DB2 for z/OS of such instances is the same as the version of DB2 for z/OS VUE) on the machine.
3. The number of required Program Value Unit entitlements will be the Value Units calculated in (1) minus the Value Units calculated in (2).

For programs that will be deployed for use in a Qualified Sysplex, the Value Unit entitlement will be determined as follows:

1. There will be a calculation of the number of Value Units which would equate to the total sum of the MSUs for any copies of DB2 for z/OS VUE in the Qualified Sysplex, and the MSUs for all instances of the version of DB2 for z/OS that

matches the version of DB2 for z/OS VUE (for instance, only where the version of DB2 for z/OS of such instances is the same as the version of the program) in the Qualified Sysplex.

2. There will be a calculation of the number of Value Units which would equate to the MSUs for all instances of the version of DB2 for z/OS that matches the version of DB2 for z/OS VUE (for instance, only where the version of DB2 for z/OS of such instances is the same as the version of the program) in the Qualified Sysplex.
3. The number of program Value Unit entitlements will be the Value Units calculated in (1) minus the Value Units calculated in (2).

No MSUs associated with any other instances of DB2 for z/OS shall be included with the program MSUs in the calculation to determine required Value Unit entitlements.

Example:

For the purpose of illustration only, assuming that the MSUs for the existing version of DB2 for z/OS which matches the version of DB2 for z/OS VUE which would be included in the calculations = 100, and the MSUs for the program itself = 30 (where the calculated Value Units for the copies of the program based on program MSUs alone would = 39):

- a) Assume that the calculated Value Units for the combined MSUs of the DB2 for z/OS and the program (that is, $100 + 30 = 130$ MSUs) would = 81 (Step 1 above).
- b) Assume that the calculated Value Units for the applicable DB2 for z/OS (100 MSUs) would = 70 (Step 2 above).
- c) Then the number of Value Unit entitlements required for DB2 for z/OS VUE would be the difference between the Value Units in a and b = 11 (that is, $81 - 70 = 11$).

Recalculation of Value Unit entitlements

There may be circumstances in which your Value Unit entitlements must be recalculated based upon changes to the environment and configuration, and additional Value Units will need to be purchased if your existing Value Unit entitlement is not sufficient. For example:

- If the utilization (for example, capacity) of your zNALC LPARs in which the Eligible Workload is deployed for use increases
- If the Eligible Workload is moved to another machine, into a Qualified Sysplex, or out of a Qualified Sysplex
- If the Value Unit entitlements you acquired were based on calculations that included MSUs associated with instances of DB2 for z/OS, and the MSUs associated with such instances decline

The program will be treated as a *Parent Program* for purposes of calculating charges for System z IPLA programs with Referenced-Based Terms, just as if the program were a monthly license charge DB2 program. Additional charges for IBM programs with Referenced-Based Terms licensed by you may apply, just as when adding MSU capacity to other DB2 Parent Programs. This program is a System z IPLA program with Execution-Based Terms for purposes of Sub-Capacity pricing.

Maintenance/support fixes provided for DB2 for z/OS may not be applied to the program. Subscription and Support for the program may be separately acquired.

The program requires you to indicate acceptance of the terms of this license at installation time.

IBM has the right to audit all machines and Qualified Sysplexes on which the program is installed to ensure compliance with all the terms of this license and the zNALC terms and conditions.

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.

IMS Database Value Unit Edition

Qualified Sysplex

A "Qualified Sysplex" means a Parallel Sysplex in which z/OS is eligible for aggregated zNALC charges as described in the Charges section of the Attachment for zNALC License Charges on IBM System z .

Your license authorizes use of the IMS Database Value Unit Edition only in a validly licensed System z New Application License Charge (zNALC) LPAR(s) for Eligible Workloads which are defined as workloads that meet the following criteria:

- A workload that includes IMS for Value Unit Edition, where the IMS Database Value Unit Edition has been qualified and approved through the zNALC qualification process as eligible to run in a zNALC LPAR(s), and
- The workload must be a net new z/OS workload deployed in a zNALC LPAR at the time of licensing IMS Database Value Unit Edition, and not an existing z/OS workload that:
 - Is transferred or migrated to the zNALC LPAR(s) from z/OS elsewhere in the enterprise, or,
 - Is already deployed in a zNALC LPAR(s) within the enterprise

For example, an existing z/OS workload that would be or has been shifted across a border from one country to another, or from one data center to another, or that has been renamed or rewritten does not qualify as an Eligible Workload. Workloads that are migrated from non-z/OS sources, such as Linux , UNIX , or Windows , may qualify as Eligible Workloads.

In the case of an outsourcing company that may take up the operation of IMS Database Value Unit Edition for its customer(s) and be(come) the licensee of IMS Database Value Unit Edition, the term "Enterprise" refers in all cases to the enterprise of the outsourcing company's customer(s) and not to the outsourcing company itself.

Notwithstanding anything else in the IPLA, you are authorized to have copies of IMS Database Value Unit Edition in support of your authorized use only:

1. If qualified to be deployed on a single machine, in any zNALC LPAR(s) in which the Eligible Workload is deployed for use, or
2. If qualified to be deployed within a Qualified Sysplex, in any zNALC LPAR(s) in which the Eligible Workload is deployed for use.

In addition you may make a backup copy. If you wish to deploy a copy of IMS Database Value Unit Edition in any other separate zNALC environment, you must acquire another license to IMS Database Value Unit Edition with its own separate entitlements.

Charges for this program are based on Value Unit entitlements.

Calculation of Value Unit entitlements for this program:

For programs that will be deployed for use on a single machine not part of a Qualified Sysplex, the Value Unit entitlement will be determined as follows:

1. There will be a calculation of the number of Value Units which would equate to the total sum of the MSUs for any copies of IMS Database Value Unit Edition on the machine, and the MSUs for all instances of the version of IMS that matches the version of IMS Database Value Unit Edition (for instance, only where the

version of IMS of such instances is the same as the version of IMS Database Value Unit Edition on that machine.)

2. There will be a calculation of the number of Value Units which would equate to the MSUs for all instances of the version of IMS that matches the version of IMS Database Value Unit Edition (for instance, only where the version of IMS of such instances is the same as the version of IMS Database Value Unit Edition) on the machine.
3. The number of required Program Value Unit entitlements will be the Value Units calculated in (1) minus the Value Units calculated in (2).

For programs that will be deployed for use in a Qualified Sysplex, the Value Unit entitlement will be determined as follows:

1. There will be a calculation of the number of Value Units which would equate to the total sum of the MSUs for any copies of IMS Database Value Unit Edition in the Qualified Sysplex, and the MSUs for all instances of the version of IMS that matches the version of IMS Database Value Unit Edition (for instance, only where the version of IMS of such instances is the same as the version of the program) in the Qualified Sysplex.
2. There will be a calculation of the number of Value Units which would equate to the MSUs for all instances of the version of IMS that matches the version of IMS Database Value Unit Edition (for instance, only where the version of IMS of such instances is the same as the version of the program) in the Qualified Sysplex.
3. The number of program Value Unit entitlements will be the Value Units calculated in (1) minus the Value Units calculated in (2).

No MSUs associated with any other instances of IMS shall be included with the program MSUs in the calculation to determine required Value Unit entitlements.

Example:

Simply by way of example (hypothetically for the purpose of illustration only), assuming that the MSUs for the existing version of IMS which matches the version of IMS Database Value Unit Edition which would be included in the calculations = 100, and the MSUs for the program itself = 30 (where the calculated Value Units for the copies of the program based on program MSUs alone would = 39):

1. Assume that the calculated Value Units for the combined MSUs of the IMS and the Program (i.e. $100 + 30 = 130$ MSUs) would = 81 (Step 1 above)
2. Assume that the calculated Value Units for the applicable IMS (100 MSUs) would = 70 (Step 2 above)
3. Then the number of Value Unit entitlements required for IMS Database Value Unit Edition would be the difference between the Value Units in a and b = 11 (i.e., $81 - 70 = 11$).

Recalculation of Value Unit Entitlements:

There may be circumstances in which your Value Unit entitlements must be recalculated based upon changes to the environment and configuration, and additional Value Units will need to be purchased if your existing Value Unit entitlement is not sufficient. For example:

- If the utilization (for example, capacity) of your zNALC LPAR(s) in which the Eligible Workload is deployed for use increases;
- If the Eligible Workload is moved to another machine, into a Qualified Sysplex, or out of a Qualified Sysplex;
- If the Value Unit entitlements you acquired were based on calculations that included MSUs associated with instances of IMS, and the MSUs associated with such instances decline.

The IMS Database Value Unit Edition program will be treated as a "Parent Program" for purposes of calculating charges for System z IPLA programs with Referenced-Based Terms, just as if the program were a monthly license charge IMS program. Additional charges for IBM programs with Referenced-Based Terms licensed by you may apply, just as when adding MSU capacity to other IMS Parent Programs. IMS

Database Value Unit Edition is a System z IPLA program with Execution-Based Terms for purposes of Sub-Capacity pricing.

In the event a machine has both zNALC LPAR(s) running IMS Database Value Unit Edition and non-zNALC LPAR(s) running IMS (MLC), the MSUs applicable to those IMS products for the purpose of establishing charges for reference-based z IPLA programs will be the lesser of

1. The sum of the IMS (MLC) and IMS Database Value Unit Edition MSUs, or
2. The peak z/OS MSUs as indicated on the SCRT report.

Maintenance/support fixes provided for IMS may not be applied to IMS Database Value Unit Edition. Separately available Subscription and Support for IMS Database Value Unit Edition must be acquired in order to obtain support for IMS Database Value Unit Edition.

The IMS Database Value Unit Edition program requires you to indicate acceptance of the terms of this license at installation time.

IBM has the right to audit all machines and Qualified Sysplexes on which IMS Database Value Unit Edition is installed to ensure compliance with all the terms of this license and the zNALC terms and conditions.

License Information form number

Program name	Program number	License Information
DB2 11 for z/OS Value Unit Edition	5697-P43	GC19-4059
IMS Database Value Unit Edition 13	5655-DSM	GC19-4113

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

<http://www.ibm.com/software/sla/sladb.nsf>

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

<http://www.ibm.com/support/handbook>

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.

Volume orders (IVO)

No

Passport Advantage applies

No

Software Subscription and Support 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 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>

System i® Software Maintenance applies

No

Variable charges apply

No

Educational allowance available

Yes. When ordering through the program number process, a 15% education allowance applies to qualified education institution customers.

Education Software Allowance Program applies when ordering through the program number process.

ESAP available

Yes, to qualified customers.

Sub-capacity terms and conditions

Sub-capacity charges for the programs in this announcement

To be eligible for sub-capacity charges, the machine on which the program is running must be eligible for zNALC sub-capacity charges terms and conditions. The customer must sign the zNALC Attachment and the IPLA Sub-Capacity Amendment and have implemented Sub-Capacity by submitting a SCRT report.

With sub-capacity charges, the charge is based on the z/OS product-defined capacity. To obtain charges at less than full machine capacity for each machine, the customer should:

- Determine the MSUs needed for the machine on which the program will run. Use the product-defined capacity (MSUs) for z/OS (as specified on the Sub-Capacity Reports submitted to IBM for sub-capacity zNALC) as the sub-capacity (MSUs).

If the use of sub-capacity pricing terms for the program results in a reduced requirement for Value Units, thus freeing up entitlements, customers can reserve them for future growth. There will be no refunds for these freed up Value Units. Subscription and Support volumes and entitlements for existing contracts will continue to be at the same levels as the acquired licenses.

Management of the Value Unit entitlements continues to be a customer responsibility. For example, in addition to the need for Recalculation of Value Unit Entitlements as specified above, if one of the following occur on a machine to which the program is licensed for deployment, the customer must determine if additional Value Units and Subscription and Support need to be ordered for those tools to cover the increase:

- The z/OS-defined capacity is increased.
- The requirements for zNALC sub-capacity charges are no longer met.

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.

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

<http://www-1.ibm.com/servers/eserver/zseries/library/swpriceinfo/>

Sub-capacity mainframes

The following terms apply for DB2 for z/OS Value Unit Edition and IMS Database Value Unit Edition:

Execution based: The required capacity of IMS Database Value Unit Edition with these terms equals the capacity of the zNALC LPAR(s) where the IMS Database Value Unit Edition executes.

For more information on mainframe MSU-rated capacities, refer to *The System/370, System/390®*, and *System z Machine Exhibit (Z125-3901)*, or visit the Mainframes section of the System z Exhibits website

<http://ibm.com/zseries/library/swpriceinfo/>

For more information on sub-capacity System z IPLA terms and conditions, refer to Software Announcement [ZA04-0227](#), dated August 10, 2004 .

For additional information for products with reference-based terms, System z IPLA sub-capacity programs with reference-based terms add 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 might 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 the license capacity of the parent program across the Parallel Sysplex . Qualified Parallel Sysplex refers to one:

1. That meets the criteria defined in Hardware Announcement [ZA98-0120](#), dated January 13, 1998 .
2. Where MLC pricing is aggregated across the Sysplex

IMS Database Value Unit Edition will be treated as a "Parent Program" for purposes of calculating charges for System z IPLA programs with Referenced-Based Terms, just as if IMS Database Value Unit Edition were a monthly license charge IMS program. Additional charges for IBM programs with Referenced-Based Terms licensed by you may apply, just as when adding MSU capacity to other IMS Parent Programs. IMS Database Value Unit Edition is a System z IPLA program with Execution-Based Terms for purposes of Sub-Capacity pricing.

In the event a machine has both zNALC LPAR(s) running IMS Database Value Unit Edition and non-zNALC LPAR(s) running IMS (MLC), the MSUs applicable to those IMS products for the purpose of establishing charges for Reference-Based z IPLA Programs will be the lesser of a) the sum of the IMS (MLC) and IMS Database Value Unit Edition MSUs or b) the peak z/OS MSUs as indicated on the SCRT report.

Sub-capacity eligibility

To be eligible for sub-capacity charging for IMS Database Value Unit Edition, you must first implement and comply with all terms of the zNALC Attachment.

To implement sub-capacity, 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 operating systems
- Any licenses for the OS/390 operating system must be discontinued
- All instances of the z/OS operating 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 website

<http://ibm.com/zseries/swprice>

You must comply with all of the terms of the zNALC offering, whichever is applicable:

- The complete terms and conditions of sub-capacity zNALC are defined in the IBM Customer Agreement.

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 IBM System z On/Off Capacity on Demand (Z125-7883) must be signed prior to use.

Statement of good security practices

IT system security involves protecting systems and information through prevention, detection, and response to improper access from within and outside your enterprise. Improper access can result in information being altered destroyed or misappropriated or can result in misuse of your systems to attack others. Without a comprehensive approach to security, no IT system or product should be considered completely secure and no single product or security measure can be completely effective in preventing improper access. IBM systems and products are designed to be part of a comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective. IBM does not warrant that systems and products are immune from the malicious or illegal conduct of any party.

Prices

For all local charges, contact your IBM representative.

Announcement countries

All European, Middle Eastern, and African countries except Iran, Sudan, and Syria.

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