

IBM MQ for z/OS VUE, IBM MQ Advanced for z/OS, and IBM MQ Advanced for z/OS VUE V9.1.3 deliver enhancements for clients who choose MQ to deliver robust, secure, and scalable enterprise messaging solutions

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Overview

IBM[®] MQ for z/OS[®], V9.1.3 connects applications, systems, and services in on-premises and hybrid cloud environments. It includes the following offerings:

- MQ for z/OS VUE, V9.1.3
- MQ Advanced for z/OS, V9.1.3
- MQ Advanced for z/OS VUE, V9.1.3

Version 9.1.3 is a continuous delivery (CD) release that includes additional capabilities to those that were delivered in the Version 9.1 long term support release (LTSR).

Additional features and enhancements for clients with MQ Advanced for z/OS and MQ Advanced for z/OS VUE entitlement include:

- Ability to apply and remove Advanced Message Security (AMS) policies transparently between AMS and non-AMS enabled queue managers
- Enhanced MQ service provider and build toolkit support for z/OS Connect Enterprise Edition
- Simplified JSON formatted payload when using runmqsc with the Admin REST API.
- Browse support for the Messaging REST API
- Enhancements to IBM MQ Managed File Transfer (MFT)

Key requirements

MQ for z/OS, V9.1.3 offerings run on IBM Z[®] servers that support the z/OS V2.2 operating systems or later.

For details, see the [Technical information](#) section.

Planned availability date

August 2, 2019

See the [Availability of national languages](#) section for national language availability.

Description

New and enhanced capabilities in the MQ Advanced for z/OS VUE, V9.1.3 CD release include:

- The ability to apply and remove Advanced Message Security (AMS) policies transparently between AMS and non-AMS enabled queue managers

MQ AMS policies can be applied to queues hosted by MQ Advanced for z/OS or MQ Advanced for z/OS VUE queue managers. Messages sent by applications to queues, which are protected by AMS policies, are intercepted for encryption and digital signing to occur. Any response messages are decrypted when consumed by the application.

MQ Advanced for z/OS and MQ Advanced for z/OS VUE, V9.1.3 provides greater flexibility when utilizing AMS, specifically when exchanging messages with non-AMS environments. Messages sent from a non-AMS queue manager, to a queue protected by AMS policies on an AMS-capable queue manager are now also intercepted. This enables encryption and digital signing to occur per the policy. Any messages sent in the reverse direction are also intercepted so that they can be decrypted as required.

This new capability enables users to create a firewall of protection around their MQ Advanced for z/OS and MQ Advanced for z/OS VUE queue managers. This protects all message data within the mainframe environment.

- Enhanced MQ service provider and build toolkit support for z/OS Connect Enterprise Edition (zCEE)

zCEE provides a framework that enables z/OS-based programs to participate fully in the API economy for mobile and cloud applications, without the need to make application changes. zCEE enables users to easily build RESTful APIs to unlock access to IBM Z subsystems and data. These APIs are then invoked by using JSON/HTTP, without requiring new consumers to understand or be aware of the specific interfaces to the subsystems.

MQ provides a zCEE service provider, which is delivered within the UNIX[®] System Services (USS) component of MQ. It allows existing services connected through MQ to be accessed through a RESTful front end. Consumers do not need knowledge of MQ to use the service provider to send and receive messages from an MQ queue or topic, and may also utilize request-reply-type semantics.

With MQ Advanced for z/OS and MQ Advanced for z/OS VUE, V9.1.3, the MQ zCEE service provider is now packaged as part of zCEE. This simplifies deployment because users are no longer required to copy the latest service provider from MQ into their zCEE installation. In addition, build toolkit support is now available for MQ. Users can generate a deployable SAR file for MQ as part of an automated DevOps pipeline.

- Simplified JSON formatted payload when using runmqsc with the Admin REST API

For a number of releases since the early MQ V9.0 CD releases, there were incremental updates to provide MQ administration through a REST API. With MQ Advanced for z/OS VUE, V9.1.3, this is further extended. Calls to the runmqsc interface that use the REST API now enable parse-able JSON input and outputs. This enables smarter tooling and responses to be created.

- Browse support for Messaging REST API

Some of the most well received updates in recent MQ releases were in the area of support for REST Messaging. With MQ Advanced for z/OS VUE, V9.1.3, this capability is further extended with the ability to use the REST Messaging interface to browse existing MQ messages. This enables applications to read messages without destructively removing them from queues.

- Enhancements for MQ Managed File Transfer (MFT)

A new command, `fteClearMonitorHistory`, provides a mechanism for clearing the history of an MFT resource monitor to simplify the process of re-initiating failed transfers.

Value Unit-based pricing

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

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

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

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

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

To simplify conversion from the designated measurement to Value Units or vice-versa, use the Value Unit Converter Tool. For additional information or to obtain a copy of the Value Unit Converter Tool, visit the Value Unit Converter Tool, go to the [IBM System z^{\(R\)} Software Pricing](#) website.

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

To determine the required license capacity for the z Systems IPLA program you selected, see the [Terms and conditions](#) section.

Statement of general direction

In future continuous delivery releases, IBM intends to deliver a new capability, extended MQ support for z/OS data set encryption to include active logs, pagesets, and shared message data sets.

Statements by IBM regarding its plans, directions, and intent are subject to change or withdrawal without notice at the sole discretion of IBM. Information regarding potential future products is intended to outline general product direction and should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for IBM products remain at the sole discretion of IBM.

Reference information

For general product information on MQ for z/OS, see the [IBM MQ for z/OS](#) website.

For information about MQ for z/OS, V9.1.3, see Software Announcement [AP19-0241](#), dated July 9, 2019.

For information about MQ for Multiplatforms, V9.1.3, see Software Announcement [AP19-0238](#), dated July 9, 2019.

Availability of national languages

Description	Availability date	Language
IBM MQ Advanced for z/OS, V9.1.3	August 2, 2019	English, French, Japanese, Chinese
IBM MQ for z/OS Value Unit Edition, V9.1.3	August 2, 2019	English, French, Japanese, Chinese
IBM MQ Advanced for z/OS Value Unit Edition, V9.1.3	August 2, 2019	English, French, Japanese, Chinese

Translation information, if available, can be found at the [Translation Reports](#) website.

Program number

Program number	VRM	Program name
5655-AV9	V9.1.3	IBM MQ Advanced for z/OS
5655-VU9	V9.1.3	IBM MQ for z/OS Value Unit Edition
5655-AV1	V9.1.3	IBM MQ Advanced for z/OS Value Unit Edition

Program number	Subscription and support number
5655-AV9	5655-W99
5655-VU9	5655-VSS
5655-AV1	5655-AV2

Offering Information

Product information is available on the [IBM Offering Information](#) website.

Publications

Documentation for the offerings in this announcement is published in IBM Knowledge Center as part of the [IBM MQ Version 9.1.x product documentation](#), which can be viewed from a web browser with internet access. Effective August 2, 2019, the MQ V9.1.3 product documentation will be available in IBM Knowledge Center.

The following softcopy publications are available in pdf format to download from the [Publications Center](#).

Title	Order number
IBM MQ Advanced for z/OS, V9.1.3 Program Directory	GI13-4428
IBM MQ for z/OS Value Unit Edition, V9.1.3 Program Directory	GI13-4425
IBM MQ Advanced for z/OS Value Unit Edition, V9.1.3 Program Directory	GI13-4429

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.

Technical information

Specified operating environment

Hardware requirements

MQ for z/OS, V9.1.3 offerings run on any IBM Z server that supports z/OS V2.2 operating system or later, with enough storage to meet the combined requirements of the programming prerequisites for the MQ for z/OS, V9.1.3 offerings, the access methods, and the application programs.

Software requirements

The *Program Directory*, which is shipped with the product contains the latest level of information, includes APAR or PTF levels of supported products.

For additional information, go to the [IBM MQ System requirements](#) website.

Compatibility

MQ Advanced for z/OS Value Unit Edition, V9.1.3 is upwardly compatible with programs written for:

- IBM MQSeries^(R) for MVSTM/ESA, V1.2
- MQSeries for OS/390^(R), V2.1
- MQSeries for OS/390, V5.2
- IBM WebSphere^(R) MQ for z/OS, V5.3.1
- WebSphere MQ for z/OS, V6.0
- WebSphere MQ for z/OS, V7.0
- WebSphere MQ for z/OS, V7.0.1
- WebSphere MQ for z/OS, V7.1
- MQ for z/OS, V8.0
- MQ for z/OS, V9.0, long term support release (LSTR) and CD releases
- MQ for z/OS VUE, V9.0, LSTR and CD releases
- MQ for z/OS, V9.1, LSTR and CD releases
- MQ Advanced for z/OS VUE, V9.1, LSTR and CD releases

MQ platforms

MQ supports multiple IBM and non-IBM platform configurations. Some platforms do not support all of the functions available in this product.

The IBM Support Community

The [IBM Support Community](#) is your gateway to technical support tools and resources that are designed to help you save time and simplify support. Support Community tools can help you find answers to questions, download fixes, troubleshoot, automate data collection, submit and track problems, and build skills.

You can also access the [Service requests and PMRs](#) tool for more support.

Planning information

Packaging

MQ Advanced for z/OS, V9.1.3 delivers IBM MQ Advanced for z/OS, V9.1.3 License Information DVD (GC34-7479).

MQ for z/OS VUE, V9.1.3 delivers IBM MQ for z/OS VUE, V9.1.3 License Information DVD (GC34-7367).

MQ Advanced for z/OS VUE, V9.1.3 delivers:

- IBM MQ Advanced for z/OS VUE, V9.1.3 License Information DVD (GC34-7478)
- IBM MQ for z/OS VUE, V9.1.3 License Information DVD (GC34-7367)

Security, auditability, and control

Information on security and setup is available in IBM Knowledge Center as part of the [IBM MQ Version 9.1.x product documentation](#). On August 2, 2019, the MQ V9.1.3 product documentation will be available in IBM Knowledge Center.

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

Ordering information

Consult your IBM representative.

Value Unit exhibit VUE007

	MSUs minimum	MSUs maximum	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	+	0.20

Ordering example

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

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

Tier	MSUs	Multiplied by Value Units per MSU	Equal Value Units
Base	3	1.00	3.00
Tier A	42	.45	18.90
Tier B	130	.36	46.80

Tier	MSUs	Multiplied by Value Units per MSU	Equal Value Units
Tier C	140	.27	37.80
Tier D	1,185	.20	237.00
Total	1,500		343.50

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

Program number	Program name	Value Unit exhibit
5655-AV9	IBM MQ Advanced for z/OS	VUE007
5655-VU9	IBM MQ for z/OS Value Unit Edition	VUE007
5655-AV1	IBM MQ Advanced for z/OS Value Unit Edition	VUE007

Charge metric

The charge metrics for these licensed products can be found in the following License Information documents:

Program identifier	License Information document title	License Information document number
5655-AV9	IBM MQ Advanced for z/OS, V9.1.3	L-APIG-BA2EJN
5655-VU9	IBM MQ for z/OS Value Unit Edition, V9.1.3	L-APIG-AWDHX7
5655-AV1	IBM MQ Advanced for z/OS Value Unit Edition, V9.1.3	L-APIG-BA2ENN

Select your language of choice and scroll down to the Charge Metrics section. Follow-on releases, if any, may have updated terms. See the [License Information documents](#) website for more information.

Basic license

On/Off CoD

The following program products are eligible for On/Off CoD with a temporary use charge calculated based on MSUs per-day usage.

- MQ Advanced for z/OS
- MQ for z/OS Value Unit Edition
- MQ Advanced for z/OS Value Unit Edition

Program name: IBM MQ Advanced for z/OS, V9.1.3

Program number: 5655-AV9

Entitlement identifier	Description	License option/Pricing metric
S0180D3	IBM MQ Advanced for z/OS	Basic OTC, Per MSU-day TUC

Program name: IBM MQ for z/OS Value Unit Edition, V9.1.3

Program number: 5655-VU9

Entitlement identifier	Description	License option/Pricing metric
S0180BN	IBM MQ for z/OS Value Unit Edition	Basic OTC, Per MSU-day TUC

Program name: IBM MQ Advanced for z/OS Value Unit Edition, V9.1.3

Program number: 5655-AV1

Entitlement identifier	Description	License option/Pricing metric
S0181Z0	IBM MQ Advanced for z/OS Value Unit Edition V9.1.3	Basic OTC, Per MSU-day TUC

Translation from MSUs to Value Units

Tier	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 or greater	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: IBM MQ Advanced for z/OS**Program number: 5655-AV9**

Entitlement identifier	Description	License option/Pricing metric
S0180D3	IBM MQ Advanced for z/OS	Basic OTC, per Value Unit MultiVersion Measurement NC

Orderable supply ID	Description	Language
S01835F	IBM MQ Advanced for z/OS, V9.1.3	English

Program name: IBM MQ for z/OS Value Unit Edition**Program number: 5655-VU9**

Entitlement identifier	Description	License option/Pricing metric
S0180BN	IBM MQ for z/OS Value Unit Edition	Basic OTC, per Value Unit MultiVersion Measurement NC

Orderable supply ID	Description	Language
S0182XZ	IBM MQ for z/OS Value Unit Edition, V9.1.3	English

Program name: IBM MQ Advanced for z/OS Value Unit Edition**Program number: 5655-AV1**

Entitlement identifier	Description	License option/Pricing metric
S0181Z0	IBM MQ Advanced for z/OS Value Unit Edition	Basic OTC, per Value Unit MultiVersion Measurement NC

Orderable supply ID	Description	Language
S01835H	IBM MQ Advanced for z/OS VUE, V9.1.3	English

Program name: IBM MQ Advanced for z/OS**Subscription and Support number: 5655-W99**

Entitlement identifier	Description	License option/Pricing metric
S0173LL	IBM MQ Advanced for z/OS	Basic ASC, per Value Unit SW S&S

Entitlement identifier	Description	License option/Pricing metric
	Subscription and Support	No charge, decline SW S&S
		Per MSU SW S&S registration MultiVersion Measurement S&S NC
Orderable supply ID	Language	
S0173LN	English	

Program name: IBM MQ for z/OS Value Unit Edition

Subscription and Support number: 5655-VSS

Entitlement identifier	Description	License option/Pricing metric
S017CKB	IBM MQ Advanced for z/OS Value Unit Edition	Basic ASC, per Value Unit SW S&S
	Subscription and Support	No charge, decline SW S&S
		Per MSU SW S&S registration MultiVersion Measurement S&S NC
Orderable supply ID	Language	
S017CX1	Multilingual	

Program name: IBM MQ Advanced for z/OS Value Unit Edition

Subscription and Support number: 5655-AV2

Entitlement identifier	Description	License option/Pricing metric
S0181Z3	IBM MQ Advanced for z/OS Value Unit Edition	Basic ASC, per Value Unit SW S&S
	Subscription and Support	No charge, decline SW S&S
		Per MSU SW S&S registration MultiVersion Measurement S&S NC
Orderable supply ID	Language	
S0181Z2	English	

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 (number) 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 IBM 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.

Customized Offerings

Product deliverables are shipped only through CBPDO and ServerPac. These customized offerings are offered for internet delivery. For more details on Internet delivery, go to the *Help* section on the [Shopz](#) website.

IBM recommends internet delivery. However, if you still require physical media, you can choose DVD.

Many products can be ordered in ServerPac the month following their availability in CBPDO. z/OS can be ordered through CBPDO and ServerPac 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 CFSW will determine the eligibility based on product requisite checking. For more details on the Product ServerPac, go to the *Help* section on the [Shopz](#) website.

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 four weeks after general availability.

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^(R) 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.

Software Maintenance

The *IBM Agreement for Acquisition of Software Maintenance (Z125-6011)* applies for Software Subscription and Support (Software Maintenance) and does not require client signatures.

These programs are licensed under the IBM International 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.

License Information number

The following License Information documents| apply to the offerings in this announcement:

Program identifier	License Information document title	License Information document number
5655-AV9	IBM MQ Advanced for z/OS, V9.1.3	L-APIG-BA2EJN
5655-VU9	IBM MQ for z/OS Value Unit Edition, V9.1.3	L-APIG-AWDHX7
5655-AV1	IBM MQ Advanced for z/OS Value Unit Edition, V9.1.3	L-APIG-BA2ENN

Follow-on releases, if any, may have updated terms. See the [License Information documents](#) website for more information.

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, see the [IBM Support Guide](#).

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

Program technical support

Technical support of a program product version or release will be available for a minimum of two years from the general availability date, as long as your Software Subscription and Support (also referred to as Software Maintenance) is in effect.

This technical support allows you to obtain assistance (by telephone or electronic means) from IBM for product-specific, task-oriented questions regarding the installation and operation of the program product. Software Subscription and Support (Software Maintenance) also provides you with access to versions, releases, and updates (CD releases, Long Term Support Releases or fixes) of the program. You will be notified, through an announcement letter, of discontinuance of support with six months' notice. If you require additional technical support from IBM, including an extension of support beyond the discontinuance date, contact your IBM representative or IBM Business Partner. This extension may be available for a fee.

For additional information on the IBM Software Support Lifecycle Policy, see the [IBM Software Support Lifecycle Policy](#) website.

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

Yes. During the Software Subscription and Support period, for the unmodified portion of a program, and to the extent problems can be recreated in the specified operating environment, IBM will provide the following:

- Defect correction information, a restriction, or a bypass.
- Program updates: Periodic releases of collections of code corrections, fixes, functional enhancements and new versions and releases to the program and documentation.
- Technical assistance: A reasonable amount of remote assistance by telephone or electronically to address suspected program defects. Technical assistance is available from the IBM support center in the organization's geography.

Additional details regarding Technical Assistance, which includes IBM contact information, are provided in the [IBM Support Guide](#).

Software Subscription and Support does not include assistance for:

- The design and development of applications.
- Your use of programs in other than their specified operating environment.
- Failures caused by products for which IBM is not responsible under the IBM Agreement for Acquisition of Software Maintenance.

Software Subscription and Support is provided only if the program is within its support timeframe as specified in the Software Support Lifecycle policy for the program.

Variable charges apply

No

Educational allowance available

15%, to qualified educational institution clients.

Multi-Version Measurement

Multi-Version Measurement (MVM) replaces the previously announced Migration Grace Period time limit of six months and allows unlimited time for clients to run more than one eligible version of a software program. Clients may run multiple versions of a program simultaneously for an unlimited duration during a program version upgrade. Clients may also choose to run multiple versions of a program simultaneously for an unlimited duration in a production environment. MVM does not extend support dates for programs withdrawn from service.

For more information about MVM, including requirements for qualification, see the [MVM](#) web page. For a list of eligible programs, see the [IPLA Execution-Based](#) web page.

Sub-capacity terms and conditions

For each IBM 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 IBM 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 IBM Z IPLA program you selected, refer to the [Ordering information](#) .

Program number	Program name	Terms
5655-AV9	IBM MQ Advanced for z/OS, V9.1.3	Execution-based
5655-VU9	IBM MQ for z/OS Value Unit Edition, V9.1.3	Execution-based
5655-AV1	IBM MQ Advanced for z/OS Value Unit Edition, V9.1.3	Execution-based

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 an IBM Z IPLA program with these terms equals the MSU-rated capacity of the machines where the IBM Z IPLA program executes.

For more information on mainframe MSU-rated capacities, go to the [IBM Z Software Pricing](#) website.

Reference-based: The required license capacity of an IBM Z IPLA program with these terms equals the license capacity of the applicable monthly license charge (MLC) program. This MLC program is called the parent program.

Sub-capacity mainframes

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

Execution-based: The required capacity of an IBM Z IPLA sub-capacity program with these terms equals the capacity of the LPARs where the IBM Z IPLA program executes.

z/OS-based: The required license capacity of an IBM Z IPLA program with these terms equals the license capacity of z/OS on the machines where the IBM Z IPLA program executes.

Reference-based: The required license capacity of an IBM Z IPLA program with these terms equals the license capacity of the applicable monthly license charge (MLC) program. This MLC program is called the parent program.

Full-machine-based: The required license capacity of an IBM Z IPLA program with full machine based terms equals the MSU-rated capacity of the machines where the IBM Z IPLA program executes.

For more information on mainframe MSU-rated capacities, see *The IBM Z Machines Exhibit*, (Z125-3901), or visit the Mainframes of the IBM Z Exhibits website.

For additional information for products with reference-based terms, IBM Z IPLA sub-capacity programs with reference-based terms adds value to the parent program across the environment, regardless of where in the environment the IBM Z IPLA program executes.

An environment is defined as either a single or stand-alone machine or a qualified Parallel Sysplex^(R). You may have one or more different environments across the enterprise. To determine the required license capacity for each IBM Z IPLA program with referenced-based terms, each environment should be assessed separately.

When an IBM Z IPLA sub-capacity program with reference-based terms is used in a qualified Parallel Sysplex environment, the required license capacity of the IBM Z IPLA program must equal with the license capacity of the parent program across the Parallel Sysplex. Qualified Parallel Sysplex refers to one: where MLC pricing is aggregated across the sysplex.

Sub-capacity eligibility

To be eligible for sub-capacity charging on select IBM Z IPLA programs, you must first implement and comply with all terms of either sub-capacity Workload License Charges (WLC) or sub-capacity Entry Workload License Charges (EWLC). To implement sub-capacity WLC or EWLC, a machine must be IBM 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^(R) (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, go to the [IBM Z Software Pricing](#) website.

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

- The complete terms and conditions of sub-capacity WLC are defined in the *IBM Customer Agreement - Attachment for IBM Z Workload License Charges*, (Z125-6516).
- The complete terms and conditions for sub-capacity EWLC are defined in the *IBM Customer Agreement - Attachment for EWLC, TWLC, zELC, and z/OS.e License Charges*, (Z125-6587).

Additionally, you must sign and comply with the terms and conditions specified in the amendment to the IPLA contract - *Amendment for Amendment for IBM Z Programs Sub-Capacity Pricing*, (Z125-6929). Once the amendment is signed, the terms in the amendment replace any and all previous IBM Z IPLA sub-capacity terms and conditions.

Sub-capacity terms and conditions

IBM Getting Started Sub-capacity Pricing for z/OS IPLA Software applies.

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 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 z Systems 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 intrusion 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 regulatory compliant, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective.

Important: IBM does not warrant that any systems, products, or services are immune from, or will make your enterprise immune from, the malicious or illegal conduct of any party.

Prices

The prices are unchanged by this announcement.

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