IBM Data Studio pureQuery Runtime for z/OS V2.1 delivers enterprise-ready applications with better performance, security, and manageability

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At a glance

Build new or enhance existing enterprise-ready applications faster and with better performance, security, and manageability using IBM® Data Studio Developer and IBM Data Studio pureQuery Runtime for z/OS®. V2.1 helps developers and database administrators (DBAs):

- Leverage static SQL for existing applications running dynamic SQL
- Reduce or eliminate SQL injection risk for Java™ database applications
- Focus SQL tuning efforts on application hot spots
- Simplify impact analysis for any databases changes
- Improve update performance of Java Persistence Architecture (JPA) applications on IBM WebSphere® Application Server V7

For additional information about Data Studio Developer, refer to Software Announcement ZP08-0635, dated December 02, 2008.

Overview

IBM Data Studio pureQuery Runtime for z/OS V2.1, the latest entry in the Data Studio portfolio, provides the pureQuery runtime environment that optimizes performance of Java application code or stored procedures running natively on the z/OS platform.

When deployed on popular Java application server platforms, such as IBM WebSphere Application Server or in any other Java application environment, IBM Data Studio pureQuery Runtime makes Java data access to DB2® for z/OS -- including existing JDBC applications -- faster, more predictable, more manageable, and more secure.

Key prerequisites

Refer to the Hardware requirements and Software requirements sections.
Planned availability date

March 27, 2009

Description

Together with Data Studio Developer, Data Studio pureQuery Runtime V2.1 helps Java
developers and application database administrators (DBAs) build enterprise-ready Java
applications faster while delivering applications that perform better, are more secure, and are
more manageable.

New in V2.1:

• Eliminate SQL injection risk: Developers or DBAs can now limit SQL execution to approved
SQL for both static and dynamic execution.
• Focus tuning efforts: Now developers can capture additional SQL metrics during development
to identify performance problems. Data Studio Developer captures and displays new SQL
metrics, including the number of executions, aggregated elapsed time, and minimum and
maximum execution durations to identify hot spots in the application.
• Enhance impact analysis: Developers can easily find the Java code that may be affected by a
database change. Enhancements include:
  – Increased scope: Discover and correlate SQL and Java across all projects open within a
    workspace
  – More comprehensive: Discover all occurrences of the same SQL in a routine and capture
    additional SQL not previously captured
  – More automation: Generate initial database, SQL, and Java correlation metadata without
    executing the application
• Enhance Java Persistence Architecture (JPA) applications: Developers using the JPA with
IBM WebSphere Application Server V7 now have an advantage in leveraging pureQuery
technology to improve stability, security, and manageability for JPA applications

Use pureQuery Runtime for z/OS with stand-alone applications, applications deployed on
WebSphere Application Server or other application servers, or with DB2 stored procedures. Data
Studio pureQuery runtime supports both type 2 database drivers and type 4 database drivers for
DB2 for z/OS V8 and V9.

Deploy pureQuery to:

• Reduce time to market for new Java applications
  – Bridge Java and data
  – Balance productivity and control
  – Enhance developer and DBA collaboration
• Improve quality of service for new and existing Java applications
  – Improve performance
  – Lock in access plans
  – Speed up problem resolution
• Enhance security
  – Limit user access
  – Minimize SQL injection risk
  – Improve audit readiness
• Get more value from existing investments
  – Increase system throughput
  – Migrate more workload to zIIP or zAAP hardware
Accessibility by people with disabilities

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


Value Unit-based pricing

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

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

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

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

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

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

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

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

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

Product positioning

IBM Data Studio offerings provide an integrated, modular data management environment to design, develop, deploy, and administer data, databases, and data-driven applications throughout the entire data management lifecycle. Data Studio delivers not only powerful, stand-alone tools, but value-added integration across the portfolio with common user interfaces, common components, and shared artifacts that increase organizational productivity and effectiveness while improving the quality of service and cost of ownership.

Data Studio is particularly useful for those companies that:

• Want a single solution to manage the lifecycle of data management tasks
• Want to improve collaboration among their IT staff
• Need the ability to architect, design, model, and relate their data across diverse database environments
• Develop Java applications for DB2 or IDS data servers
• Develop using the Rational® software delivery platform or components
• Deploy XML, service oriented architecture (SOA), or Web services-based applications
• Develop SQL-based applications, procedures, and services

Product identification number

<table>
<thead>
<tr>
<th>Program PID number</th>
<th>Subscription and Support PID number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-V57</td>
<td>5655-U94</td>
</tr>
</tbody>
</table>

Program number

<table>
<thead>
<tr>
<th>Program number</th>
<th>VRM</th>
<th>Program name</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-V57</td>
<td>2.1</td>
<td>IBM Data Studio pureQuery Runtime for z/OS</td>
</tr>
</tbody>
</table>

Offering Information

Product information is available via the Offering Information Web site

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

Publications

The IBM Publications Center portal is at

http://www.ibm.com/shop/publications/order

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. Payment options for orders are via credit card or customer number. A large number of publications are available online in various file formats. They can all be downloaded free of charge.

One copy of the following publications is supplied automatically with the basic machine-readable material.

<table>
<thead>
<tr>
<th>Title</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Data Studio pureQuery Runtime for z/OS, V2.1 (5655-V57)</td>
<td>GC19-2721-00</td>
</tr>
<tr>
<td>License Information</td>
<td>GC10-8805-00</td>
</tr>
<tr>
<td>Program Directory</td>
<td></td>
</tr>
</tbody>
</table>

Technical information

Specified operating environment

Hardware requirements

Memory requirements: The following table shows applicable recommended minimum memory for installation prerequisites in megabytes. The actual requirement depends on the applications you intend to run. These requirements do not include any additional memory requirements for other software that is running on your system. The numbers below are for reference only.
Disk space requirements: The following table shows applicable recommended minimum disk space for a typical install in megabytes. The actual space required may vary, depending on your file system and the components installed. The numbers below are for reference only.

On the database client machine where Data Studio pureQuery Runtime is installed:

<table>
<thead>
<tr>
<th>Memory</th>
<th>Disk</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Data Studio</td>
<td>0.5 MB RAM</td>
</tr>
<tr>
<td>pureQuery Runtime</td>
<td>80 MB of disk space</td>
</tr>
</tbody>
</table>

Software requirements

The operating system support level and other software requirements of various IBM Data Studio products are frequently updated. To obtain the current information for supported software levels, including recommended maintenance levels, visit

http://www.ibm.com/software/data/studio

The minimal requirements for operating systems at the time of announcement:

• z/OS V1.7 Base Services, or later

Other minimal software requirements on the database client machines include:

• IBM Data Server Driver for JDBC and SQLJ V3.53, or later
• Java Runtime Environment 1.5, or later

IBM Data Studio pureQuery Runtime for z/OS V2.1 supports:

• DB2 for z/OS V8 and V9

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

Planning information

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.

Packaging

IBM Data Studio pureQuery Runtime

• IBM Data Studio pureQuery Runtime - 3480 Tape Cartridge
• Hardcopy license document - Form number GC19-2721-00
• Hardcopy program directory - Form number GI10-8805-00

This program, when downloaded from a Web site, 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

IBM Data Studio pureQuery Runtime for z/OS V2.1 uses the security and auditability features of the host hardware or 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.

Charge metric

<table>
<thead>
<tr>
<th>Program name</th>
<th>Part number or PID number</th>
<th>Charge metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Data Studio pureQuery</td>
<td>5655-V57</td>
<td>Value Unit</td>
</tr>
<tr>
<td>Runtime for z/OS V2.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Resource Value Unit (RVU)

RVU is the unit of measure by which this program is licensed. RVU entitlements are based on the quantity of a specific designated measurement for the given program. A Proof of Entitlement (PoE) must be obtained for the appropriate number of RVUs required for your environment as defined by the specific program terms. The RVU entitlements are specific to the program and may include, but are not limited to the following: Client Devices, data source records, messages, and servers, and may not be exchanged, interchanged, or aggregated with RVU entitlements of another program. To understand these benefits of RVU licensing, and to determine how many RVUs to obtain for the program, contact your IBM representative.

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

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
<th>Value Unit exhibit</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-V57</td>
<td>IBM Data Studio pureQuery</td>
<td>VUE007</td>
</tr>
<tr>
<td>Runtime for z/OS V2.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

Value Unit exhibit VUE007

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

Value Units for mainframes without MSU ratings:

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Value Units/machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP3000 H30</td>
<td>6</td>
</tr>
<tr>
<td>MP3000 H50</td>
<td>8</td>
</tr>
<tr>
<td>MP3000 H70</td>
<td>12</td>
</tr>
<tr>
<td>ESL models</td>
<td>2</td>
</tr>
</tbody>
</table>
Ordering example

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

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

Translation from MSUs to Value Units

<table>
<thead>
<tr>
<th>MSUs</th>
<th>Value Units/MSU</th>
<th>Value Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>3 * 1.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Tier A</td>
<td>42 * .45</td>
<td>18.90</td>
</tr>
<tr>
<td>Tier B</td>
<td>130 * .36</td>
<td>46.80</td>
</tr>
<tr>
<td>Tier C</td>
<td>140 * .27</td>
<td>37.80</td>
</tr>
<tr>
<td>Tier D</td>
<td>1,185 * .20</td>
<td>237.00</td>
</tr>
<tr>
<td>Total</td>
<td>1,500</td>
<td>343.50</td>
</tr>
</tbody>
</table>

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

Ordering z/OS through the Internet

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

For more details and availability, visit the ShopzSeries Web site at


Basic license

On/Off CoD

IBM Data Studio pureQuery Runtime for z/OS is eligible for On/Off CoD with a temporary use charge calculated based on MSUs per-day usage.

Program name: IBM Data Studio pureQuery Runtime for z/OS V2.1
Program PID: 5655-V57

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License option/ pricing metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>S015G2T</td>
<td>IBM Data Studio pureQuery Runtime for z/OS</td>
<td>Basic OTC, Per MSU-day TUC</td>
</tr>
</tbody>
</table>

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

Program name: IBM Data Studio pureQuery Runtime for z/OS V2.1
Program PID: 5655-V57

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License option/ pricing metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>S015G2T</td>
<td>Data Studio pureQuery Runtime for z/OS</td>
<td>Basic OTC, per value unit</td>
</tr>
</tbody>
</table>

Orderable supply ID Language Distribution medium

<table>
<thead>
<tr>
<th>Orderable supply ID</th>
<th>Language</th>
<th>Distribution medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>S015DZR</td>
<td>English</td>
<td>3480 tape</td>
</tr>
</tbody>
</table>

Subscription and Support PID: 5655-U94
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.

Single version charging

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

Delivery services - Custom QuickShip Program

This product is 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 standalone 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 standalone order.

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

Future expansion or updates of eligible Custom QuickShip software products will be advertised at the European QuickShip Web site mentioned above.

Customized Offerings

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

CBPDO and ServerPac are offered for Internet delivery, where ShopzSeries product ordering is available. Internet delivery of ServerPac may help improve automation and software delivery time. For more details on Internet delivery, refer to the ShopzSeries help information at
Media type for this software product is chosen during the Customized Offerings ordering process. Based on your customer environment, it is recommended that the highest possible density tape media is selected. Currently offered media types are:

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

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

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

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

- CBPDO shipments will begin one week after general availability.
- ServerPac shipments will begin two weeks after inclusion in ServerPac.
- SystemPac shipments will begin four weeks after inclusion in SystemPac due to additional customization, and data input verification.

Terms and conditions

The information provided in this announcement letter is for reference and convenience purposes only. The terms and conditions that govern any transaction with IBM are contained in the applicable contract documents such as the IBM International Program License Agreement, IBM International Passport Advantage® Agreement, and the IBM Agreement for Acquisition of Software Maintenance.

Licensing

IBM International Program License Agreement including the License Information document and 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)

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.

License Information form number

License information form number: L-SRAN-7KLPGR

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


Limited warranty applies

Yes
**Limited warranty**

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

IBM provides you with access to IBM databases containing information on known program defects, defect corrections, restrictions, and bypasses at no additional charge. For further information, consult the IBM Software Support Handbook found at 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.

**Authorization for use on home/portable computer**

The program may be stored on the primary machine and another machine, provided that the program is not in active use on both machines at the same time.

**Other terms**

**Volume orders (IVO)**

No

**IBM International Passport Advantage Agreement**

**Passport Advantage applies**

No

**Usage restriction**

Yes

**Software Subscription and Support (Software Maintenance) applies**

No. For operating system software, the revised IBM Operational Support Services - SoftwareXcel offering will provide support for those operating systems and associated products that are not available with the 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
System i Software Maintenance applies
No

Variable charges apply
Yes

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

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

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

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
<th>Terms</th>
<th>Parent, if applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-V57</td>
<td>Data Studio pureQuery</td>
<td>execution-based</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Runtime for z/OS</td>
<td>sub-capacity</td>
<td></td>
</tr>
</tbody>
</table>

Sub-capacity mainframes
The following terms apply.

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

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

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

For more information on sub-capacity System z IPLA terms and conditions, refer to Software Announcement 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 adds value to the parent program across the environment, regardless of where in the environment the System z IPLA program executes.

An environment is defined as either a single or stand-alone machine or a qualified Parallel Sysplex®. You may have one or more different environments across the enterprise. To determine the required license capacity for each System z IPLA program with referenced-based terms, each environment should be assessed separately.
When a System z IPLA sub-capacity program with reference-based terms is used in a qualified Parallel Sysplex environment, the required license capacity of the System z IPLA program must equal with the license capacity of the parent program across the Parallel Sysplex. Qualified Parallel Sysplex refers to one:

- That meets the criteria defined in Hardware Announcement ZA98-0120, dated January 13, 1998
- Where MLC pricing is aggregated across the sysplex

**Sub-capacity eligibility**

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

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

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

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

- The complete terms and conditions of sub-capacity WLC are defined in the IBM Customer Agreement - Attachment for System z Workload License Charges (Z125-6516).
- The complete terms and conditions for sub-capacity EWLC are defined in the IBM Customer Agreement - Attachment for IBM eServer™ System z 890 and 800 License Charges (Z125-6587).

Additionally, you must sign and comply with the terms and conditions specified in the amendment to the IPLA contract - *Amendment for IBM System z9® and eServer zSeries® Programs Sub-Capacity Pricing* (Z125-6929). Once the amendment is signed, the terms in the amendment replace any and all previous System z IPLA sub-capacity terms and conditions.

**Sub-capacity utilization determination**

Sub-capacity utilization is determined based on the utilization of a sub-capacity eligible reference product and machine.

**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 Customer Initiated Upgrade and IBM eServer On/Off Capacity on Demand - Software (Z125-6611) must be signed prior to use.

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