IBM Smart Analytics Optimizer for DB2 for z/OS enables a new class of business intelligence and data warehousing workloads for the IBM System z platform

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At a glance

IBM® Smart Analytics Optimizer for DB2® for z/OS®, V1.1 offers fast and predictable query response times on unpredictable query workloads. Version 1.1:

- Can help lower overall operating costs by reducing database tuning efforts and off-loading query workload to a platform optimized for price and performance
- Delivers significant improvement in the performance of analytic queries on existing IBM data systems
- Capitalizes on data in existing systems
- Significantly improves price/performance with workload-optimized IBM software and hardware

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: LE001).

Overview

IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1, together with related hardware, is a high-performance, integrated hardware/software solution for IBM System z®, delivering dramatically faster analytic query responses transparently to users. It integrates into an IBM DB2 9 for z/OS data warehouse environment, providing high-performance query software that is based on advanced data in-memory technology and executed on an IBM zEnterprise™ BladeCenter® Extension (zBX) attached to and managed by the System z server. This offering helps enable a new class of high-speed business intelligence (BI) queries never before available on System z. It extends System z qualities of service of manageability, security, and availability to analytic applications, while seamlessly combining IBM's hardware and software worlds.

IBM Smart Analytics Optimizer for DB2 for z/OS provides:

- Extreme performance for complex business analysis
  - Delivers analytic information to decision makers faster through breakthrough technologies
  - Enables decision makers to perform business analysis they never dared in the past to help analyze trends, better predict outcomes, and help produce better business results
- Database performance appliance

- – Faster deployment at lower cost delivering value quickly with complete application transparency; in most cases, no need to change any application; just install and reap the benefits of higher performance.
  - – Can help substantially reduce operational costs by removing the need for complex query tuning.
  - – More rapidly add new applications and user requirements, helping to drive greater value to the bottom line.
  - – Helps to reduce costs by leveraging the price/performance of multiple system technologies combined into an integrated and optimized IBM solution.
- • Demonstrated operational characteristics

  - – Extends the qualities of service in security and availability of System z, enabling operational BI to deliver business-changing analytics
  - – Supports efforts to reduce risk by extending System z manageability and security across the entire system, while also helping to improve quality of service for BI applications
  - – Capitalizes on experience gained from High Performance Computing, Grid, Deep Blue, Blue Gene®, and many others

The IBM Smart Analytics Optimizer solution is a combination of software and hardware consisting of:

- • New IBM software -- IBM Smart Analytics Optimizer for DB2 for z/OS. This software is built from these major parts:
  - – The new IBM Smart Analytics Optimizer software with IBM patented compression algorithms running on the zBX that helps deliver high-performance query results.
  - – Stored Procedures running on a DB2 for z/OS system to which the zBX is connected.
  - – IBM Smart Analytics Optimizer Studio, based on IBM Data Studio. This Eclipse-based GUI is used by database administrators for data mart definitions and other administration tasks.
- • A new IBM System z hardware product -- the IBM zEnterprise BladeCenter Extension (zBX) -- is a new infrastructure for extending tried and true System z qualities of service and management capabilities across a set of integrated, specific-for-purpose solutions.
- • IBM System Storage® DS5020 Midrange Disk System.

IBM Smart Analytics Optimizer is designed to help mitigate database administration costs while speeding up the performance of typical data warehouse or OLAP-specific workloads by an order-of-magnitude. Similar in concept to the IBM System z Integrated Information Processor (zIIP), the IBM Smart Analytics Optimizer solution enables selected DB2 query workloads to be redirected to another processing entity, namely the zBX running the IBM Smart Analytics Optimizer software.

The IBM Smart Analytics Optimizer for DB2 for z/OS is only offered as an integrated solution that combines IBM software and hardware.

This announcement has two companion hardware announcements, which provide additional information about the associated hardware. Refer to Hardware Announcement 110-170, dated July 22, 2010, for the new IBM zEnterprise 196 technology, and Hardware Announcement 110-177, dated July 22, 2010, for more information on the new IBM zEnterprise BladeCenter Extension on which the IBM Smart Analytics Optimizer software runs.

Key prerequisites

Refer to the Hardware requirements and Software requirements sections.

Planned availability date

November 19, 2010

Support for:

- IBM zEnterprise BladeCenter Extension Model 002 will be on November 19, 2010

- IBM zEnterprise BladeCenter Extension Model 001 will be on December 17, 2010

Description

IBM Smart Analytics Optimizer for DB2 for z/OS addresses the following customer challenges:

- Long-running queries with unpredictable response time do not allow for ad hoc processing.
- Need for top DBA expertise to tune the DBMS system, with increasingly inadequate results, due to the ad hoc, unpredictable nature of the DW/BI requests.
- Escalating and uncontrollable costs with existing systems infrastructure.

IBM Smart Analytics Optimizer provides:

- Faster query response times on unpredictable and long-running query workloads
- Lower operating costs by reducing database tuning efforts
- Improved performance at a lower overall cost by offloading query workload to price/performance-optimized platform

To accomplish these results, the IBM Smart Analytics Optimizer solution does not always require changes in the BI/DW application or the application framework because DB2 remains the query engine and will offload the specific query to the accelerator. Thus, due to the transparent integration with DB2 data server, changes are not always required to existing business applications.

The implementation and administration of the IBM Smart Analytics Optimizer solution is supported by graphical tooling. This allows for a simple initial deployment, assisted by graphical tools followed by largely administration-free operations.

To ensure that the proposed solution addresses your needs, it is important to complete a free-of-charge workload assessment process before acquiring IBM Smart Analytics Optimizer. Contact your IBM representative for further information.

IBM Smart Analytics Optimizer is designed to help mitigate database administration costs while speeding up the performance of typical data warehouse or OLAP-specific workloads by an order-of-magnitude. Similar in concept to the IBM System z Integrated Information Processor (zIIP), the IBM Smart Analytics Optimizer solution enables selected DB2 query workloads to be redirected to another processing entity, namely the zBX running the IBM Smart Analytics Optimizer software.

The zBX hardware utilized with the IBM Smart Analytics Optimizer software consists of IBM blade centers, equipped with a certain number of blades and is attached to a System z server. The zBX capacity size depends on the number of blades ordered and licensed (refer to the Hardware requirements section).

The IBM Smart Analytics Optimizer software is implemented as a logical extension of DB2 for z/OS, and thus is deeply integrated with the DB2 for z/OS. The IBM Smart Analytics Optimizer software is shipped as SMP/E installable for the DB2-related stored procedures, and the acceleration software is installed on the zBX via the System z Service Element using a product DVD. Once installed, updates to the

software are installed as PTFs, which are then propagated to the blades by calling a stored procedure.

The IBM Smart Analytics Optimizer for DB2 for z/OS is only offered as an integrated solution that combines IBM software and 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

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

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 Smart Analytics Optimizer is part of the IBM Smart Analytics family. Smart Analytics Optimizer joins a comprehensive IBM data warehousing and business

intelligence solution for System z (including InfoSphere™ Warehouse on System z and Cognos® 8 BI on Linux® for System z), giving customers that have the majority of their data on System z, the opportunity to further leverage the platform to support a complete, cost-effective data warehousing and business intelligence solution.

Program number

Program number	VRM	Program name
5697-AQT	1.1.0	IBM Smart Analytics Optimizer for DB2 for z/OS

Product identification number

Program PID number	Subscription and Support PID number
5697-AQT	5697-AQS

Offering Information

Product information is available via the Offering Information Web site

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

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld® ID and password are required (use IBM ID).

   https://www.ibm.com/partnerworld/mem/sla.jsp?num=210-266

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.

The following publications are English only, except as noted.

Form number	Document name
	IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1
GH12-6915	- Quick Start Guide (English, French, and Japanese)
SH12-6919	- User's Guide
GI19-0045	- Program Directory
SH12-6916	- Installation Guide
SH12-6917	- Stored Procedures and Messages Reference
GH12-6913	- License Information (17 languages)
GH12-6918	Novell End-User License Agreement

For additional publications, visit

http://www.ibm.com/smart-analytics-optimizer

Technical information

Specified operating environment

Hardware requirements

IBM Smart Analytics Optimizer for DB2 for z/OS requires an appropriately sized IBM zEnterprise BladeCenter Extension (zBX) and an attached DS5020 Storage System.

IBM Smart Analytics Optimizer for DB2 for z/OS is supported in five different capacity sizes called Extra Small, Small, Medium, Large, and Extra Large. The capacity size determines the number of blades for the zBX and the number of disks for the DS5020 that need to be ordered. Up to a Medium size configuration, the maximum capacity of 16 disks is required for the DS5020 and beyond that an expansion unit with another maximum capacity of 16 disks is needed.

Initially, only the IBM zEnterprise BladeCenter Extension Model 002 for the capacity sizes Extra Small, Small, and Medium will be supported. Support for zBX Model 001 and Model 002 for all capacity sizes will be made available via service at the planned availability of zBX Model 001.

For additional information about zBX, refer to Hardware Announcement 110-177, dated July 22, 2010.

Available zBX and DS5020 System Storage configuration sizes:

```
zEnterprise BladeCenter    DS5020 System Storage
 Extension
Machine type 2458          Machine type 1814
Models 001 and 002         Models 20A and 52A
```

Capacity size name	Number of blades (#0601)	Amount of main memory	Number of expansion units	Number of 1 TB disks (#4001)
Extra small	7	336	0	16
Small	14	672	0	16
Medium	28	1344	0	16
Large	42	2016	1	32
Extra Large	56	2688	1	32

IBM Smart Analytics Optimizer Studio is a component of the IBM Smart Analytics Optimizer for DB2 for z/OS program, providing a GUI for the administration of IBM Smart Analytics Optimizer. IBM Smart Analytics Optimizer Studio consists of a number of administration plug-ins and is hosted by an integrated IBM Data Studio V2.2.0.2 (stand-alone) client.

For the latest hardware requirements, refer to the following Web sites.

For IBM Smart Analytics Optimizer for DB2 for z/OS

http://www.ibm.com/support/docview.wss?rs=4163&uid=swg27016498

For IBM Data Studio V2.2.0.2 (stand-alone)

http://www.ibm.com/support/docview.wss?rs=3360&uid=swg27016061

Software requirements

The IBM Smart Analytics Optimizer for DB2 for z/OS software requires:

- IBM z/OS 1.10, or later
- IBM DB2 V9.1 for z/OS
- DB2 Utilities Suite for z/OS V9.1
- XML Toolkit for z/OS, V1.10

To enable DB2 for z/OS to route queries to an attached IBM Smart Analytics Optimizer, a particular PTF needs to be applied. For details and for additional information regarding hardware and software requirements, refer to the IBM Smart Analytics Optimizer for DB2 for z/OS support Web site at

http://www.ibm.com/software/data/infosphere/support/smart-analytics-optimizer-z/

For a technical support document, visit

http://www.ibm.com/support/docview.wss?rs=4163&uid=swg27016498

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.

Limitations

The value and benefits of this offering depends on your BI or data warehouse environment and data structure. To ensure that the proposed solution best fits your needs, it is important to complete a free-of-charge workload assessment before acquiring IBM Smart Analytics Optimizer. Contact your IBM representative or Business Partner for further information.

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 Smart Analytics Optimizer for DB2 for z/OS, V1.1:

- IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1 - 3480 or 3590 Cartridge
- One DVD with IBM Smart Analytics Optimizer for DB2 for z/OS V1.1 (including IBM Smart Analytics Optimizer Studio V1.1)
- Hardcopy Quick Start Guide (Installation overview document) - Form number GH12-6915
- Hardcopy License Information document - Form number GH12-6913
- Hardcopy Novell End-User License Agreement document - Form number GH12-6918
- Hardcopy Program Directory document - Form number GI19-0045

Security, auditability, and control

IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1 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.

Software Services

IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based, software services team and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, we extend our IBM Software Services reach through IBM Business Partners to provide an extensive portfolio of capabilities. Together, we provide the global reach, intellectual capital, industry insight, and technology leadership to support a wide range of critical business needs.

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

http://www.ibm.com/software/sw-services/

Ordering information

Charge metric

Program name	Part number or PID number	Charge metric
IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1	5697-AQT	Value unit
IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1 S&S	5697-AQS	Value unit

VU Value Unit

VU Value Unit is the unit of measure by which this program is licensed. VU Value Unit entitlements are based on the quantity of a specific designated measurement, either users or resources, for the given program. A Proof of Entitlement (PoE) must be obtained for the appropriate number of VU Value Units required for your environment as defined by the specific program terms. The VU Value Unit entitlements are specific to the program and may not be exchanged, interchanged, or aggregated with VU Value Unit entitlements of another program. To understand these benefits of VU Value Unit licensing and to determine how many VU Value Units to obtain for the program, contact your IBM representative.

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

Program number	Program name	Value Unit exhibit
5697-AQT	IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1	VUE031
5697-AQS	IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1 S&S	VUE031

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 VUE031

The program in this announcement has Value Unit (VU) pricing based on cumulative usage levels of gigabytes (GB) of memory. The available gigabytes of memory is defined by the prerequisite IBM zEnterprise BladeCenter Extension (zBX) configuration (refer to the Hardware requirements section).

For details and the calculation of required VUs, refer to

http://www.ibm.com/systems/z/resources/swprice/zipla/

Because the solution is only available in predefined capacity sizes, the following table below applies:

Capacity size	Extra small	Small	Medium	Large	Extra large
Amount of memory in	336	672	1344	2016	2688
GB VUs to license	336	646	1214	1663	2075

Upgrading to a larger zBX capacity size

As capacity requirements increase, you may upgrade your zBX to a larger configuration or even purchase another zBX system. When you upgrade and expand gigabytes of memory, you need to be licensed for additional VUs. The number of additional VUs that needs to be purchased is the difference in cumulative VUs between the initial and final configurations. VUs across zBX systems in a customer enterprise can be combined and priced accordingly. The following table contains the number of additional VUs that need to be purchased to upgrade from one zBX capacity size to another one.

From	To zBX size			
Capacity size	Small	Medium	Large	Extra large
Extra Small	310	878	1327	1739
Small		568	1017	1429
Medium			449	861
large				412

Value Unit exhibit VUE031

Cumulative gigabyte range	Value Units per gigabyte
1 – 500 GB	1 VU/GB
501 – 1,500 GB	0.8455 VUs/GB
1,501 – 3,000 GB	0.6137 VUs/GB
3,001 – 5,000 GB	0.4639 VUs/GB
5,001 – 12,000 GB	0.3870 VUs/GB
12,001+ GB	0.3097 VUs/GB

Basic license

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 Smart Analytics Optimizer for DB2 for z/OS, V1.1
Program PID: 5697-AQT
```

Entitlement identifier	Description	License option/ Pricing metric
S015M6F	IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1	Basic OTC, per value unit

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```
Orderable supply ID    Language       Distribution medium

S015M6C                English         3480 Uncomp tape

S015RNH                English         3590 tape


Subscription and Support PID: 5697-AQS

Entitlement                           License option/
identifier    Description             Pricing metric

S015M6D       IBM Smart Analytics     Basic ASC, per value unit SW S&S
              Optimizer for DB2 2     No charge, decline SW S&S
              for z/OS    S&S


Orderable supply ID    Language       Distribution medium

S015M69                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 (IAASM). 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.

Customized Offerings

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

CBPDO and ServerPac are offered for Internet delivery, where ShopzSeries product ordering is available. Internet delivery of ServerPac may help improve automation and software delivery time. For more details on Internet delivery, refer to the ShopzSeries help information at

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

Media type for this software product is chosen during the Customized Offerings ordering process. Based on your customer environment, it is recommended that the highest possible density tape media is selected. Currently offered media types are:

- CBPDOs - 3480, 3480 Compressed, 3490E, 3590, 3592[1]

- ServerPacs - 3480, 3480 Compressed, 3490E, 3590, 3592[1]
- SystemPacs - 3480, 3480 Compressed, 3490E, 3590, 3592[1]

[1] 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-TBIR-7UTMTD

```
Document      Product
form number   number    Product name

GH12-6913     5697-AQT  IBM Smart Analytics Optimizer
                        for DB2 for z/OS, Version 1.1
```

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

   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.

Authorization for use on home/portable computer

You may not copy and use this program on another computer without paying additional license fees.

Volume orders (IVO)

No

Passport Advantage applies

No

Usage restriction

Yes

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

IBM Operational Support Services -- SoftwareXcel

Yes

System i Software Maintenance applies

No

Variable charges apply

No

Educational allowance available

Yes. A 15% education allowance applies to qualified education institution customers.

Value Unit pricing

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.

```
Program
number      Program name            Terms

5697-AQT    IBM Smart Analytics     N/A
            Optimizer for DB2 2 for
            z/OS
```

IBM Electronic Services

IBM has transformed its delivery of hardware and software support services to help you achieve higher system availability. Electronic Services is a Web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services are designed to provide the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent™ is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer your questions or diagnose problems. Installation and use of IBM Electronic Service Agent

for problem reporting enables IBM to provide better support and service for your IBM server.

To learn how Electronic Services can work for you, visit

http://www.ibm.com/support/electronic

Prices

For additional information and current prices, contact your local IBM representative.

Information on charges is available at

http://www.ibm.com/support

Choose the option entitled Purchase/upgrade tools.

```
Program name: IBM Smart Analytics Optimizer for DB2 for z/OS, V1.1
Program PID: 5697-AQT

Entitlement                              License option/
identifier    Description                Pricing metric

S015M6F       IBM Smart Analytics Optimizer   Basic OTC, per value unit
               for DB2 for z/OS, V1.1


Subscription and Support PID:   5697-AQS

Entitlement                              License option/
identifier    Description                Pricing metric

 S015M6D       IBM Smart Analytics        Basic ASC, per value unit SW S&S
               Optimizer for DB2          No charge, decline SW S&S
               for z/OS
```

Passport Advantage

For Passport Advantage information and charges, contact your IBM representative or authorized IBM Business Partner for Software ValueNet®. Additional information is also available at

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

IBM Global Financing

IBM Global Financing offers competitive financing to credit-qualified customers to assist them in acquiring IT solutions. Offerings include financing for IT acquisition, including hardware, software, and services, from both IBM and other manufacturers or vendors. Offerings (for all customer segments: small, medium, and large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit

http://www-03.ibm.com/financing/us/index.html

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To identify your local IBM representative or IBM Business Partner, call 800-IBM-4YOU (426-4968).

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