



IBM DB2 10 for z/OS launches beta program

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At a glance

DB2® 10 for z/OS® expands the value delivered to your business by IBM's industry-leading mainframe data server through innovations in key areas:

- Out-of-the-box savings by improving operational efficiencies
- Unsurpassed DB2 for z/OS and IBMSystem z resiliency for business-critical information
- Rapid application and warehouse deployment for business growth
- Enhanced query and reporting facilities

Selected features that deliver these valuable benefits to your business include:

- CPU reductions for all workloads.
- Five to 10 times more concurrent users on a single subsystem by avoiding memory constraints.
- Greater concurrency for data management, data definition, and data access, including DDL, BIND, REBIND, PREPARE, utilities, and SQL.
- Additional online changes for data definitions, utilities, and subsystems.
- Improved security with improved granularity for administrative privileges, data masking, and audit capabilities.
- Temporal or versioned data to understand system and business times at the database level.
- pureXML™ and SQL enhancements to improve portability from other database solutions.
- Productivity improved for database administrators, application programmers, and systems administrators.
- Enhancements in QMF™ Classic Edition that allow greater interoperability with other programs as well as features that improve queries, forms, certain commands, diagnostics, performance, and resource control. QMF Enterprise Edition provides even more value, including support for QMF-based dashboards and visually rich page-based reports; enhanced QMF security model for access control and personalization; support for HTML, PDF, or Flash QMF report and dashboard output formats; and a QMF metadata layer simplifies content authoring.

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

IBM intends to make DB2 10 for z/OS (DB2 10) available to a select group of clients in a closed beta program on March 12, 2010. In today's business and economic environment, the challenge for IT is clear: improve operational efficiencies, reduce costs, and adapt quickly to support business growth -- all without sacrificing the resiliency required for today's demanding business requirements. Building on the formidable capabilities of DB2 9 for z/OS (DB2 9) and the System z® platform, DB2 10 addresses those requirements.

DB2 10 for z/OS delivers innovations in these key areas:

Out-of-the-box savings by improving operational efficiencies

IBM continues to invest in new features to support your efforts to make your business more efficient, and DB2 10 delivers great value in this area. Compared to previous DB2 versions, some customers can achieve a 5% to 10% out-of-the-box CPU savings for traditional workloads and up to 20% out-of-the-box CPU savings for nontraditional workloads. Productivity improvements in DB2 10 for database and systems administrators can drive additional operational efficiencies and cost savings. Synergy with other System z platform components reduces CPU use by leveraging the latest processor improvements, larger amounts of memory, solid-state disk, and z/OS enhancements.

Unsurpassed DB2 for z/OS and System z resiliency for business-critical information

Business resiliency is a key component of the value proposition of DB2 for z/OS and the System z platform, supporting your efforts to keep your business running even when things go wrong or you need to make changes. DB2 10 innovations drive new value in resiliency through scalability improvements and fewer outages -- planned or unplanned. Scalability delivers the ability to handle five to ten times more concurrent users in a single DB2 subsystem than in previous versions. Schema evolution or data definition on demand as well as query performance manageability enhancements support improved availability.

Rapid application and warehouse deployment for business growth

Staying competitive in today's global economy is tougher than ever, requiring agility, adaptability, and responsiveness. SQL and pureXML enhancements in DB2 10 help extend usability, improve performance, and ease application portability to DB2 for z/OS, supporting your efforts to create a sustainable competitive advantage.

Enhanced query and reporting facilities

Query Management Facility™ (QMF) V10 allows you to do more with your existing QMF investment than ever before. Built-in data visualizations and graphical page-based reports extend QMF usage from the traditional technical user to a broader community of business end users. QMF's new metadata layer simplifies the underlying data model, empowering nontechnical users with self-service reporting, and extends access to DB2 for z/OS across the enterprise, helping to further increase the return on your investment.

IBM Business Partners have been working with specifications of this release since January 2009 and with early code drivers since June 2009 to help validate product design and to support timely availability of Partner products that interoperate with the new capabilities offered by DB2 10.

Refer to the [Description](#) section of this announcement for further details on the exciting new capabilities DB2 10 delivers. A limited number of additional customers may be accepted for the DB2 10 for z/OS (5605-DB2) beta program. For further information, contact your IBM representative or the general contact e-mail address under the Contact Us heading at

Key prerequisites

- z/OS V1.10 Base Services, (5694-A01) or later, executing in 64-bit addressing mode
- DB2 10 for z/OS operates on z10™, z9™, z990, z890, or higher, processors supported by z/OS V1.10, or later

Planned availability date

March 12, 2010

Description

IBM DB2 10 for z/OS (DB2 10) introduces innovation that matters to improve the business value of your information.

DB2 10 for z/OS delivers innovations in these key areas:

Out-of-the-box savings by improving operational efficiencies

- Some customers can achieve 5% to 10% out-of-the-box CPU savings for traditional workloads and up to 20% for nontraditional workloads.
- Customers can leverage new enhancements for additional performance and CPU savings. This includes hash access, index include columns, inline large objects, parallel index updates, faster single row retrievals, work file in-memory, index list prefetch, 64-bit memory enhancements, use of the 1 MB page size of the System z10®, buffer pools in memory, access path enhancements, member clustering for universal table spaces, efficient caching of dynamic SQL statements with literals, improved large object streaming, and SQL procedure language performance.
- Extending industry-leading scalability with five to ten times the number of concurrent users per member, allowing fewer data sharing members, and reduced memory, CPU, and complexity.
- Features that make it easier to manage include automatic diagnostics, tuning, and compression.

Unsurpassed DB2 for z/OS and System z resiliency for business-critical information

- Concurrency is improved for data access, data management, and data definition, including DDL, BIND, REBIND, PREPARE, utilities, and SQL.
- Schema evolution or data definition on demand enhancements improve availability.
- Being able to add active log data to a subsystem avoids an outage.
- Increased security and easier regulatory compliance through improved administrative privilege granularity, data masking, and new audit capabilities.

Rapid application and warehouse deployment for business growth

- Temporal or versioned data provides support for understanding system and business time to simplify applications and improve productivity.
- Many SQL enhancements continue to improve DB2 family consistency and simplify portability from other platforms. This includes a 64-bit ODBC driver, a special null indicator, currently committed locking, implicit casting or loose typing, timestamp with time zone, variable timestamp precision, moving sum, and moving average.
- A range of improvements delivers expanded pureXML functionality, including customer-driven performance and usability requirements. Key features include schema validation in the engine, binary XML exchange format, multiversioning, easy update of subparts of XML document, stored procedures, user-defined

functions and triggers, XML index matching with date/timestamp, and a CHECK XML utility.

- Applications ranging from ERP to warehousing see many performance benefits from these enhancements.

Enhanced query and reporting facilities

QMF Enterprise Edition offers:

- Support for QMF-based dashboards and visually rich page-based reports
- Introduction of a broad variety of charts and graphical presentation items
- Over 140 new analytical functions for use in reports and dashboard solutions
- New application-level security model for access control and personalization
- Support for HTML, PDF, or Flash report and dashboard output formats
- New QMF metadata layer that shields users from the underlying complexities within your database data models

QMF Classic Edition provides greater flexibility and interoperability by allowing you to start QMF for TSO as a DB2 for z/OS stored procedure. Additional features include support for multistatement SQL queries, as well as enhancements to certain commands and changes that improve performance, resource control, and troubleshooting capabilities.

Migration to DB2 10 is provided from DB2 9 for z/OS (New Function Mode) and from DB2 for z/OS V8 (New Function Mode) subsystems.

Most functions described in this announcement will be available for beta testing from the start of the program, but a small number of functions will be phased in later. Beta program participants will receive full details and guidance on function testing from their beta adviser.

For a technical presentation on selected features of DB2 10 and later news, visit our Web site and select the link for what's coming at

<http://www.ibm.com/software/data/db2/zos/index.html>

DB2 features overview

DB2 10 for z/OS consists of the base DB2 product with a set of optional orderable features. Some of these features are available at no additional charge and others are chargeable.

DB2 10 for z/OS chargeable features

DB2QMF Enterprise Edition: DB2QMF Enterprise Edition provides the entire DB2QMF family of technologies, enabling enterprise-wide business information across end-user and database platforms. DB2QMF Enterprise Edition consists of these components:

- DB2QMF for TSO/CICS
- DB2QMF High Performance Option (HPO)
- DB2QMF for Workstation
- DB2QMF for WebSphere®

New features for each product in the QMF family are explained below.

New features in QMF for TSO/CICS:

- Ability to start QMF for TSO as a DB2 for z/OS stored procedure: Any software program that can call a DB2 for z/OS stored procedure can start QMF for TSO and receive report output in up to 12 result sets, including diagnostic data.
- Query and form enhancements

- Support for multiple SQL statements in a single SQL query
- Support for running DB2 for z/OS SQL queries up to 2,097,152 bytes (2 MB)
- Optional use of DB2 labels for column names in QMF forms
- Improved report performance and resource control
 - 64-bit virtual storage area for spill data in QMF for TSO
 - Independent governing of database activity generated by user commands
 - Support for the DB2 9 SKIP LOCKED DATA option, and DB2 10 concurrent access resolution options, from within QMF.
- Enhancements to QMF commands and support of SQL statements
 - Ability to cancel a DISPLAY TABLE command when it has been estimated to exceed the allocated resource defined in the DB2 resource limit facility
 - Support for implicit casting when replacing or appending existing tables using the SAVE and IMPORT commands
 - A global-variable-based default for the OWNER parameter of the QMF LIST command
 - Restrict an object's "Last Used" timestamp to updates by RUN, SAVE, and IMPORT commands only
 - A maximum of 63 parameters allowed on SQL CALL statements issued in QMF SQL queries
 - Supports SET CURRENT SCHEMA and SET CURRENT REFRESH AGE statements in QMF SQL queries
- Broader support for data types
 - Full support for long and extended formats of decimal floating-point data
 - Support for increased precision for the TIMESTAMP data type
 - Support for the DB2 10 TIMESTAMP WITH TIME ZONE data type
- Improved diagnostic capabilities
 - Availability of SQLCA information in the QMF message help for errors associated with SQL codes
 - Ability to set notification of positive SQL codes at varying levels of detail

New features in QMF for Workstation and QMF for WebSphere:

- Drag-and-drop development of OLAP analytics, SQL queries, tabular reports, graphical reports, pivot tables, and data analysis views.
- Drag-and-drop development of interactive visual solutions such as executive dashboards, capable of graphically rendering data simultaneously drawn from multiple data sources.
- Rich security model supports the personalization and dissemination of data and reports on a per-user-group basis.
- Support for geospatial presentation within both visual reports and graphical dashboards.
- Ability to embed queries, reports, or dashboards within third-party Web pages, Web applications, or custom-developed Web-based solutions.
- Metadata layer shields end users from the underlying complexities within data sources, allowing end users to select from well-named virtual tables that may draw data from multiple physical tables and views.
- The Workstation and WebSphere products now support exporting data in the XLS file format.

New features in QMF High Performance Option:

- Support for SQL queries up to 2 MB.
- SQL queries can now include multiple non-SELECT statements delimited by a semicolon.
- An option to save the complete text of SQL statements.

DB2QMF Classic Edition: DB2QMF Classic Edition supports users functioning entirely from traditional mainframe terminals and emulators (including IBM Host On Demand) to access DB2 databases. QMF Classic Edition consists of DB2QMF for TSO/CICS. For a list of enhancements to QMF for TSO/CICS, see above.

DB2 10 for z/OS orderable no-charge features

z/OS Application Connectivity to DB2 for z/OS consists of a component known as the DB2 Universal Database™ Driver for z/OS, Java™ Edition, a pure Java, type 4 JDBC driver designed to deliver high performance and scalable remote connectivity for z/OS Java-based enterprise applications on z/OS to a remote DB2 for z/OS database server.

DB2 Accessories Suite components are designed to enhance your use of the DB2 for z/OS data server. In this release of the suite, two components deliver innovative capabilities for your DB2 for z/OS environment. It includes Spatial Support for DB2 for z/OS and IBM Text Search for DB2 for z/OS, including Unicode and internationalization support.

Spatial Support for DB2 for z/OS provides a set of spatial data types that you can use to model real-world entities, such as the locations of customers, the boundaries of parks, and the path of cable lines. Spatial data can be manipulated through spatial functions, which can be invoked from within an SQL statement. Indexes can be created on the spatial data and used by DB2 to optimize spatial query performance.

IBMOmniFind Text Search Server for DB2 for z/OS allows users to issue SQL statements to satisfy familiar text search queries on data that is stored in a DB2 for z/OS database. The IBM Text Search for DB2 for z/OS feature is powered by an IBMOmniFind Text Search Server for DB2 for z/OS and includes Linux® on System z server support.

Accessibility by people with disabilities

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

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

Section 508 of the U.S. Rehabilitation Act

IBMDB2 10 for z/OS is capable as of March 12, 2010, when used in accordance with IBM's associated documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assistive technology used with the product properly interoperates with it. A U.S. Section 508 Voluntary Product Accessibility Template (VPAT) can be requested at

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

Hardware and software support services

SmoothStart/installation services

IBMSmoothStart and Installation Services are not provided with this beta program but will be offered in conjunction with general availability of this product.

Program number

Program number	Program name
5605-DB2	DB2 10 for z/OS

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=210-015>

Technical information

Specified operating environment

Hardware requirements

Note that the information on hardware and software requirements in the following sections is preliminary and applies to the beta version of DB2 10 for z/OS. Changes should be expected for the generally available product.

Processors

DB2 10 for z/OS operates on System z or equivalent processors running in a 64-bit mode with z/OS V1.10, or later. This includes z10, z9, z990, z890, or higher, processors. The processors must have enough real storage to satisfy the combined requirements of:

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

The DB2 64-bit virtual addressing support will probably require increased real storage as compared to DB2 9 and DB2 UDB for z/OS, V8.

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

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

Auxiliary storage

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

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

- Active recovery log data sets: disk
- Archive recovery log data sets: disk, tape

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

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

The minimum disk space requirement, based on installing DB2 using the panel default values, is approximately 1 GB. You need additional disk space for your data.

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

Data communications devices

DB2 operations can be controlled from:

- The system console
- Authorized IMS™ Transaction Manager terminals
- Authorized CICS® terminals
- TSO terminals (by authorized users)

Function-dependent hardware requirements:

DRDA® Data Stream Encryption

DRDA Data Stream Encryption can optionally use cryptographic hardware in a Cryptographic Coprocessor, Cryptographic Accelerator, or Cryptographic instructions.

Encryption and decryption functions

Built-in functions for encryption and decryption require cryptographic hardware in a Cryptographic Coprocessor, Cryptographic Accelerator, or Cryptographic instructions.

Group Bufferpool (GBP) Batching

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

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

Query management functions

DB2QMF components of DB2 10 for z/OS

- DB2QMF for TSO/CICS requires a display station supported by Graphical Data Display Manager (GDDM®).
- DB2QMF High Performance Option (HPO) requires a display station that is supported by ISPF.
- DB2QMF for WebSphere requires 200 MB hard disk space.
- DB2QMF for Workstation requires a workstation that supports:
 - Network connectivity
 - Approximately 275 MB of disk space
 - Minimum of 256 MB of RAM

Software requirements

This section lists licensed programs, or specific elements and features of licensed programs, that are required in the DB2 10 environment. You can use subsequent versions or releases of the programs, unless stated otherwise. This section also

identifies requirements that are associated with specific DB2 capabilities, as well as optional programs that you can use with DB2 10. Refer to the following Web sites for the most current information

http://www.ibm.com/servers/eserver/zseries/zos/support/zos_eos_dates.html
<http://www.ibm.com/software/data/db2/zos/support.html>

Click on Technotes, then enter *V10 migration* into the search terms and click go.

Operating system and support programs

DB2 10 requires the function that is provided by the following licensed programs or their equivalents. Subsequent versions or releases of these products are acceptable.

- z/OS V1.10 Base Services (5694-A01) with the following base and optional elements:
 - DFSMS V1.10
 - Language Environment® Base Services
 - z/OS V1.10 Security Server (RACF®)
- IRLM V2.3 (delivered with DB2 10)

If DB2 10 is installed with IRLM V2R3 into the same SMP zone as any version of IMS with IRLM V2R2, IRLM V2R2 will be deleted during the SMP/E installation of IRLM V2R3.

Notes:

- New functions are available only in new-function mode (NFM) unless explicitly stated otherwise in the product documentation. A general exception exists for optimization. In prior versions, most utility functions were available in conversion mode or compatibility mode (CM), but for DB2 10, most new utility improvements only work in NFM.
- z/OS Unicode Services and appropriate conversion definitions are required.
- Some of the basic operation of a DBMS is provided by utility functions such as backup, recovery, reorganization, loading and unloading data, gathering statistics, and checking data, indexes, and large objects. You should ensure that these functions are provided either by ordering DB2 Utilities Suite for z/OS, V10 or by obtaining equivalent function elsewhere.

Virtual storage requirements

Most of DB2 data resides in shared memory of the DB2 address spaces, above the bar. DB2 10 for z/OS requires 128 GB of 64-bit shared private storage for each DB2 subsystem above the 2 GB bar. This storage is virtual, controlled by the z/OS HVSHARE parameter in IEASYSxx. This storage is not backed at allocation, only as it is used. Most control blocks and buffers reside in the extended private area above the 2 GB bar, while modules and some data resides above the 16 MB line, but below the 2 GB bar.

The amount of space needed for the common service area (CSA) below the 16 MB line is less than 40 KB for each DB2 for z/OS subsystem and 24 KB for each IRLM subsystem. High concurrent activity, parallelism, or high contention can require more CSA.

Function-dependent program requirements

The following functions of DB2 require specific licensed programs, or features of licensed programs, before they can be used:

- Application execution: Applications written in high-level programming languages, such as applications or stored procedures written in the C language and using the ODBC or CLI interfaces to DB2, require Language Environment at run time. Applications or stored procedures written in Java, such as those using the JDBC or

SQLJ interfaces to DB2, require IBM SDK for z/OS, Java 2 Technology Edition V1.4 (SDK1.4.2) (5655-I56), or later, at run time.

Requirements for dependent functions of DB2 10 for z/OS:

Before using these features, refer to the installation information for these features to ensure you have all required and recommended products.

- System-level Point-in-Time (PIT) Backup and Recovery function needs:
 - DFSMShsm™
 - DFSMSdss™
 - FlashCopy® V1
 - FlashCopy V2 (required for object-level recovery from system-level backup and FlashCopy backups)
 - Remove restriction for object recovery from a system-Level backup; requires z/OS V1.11 (5694-A01)

Note: RECOVER uses HSM to restore objects from a system-level backup recovery base. Prior to z/OS 1.11, HSM had a restriction that any dataset being restored must reside on the same volume it was on when the system level backup (SLB) was created. As a result, RECOVER restricted the use of a SLB as a recovery base if a subsequent utility may have moved the dataset. HSM removed the aforementioned restriction in z/OS 1.11, so the RECOVER restriction is being removed.

- Extended Address Volumes (EAV)
 - Large sequential datasets require z/OS V1.11 (5694-A01).
- Encryption and decryption functions
 - Built-in functions for encryption and decryption require z/OS Cryptographic Services Integrated Cryptographic Service Facility (ISCF).
- DRDA Data Stream Encryption can optionally use z/OS Cryptographic Services Facility (ICSF).
- DB2QMF.
 - QMF Classic Edition feature includes QMF for TSO/CICS.
 - QMF Enterprise Edition feature includes the following components:
 - QMF TSO/CICS
 - QMF High Performance Option (HPO)
 - QMF for Workstation
 - QMF for WebSphere

Note that QMF is a separately priced feature of DB2 10 for z/OS, and although QMF V10 can be used with earlier versions of DB2, you must have a license for DB2 V10 or DB2 V9 to use QMF V10 with any supported version of DB2.

Listed below are the program products and their minimum release levels that are required to support QMF Version 10.1:

DB2QMF for TSO/CICS requirements are as follows:

- One of the following databases:
 - DB2 10 for z/OS
 - DB2 9 for z/OS
 - DB2 UDB for z/OS V8.1.5 (New Function Mode)
- GDDM V3R2

DB2QMF High Performance Option (HPO) requirements are as follows:

- One of the following databases
 - DB2 10 for z/OS

- DB2 9 for z/OS
- DB2 UDB for z/OS V8

DB2QMF for WebSphere requirements are as follows:

- IBMWebSphere Application Server V6, V6.0.2, or later, or WebSphere Application Server V7 running under Java V1.5.x on any platform supported by WebSphere Application Server
- One of the following Web browsers (with JavaScript™ support enabled) on each user machine:
 - Microsoft® Internet Explorer V6.0, or later
 - Netscape Navigator V6.2, or later
 - Firefox, V1.5, or later
- Java Runtime Environment JRE 1.5, or later (required if deploying visual dashboards using the optional Java Applet)
- Adobe® Flash Player on the client (required if deploying visual dashboards using the optional Flash output format)
- One of the following servers (subject to license restrictions):
 - DB2 10 for z/OS
 - DB2 9 for z/OS
 - DB2 UDB for z/OS V8
 - DB2 Server for VSE and VM V7.3 and V7.4
 - DB2 for iSeries® V5.4
 - DB2 for Linux, UNIX®, and Windows® V9.1, V9.5, and V9.7
 - Informix® Dynamic Server (IDS) V9.x, V10, and V11

Prerequisites:

The following QMF for WebSphere functions have software dependencies:

- Database connectivity requires an appropriate JDBC driver for each type of RDBMS that is accessed.
- QMF for WebSphere OLAP support requires InfoSphere™ Warehouse V9.5.2, or later, or other MDX-based OLAP servers with support for XMLA connectivity.

DB2QMF for Workstation software requirements: Database client access requires at least one of the following communication products or drivers on each user machine:

- DB2QMF for Workstation runs on any of the following operating systems:
 - MicrosoftWindows XP
 - MicrosoftWindows Server 2003
 - MicrosoftWindows Server 2008
 - MicrosoftWindows Vista
 - MicrosoftWindows 7
 - Red Hat Enterprise Linux WS 5 and 6
 - SUSE Linux 10 and 11
- DB2QMF for Workstation supports the following DB2 database servers (subject to license restrictions):
 - DB2 10 for z/OS
 - DB2 9 for z/OS
 - DB2 UDB for z/OS V8
 - DB2 Server for VSE and VM V7.3 and V7.4
 - DB2 for iSeries V5.4
 - DB2 for Linux, UNIX, and Windows V9.1, V9.5, and V9.7

- Informix Dynamic Server (IDS) V9.x, V10, and V11

Prerequisites:

The following QMF for Workstation functions have software dependencies:

- Database connectivity requires an appropriate JDBC driver for each type of RDBMS that is accessed.
- QMF for Workstation OLAP support requires InfoSphere Warehouse V9.5.2, or later, or other MDX-based OLAP servers with support for XMLA connectivity.

Limited-use license for z/OS Application Connectivity to DB2 for z/OS: The zero-priced z/OS Application Connectivity to DB2 feature, a Type 4 JDBC driver, is licensed for installation and use solely on z/OS. Its sole authorized use is limited to connecting an application that runs on z/OS to Version 7, 8, 9, or 10 of DB2 for z/OS running in a separate partition on the same server as the application or on a different z/OS server. You can also connect applications to a subsequent supported version of DB2 UDB for z/OS. Authorized use does not extend to applications that run on Linux or any other platform or operating system.

DB2 Accessories Suite: The no-charge feature works directly with DB2 for z/OS applications to help you use the full potential of your DB2 subsystem. Delivered in this feature is a series of independent components designed to enhance your use of the DB2 for z/OS data server:

- DB2 Accessories Suite for DB2 10 requires DB2 10 for z/OS (5605-DB2) and delivers:
 - Spatial Support
 - International Components for Unicode (ICU)
 - Omnifind Text Search Server (on three CD-ROMs for Linux, Windows, and Linux on System z) which has an operational requisite for any of the following:
 - 32-bit Red Hat Enterprise Linux, Version 5 (with the latest update)
 - 32-bit SUSE Linux Enterprise 10
 - 64-bit SUSE Linux on System z (SLES10x)
 - 64-bit Red Hat Linux on System z, Version 5 (with the latest update)
 - 32-bit Windows Server 2003 (with the latest service pack)

Optional program requirements

The following functions are enabled in conjunction with the specified optional licensed programs when used together with DB2. Note that the information is for expected toleration support for DB2 10.

Connectivity:

For DB2 database applications running on Linux, UNIX, or Windows platforms, customers can use DB2 Connect™ and either deploy the DB2 Connect gateway server for access to DB2 10 or as more and more customers do, they can use nongateway DB2 Connect direct access from the database client machine to DB2 10. Especially for application servers such as WebSphere, the direct access approach provides excellent performance and scalability for all DB2 applications.

Both of these approaches -- direct access or access via the gateway -- provide runtime support to access DB2 by applications that use ODBC, CLI, .NET, OLE DB, PHP, Ruby, JDBC, pureQuery, JPA, SQLJ, Python, Perl, and so on, and they can be used alone or in combination as needed. For more information about DB2 Connect deployment choices, see the documentation for the DB2 Connect product.

DB2 10 supports the following relational database products:

- IBMDB2 9 for Linux, UNIX, Windows (5765-F41), or later
 - DB2 Enterprise Server (ESE) for Linux, UNIX, and Windows V9.1 (5765-F41)

- DB2 Workgroup Server Edition for Linux, UNIX, and Windows V9.1 (5765-F35)
- DB2 Express® Edition for Linux, UNIX, and Windows, V9.1 (5724-E49)
- Database Enterprise Developer Edition V9.1 (5724-N76)
- DB2 Personal Edition for Linux, UNIX, and Windows V9 (5724-B55)
- IBMDB2 for iSeries V6.1 (5761-SS1), or later
- DB2 Server for VSE and VM V7.3 (5697-F42), or later
- Any other DRDA-compliant client or relational DBMS server

The following products provide connectivity to DB2 10 via the Internet:

- WebSphere Application Server V6 (5724-J08), or later
- WebSphere Application Server for z/OS V6.1 (5655-N01), or later
- DB2 Connect V9.1 (Fixpack 1), or later
 - DB2 Connect Enterprise Edition (CEE) V9.1 (5765-F30), or later
 - DB2 Connect Unlimited Edition (CUE) V9.1 (5724-B62), or later
 - DB2 Connect Application Server Edition (CASE) V9.1 (Fixpack 1 or later) (5724-D54), or later
 - DB2 Connect Unlimited Edition for iSeries V9.1 (5724-M15), or later
- For DB2 Connect support services, refer to
<http://www-01.ibm.com/software/data/db2/support/db2connect/>

JDBC: DB2 10 supports the following JDBC Application Programming Interface specification levels:

- JDBC 3.0 API requires any of the following at run time:
 - IBM SDK for z/OS, Java 2 Technology Edition, V1.4 (SDK1.4.2) (5655-I56), or later
 - IBM 64-Bit SDK for z/OS, Java 2 Technology Edition, V5 (SDK5) (5655-N99), or later
- JDBC 4.0 API requires any of the following at run time:
 - IBM 31-bit SDK for z/OS, Java Technology Edition, V6 (SDK6) (5655-R31), or later
 - IBM 64-bit SDK for z/OS, Java Technology Edition, V6 (SDK6) (5655-R32), or later
- For more information, refer to
<http://www.ibm.com/servers/eserver/zseries/software/java/>

Transaction management: The following transaction management products work with DB2 10:

Information Management System (IMS)

- IMS V11 (5635-A02)
- IMS V10 (5635-A01)

Customer Information Control System (CICS)

- CICS Transaction Server for z/OS, V4.1 (5655-S97)
- CICS Transaction Server for z/OS, V3.1 (5655-M15), or later

Query support: The following query programs work with DB2:

- DataQuant for z/OS Version 1 Release 2 (5697-N64)

Programming languages: The following application development programming languages can be used to build applications for DB2 10:

Building applications using a DB2 precompiler:

- Assembler
 - High Level Assembler, part of the System Services element of z/OS
- C/C++
 - C/C++ (without Debug Tool), which is an optional priced feature of z/OS
- COBOL
 - Enterprise COBOL for z/OS, V3.4 (5655-G53)
 - Enterprise COBOL for z/OS, V4.1 (5655-S71), or later
- Fortran
 - VS Fortran Version 2 Release 6 (5668-806, 5688-087, 5668-805)

Note: New data types and new SQL functions (such as FETCH CONTINUE) are not supported since DB2 9 for z/OS.
- PL/1
 - Enterprise PL/I for z/OS V3.7 (5655-H31), or later

Building applications using a DB2 coprocessor:

- C/C++
 - C/C++ (without Debug Tool), which is an optional priced feature of z/OS
- COBOL
 - Enterprise COBOL for z/OS, V3.4 (5655-G53)
 - Enterprise COBOL for z/OS, V4.1 (5655-S71), or later
- PL/1
 - Enterprise PL/I for z/OS, V3.7 (5655-H31), or later

Building applications that are not supported with a precompiler or coprocessor:

- Java
 - Applications or stored procedures written in Java, such as those using the JDBC or SQLJ interfaces to DB2, require IBM SDK for z/OS, Java 2 Technology Edition V1.4 (SDK1.4.2) (5655-I56), or later, at run time.

Optionally, the following may be used for applications written in Java (not including Java stored procedures):

 - IBM 64-Bit SDK for z/OS, Java 2 Technology Edition, V5 (SDK5) (5655-N99), or later, at run time.

Note: 5655-I56 and 5655-N99 are independent products and can co-exist on the same z/OS system.
- REXX
 - IBM TSO Extensions for MVSREXX, which is part of z/OS
 - SQL Procedure Language
 - Native SQL Procedure Language
 - External SQL Procedure Language, which requires a C language compiler
- APL2
 - Mainframe APL2® V2.2 (5688-228) (full APL2)
 - APL2 Application Environment (5688-229)

Operational support: The following programs provide operational support for DB2 10:

- DFSMS features, part of the Systems Management optional feature of z/OS; specifically:

- DFSMShsm for archiving
- DFSMSdss for concurrent copy in Utilities

Tools support:

Refer to the IBM Data Management Tools Web site for the complete list of products

<http://www.ibm.com/software/data/db2imstools>

IBM Tools for Replication Management and Database Recovery

- IBM Tools for Replication Management, including the following tools:
 - IBMWebSphere Replication Server V9 (5655-R55)
 - IBMWebSphere Data Event Publisher V9 (5655-R56)
- IBM Tools for Database Recovery, including the following tools:
 - IBM Application Recovery Tool for IMS and DB2 Databases for z/OS, V1.2 (5697-F56)
 - IBMDB2 Archive Log Accelerator for z/OS, V2.2 (5697-I73)
 - IBMDB2 Change Accumulation Tool for z/OS, V2.1 (5655-F55), or later
 - IBMDB2 Object Restore for z/OS, V2.1 (5697-I20)
 - IBMDB2 Log Analysis Tool for z/OS, V3.2 (5655-T56)
 - IBMDB2 Recovery Expert for z/OS, V2.2 (5697-N92)

IBM Tools for Database Application Management, including the following tools:

- IBMDB2 Bind Manager for z/OS, V2.4 (5655-E43)
- DataQuant for z/OS, V1.2 (5697-N64)
- IBMDB2 Table Editor for z/OS, V4.3 (5697-G65)

IBM Tools for Database Administration and System Management Support, including the following tools:

- Data Encryption for IMS and DB2 Databases V1.1 (5655-P03)
- DB2 Administration Tool for z/OS, V7.2 (5697-L90)
- DB2 Audit Management Expert V2.1 (5655-T57)
- DB2 Object Comparison Tool for z/OS, V7.2 (5697-L40)

IBM Tools for Utilities Management, including the following tools:

- DB2 Automation Tool for z/OS, V3.1 (5655-T59)

Compatibility

DB2 10 for z/OS: This product is upwardly compatible with earlier releases of DB2 for z/OS. Migration with full fallback protection is available for customers running on DB2 9 for z/OS or DB2 UDB for z/OS, V8 in new-function mode (NFM). Existing customers should ensure they are successfully running on DB2 9 for z/OS (NFM) or on DB2 UDB for z/OS, V8 (NFM) before migrating to DB2 10.

User group requirements

This announcement satisfies or partially satisfies many requirements from one or more of the worldwide user group communities. Specific requirement information will be included in the general availability announcement of DB2 10.

Planning information

Review the sections in this announcement that describe the hardware and software dependencies for DB2 10 for z/OS. Note that DB2 10 supports migration only from Version 8, or later. Customers not yet running Version 8 or Version 9 should plan to migrate to DB2 for z/OS V8 as preparation for a migration to DB2 10.

Migration considerations

IBM added many data server capabilities in DB2 10 for z/OS and reduced or removed support for some functions. As you prepare to migrate your subsystems to V10, you should be aware of the following changes:

For both DB2 UDB for z/OS 8 and DB2 9 for z/OS:

- DB2 XML Extender is no longer supported.
- DB2 Management Clients feature is no longer available. Control Center does not support connections to DB2 10.
- EXPLAIN tables prior to Version 8 format are no longer supported. Alter tables to add the needed columns.
- Private protocol is no longer supported. Convert to DRDA.
- Plans containing DBRMs are no longer supported. Plans will contain packages, which have the DBRMs. Use the COLLID option of REBIND to make the needed changes. Acquire allocate is not a supported BIND option any longer. Use acquire use.
- DB2 catalog tables are DB2-managed and SMS-managed. Catalog and directory tables do not have links, but have more LOBs and more table spaces. Compression for table space SPT01 is not supported.
- DB2 MQ XML functions are no longer supported. Use pureXML functions.
- msys for Setup DB2 Customization Center is no longer supported. Use installation panels instead.
- REORG TABLESPACE SHRLEVEL NONE on LOB table spaces is removed. Use SHRLEVEL CHANGE or REFERENCE.
- Several subsystem parameters are removed or no longer supported.

For DB2 UDB for z/OS 8 only:

- Net.Data® is removed. WebSphere is the strategic IBM solution for delivering DB2 data to Web applications.
- DB2-established stored procedure address spaces are no longer supported. Workload Manager (WLM) managed stored procedure address spaces is the strategic solution for stored procedure support, and migration to WLM managed stored procedure spaces is required for use of stored procedures in DB2 10.
- JDBC/SQLJ Driver for OS/390® and z/OS is no longer supported. All Java application programs and Java routines that are currently written to work with the JDBC/SQLJ Driver for OS/390 and z/OS need to be modified to work with the IBM DB2 Driver for JDBC and SQLJ (formerly known as the DB2 Universal JDBC Driver). The steps for migrating JDBC and SQLJ applications from the legacy JDBC/SQLJ Driver for OS/390 and z/OS to the IBM DB2 Driver for JDBC and SQLJ can be found in the Application Programming Guide and Reference for Java (SES1-3023). In addition, all WLM-managed stored procedures address spaces that are set up to execute Java routines must be modified to reference the IBM DB2 Driver for JDBC and SQLJ.
- Connections from VAX machines and the PASCAL L string data type are no longer supported.
- Creation of simple table spaces is no longer supported. DB2 10 for z/OS no longer implicitly creates simple table spaces nor allows customers to create simple table spaces. However, DB2 10 for z/OS continues to support simple table spaces created in previous versions.
- DB2 QMF Visionary Studio program is removed from DB2 QMF Enterprise Edition.
- DB2 Estimator is not available for DB2 10.

- BookManager-based online help has been removed. The prior help support has been replaced by the Information Management Software for z/OS Solutions Information Center (Information Center). The Web-based Information Center is updated periodically during the life of each DB2 version, thus ensuring reader access to the most up-to-date information.
- AIV Extender, Text Extender, and Net Search Extender are removed.
- Java stored procedures are no longer run in resettable JVMs.

For DB2 9 for z/OS only:

- Annotated XML schema decomposition using XDBDECOMPXML and XDBDECOMPXML100MB is no longer supported
- Accessories Suite will no longer include Optimization Service Center component and the Data Studio Workbench feature. Visual Explain for DB2 for z/OS is not available for DB2 10. The recommended query optimization and service tools for DB2 for z/OS are Optim™ Query Tuner and Optim Query Workload Tuner. The recommended no-charge query optimization and service tool for DB2 for z/OS is Data Studio

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

These tools are based and built on the foundation of Optimization Service Center and Optimization Expert.

Plans and packages should be rebound on current releases to benefit from optimizer enhancements. For the DB2 10 beta release, packages from DB2 V5 or earlier will be automatically rebound when accessed by DB2 10.

For more detailed information on migrating to V10, refer to the DB2 10 for z/OS Installation and Migration Guide (SES1-3029).

As part of ongoing efforts to deliver the most current technology and to remove those features that no longer provide our customers with strategic benefits, the following features are deprecated in DB2 10 for z/OS and may be dropped from future versions:

- Simple and partitioned table spaces other than universal table spaces are deprecated. Use alter in new function mode to convert single-table table space to universal.
- Some current use of DSNHDECP is deprecated. If you have code that loads DSNHDECP and maps it with macros, you should plan to change that code by using the new techniques. Customers who want to have one library for multiple DSNHDECP modules need to make this change.
- SQL processing options NEWFUN(YES) and NEWFUN(NO) options are deprecated. Use NEWFUN(V10) rather than NEWFUN(YES). Use NEWFUN(V9) or NEWFUN(V8) rather than NEWFUN(YES).
- The DSNHPC7 precompiler is deprecated. Use the current precompiler or coprocessor.

DB2 10 for z/OS can be delivered on 3480 or 3590 media, or electronically. A program directory will accompany each orderable feature, as follows:

GIS0-0022	DB2 for z/OS Program Directory
GIS0-0028	DB2 Accessories Suite Program Directory
GIS0-0026	DB2 Utilities Suite Program Directory
GIS0-0023	QMF Classic Edition Program Directory
GIS0-0024	QMF Enterprise Edition Program Directory
GIS0-0025	z/OS Application Connectivity to DB2 for z/OS

Direct customer support

Direct customer support is provided by IBM Operational Support Services - SoftwareXcel Enterprise Edition or SoftwareXcel Basic Edition. These fee services can enhance your productivity by providing voice and electronic access into the IBM

support organization. IBM Operational Support Services - SoftwareXcel Enterprise Edition or SoftwareXcel Basic Edition will help answer questions pertaining to usage, how-to, and suspected software defects for eligible products.

Installation and technical support is provided by IBM Global Services. For more information on services, call 888-426-4343. Eligible customers can obtain installation and usage assistance from the Industry Support Center through a telephone response line.

Security, auditability, and control

DB2 10 for z/OS uses the security and auditability features of the host z/OS systems. It also provides facilities for the protection and control of its resources. These facilities include controls for:

- System access
- Data access and control
- Concurrent access
- Data recovery
- Accounting and auditing

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

Ordering information

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., Canada, 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

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

New licensees

Orders for new licenses can be placed now.

Registered customers can access IBMLink™ for ordering information and charges.

Shipment will not occur before the availability date.

Unless a later date is specified, orders entered before the planned availability date will be assigned a schedule date of one week following availability.

Shipment will begin on the planned availability date.

New users of DB2 10 for z/OS should specify:

Type: 5605 Model: DB2

Parallel Sysplex® License Charge (PSLC) Basic License: To order a basic license, specify the program number and feature 9001 for asset registration. Specify the PSLC Base feature. If applicable, specify the PSLC Level A and PSLC Level B, and PSLC Level C, and PSLC Level D features and quantity.

Parallel Sysplex license charge (PSLC) basic license

To order a basic license, specify the program number and quantity of MSU.

If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable PSLC license options and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the System Usage Registration No-Charge (SYSUSGREG NC) Identifier on the licenses.

Product: DB2 10 for z/OS

Entitlement identifier	Description	License option / pricing metric
S015SW2	DB2 10 for z/OS	Basic MLC, PSLC(ABCD)
S015SW4	QMF Classic Edition	Basic MLC, PSLC(ABCD)
S015SW3	QMF Enterprise Edition	Basic MLC, PSLC(ABCD)

No-charge features:

S015SW5	z/OS Application Connectivity to DB2 for z/OS
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Workload License Charge (WLC) Basic License

If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable WLC license options and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the Workload Registration Variable WLC Identifier on the licenses.

Entitlement identifier	Description	License option / pricing metric
S015SW2	DB2 10 for z/OS	Basic MLC, VWLC
S015SW4	QMF Classic Edition	Basic MLC, VWLC
S015SW3	QMF Enterprise Edition	Basic MLC, VWLC

No-charge features:

S015SW5	z/OS Application Connectivity to DB2 for z/OS
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Entry Workload License Charge (EWLC) Basic License

To order a basic license, specify the program number and the quantity of MSUs.

Entitlement identifier	Description	License option / pricing metric
S015SW2	DB2 10 for z/OS	Basic MLC, EWLC
S015SW4	QMF Classic Edition	Basic MLC, EWLC
S015SW3	QMF Enterprise Edition	Basic MLC, EWLC

No-charge features:

S015SW5	z/OS Application Connectivity to DB2 for z/OS
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S/390® and zSeries® Usage License Charge, basic license: Specify the applicable S/390 and zSeries Usage License Charge option. Charges will be based upon the peak MSUs. Usage reported between thresholds of features 1, 2, or 3, will be rounded up to the next MSU level. Above 1.0 MSU, usage will be rounded to the nearest whole MSU. For example, 2.4 MSUs would round to 2.0 MSUs for pricing,

and 2.5 MSUs would round to 3.0 MSUs for pricing. The customer pricing will be determined by selecting either:

Entitlement identifier	Description	License option / price metric
S015SW2	DB2 10 for z/OS	Basic MLC, ULC
S015SW4	QMF Classic Edition	Basic MLC, ULC
S015SW3	QMF Enterprise Edition	Basic MLC, ULC

Examples for ordering:

- A customer with a measured usage (from the IBM Measured Usage report) of 0.3 MSU would order quantity 1 of the 0.26 to 0.5 MSU base feature.
- A customer with 6.6 MSUs (from the IBM Usage report) would:
 - Be rounded up to 7.0 MSUs
 - Order quantity 1 of the "0.51 to 1.0 MSU" base feature
 - Order quantity 6 of the Level A 1 MSU feature
- A customer with 15 MSUs (from the IBM Usage report) would:
 - Order quantity 1 of the "0.51 to 1.0 MSU" base feature
 - Order quantity 10 of the Level A 1 MSU feature
 - Order quantity 4 of the Level B 1 MSU feature
- A customer with 50 MSUs (from the IBM Usage report) would:
 - Order quantity 1 of the "0.51 to 1.0 MSU" base feature
 - Order quantity 10 of the Level A 1 MSU feature
 - Order quantity 33 of the Level B 1 MSU feature
 - Order quantity 6 of the Level C 1 MSU feature
- A customer with 85 MSUs (from the IBM Usage report) would:
 - Order quantity 1 of the "0.51 to 1.0 MSU" base feature
 - Order quantity 10 of the Level A 1 MSU feature
 - Order quantity 33 of the Level B 1 MSU feature
 - Order quantity 34 of the Level C 1 MSU feature
 - Order quantity 7 of the Level D 1 MSU feature

zSeries entry license charge (zELC)

To order zELC software, specify the program number and System z model.

Specify the zELC monthly license option.

Entitlement identifier	Description	License option / pricing metric
S015SW2	DB2 10 for z/OS	Basic MLC, zELC
S015SW4	QMF Classic Edition	Basic MLC, zELC
S015SW3	QMF Enterprise Edition	Basic MLC, zELC

Single version charging

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

Basic machine-readable material

Orderable

Supply ID:	Language	Distribution medium	Description
S015TWK	US English	3590 Tape Cartridge	DB2 10 for z/OS
S014S95	US English	3480 Tape Cartridge	DB2 10 for z/OS
S015TWL	US English	3590 Tape Cartridge	DB2 Utilities Suite
S014S9F	US English	3480 Tape Cartridge	DB2 Utilities Suite
S015TWM	US English	3590 Tape Cartridge	QMF Classic Edition
S014S9C	US English	3480 Tape Cartridge	QMF Classic Edition
S015TWT	US English	3590 Tape Cartridge	QMF Enterprise Edition
S014S99	US English	3480 Tape Cartridge	QMF Enterprise Edition
S015TWS	US English	3590 Tape Cartridge	DB2 Accessories Suite
S015TWR	US English	3480 Tape Cartridge	DB2 Accessories Suite
S015TWN	US English	3590 Tape Cartridge	z/OS App Connect to DB2
S014S97	US English	3480 Tape Cartridge	z/OS App Connect to DB2

Customization options

Select the appropriate feature numbers to customize your order to specify the delivery options desired. These features can be specified on the initial or MES orders.

Example

If publications are not wanted for the initial order, specify feature number 3470 to ship media only. For future updates, specify feature number 3480 to ship media updates only. If, in the future, publication updates are required, order an MES to remove feature number 3480; then the publications will ship with the next release of the program.

Expedite shipments will be processed to receive 72-hour delivery from the time IBM Software Delivery and Fulfillment (SDF) receives the order. SDF will then ship the order via overnight air transportation.

During the beta program, hardcopy documents are provided only for program directories, which are available for each orderable feature. Order numbers for these documents are:

Title	Order number
DB2 for z/OS Program Directory	GIS0-0022
DB2 Utilities Suite Program Directory	GIS0-0026
QMF Classic Edition Program Directory	GIS0-0023
QMF Enterprise Edition Program Directory	GIS0-0024
DB2 Accessories Suite Program Directory	GIS0-0028
Application Connectivity to DB2 for z/OS	GIS0-0025

The QMF Enterprise Edition feature is delivering the following Golden Master CD:

- SES1-3031-00 QMF for Workstation and QMF for WebSphere CD - Windows installation
- SES1-3032-00 QMF for Workstation and QMF for WebSphere CD - Linux installation

During the beta program, the following information units will be available in a secure, Web-based information center:

Title	Order number
Administration Guide	SES1-3022
Application Programming Guide and Reference for Java	SES1-3023
Application Programming and SQL Guide	SES1-3024
Codes	SES1-3025
Command Reference	SES1-3026
Data Sharing: Planning and Administration	SES1-3027
Diagnosis Guide and Reference	SES1-3028
Installation and Migration Guide	SES1-3029
Internationalization Guide	SES1-3030
Introduction to DB2 for z/OS	SES1-3031
IRLM Messages and Codes for IMS and DB2 for z/OS	SES1-3032
Managing Performance Messages	SES1-3036
ODBC Guide and Reference	SES1-3034
SQL Reference	SES1-3037
Utility Guide and Reference	SES1-3038
What's New?	SES1-3039
XML Guide	SES1-3040

DB2 Accessories Suite for z/OS publications

Title	Order number
Spatial Support for DB2 for z/OS User's Guide and Reference	SES1-3041
OmniFind Text Search Server for DB2 for z/OS Installation, Administration, and Reference	SES1-3042

Additional publications for Version 10 will also be available via the information center:

Title	Order number
DB2QMF High Performance Option Users Guide for z/OS	SES1-3069
Installing and Managing DB2QMF for workstation and DB2 QMF for webSphere	SES1-3067
Getting Started with DB2QMF for workstation and DB2QMF for webSphere	SES1-3068
Developing DB2QMF Applications	SES1-3063
Installing and Managing DB2QMF for TSO/CICS	SES1-3062
Introducing DB2QMF	SES1-3061
DB2QMF Messages and Codes	SES1-3066
DB2QMF Reference	SES1-3064
Using DB2QMF	SES1-3065

These beta publications cannot be ordered. For information about ordering publications for the product after general availability, refer to the IBM Publications Center Web site

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

Subsequent updates (technical newsletters or revisions between releases) to the publications shipped with the product will be distributed to the user of record for as long as a license for this software remains in effect. A separate publication order or subscription is not needed.

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

<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, 3592¹
- ServerPacs - 3480, 3480 Compressed, 3490E, 3590, 3592¹
- SystemPacs - 3480, 3480 Compressed, 3490E, 3590, 3592¹

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

Agreement

IBM Customer Agreement

Variable charges apply

No

Indexed monthly license charge (IMLC) applies

No

Location license applies

No

Use limitation applies

No

Educational allowance available

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

Volume orders

Not applicable.

Replaced programs		Replacement programs	
Program number	Program name	Program number	Program name
5740-XYR	DB2 V1_	5605-DB2	DB2 10
5665-DB2	DB2 V2_	5605-DB2	DB2 10
5685-DB2	DB2 V3_	5605-DB2	DB2 10
5695-DB2	DB2 V4_	5605-DB2	DB2 10
5655-DB2	DB2 V5_	5605-DB2	DB2 10
5645-DB2	DB2 V6_	5605-DB2	DB2 10
5675-DB2	DB2 V7_	5605-DB2	DB2 10
5625-DB2	DB2 V8_	5605-DB2	DB2 10
5635-DB2	DB2 V9_	5605-DB2	DB2 10
5605-DB2	DB2 V10	To a follow-on program, if any.	

Warranty applies

Yes

Licensed program materials availability

Restricted Materials of IBM:	Some
Non-Restricted Source Materials:	Some
Object Code Only (OCO):	None

Program services

Support Center applies:	Yes
	Access available through the IBM Support Center

Available until: General Availability of DB2 10 for z/OS

APAR Mailing Address:	IBM Corporation APAR Processing 555 Bailey Avenue San Jose, CA 95141
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Program currency

IBMDB2 10 for z/OS beta will be available until General Availability of IBMDB2 10 for z/OS.

IBM Operational Support Services - SupportLine

Yes

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.

Program number

5605-DB2

Entitlement identifier	Description	License option / pricing metric
S015SW2	DB2 10 for z/OS	Basic MLC, PSLC(ABCD), V-WLC, ULC, EWLC, ZELC
S015SW4	QMF Classic Edition	Basic MLC, PSLC(ABCD), V-WLC, EWLC, ZELC
S015SW3	QMF Enterprise Edition	Basic MLC, PSLC(ABCD), V-WLC, EWLC, ZELC

No-charge features:

S015SW5 z/OS Application Connectivity
to DB2 for z/OS

Sub-Capacity Charges for VWLC Products

Sub-capacity charges for VWLC products are based on product LPAR utilization capacity. Product LPAR utilization capacity for a VWLC product is the highest number of MSUs utilized by the combined LPARs in which a VWLC product runs concurrently during a reporting period. The number of MSUs is based on the highest observed rolling 4-hour average utilization used by the combination of the relevant LPARs during the reporting period. Refer to Software Announcement [200-354](#), dated October 03, 2000, Software Announcement [201-258](#), dated September 11, 2001, and Software Announcement [202-105](#), dated April 30, 2002 for additional details on IBM Workload License Charges.

Sub-Capacity Charges Terms and Conditions

System z software charges at less than full machine capacity for eligible VWLC products apply when z/OS is running in z/Architecture® (64 bit) mode on an IBM eServer System z. No other MVS-based operating system is licensed to that server and the required information is provided by the customer in accordance with the applicable terms.

Sub-capacity charges for a VWLC product is based on the utilization of the LPARs where/when the product executes. To obtain charges at less than full machine capacity for VWLC products, the customer is required to:

- Sign and abide by the terms of the Attachment for zSeries Workload License Charges (Z125-6516).
- Obtain the latest version of the Sub-Capacity Reporting Tool
- Install any VWLC product and IBM eServer System z Licensed Internal Code (LIC) service reterminology sub-capacity charging. Required service will be listed on the WLC Web site

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

- Collect SMF data as required by the Sub-Capacity Reporting Tool. Retain the collected SMF data for a period of not less than six months.
- Use the IBM provided Sub-Capacity Reporting Tool to process the collected SMF data. The Sub-Capacity Report produced by the tool is used to determine required license capacity for the VWLC products. Required license capacity is determined based on the largest MSU value of a VWLC product running concurrently in all LPARs during the reporting period. IBM reserves the right to request the system data that supports these product defined capacity values for a period of up to six months after the data was collected.
- Provide an initial Sub-Capacity Report to begin to receive the benefits of less than full machine capacity charges. Sub-capacity charging will follow submission of a Sub-Capacity Report. There will be no retroactive application of sub-capacity charges.
- Submit Sub-Capacity Reports monthly.
- Submit Sub-Capacity Reports for all VWLC products with complete data for the entire reporting period to the e-mail address and by the date, specified on the zSeries Software Pricing Web site

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

Also, in the current Workload License Charge Exhibit (Z125-6324). Sub-Capacity Reports that reflect a changed product defined capacity will be considered to be orders placed by the customer without further action on the customer's part and IBM is authorized to make any resulting billing increase or decrease. To place an order for a new license or to discontinue licenses, move licenses between machines, report a hardware model upgrade, or enable or disable product features, the customer must contact IBM or their IBM Business Partner

- Configure machine to send weekly Transmit System Availability Data (TSAD) to IBM via the IBM eServer System z Remote Support Facility (RSF). If the machine cannot connect via the RSF, provide this TSAD via an alternate means documented in the z/OS publication *Planning for Workload License Charges* at

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Corrections

(Corrected on March 11, 2010)

Migration considerations were added to the Planning information section.