



IBM DB2 UDB for z/OS, V8 delivers 64-bit virtual addressing

Overview

DB2 Universal Database® (UDB) for z/OS® continues to deliver rich function for scalable and highly available data for your enterprise-scale e-business applications. Combine the power and capacity of IBM @server zSeries®, the high performance and high availability of the z/OS operating system, and this enriched version of DB2® to expand and extend your applications in the increasingly competitive e-business environment.

- 64-bit virtual addressing that exploits the capacity and processing power of zSeries servers and z/OS operating system
- Extensive enhancements to SQL
- Usability and portability enhancements through major catalog changes:
 - Improvements in long object names
 - Unicode for worldwide support and improved SQL compatibility.
- DB2 family compatibility for portability of transaction applications from UNIX® and Microsoft™ Windows™ environments
- Enhanced data availability through online schema evolution
- Database management flexibility with:
 - Indexing enhancements
 - Variable-length indexes
 - Up to 4096 partitions and data partitioning for indexes
- Utility enhancements:
 - System-level point-in-time backup and recovery
 - Automatic restart of utilities
 - Greater DB2 family compatibility through support for load and unload with delimited data

- DB2 Query Management Facility (QMF™) on demand feature, which includes:
 - Support for DB2 UDB V8, including DB2 Cube Views, long names, Unicode, and enhancements to SQL
 - Drag-and-drop building of OLAP analytics, SQL queries, pivot tables, and other business analysis and reports
 - Visual data “appliances,” such as executive dashboards, that offer unique, visually rich, interactive functionality and interfaces specific to virtually any type of information task
 - Database explorer for easily browsing and identifying database assets and other objects they may reference
 - QMF for WebSphere®, allowing ordinary Web browsers to become “zero maintenance” thin clients for visual on demand access to enterprise DB2 business data

With this release, DB2 QMF is offered in several simplified editions, enabling you to more easily apply its DB2 QMF on demand information strategy to single or multiple database and end-user platforms.

For more information and the most current news regarding DB2 UDB for z/OS, visit:

<http://www.ibm.com/software/db2zos>

Key prerequisites

- z/OS V1R3 Base Services (5694-A01), or later, executing in 64-bit addressing mode
- Any processor that supports z/Architecture™

Planned availability date

March 26, 2004

At a glance

DB2 UDB for z/OS, V8 delivers power, flexibility, and DB2 Family compatibility for e-business application leadership through synergy with zSeries and z/OS.

- Enhanced capacity through 64-bit virtual addressing for DB2 and Internal Resource Lock Manager (IRLM)
- Schema evolution for enhanced data availability
- DB2 Family compatible SQL for transaction processing
- Reengineered catalog including Unicode data format and long name support
- Major indexing and partitioning enhancements
- Major utility enhancements

DB2 QMF V8 delivers:

- OLAP with DB2 Cube Views
- Drag and drop queries and analytics
- Executive dashboards
- DB2 V8 long name and other support
- Enabled for WebSphere Application Server
- Simplified packaging for easier ordering

For ordering, contact:

Your IBM representative, an IBM Business Partner, or the Americas Call Centers at

800-IBM-CALL

Reference: LE001

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Description

DB2 UDB for z/OS, V8 is the most comprehensive and feature-rich version to date. With a major emphasis on 64-bit addressing, one of the keys to reengineering is breaking through the limits of the current architecture.

The use of 64-bit virtual addressing exploits the capacity and processing power of zSeries servers and the z/OS operating system. Increasing the amount of virtual storage that DB2 can address directly can help with scaling and simplifying the management of virtual storage.

Other major functions from backup and recovery to improved security and SQL enhancements are critical to your on-demand database environment.

Enhancements to system-level point-in-time recovery for DB2 provide improved usability, more flexibility, and faster recovery. You can now recover your data to any point in time, regardless of whether you have uncommitted units of work. As a result, data recovery time is reduced significantly for large DB2 systems that contain thousands of objects.

The new multilevel security feature in DB2 V8 delivers a secure single repository of data that can be accessed by people with different need-to-know authority. This secure access is managed down at the row level to provide the granularity that is required.

DB2 UDB for z/OS, V8 also includes dozens of changes in SQL, improving family consistency while pushing DB2 SQL beyond current boundaries for enhanced application portability.

DB2 incorporates a broad set of key open standards that gives your application access to standard computing industry solutions and methods. You can concentrate on your company's core competencies, while managing global market and competition changes with consistent availability, security, and privacy around the world and around the clock.

To raise productivity, lower business costs, and stay competitive, every organization needs on demand access to corporate data:

- Tailored to roles and responsibilities across the enterprise
- Visualized in formats easiest to understand:
 - On precisely the scale required
 - To any user anywhere

All of these capabilities are delivered — rapidly, reliably, affordably, and flexibly — through IBM's on demand business information platform.

DB2 QMF

DB2 QMF Enterprise Edition: DB2 QMF Enterprise Edition provides the entire DB2 QMF family of technologies, enabling enterprise-wide business information across end-user and database platforms. DB2 QMF Enterprise Edition consists of these components:

- DB2 QMF for TSO/CICS®
- DB2 QMF High Performance Option (HPO)
- DB2 QMF for Windows
- DB2 QMF for WebSphere
- DB2 QMF Visionary Studio

Other editions of DB2 QMF offer subsets of QMF Enterprise Edition, as follows.

DB2 QMF Distributed Edition: DB2 QMF Distributed Edition provides components to support end users functioning entirely from Web or Windows clients to access enterprise databases. This edition consists of:

- DB2 QMF for Windows
- DB2 QMF for WebSphere
- DB2 QMF Visionary Studio

DB2 QMF Classic Edition: DB2 QMF Classic Edition supports end users functioning entirely from traditional mainframe terminals and emulators (including IBM Host On Demand) to access DB2 UDB databases. This edition consists of DB2 QMF for TSO/CICS.

DB2 Management Clients Package: With this release, the z/OS Enablement element of the DB2 Management Clients Package includes support for DB2 UDB for z/OS, V8, including long name support, 4096 partitions support, and 64-bit virtual support. It also supports MVS™ job administration and UNIX commands execution.

With this release, DB2 Administration Server (DAS) is offered as an element of the DB2 Management Clients Package. DAS is required by, and supports administrative tasks by the DB2 UDB Control Center and Replication Center.

z/OS Application Connectivity to DB2 for z/OS is a no-charge, optional feature of DB2 UDB Server for z/OS, V8. This feature consists of a component known as the DB2 UDB Driver for z/OS, Java™ Edition, a pure Java, type 4 JDBC driver designed to deliver high performance and scalable remote connectivity for Java-based enterprise applications on z/OS to a remote DB2 for z/OS database server. The driver:

- Supports JDBC 2.0 and 3.0 specification and JDK V1.4 to deliver the maximum flexibility and performance required for enterprise applications
- Delivers robust connectivity to the latest DB2 for z/OS and WebSphere Application Server for z/OS
- Provides support for distributed transaction support
- Allows custom Java applications that don't require an application server to run in a remote partition and connect to DB2 z/OS

Ideal for z/OS customers who require the ultimate scalable and reliable DB2 connectivity solution anchored on a WebSphere Application Server framework. DB2 Universal Driver, Java Edition is an integral part of an e-business solution stack that can help achieve the highest level of Web application availability by leveraging the most durable OLTP platform.

Accessibility by people with disabilities

The following features support use by people with disabilities:

- Operation by keyboard alone
- Optional font enlargement and high-contrast display settings
- Screen readers and screen magnifiers tested for use by people with visual impairment
- Speech recognition products tested for use by people with mobility impairment
- Optional display of alerts for people with hearing impairment

Hardware and software support services

SmoothStart™ /installation services

SmoothStart Services, an on-site implementation and training startup service, is designed to accelerate your productive use of your IBM solution. The service is provided by IBM Global Services or your IBM Business Partner at an additional cost. For additional information, refer to Services Announcement 697-004, dated March 25, 1997, or contact your IBM representative and ask for SmoothStart Services for DB2 UDB for z/OS, V8.

IBM Installation Services are provided for DB2 UDB for z/OS, V8 by IBM Global Services or your IBM Business Partner at an additional cost. For additional information, contact your IBM representative and ask for Installation Services for DB2 UDB for z/OS, V8.

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IBM US Announcement Supplemental Information

March 2, 2004

Education support

Call IBM Education and Training at 800-IBM-TEACH (426-8322) for catalogs, schedules, and enrollments.

Technical information

Hardware requirements

Processors

DB2® UDB for z/OS®, V8 operates on any processor that supports z/Architecture™, including z800, z900, z990, or comparable processor. The processor must have enough real storage to satisfy the combined requirements of:

- DB2
- z/OS
- Other customer required applications

In addition, 64-bit virtual addressing support will probably require increased real storage for a workload compared to DB2 for z/OS and OS/390®, V7.

The requirement for 64-bit addressing means that z/OS Bimodal Migration Accommodation software cannot be used with 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 users' 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 UDB for z/OS 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 z/OS for the DB2 data sets.

The following DB2 data set types 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
- 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, use global resource serialization to prevent concurrent access by more than one z/OS system.

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The minimum disk space requirement, based on installing DB2 using the panel default values, is approximately 1 GB. Users need additional disk space for their 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:

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

For information about the data communication devices supported by IMS Transaction Manager, CICS, and TSO, refer to the documentation for these products.

Function-dependent hardware requirements

DRDA® data stream encryption has the following hardware requirements:

- Built-in functions for encryption and decryption require cryptographic hardware in a Cryptographic Coprocessor, Cryptographic Accelerator, or Cryptographic instructions.
- DRDA data stream encryption can optionally use cryptographic hardware in a Cryptographic Coprocessor, Cryptographic Accelerator, or Cryptographic instructions.

Software requirements: This section lists licensed programs, or specific elements and features of licensed programs, that are required in the DB2 UDB for z/OS, V8 environment. You can use subsequent versions or releases of the programs, unless stated otherwise. This section also identifies the requirements that are associated with specific DB2 capabilities as well as optional programs that you can use with DB2 UDB for z/OS, V8. Refer to the following Web sites for the most current information:

<http://www.ibm.com/software/data/db2/os390/availsum.html>

<http://www.ibm.com/support/docview.wss?rs=71&org=SW&doc=1039854>

http://www.ibm.com/servers/eserver/zseries/zos/support/zos_eos_dates.htm

Operating system and support programs

DB2 UDB for z/OS, V8 requires the function provided by the following licensed programs or their equivalents; subsequent versions or releases are acceptable.

- z/OS V1.3 Base Services (5694-A01) or z/OS.e (5655-G52) plus APARs OW56073, OW56074, OA03519, and OA03095 with the following base and optional elements:

- DFSMS V1.3
- Language Environment®
- z/OS V1.3 Security Server (RACF®)

- IRLM V2.2

If DB2 is installed with IRLM into the same SMP zone as any Version of IMS with IRLM V2.1, IRLM V2.1 will be deleted during the SMP/E installation of IRLM V2.2.

Notes

- 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. Customers should ensure that these functions are provided either by ordering DB2 Utilities Suite for z/OS, V8 (5655-K61), or by obtaining equivalent function elsewhere.

Virtual storage requirements

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

Most of the DB2 common data resides in the extended common service area (ECSA). Most modules, control blocks, and buffers reside in the extended private area.

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 the Language Environment element of z/OS at run time. Applications or stored procedures written in Java™, such as those using the JDBC or SQLJ interfaces to DB2, require IBM Developer Kit for OS/390, Java 2 Technology Edition (5655-D35) at run time.

- **Extenders:**

- **Audio, Image, and Video Extenders:** Use of these extenders requires Language Environment. Audio, Image, and Video Extenders have been stabilized at the V7 level and are provided in DB2 for z/OS, V8, to ensure continuity for current customers. Audio, Image, and Video Extenders do not support the DB2 for z/OS data sharing function in a Parallel Sysplex® environment. For the most current information, visit

<http://www.ibm.com/software/data/db2/extenders/aiv/aiv390>

- **XML Extender:** Use of the XML Extender requires Language Environment and the IBM XML Parser for z/OS, C++ Edition, to be available at run time. The required parser is provided with the XML Toolkit for z/OS and OS/390 (5655-D44). At general availability of DB2 UDB for z/OS, V8, the required level is Release 4, but subsequent service may require a later level. Use of either the XML File

type or the “Getting Started” material requires the z/OS UNIX® System Services element of z/OS.

- **DB2 Text Extender:** DB2 Text Extender has been stabilized at the V7 level and is provided in DB2 for z/OS, V8, to ensure continuity for current customers. DB2 Text Extender does not support the DB2 for z/OS data sharing function in a Parallel Sysplex environment. For the most current information, visit

<http://www.ibm.com/software/data/db2/extenders/text/te390>

- **Net Search Extender:** Net Search Extender V7 is compatible and delivered with DB2 for z/OS, V8. Net Search Extender does not support the DB2 for z/OS data sharing function in a Parallel Sysplex environment. For the most current information, visit

<http://www.ibm.com/software/data/db2/extenders/netsearch/sysrequirements3.html>

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

- DFSMS features, part of the Systems Management optional feature of z/OS:
 - DFSMSShsm™ for archiving
 - DFSMSDss™ for concurrent copy in Utilities
- IBM Softcopy Reader or Library Readers, included on the CD-ROMs for BookManager® books
- IBM Tools for Replication Management and Database Recovery
 - The IBM Tools for Replication Management, including the following tools:
 - DB2 DataPropagator™ for z/OS V8 (5655-I60)
 - IBM IMS DataPropagator for z/OS V3 (5655-E52)
 - The IBM Tools for Database Recovery, including the following tools
 - IBM Application Recovery Tool for IMS and DB2 Databases V1.2 (5697-F56)
 - DB2 Archive Log Accelerator for z/OS, V2.1 (5697-I73)
 - DB2 Change Accumulation Tool for z/OS, V1.3 (5655-F55)
 - DB2 Object Restore for z/OS, V2.1 (5697-I20)
 - DB2 Log Analysis Tool for z/OS, V2.1 (5655-E56)
 - DB2 Recovery Expert for Multiplatforms V1 (5724-B91)
- Database Application Management: The following tools support database application development for DB2:
 - DB2 Information Integrator Classic Federation for z/OS V8 (5697-I82)
 - DB2 Data Archive Expert for z/OS V1 (5655-I95)
 - DB2 Bind Manager for z/OS V2.2 (5655-E43)
 - DB2 Web Query Tool for z/OS V1.3 (5655-E71)
 - DB2 Web Query Tool for Multiplatforms V1.3 (5724-B34)
 - DB2 Test Database Generator for z/OS V2 (5697-I02)
 - DB2 Path Checker for z/OS V2.1 (5697-I23)
 - DB2 Table Editor for z/OS V4.3 (5697-G65)
 - DB2 Table Editor for Multiplatforms V4.3 (5724-B33)
 - DB2 Table Editor for Workgroups 4.3 (5724-E55)
- Database Administration and Systems Management Support: The IBM Tools for Database Administration and Systems Management include the following tools:

- The IBM Tools for Database Administration
 - DB2 Administration Tool for z/OS V5.1 (5697-K90)
 - DB2 Object Comparison Tool for z/OS V3.1 (5697-K40)
- The IBM Tools for Utilities Management
 - DB2 Automation Tool for z/OS V1.3 (5697-G63)
 - DB2 Utilities Suite for z/OS V8 (5655-K61)
 - DB2 High Performance Unload for z/OS V2 (5655-I19)
 - DB2 High Performance Unload for Multiplatforms V2 (5724-B90)
 - DB2 High Performance Unload for Workgroups V2 (5724-E56)
- The IBM Tools for Database Performance Management, including the following tools:
 - DB2 Performance Expert for z/OS V2 (5655-J49)
 - DB2 Performance Monitor for z/OS V8 (5655-J50)
 - DB2 Buffer Pool Analyzer for z/OS V2.1 (5697-H82)
 - DB2 SQL Performance Analyzer for z/OS V2 (5655-I22)
 - DB2 Query Monitor for z/OS V1.1 (5655-E67)
- DB2 Workgroup Server Unlimited Edition V8.1 (5765-F43)
- DB2 UDB Universal Developer's Edition V8.1 (5765-F34)
- DB2 UDB for Linux, UNIX, Windows V7
 - DB2 Universal Developer's Edition (5648-D37)
 - DB2 Enterprise Edition (5648-D48)
 - DB2 Enterprise Extended Edition (5648-D50)
 - DB2 UDB Workgroup Edition (5648-D46)
 - DB2 Workgroup Unlimited Edition (5648-D46)
- DB2 UDB for iSeries™ OS/400® V5.1 or V5.2 (5722-SS1) (Info APAR II13348)
 - DB2 DataPropagator for iSeries V8.1 (5722-DP4)
 - DB2 Query Manager and SQL Development Kit for iSeries (5722-ST1)
- DB2 Server for VSE & VM V7 (5697-F42)
- Any other DRDA-compliant client or relational DBMS server

Web connectivity: The following products provide connectivity to DB2 for z/OS, V8 from the Web:

- WebSphere® Application Server V5 (5655-I35)
- WebSphere Application Server V4 (5655-F31)
- DB2 Connect V8 or V7.2
 - DB2 Connect Personal Edition (CPE) V8.1 (5724-B56)

DB2 Connect Personal Edition (CPE) V8.1.4 (also known as Fixpack 4) is the recommended level to use with DB2 for z/OS, V8. For DB2 Connect support services, visit

<http://www.ibm.com/cgi-bin/db2www/data/db2/udb/winos2unix/support/newsletter.d2w/report>

- DB2 Connect Enterprise Edition (CEE) V8 (5765-F30)
- DB2 Connect Unlimited Edition (CUE) V8 (5724-B62)
- DB2 Connect Application Server Edition (CASE) V8 (5724-D54)
- DB2 Connect Personal Edition, V7.2 (5648-D40)
- DB2 Connect Enterprise Edition, V7.2 (5648-D42)
- Net.Data® for z/OS V7, a feature of DB2 UDB for z/OS, V8

Capacity planning: DB2 Estimator for Windows works with DB2 data to estimate application feasibility, to model application cost and performance, and to estimate required CPU and I/O capacity. DB2 Estimator is available to download from the DB2 for z/OS Web page.

For more information on DB2 Estimator for Windows, visit

<http://www.ibm.com/software/data/db2/os390/estimate/>

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

- Information Management System (IMS)
 - IMS V9 (5655-J38)
 - IMS V8 (5655-C56)
 - IMS V7 (5655-B01)
- Customer Information Control System (CICS)
 - CICS Transaction Server for z/OS V2.2 or V2.3 (5697-E93),
 - CICS Transaction Server for OS/390 V1.3 (5655-147)

For further information about all of the DB2 and IMS Tools products, visit

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

For the most recent news about DB2 Tools compatibility with DB2 UDB for z/OS, V8, visit the DB2 and IMS Tools Web site at

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

Information you will find on this page includes a compatibility matrix with notes regarding any required service.

The DB2 Management Clients Package, a feature of DB2 UDB for z/OS, V8 that includes:

- DB2 Administration Server (DAS) (z/OS installable component)
- z/OS Enablement (z/OS installable component)
- DB2 for z/OS Visual Explain (workstation CD or Web download) at <http://www.ibm.com/software/db2zos/dld.html>
- DB2 Connect® Personal Edition Kit (workstation CD), which includes:
 - Control Center
 - Development Center
 - Replication Center
 - Command Center

A restricted-use copy of DB2 Connect Personal Edition V8.1 (5724-B56) for Windows™ is provided in the DB2 Management Clients Package feature of DB2 UDB for z/OS, V8.

Optional program requirements

The following functions are enabled in conjunction with the specified optional licensed programs when used together with DB2.

DRDA connectivity: DB2 UDB for z/OS, V8 supports the following editions of IBM relational database products:

- DB2 UDB for Linux, UNIX, Windows V8
 - DB2 Enterprise Server Edition (ESE) V8.1 (5765-F41)
 - DB2 Workgroup Server Edition V8.1 (5765-F35)

- WebSphere MQSeries® for OS/390: WebSphere MQSeries for OS/390 V5.2 (5655-F10)
- Application environments that use DB2 Connect to access DB2 remotely can use the following transaction manager products:
 - WebSphere Application Server
 - TXSeries™ (CICS Transaction Server and Encina®)
 - WebSphere MQ
 - Microsoft™ Transaction Server (MTS)
 - Java applications that support Java Transaction API (JTA) and Java 2 Enterprise Edition (J2EE)
 - BEA (Tuxedo and WebLogic)

Query support: The following query programs work with DB2:

- The DB2 QMF™ family, which are features of DB2 UDB for z/OS, V8 includes:
 - DB2 QMF Enterprise Edition
 - DB2 QMF Distributed Edition
 - DB2 QMF Classic Edition

The components include:

- DB2 QMF for TSO/CICS
- DB2 QMF HPO
- DB2 QMF for WebSphere
- DB2 QMF for Windows
- DB2 QMF Visionary Studio

DB2 QMF Enterprise Edition includes all the components. Other editions of DB2 QMF offer subsets of QMF Enterprise Edition, as follows.

- DB2 QMF Distributed Edition:

DB2 QMF Distributed Edition provides components to support end users functioning entirely from Web or Windows clients to access enterprise databases. This edition consists of:

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- DB2 QMF for WebSphere
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- DB2 QMF Classic Edition:

DB2 QMF Classic Edition supports end users functioning entirely from traditional mainframe terminals and emulators (including IBM Host On Demand) to access DB2 UDB databases. This edition consists of DB2 QMF for TSO/CICS.

DB2 Extenders®: DB2 Extenders for Net Search Extender, Text, Audio, Video, Image, and XML, extend the native DB2 for z/OS SQL capabilities.

Data warehouse support: DB2 Warehouse Manager for z/OS V8 (5655-I61) provides warehouse management for DB2.

Application development tools and programming languages: The DB2 Development Center, which is part of the Software Developer's Kit (SDK) on Windows, AIX®, and Solaris, is delivered with all editions of DB2 UDB and DB2 Connect products.

DB2 Development Center provides a graphical application that supports rapid development and deployment of DB2 Stored Procedures.

The following application development tools and programming languages work with DB2:

- Assembler: High Level Assembler, part of the System Services element of z/OS
- C/C++:
 - Any of the following:
 - C/C++ (with or without Debug Tool), optional feature of z/OS
 - SAA® AD/Cycle® C/370™ Compiler V1.2 (5688-216)

DB2 UDB for z/OS V8 does not yet support the coprocessor or Precompiler Services with C or C++. Use of DB2 Precompiler Services with C requires the DB2 Coprocessor provided with z/OS V1.5 and the DB2 UDB for z/OS and OS/390 V7 libraries. For use of DB2 UDB for z/OS V8 function, use the precompiler as an alternative.

- COBOL: To exploit the DB2 V8 new functions, applications written in COBOL must be compiled with one of the following combinations:
 - Using the separate DB2 precompiler, any supported COBOL compiler, including:
 - Enterprise COBOL for z/OS and OS/390 V3.2 (5655-G53)
 - COBOL for OS/390 & VM V2.2 (5648-A25)
 - Using the integrated SQL coprocessor, Enterprise COBOL for z/OS and OS/390 V3.2 or V3.3 (5655-G53) with APAR PQ83744
- Fortran: VS Fortran V2.6 (5668-806, 5688-087, or 5668-805)
- Java: Applications or stored procedures written in Java, such as those using the JDBC or SQLJ interfaces to DB2, require IBM Developer Kit for OS/390, Java 2 Technology Edition (5655-D35) at run time
- WebSphere: WebSphere Studio Enterprise Developer V5 (5724-B67)

Program requirements

- IBM SDK for z/OS, Java 2 Technology Edition, V1.4 (5655-I56) with APAR PQ74985 (the same as V1.4.1, which is the recommended level)
- IBM SDK for z/OS, Java 2 Technology Edition, V1.3.1. For more information on Java 2 for z/OS including a link to software prerequisites, visit

<http://www.ibm.com/servers/eserver/zseries/software/java/>

- PL/I
 - Any of the following:
 - IBM Enterprise PL/I for z/OS and OS/390 V3.2 (5655-H31)
 - IBM PL/I for MVS™ & VM V1.1 (5688-235)

Use of the DB2 Precompiler Services requires the DB2 Coprocessor provided with IBM Enterprise PL/I for z/OS and OS/390 V3.2 and APAR PQ84513 or later releases.

- REXX: IBM TSO/E REXX, which is part of z/OS

- SQL Procedure Language: A C language compiler is required on z/OS to develop stored procedures using the SQL procedures language. Specific C compilers include:
 - C/C++ (with or without Debug Tool), optional feature of z/OS
 - IBM SAA AD/Cycle C/370 Compiler, V1.2 (5688-216)

Restriction: This compiler is not supported for SQL procedures that are used with the SQL Debugger.

Requirements for dependent functions of DB2: DB2 UDB for z/OS, V8 includes the following features, some of which have requirements of their own, above and beyond what the base DB2 product requires. This section identifies the requirements for using these features, but does not repeat the requirements for DB2 UDB for z/OS, V8.

Recommendation: 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 backup and recovery

- z/OS V1.5
- DFSMSHsm
- DFSMSdss
- FlashCopy® V1 (FlashCopy V2 is recommended)
- RESTORE SYSTEM LOGONLY option has no dependency on z/OS V1.5

Multilevel security with row granularity

- z/OS V1.5
- z/OS V1.5 Security Server (RACF)
- RACF Access Control Module required for multilevel security on objects other than rows

Encryption and decryption functions

Built-in functions for encryption and decryption require z/OS Cryptographic Services Integrated Cryptographic Service Facility (ICSF).

Group Bufferpool (GBP) Caching z/OS

- z/OS V1.4
- Coupling Facility (CF) level 12

More secure port of entry mechanism

- z/OS V1.5

TCP/IP performance

TCP/IP performance is improved when running on z/OS V1.5

DRDA Data Stream Encryption

DRDA Data Stream Encryption can optionally use z/OS Cryptographic Services Integrated Cryptographic Services Facility (ICSF).

Managed System Infrastructure for Setup DB2 Customization Center is enabled for the IBM Managed System Infrastructure (msys). The DB2 Customization Center provides installation customization for DB2 UDB for z/OS, V8. DB2 Customization Center is available as a plug-in for msys for Setup and, therefore, requires msys for Setup, which is included with z/OS, V1.4. Msys for Setup is a base element of z/OS. The prerequisite for DB2 Customization Center is PTF OA04581. This is not a

prerequisite for installing msys. This PTF is required when running the DB2 Customization Center.

In addition, msys for Setup has three components:

- Msys workplace code, which runs on the workstation and provides the user with a Windows Explorer-style GUI to manage z/OS products. The workplace code has to be downloaded from the z/OS host.
- Msys host program which runs on a driving system that manages all installation/customization tasks.
- Msys management directory, which uses an LDAP server to store the configuration data for all msys-enabled products.

For information about installing and using msys for Setup, refer to *Managed System Infrastructure for Setup Installation* (SC33-7997).

Visual Explain is an element of the DB2 Management Clients Package, which is a feature of DB2 UDB for z/OS, V8.

Hardware requirements: Visual Explain requires:

- Workstation capable of running Windows
- Monitor capable of displaying 1024 x 768 resolution
- Approximately 100 MB of disk space
- 256 MB memory, or greater

Software requirements: Visual Explain can run in either of the following environments:

- Microsoft Windows 2000, Windows XP, or Windows NT™ V4.0 (Service Pack 6, or later)
- DB2 Connect V7.2, or later

Visual Explain includes a browser that lets you view current values of subsystem parameters. To use this browser, your DB2 for z/OS subsystem must have the DSNWZP stored procedure enabled.

Net.Data: Net.Data V7, a feature of DB2 UDB for z/OS, V8, has the following software requirements:

Net.Data requires an HTTP server to be installed on the same server as Net.Data. To configure Net.Data to execute as a servlet, the following additional product is required:

WebSphere Application Server for z/OS and OS/390 V4 (5655-F31)

DB2 QMF

DB2 QMF for TSO/CICS, DB2 QMF HPO, DB2 QMF for WebSphere, DB2 QMF for Windows, DB2 QMF for Visionary Studio, all of which are components of the DB2 QMF family.

DB2 QMF components of DB2 UDB for z/OS, V8

- **DB2 QMF for TSO/CICS**

Hardware requirements: A display station supported by Graphical Data Display Manager (GDDM®)

Software requirements: Requirements to run DB2 UDB for z/OS, V8

- **DB2 QMF High Performance Option (HPO)**

Hardware requirements: A display station that is supported by ISPF

- **DB2 QMF for WebSphere**

Hardware requirements: 230 MB hard disk space (multilingual installation)

Software requirements:

- WebSphere Application Server (WAS) 4.0, or later, on any platform supported by WAS.
- One of the following Web browsers (with JavaScript support enabled) on each user machine:
 - Microsoft Internet Explorer, V5.5, or later
 - Netscape Navigator, V6.2, or later
- Client support from one of the following DB2 products on the WebSphere Application Server machine, depending on the platform:

Platform and DB2 client	Version
DB2 UDB for z/OS	8
DB2 UDB for z/OS and OS/390	7
DB2 UDB for iSeries	5.2, 5.1
DB2 UDB for Linux, UNIX, and Windows	8.1, 7.2

DB2 QMF for WebSphere supports the following DB2 servers:

Product	Version
DB2 UDB for z/OS	8
DB2 UDB for z/OS and OS/390	7
DB2 UDB Server for OS/390	6
DB2 Server for VSE & VM	7.3, 7.2, 7.1
DB2 UDB for iSeries	5.2, 5.1
DB2 UDB for Linux, UNIX, and Windows	8.1, 7.2

The following DB2 QMF for WebSphere functions have software dependencies:

- DB2 IM Scoring functions that are performed through the DB2 QMF for WebSphere Expression Builder require the DB2 IM Scoring (V7.1) feature of DB2 UDB EE or EEE, V7.2 (5724-A60) or DB2 UDB Enterprise Server Edition, V8.1 (5724-B93).
- DB2 QMF for WebSphere OLAP support requires DB2 Cube Views, V8.1 or later, on the DB2 server that is accessed.

- **DB2 QMF for Windows**

Hardware requirements:

- DB2 QMF for Windows requires a workstation that supports:
 - A windows 32-bit operating system
 - Network connectivity
 - Approximately 70 MB of disk space (single language installation)
 - Minimum of 128 MB of RAM

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

- A TCP/IP product that provides a WinSock, V1.1 interface
- An SNA product that provides a CPI-C interface
- The DB2 UDB for Windows Runtime Client, V8.1 or V7.2
- One or more ODBC 2.x or 3.x drivers
- DB2 QMF for Windows, V8, runs on any of the following operating systems:

- Microsoft Windows 98
- Microsoft Windows ME
- Microsoft Windows NT 4.0 SP6a
- Microsoft Windows 2000
- Microsoft Windows XP
- Microsoft Windows Server 2003

DB2 QMF for Windows supports the following DB2 servers:

Product	Version
DB2 UDB Server for z/OS	8
DB2 UDB Server for z/OS and OS/390	7
DB2 UDB Server for OS/390	6
DB2 Server for VSE & VM	7.3, 7.2, 7.1
DB2 UDB for iSeries	5.1, 5.2
DB2 UDB for Linux, UNIX, and Windows	7.2, 8.1

The following DB2 QMF for Windows functions have software dependencies:

- IBM Object REXX Interpreter Edition V2.1 (5639-M69), or later, is required for the following DB2 QMF for Windows functions:
 - Procedures with logic
 - @IF REXX function
- The DB2 QMF for Windows Spatial Viewer requires DB2 Spatial Extender EE or EEE V7.2 with Fixpack 5 or DB2 Spatial Extender V8.1
- Performing DB2 IM Scoring functions via the DB2 QMF for Windows Expression Builder requires DB2 IM Scoring V7.1 feature of DB2 EE or EEE V7.2 (5724-A60) or DB2 Enterprise Server Edition V8.1 (5724-B93)
- Use of DB2 QMF for Windows with natural language queries requires English Wizard 3.1 or EasyAsk 6.0 from IBM Business Partner Linguistic Technologies
- DB2 QMF for Windows OLAP support requires DB2 Cube Views, V8.1, or later, on the DB2 server that is accessed
- Use of spreadsheet application add-ins with DB2 QMF for Windows requires one or both of:
 - Microsoft Excel 7.0, or later
 - Lotus® 1-2-3® Millennium Edition, or later
- Use of charting in spreadsheet applications with DB2 QMF for Windows requires one or both of:
 - Microsoft Excel 97, or later
 - Lotus 1-2-3 Millennium Edition, or later
- **DB2 QMF Visionary Studio:** DB2 QMF Visionary Studio has the following client software dependencies:
 - The DB2 QMF Visionary Developer package has the following minimum system requirements:
 - 64 MB of RAM
 - 30 MB of disk space (English installation only); 100 MB of disk space are required for developing Visionary worlds that include image and audio content.
 - A Pentium™ processor
 - The DB2 QMF Visionary Developer package requires one of the following operating systems:
 - Windows 98
 - Windows ME
 - Windows NT Workstation 4.0 (SP4 or later)
 - Windows NT Server 4.0 (SP4 or later)
 - Windows 2000, Professional or Server
 - Windows XP, Professional or Home Edition
 - Windows 2003 Server, all editions
 - V8 of DB2 QMF Visionary Studio supports any of the following DB2 servers:
 - DB2 UDB Server for z/OS, V8
 - DB2 UDB Server for z/OS and OS/390, V7
 - DB2 UDB Server for OS/390, V6
 - DB2 Server for VSE & VM, V 7.3, 7.2, and 7.1
 - DB2 UDB for iSeries, V5.2 and V5.1

- DB2 UDB for Linux, UNIX and Windows, V8.1 and V7.2
- In addition, the DB2 QMF Visionary Developer package requires the following software:
 - ODBC, V3.510.4202.0, or later
 - ODBC Data Source Administrator
 - DB2 UDB for Windows Runtime Client, Versions 8.1 or 7.2, for all DB2 database servers that are accessed by Visionary worlds
 - Suitable ODBC drivers for all other (non-DB2) database servers that are accessed by Visionary worlds

In addition to the supported DB2 servers, DB2 QMF Visionary Studio supports data access to the following database systems:

- Red Brick™ Decision Server, V5.1.7, and later
- Informix™ Dynamic Server 2000
- Informix Dynamic Server with Universal Data Option, V9.x, and later
- Informix Extended Parallel Server, V8.3, and later
- Informix-OnLine Dynamic Server, V7.3, and later
- Microsoft Access 2000, and later
- Microsoft SQL Server 7.0, and later
- Oracle 7, 8i, 9i, and later

Limited-use license for z/OS Application Connectivity to V8 of DB2 UDB for z/OS: The no-charge z/OS Application Connectivity to DB2 feature, a Type 4 JDBC driver, is licensed for installation and use solely on z/OS. You are authorized to use z/OS Application Connectivity to DB2 only to run an application on z/OS. The application can connect to a DB2 UDB for OS/390 and z/OS, V7 subsystem or DB2 UDB for z/OS, V8 subsystem. The subsystem must reside on a different z/OS logical partition on the same z/OS server or on a different z/OS server. You can also connect applications to a subsequent supported version of DB2 UDB for z/OS or, with limitations, V6 of DB2 UDB Server for OS/390. Authorized use does not extend to applications that run on Linux for zSeries or any other platform or operating system.

The z/OS Application Connectivity to DB2 feature can only be ordered for V7 of DB2 UDB for z/OS and OS/390 or V8 of DB2 UDB for z/OS. If you also have V6 of DB2 UDB for OS/390 in your enterprise, you can use the V7 or V8 feature to access data in V6 of DB2 UDB for OS/390, but certain technical limitations apply. For example, XA two-phase commit functionality is not supported. In addition, you cannot install this feature on your V6 system. For any other connectivity to DB2 UDB for z/OS, you must obtain a separate license from IBM for the edition of DB2 Connect that is appropriate for your environment.

z/OS Application Connectivity Software Requirements: z/OS Application Connectivity feature has a dependency on IBM JDK 1.3.1, or later, available as Java for OS/390 (5655-A46).

Limited-use license for DB2 Connect: A restricted-use copy of V8.1 of DB2 Connect Personal Edition for Windows (5724-B56) is provided in the DB2 Management Clients Package feature of V8 of DB2 UDB for z/OS. You are authorized to use this copy of DB2 Connect to enable access to DB2 UDB for z/OS data by the following workstation tools only:

- DB2 UDB Control Center
- DB2 Replication Center
- DB2 Development Center
- DB2 Command Center
- DB2 UDB for z/OS Visual Explain

For all other remote connections to DB2 UDB for z/OS that are provided through DB2 Connect, you must obtain a separate license for DB2 Connect from IBM.

Compatibility

DB2 UDB for z/OS, V8 is upwardly compatible with previous releases of DB2 for z/OS and OS/390. Migration with full fallback protection is available for customers running on DB2 UDB for z/OS, V7. Thus, existing customers should ensure they are successfully running on DB2 UDB for z/OS, V7 before migrating to DB2 UDB for z/OS, V8.

User group requirements: This announcement satisfies or partially satisfies 111 requirements from one or more of the worldwide user group communities. Groups include Australasian SHARE/GUIDE, COMMON, COMMON Europe, GUIDE International, G.U.I.D.E. Europe, Japan GUIDE/SHARE, Guide Latin American, SHARE EUROPE, and SHARE Incorporated. Requirements satisfied include:

- FR007: Add a partition
- FR035: Unbundle clustering from partitioned index
- FR045: Prior point-in-time recovery automation
- FR097: Change clustering index
- FR107: Alter table column data type
- FR116: Add a column to an existing index
- MR00023580: Alter table column data type
- MR00023584: Permit partition restructure without recreating tablespace
- MR00031810: Change clustering index
- MR00037642: Provide dynamic ZPARM update capability
- MR00037895: Use index bidirectional
- MR00037955: Ability to add a partition
- MR00039026: DB2 system parameters: dynamic reconfiguration
- MR00039330: New partition without recreate
- MR00039540: Improve performance while using indexes
- MR00039736: Increase number of partitions
- MR00039774: Support scrollable cursor
- MR00039856: Exposures in DB2 with partitioned tablespaces
- MR00039864: SQL Multi-Column Alter
- MR00045382: Explain plan information to include filter factors, flags
- MR00047350: Support add of a single partition
- MR00047377: Alter column length
- MR00047531: Rebalance, add partition
- MR00052325: ADD a partition of a partitioned tablespace
- MR00053578: GROUP BY clause numbers
- MR00054263_1: Detail package level accounting information needed
- MR00058501: SQL access to the secondary authid list

- MR00062092: Dynamic assignment of DSNZPARM
- MR00062114: Dynamic updating of DSNZPARM
- MR00063642: Key independent partitioned tables
- MR00065134_1: Make DB2 plan name available to DB2 application
- MR00065134_2: Make DB2 plan name available to DB2 application
- MR00065559: DB2 pre-processor storage allocation above 16M line
- MR00065731: SQL access to the secondary authid list
- MR00066810: DBM1 out of storage
- MR00071443: Online DB2 Catalog Migration utility (Online CATMAINT)
- MR00071443_1: Online DB2 Catalog Migration utility (Online CATMAINT)
- MR00071499: GROUP BY clause changes
- MR00071499_1: GROUP BY clause changes
- MR00071836: Allow C double predicate to be indexable with a SQL DECIMAL(p,s)
- MR00072199: Support for longer table names in UDB for OS/390
- MR00072735: Dynamic extension of the numbers of partitions
- MR00072836: Dynamic change for DSNZPARM parameters
- MR00072995: Online reorg of DB2 catalog
- MR00073178: Data availability during LPL Recovery
- MR00073493: Avoid SQL against index created with DEFER = YES
- MR00073508: Support for table and view column length 30 bytes
- MR00074015: Avoid all possible SQLCODE = -101
- MR00074022: Ability to store more archive log names in BSDS
- MR00074022_1: Ability to store more archive log names in BSDS
- MR00075063: Make more predicates indexable
- MR00075194: DBM1 out of storage due to large number of compression dictionaries
- MR00075886: Full availability during DB2 online reorg BUILD2 phase
- MR00076053: REORG DISCARD SHRLEVEL CHANGE support
- MR00076324: Trigger Difference between DB2 OS/390 and DB2 UNIX and Windows
- MR00076325: Return ROWID to application
- MR00076394: Add columns or alter data types of columns without drop
- MR011501492: DB2 preprocessor support for alternative locales and codepages
- MR0116021248: DB2 explain output restricted to table
- MR0118011917: Terminate EXISTS processing on first qualifying row
- MR0201014921: Capture high water usage for IBACK
- MR0201015056: Hung Webserver threads, RRSAF compatibility for CAF
- MR021201177: Allow DSNTEP2 to modify MAXERRORS value during runtime
- MR0212013027: Load data into DB2 similar to import function DB2 UNIX & Windows
- MR0222024838: Negative sqlcode instead of abend after alter index
- MR0223011553: Save storage in the EDM pool and statement cache
- MR0313021730: Declared temporary table usage with stored procedures
- MR0405013817: New command option for the SQLJ profile customizer, db2profc
- MR0407005986: Increase the maximum length (32767 characters) of DB2 SQL statements
- MR041001615: DB2 UDB connectivity problem for large environments
- MR0419006957: Change SYSPRINT blocking in DSNTEP2
- MR0420013649: Allowing ORDER BY clause in SELECT INTO statement
- MR0420015442: Time out mechanism for a thread stuck in allocation
- MR0421001328: Ability to do point-in-time recovery to a specified time
- MR0425002725: Trigger performance using transition tables
- MR042700326: LOAD of character delimited input data into DB2
- MR0430022143: Capability to populate catalog statistics
- MR0508015544: Allow DB2 to use striping for VSAM clusters
- MR0510011210: SQLCODE -440 instead of authority error (-551)
- MR0523016551: Control of IP address connecting to DB2
- MR052702429: LOAD delimited data from other platforms
- MR0530024159: IFCID 0063 should not be truncated at 5000 bytes
- MR0606027143: Precompiler support for left and right braces
- MR0607005936: Increase length of table and view names from 18
- MR0607006807: ALTER tablespace add partition
- MR0608024139: Longer column and table names
- MR0608024432: ALIAS names for DB2 locations
- MR060802453: More accounting counters at package level
- MR0618016536: No value returned with SQLCODE +445 in SPUFI and CHAR function used
- MR0623006928: DB2 data set placement

- MR0625013520: Authentication between DB2 for OS/390 and DB2 UDB
- MR0625016457: Signal exception to client program from SQL stored proc
- MR0627022543: Implementation of a db2rfpen type utility on z/OS platform
- MR0703022312: Stored procedures should be WLM-managed
- MR070302645: Increase 32K limit for SQL procedures
- MR0717015639: EDM Pool Error Message, no diagnostic information supplied
- MR0828002527: Occasional message indicating status of cancelled thread rollback
- MR0828003236: Tablespace scan when mismatch between host variable and DB2 column
- MR0829003556: Need SQL Limit of 455 Lines or 32670 Bytes Raised
- MR0917012917: Support GROUP BY clause with a function or expression
- MR091800551: Precompiler support of codepages other than 1047
- MR0918005817: Release write claims on cursors with hold
- MR1005003945: Addition of scalar fullselect to DB2 UDB for OS/390
- MR1017016637: Delete orphan records from SYSLGRNX
- MR1019005352: Increase maximum length of character constant
- MR1024005542: Increase DSNTEP2 buffer (MAXARRY)
- MR1029016954: DDF member routing to specific member
- MR1117002951: LOB IVPs —COBOL or PL/I
- MR112700584: QUERYNO clause for INSERT with VALUES clause is missing
- MR120302549: CREATE INDEX DEFER YES improvements
- OR1220026117: IFCID record should not be truncated at 5000 bytes

Planning information

Customer responsibilities: Review the sections in this announcement that describe the hardware and software dependencies for DB2 UDB for z/OS, V8.

DB2 UDB for z/OS, V8 supports migration from V7. Customers not yet on V7 should plan to migrate to DB2 UDB for z/OS, V7 as preparation for a migration to V8.

Migration considerations: IBM added many universal database capabilities in DB2 UDB for z/OS, V8 and reduced support for some functions. As you prepare to migrate your subsystems, you should be aware of the following changes:

- Net.Data has been stabilized in V7. WebSphere is the strategic IBM solution for delivering DB2 data to Web applications. Net.Data V7 may be ordered as a feature of DB2 UDB for z/OS, V8 to provide stability and compatibility during application transition from

Net.Data to a WebSphere Application Server environment.

- Workload Manager (WLM) managed stored procedure address spaces is the strategic solution for stored procedure support in DB2 UDB for z/OS. DB2 managed stored procedure spaces do not support all of the SQL enhancements and capabilities of DB2 UDB for z/OS, V8. Migration to WLM managed stored procedure spaces is recommended to obtain the full stored procedure capability of DB2 UDB for z/OS, V8.
- DRDA is the strategic solution for network computing support in DB2 UDB for z/OS. IBM has no plans for additional private protocol enhancements. DRDA replaces the private protocol access. Private protocol does not support stored procedures or TCP/IP, both of which are available with DB2 for OS/390, V5 and above. Private protocol also does not support network computing enhancements in Versions 6, 7, and 8. Conversion of private protocol applications to DRDA is recommended to obtain the full network computing capability of DB2 UDB for z/OS, V8.

For more detailed information on migrating to V8, refer to the *DB2 UDB for z/OS, V8 Installation Guide* (GC18-7418).

Installability: Refer to the planning sections of the following publications available from an IBM representative, as well as to the Program Directory shipped with the product:

- Release Planning Guide (SC18-7425)
- Installation Guide (GC18-7418)
- Data Sharing: Planning and Administration (SC18-7417)

Direct customer support: Direct customer support is provided by IBM Operational Support Services — Support Line. This fee service can enhance your productivity by providing voice and electronic access into the IBM support organization. IBM Operational Support Services — Support Line 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 800-IBM-4YOU (426-4968).

Packaging: The DB2 UDB for z/OS features are available on 4-mm data cartridges and 3480 cartridges.

Also included with each base or optional feature is a Program Directory, and under separate cover, one copy of the entitled publications, and other media, such as CD-ROM, as applicable.

DB2 UDB for z/OS

Title	Order number
DB2 for z/OS V8	GI10-8566
Program Directory	
DB2 Installation Guide	GC18-7418
DB2 Licensed Library CD-ROM	LK3T-7128
DB2 Messages and Codes	GC18-7422
DB2 Licensed Programming Specifications	GC18-7420

QMF Classic Edition

QMF Classic Edition	GI10-8517
Program Directory	

Machines MSU capacity	PSLC feature number	PSLC basic license MLC feature description
176 to 315	0009	PSLC Level C, 1 MSU
	0010	PSLC Level C, 10 MSUs
	0011	PSLC Level C, 50 MSUs
316 or more	0012	PSLC Level D, 1 MSU
	0013	PSLC Level D, 50 MSUs
Not applicable	0014	PSLC N/C ID

Example 1: For a single machine with 11 MSUs, the PSLC features would be:

- 0003 — quantity 1
- 0004 — quantity 8

Example 2: For two machines in a Parallel Sysplex, which have an aggregation of 60 MSUs, the PSLC features would be:

- PSLC chargeable license #1:
 - 0003 — quantity 1
 - 0005 — quantity 1
 - 0006 — quantity 5
 - 0007 — quantity 1
- PSLC no-charge license #2: 0014 — quantity 1

QMF Classic Edition

Machines MSU capacity	PSLC feature number	PSLC basic license MLC feature description
1	0142	PSLC Base, 1 MSU
	0143	PSLC Base, 2 MSUs
3	0144	PSLC Base, 3 MSUs
4 to 45	0145	PSLC Level A, 1 MSU
	0146	PSLC Level A, 42 MSUs
46 to 175	0147	PSLC Level B, 1 MSU
	0148	PSLC Level B, 10 MSUs
	0149	PSLC Level B, 50 MSUs
176 to 315	0150	PSLC Level C, 1 MSU
	0151	PSLC Level C, 10 MSUs
	0152	PSLC Level C, 50 MSUs
316 or more	0153	PSLC Level D, 1 MSU
	0154	PSLC Level D, 50 MSUs
Not applicable	0155	PSLC N/C ID

QMF Distributed Edition

1	0098	PSLC Base, 1 MSU
	0099	PSLC Base, 2 MSUs
3	0100	PSLC Base, 3 MSUs
4 to 45	0101	PSLC Level A, 1 MSU
	0102	PSLC Level A, 42 MSUs
46 to 175	0103	PSLC Level B, 1 MSU
	0104	PSLC Level B, 10 MSUs
	0105	PSLC Level B, 50 MSUs
176 to 315	0106	PSLC Level C, 1 MSU
	0107	PSLC Level C, 10 MSUs
	0108	PSLC Level C, 50 MSUs

Machines MSU capacity	PSLC feature number	PSLC basic license MLC feature description
316 or more	0109	PSLC Level D, 1 MSU
	0110	PSLC Level D, 50 MSUs
Not applicable	0111	PSLC N/C ID

QMF Enterprise Edition

1	0054	PSLC Base, 1 MSU
2	0055	PSLC Base, 2 MSUs
3	0056	PSLC Base, 3 MSUs
4 to 45	0057	PSLC Level A, 1 MSU
	0058	PSLC Level A, 42 MSUs
46 to 175	0059	PSLC Level B, 1 MSU
	0060	PSLC Level B, 10 MSUs
	0061	PSLC Level B, 50 MSUs
176 to 315	0062	PSLC Level C, 1 MSU
	0063	PSLC Level C, 10 MSUs
	0064	PSLC Level C, 50 MSUs
316 or more	0065	PSLC Level D, 1 MSU
	0066	PSLC Level D, 50 MSUs
Not applicable	0067	PSLC N/C ID

DB2 Net Search Extender V7

1	0482	PSLC Base, 1 MSU
2	0483	PSLC Base, 2 MSUs
3	0484	PSLC Base, 3 MSUs
4 to 45	0485	PSLC Level A, 1 MSU
	0486	PSLC Level A, 42 MSUs
46 to 175	0487	PSLC Level B, 1 MSU
	0488	PSLC Level B, 10 MSUs
	0489	PSLC Level B, 50 MSUs
176 to 315	0490	PSLC Level C, 1 MSU
	0491	PSLC Level C, 10 MSUs
	0492	PSLC Level C, 50 MSUs
316 or more	0493	PSLC Level D, 1 MSU
	0494	PSLC Level D, 50 MSUs
Not applicable	0495	PSLC N/C ID

Workload License Charge (WLC) basic license: To order a basic license, specify the program number and feature number 9001 for asset registration. Also, specify the feature number of the desired distribution medium.

Variable Workload License Charge (VWLC) features

DB2 UDB for z/OS, V8

		Description	VWLC feature number
		QMF Classic Edition	
Description	VWLC feature number		
Level 0 incl 3 MSU, Workload Per User Base	4100	Level 0 incl 3 MSU, Workload Per User Base	4104
Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	4101	Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	4105
Level 1 46-175 MSU, Per Usage Addl Qty Workload	0029	Level 1 46-175 MSU, Per Usage Addl Qty Workload	0161
Level 2 176-315 MSU, Per Usage Addl Qty Workload	0030	Level 2 176-315 MSU, Per Usage Addl Qty Workload	0162
Level 3 316-575 MSU, Per Usage Addl Qty Workload	0031	Level 3 316-575 MSU, Per Usage Addl Qty Workload	0163
Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0032	Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0164
Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0032	Level 4 576-875 MSU, Per Usage Addl Qty Workload	0165
Level 4 576-875 MSU, Per Usage Addl Qty Workload	0033	Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0166
Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0034	Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0167
Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0035	Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0168
Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0036	Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0168
Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0254	Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0246
Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0255	Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0247
Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0255	Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0248
Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0256	Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0249
Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0257	Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0249
		License option — Workload registration no charge	
		License option — Workload registration no charge	
Level 0 incl 1 MSU, Workload Registration Per User Base	4102	Level 0 incl 1 MSU, Workload Registration Per User Base	4106
Level 0 Up to 45 MSU, Per Usage Addl Qty Workload Regist	4103	Level 0 Up to 45 MSU, Per Usage Addl Qty Workload Regist	4107
Level 1 46-175 MSU, Per Usage Addl Qty Workload Regist	0038	Level 1 46-175 MSU, Per Usage Addl Qty Workload Regist	0170
Level 2 176-315 MSU, Per Usage Addl Qty Workload Regist	0039	Level 2 176-315 MSU, Per Usage Addl Qty Workload Regist	0171
Level 3 316-575 MSU, Per Usage Addl Qty Workload Regist	0040	Level 3 316-575 MSU, Per Usage Addl Qty Workload Regist	0172
Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload Regist	0041	Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload Regist	0173
Level 4 576-875 MSU, Per Usage Addl Qty Workload Regist	0042	Level 4 576-875 MSU, Per Usage Addl Qty Workload Regist	0174
Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload Regist	0043	Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload Regist	0175
Level 5 876-1315 MSU, Per Usage Addl Qty Workload Regist	0044	Level 5 876-1315 MSU, Per Usage Addl Qty Workload Regist	0176
Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload Regist	0045	Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload Regist	0177
Level 6 1316-1975 MSU, Per Usage Addl Qty Workload Regist	0258	Level 6 1316-1975 MSU, Per Usage Addl Qty Workload Regist	0250
Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload Regist	0259	Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload Regist	0251
Level 7 1976 MSU and up, Per Usage Addl Qty Workload Regist	0260	Level 7 1976 MSU and up, Per Usage Addl Qty Workload Regist	0252
Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload Regist	0261	Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload Regist	253

Description	VWLC feature number	Description	VWLC feature number
QMF Distributed Edition		QMF Enterprise Edition	
Level 0 incl 3 MSU, Workload Per User Base	4112	Level 0 incl 3 MSU, Workload Per User Base	4108
Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	4113	Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	4109
Level 1 46-175 MSU, Per Usage Addl Qty Workload	0117	Level 1 46-175 MSU, Per Usage Addl Qty Workload	0073
Level 2 176-315 MSU, Per Usage Addl Qty Workload	0118	Level 2 176-315 MSU, Per Usage Addl Qty Workload	0074
Level 3 316-575 MSU, Per Usage Addl Qty Workload	0119	Level 3 316-575 MSU, Per Usage Addl Qty Workload	0075
Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0120	Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0076
Level 4 576-875 MSU, Per Usage Addl Qty Workload	0121	Level 4 576-875 MSU, Per Usage Addl Qty Workload	0077
Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0122	Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0078
Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0123	Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0079
Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0124	Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0080
Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0238	Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0230
Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0239	Level 7 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0231
Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0240	Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0232
Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0241	Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0233
License option — Workload registration no charge		License option — Workload registration no charge	
Level 0 incl 1 MSU, Workload Registration Per User Base	4114	Level 0 incl 1 MSU, Workload Registration Per User Base	4110
Level 0 Up to 45 MSU, Per Usage Addl Qty Workload Regist	4115	Level 0 Up to 45 MSU, Per Usage Addl Qty Workload Regist	4111
Level 1 46-175 MSU, Per Usage Addl Qty Workload Regist	0126	Level 1 46-175 MSU, Per Usage Addl Qty Workload Regist	0082
Level 2 176-315 MSU, Per Usage Addl Qty Workload Regist	0127	Level 2 176-315 MSU, Per Usage Addl Qty Workload Regist	0083
Level 3 316-575 MSU, Per Usage Addl Qty Workload Regist	0128	Level 3 316-575 MSU, Per Usage Addl Qty Workload Regist	0084
Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload Regist	0129	Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload Regist	0085
Level 4 576-875 MSU, Per Usage Addl Qty Workload Regist	0130	Level 4 576-875 MSU, Per Usage Addl Qty Workload Regist	0086
Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload Regist	0131	Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload Regist	0087
Level 5 876-1315 MSU, Per Usage Addl Qty Workload Regist	0132	Level 5 876-1315 MSU, Per Usage Addl Qty Workload Regist	0088
Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload Regist	0133	Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload Regist	0089
Level 6 1316-1975 MSU, Per Usage Addl Qty Workload Regist	0242	Level 6 1316-1975 MSU, Per Usage Addl Qty Workload Regist	0234
Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload Regist	0243	Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload Regist	0235
Level 7 1976 MSU and up, Per Usage Addl Qty Workload Regist	0244	Level 7 1976 MSU and up, Per Usage Addl Qty Workload Regist	0236
Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload Regist	0245	Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload Regist	0237

Description	VWLC feature number
DB2 Net Search Extender V7	
Level 0 incl 3 MSU, Workload Per User Base	0496
Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	0497
Level 1 46-175 MSU, Per Usage Addl Qty Workload	0498
Level 2 176-315 MSU, Per Usage Addl Qty Workload	0499
Level 3 316-575 MSU, Per Usage Addl Qty Workload	0500
Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0501
Level 4 576-875 MSU, Per Usage Addl Qty Workload	0502
Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0503
Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0504
Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0505
Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0506
Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0507
Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0508
Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0509
License option — Workload registration no charge	
Level 0 incl 1 MSU, Workload Registration Per User Base	0510
Level 0 Up to 45 MSU, Per Usage Addl Qty Workload Regist	0511
Level 1 46-175 MSU, Per Usage Addl Qty Workload Regist	0512
Level 2 176-315 MSU, Per Usage Addl Qty Workload Regist	0513
Level 3 316-575 MSU, Per Usage Addl Qty Workload Regist	0514
Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload Regist	0515
Level 4 576-875 MSU, Per Usage Addl Qty Workload Regist	0516
Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload Regist	0517
Level 5 876-1315 MSU, Per Usage Addl Qty Workload Regist	0518
Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload Regist	0519
Level 6 1316-1975 MSU, Per Usage Addl Qty Workload Regist	0520
Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload Regist	0521
Level 7 1976 MSU and up, Per Usage Addl Qty Workload Regist	0522
Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload Regist	0523

Entry Workload License Charge (EWLC): To order EWLC software, specify the program number, feature number 9001 for asset registration, and the EWLC monthly charge feature number from the table below. Also, specify the feature number for the desired distribution medium.

DB2 UDB for z/OS, V8

Description	EWLC feature number
Level 1 incl 3 MSU, Basic Per User Base EWLC	4116
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	4117
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	4118
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	4119
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	4120
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	4121
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	4122
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	4123
Level 7 261 and up MSU, Per 50 MSU Usage Additional Qty EWLC	4148
QMF Classic Edition	
Level 1 incl 3 MSU, Basic Per User Base EWLC	4124
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	4125
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	4126
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	4127
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	4128
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	4129
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	4130
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	4131
Level 7 261 and up MSU, Per 50 MSU Usage Additional Qty EWLC	4149
QMF Distributed Edition	
Level 1 incl 3 MSU, Basic Per User Base EWLC	4140
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	4141
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	4142
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	4143
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	4144
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	4145
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	4146
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	4147
Level 7 261 and up MSU, Per 50 MSU Usage Additional Qty EWLC	4151

Description	EWLC feature number
QMF Enterprise Edition	
Level 1 incl 3 MSU, Basic Per User Base EWLC	4132
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	4133
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	4134
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	4135
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	4136
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	4137
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	4138
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	4139
Level 7 261 and up MSU, Per 50 MSU Usage Additional Qty EWLC	4150

DB2 Net Search Extender V7

Level 1 incl 3 MSU, Basic Per User Base EWLC	0534
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	0535
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	0536
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	0537
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	0538
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	0539
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	0540
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	0541
Level 7 261 and up MSU, Per 50 MSU Usage Additional Qty EWLC	0542

For DB2 UDB for z/OS, V8

S/390® and zSeries Usage Pricing (Usage License Charge) Basic License

To order a basic license, specify the appropriate program and feature number, if required, for asset registration. Specify the applicable S390 and zSeries Usage Pricing feature. Also, specify the feature number of the desired distribution medium.

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:

- Feature 1 (if usage is below 0.25 MSU)
- Feature 2 (if usage is between 0.26 and 0.50)
- Feature 3 (if usage is between 0.51 and 1.0)

- Feature 3+: (# MSUs from 2-11 times the charge associated with feature number 4) + (# MSUs from 12-44 times the charge associated with feature number 5) + (# MSUs from 45-78 times the charge associated with feature number 6) + (# MSUs above 78 times the charge associated with feature number 7 — if applicable)

Description	Usage pricing feature number
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License option — Basic monthly license charge

Up to 0.25 MSU Basic	0015
Up to 0.5 MSU Basic	0016

Value metric category — ULC above 0.5 License option — Basic monthly license charge

Level A incl 1 MSU, Basic Per User Base	0017
Level A Up to 11 MSU, Per Usage Additional Quantity	0018
Level B 12-44 MSU, Per Usage Additional Quantity	0019
Level C 45-78 MSU, Per Usage Additional Quantity	0020
Level D 79 MSU and up, Per Usage Additional Quantity	0021
Level D 79 MSU and up, Per 50 MSU Additional Quantity	0022

Value metric category — ULC above 0.5 License option — Basic monthly license charge

License option — System registration no charge

System Usage Registration	0023
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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, feature number 9001 for asset registration, and the zELC monthly charge feature number from the table below. Also, specify the feature number for the desired distribution medium.

DB2 UDB for z/OS, V8

	zELC feature number
z800 models	
0E1 — 1 engine	0262
0A1 — 1 engine	0046
0B1 — 1 engine	0047
0C1 — 1 engine	0048
0X2 — 1 engine	0263
001 — 1 engine	0049
0A2 — 2 engines	0050
002 — 2 engines	0051
003 — 3 engines	0052
004 — 4 engines	0053

QMF Classic Edition

0E1 — 1 engine	0410
0A1 — 1 engine	0178
0B1 — 1 engine	0179
0C1 — 1 engine	0180
0X2 — 1 engine	0265
001 — 1 engine	0181
0A2 — 2 engines	0182
002 — 2 engines	0183
003 — 3 engines	0184
004 — 4 engines	0185

0E1 — 1 engine	0360
0A1 — 1 engine	0134
0B1 — 1 engine	0135
0C1 — 1 engine	0136
0X2 — 1 engine	0267
001 — 1 engine	0137
0A2 — 2 engines	0138
002 — 2 engines	0139
003 — 3 engines	0140
004 — 4 engines	0141

QMF Enterprise Edition

0E1 — 1 engine	0310
0A1 — 1 engine	0090
0B1 — 1 engine	0091
0C1 — 1 engine	0092
0X2 — 1 engine	0269
001 — 1 engine	0093
0A2 — 2 engines	0094
002 — 2 engines	0095
003 — 3 engines	0096
004 — 4 engines	0097

DB2 Net Search Extender V7

0E1 — 1 engine	0524
0A1 — 1 engine	0525
0B1 — 1 engine	0526
0C1 — 1 engine	0527
0X2 — 1 engine	0528
001 — 1 engine	0529
0A2 — 2 engines	0530
002 — 2 engines	0531
003 — 3 engines	0532
004 — 4 engines	0533

z/OS Application Connectivity to DB2 for z/OS

To order this feature for the basic license, specify the program number, feature number 9001 for asset registration, and the no charge feature number from the table below. Also specify the feature number for the desired media type.

No charge feature description	No charge feature number
z/OS Application Connectivity to DB2 for z/OS	0543

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

DB2 UDB for z/OS, V8

Environment	Feature number	Distribution medium
English — U.S. U/L SBCS (ENU)	6020	3480 1/2-inch data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (ENU)	6022	4-mm data cartridge; modified; 2 GB uncompressed (variable block)
Japanese — Kanji (DBCS) (JPN)	6021	3480 1/2-inch data cartridge 34 K bpi uncompressed
Japanese — Kanji (DBCS) (JPN)	6019	4-mm data cartridge; modified; 2 GB uncompressed (variable block)

QMF Classic Edition

English — US U/L SBCS (ENU)	5950	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (ENU)	6013	4-mm data cartridge; modified; 2 GB uncompressed (variable block)
English — U.S. U/L SBCS (MUL) and DBCS	5892	3480 1/2-in data cartridge 34K bpi uncompressed
English — US U/L SBCS (MUL) and DBCS	6012	4-mm data cartridge; modified; 2 GB uncompressed (variable block)

QMF Distributed Edition

English — U.S. U/L SBCS (ENU)	6018	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (ENU)	6017	4-mm data cartridge; modified; 2 GB uncompressed

Environment	Feature number	Distribution medium
English — U.S. U/L SBCS (MUL) and DBCS	5989	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (MUL) and DBCS	6016	4-mm data cartridge; modified; 2 GB uncompressed

QMF Enterprise Edition

English — U.S. U/L SBCS (ENU)	5976	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (ENU)	6015	4-mm data cartridge; modified; 2 GB uncompressed
English — U.S. U/L SBCS (MUL) and DBCS	5963	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (MUL) and DBCS	6014	4-mm data cartridge; modified; 2 GB uncompressed

DB2 Management Clients Package

English — U.S. U/L SBCS (ENU)	6024	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (ENU)	6023	4-mm data cartridge; modified; 2 GB uncompressed
English — U.S. U/L SBCS (MUL) and DBCS	6031	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (MUL) and DBCS	6032	4-mm data cartridge; modified; 2 GB uncompressed

DB2 Net Search Extender V7

English — U.S. U/L SBCS (ENU)	6033	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (ENU)	6034	4-mm data cartridge; modified; 2 GB uncompressed
English — U.S. U/L SBCS (MUL) and DBCS	6035	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (MUL) and DBCS	6036	4-mm data cartridge; modified; 2 GB uncompressed

Environment	Feature number	Distribution medium
Net Data V7		
English — U.S. U/L SBCS (ENU)	6025	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (ENU)	6026	4-mm data cartridge; modified; 2 GB uncompressed
English — U.S. U/L SBCS (MUL) and DBCS	6029	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (MUL) and DBCS	6030	4-mm data cartridge; modified; 2 GB uncompressed

z/OS Application Connectivity to DB2 for z/OS

English — U.S. U/L SBCS (ENU)	6027	3480 1/2-in data cartridge 34K bpi uncompressed
English — U.S. U/L SBCS (ENU)	6028	4-mm data cartridge; modified; 2 GB uncompressed

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 desired 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.

Description	Feature Number
Initial shipments	
Serial number only (suppresses shipment of media and documentation)	3444
Ship media only (suppresses initial shipment of documentation)	3470
Ship documentation only (suppresses initial shipment of media)	3471
Update shipments	
Ship Media updates only (suppresses update shipment of documentation)	3480
Ship documentation only (suppresses update shipment of media)	3481
Suppress updates (suppresses update shipment of media and documentation)	3482

Description	Feature Number	Title	Order number
Expedite shipments		DB2 Universal Database for z/OS, V8	
Local IBM office expedite (for IBM use only)	3445	Administration Guide	SC18-7413
		Application Programming Guide and Reference for JAVA	SC18-7414
Customer expedite process charge (\$30 charge for each product)	3446	Application Programming & SQL Guide	SC18-7415
		Command Reference	SC18-7416
		Data Sharing: Planning and Administration	SC18-7417
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.		Installation Guide	GC18-7418
		Messages and Codes	GC18-7422
		ODBC Guide and Reference	SC18-7423
		Reference Summary	SX26-3853
		Release Planning Guide	SC18-7425
		SQL Reference	SC18-7426
		Utility Guide and Reference	SC18-7427
		What's New?	GC18-7428
		XML Extender Administration and Programming	SC18-7431

DB2 Universal Database for z/OS, V8

- Installation Guide
- Licensed Program Specifications
- Messages and Codes
- Licensed Library Collection (CD-ROM)

The following QMF publications are delivered in softcopy only. When ordering DB2 UDB for z/OS, V8, these QMF publications are included on the publication CD "DB2 UDB for z/OS, V8 Licensed Library Collection, LK3T-7128".

- Introducing DB2 QMF
- Installing and Managing DB2 QMF for TSO/CICS
- Using DB2 QMF
- DB2 QMF Reference
- DB2 QMF Messages and Codes
- Developing DB2 QMF Applications
- Installing and Managing DB2 QMF for Windows and DB2 QMF for WebSphere
- Getting Started with DB2 QMF for Windows and DB2 QMF for WebSphere
- DB2 QMF High Performance Option User's Guide for TSO/CICS
- DB2 QMF Visionary Studio Getting Started Guide
- DB2 QMF Visionary Studio Developer's Guide

The following V7 Extenders books, in softcopy format only, will be included with DB2 UDB for z/OS, V8:

DB2 Universal Database for OS/390 and z/OS, V7

- Image, Audio, and Video Extenders Administration and Programming
- Text Extender Administration and Programming
- Net Search Extender Administration Programming

The following optional publications are available for ordering immediately:

All of the publications listed above can be ordered using bill-of-forms number XBOF-7786.

The following DB2 UDB for z/OS, V8 publications will be available in softcopy format only; they cannot be ordered in hardcopy. The publications are made available on the Web at

<http://www.ibm.com/software/data/db2/os390/library.html>

- DB2 Universal Database for z/OS, V8:
- RACF Access Control Module Guide
- Reference for Remote DRDA Requesters and Servers

Information center: DB2 UDB for z/OS product information will be viewable in the DB2 Information Center for z/OS solutions. The information center is a new delivery vehicle for information about DB2 UDB for z/OS, IMS, QMF, and related tools. The information center is based on Eclipse open source technology. This center enables users to search across related product information in multiple languages for data management solutions for the z/OS environment. Product technical information is provided in a new format that will give users more options and tools for accessing, integrating, and customizing information resources.

The information center will be viewable at the following Web site within two weeks of the DB2 UDB for z/OS, V8 planned availability date:

<http://publib.boulder.ibm.com/infocenter/db2zhelp>

Licensed documentation: The following licensed material will be available from IBM by March 26, 2004. To order, contact your IBM representative. Use the feature number 8XXX to order additional copies for a fee.

Title	Order number	Feature number
DB2 Universal Database for z/OS, V8		
Diagnosis Guide and Reference	LY37-3201	8001
Diagnostic Quick Reference	LY37-3202	8002

Terms and conditions for use of the machine-readable files are shipped with the files.

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

Most product media is shipped only via Customized Offerings (CBPDO, ServerPac, Systempac®). Non-customized items (CDs, diskettes, source media, media kits) will continue to be shipped via the stand-alone product.

Terms and conditions

Agreement: IBM Customer Agreement (ICA)

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 program		Replacement program	
Program Number	Program Name	Program number	Program name
5740-XYR	DB2 V1_	5625-DB2	DB2 UDB V8
5665-DB2	DB2 V2_	5625-DB2	DB2 UDB V8
5685-DB2	DB2 V3_	5625-DB2	DB2 UDB V8
5695-DB2	DB2 V4_	5625-DB2	DB2 UDB V8
5655-DB2	DB2 V5_	5625-DB2	DB2 UDB V8
5645-DB2	DB2 V6_	5625-DB2	DB2 UDB V8
5675-DB2	DB2 V7_	5625-DB2	DB2 UDB V8
5625-DB2	DB2 V8_	To a follow-on program, if any.	

Warranty applies: Yes

Licensed program materials availability

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

Program services/support line

- Support Center applies: Yes; Access available through the IBM Support Center
- Available until discontinued: 12-months' written notice
- APAR Mailing Address:

IBM Corporation
 APAR Processing
 555 Bailey Ave.
 San Jose, CA 95141

IBM operational support services — Support line: Yes

EWLC: A revised contract (Attachment for zSeries z800 Software License Charges, Z125-6587-04) is in place for EWLC. This revised contract must be signed by the customer.

IBM Electronic Services

IBM Global Services has transformed its delivery of hardware and software support services to put you on the road to higher systems availability. IBM Electronic Services is a Web-enabled solution that provides you with an exclusive, no-additional-charge enhancement to the service and support on the IBM eServer. You should benefit from greater system availability due to faster problem resolution and preemptive monitoring. IBM Electronic Services is comprised of two separate but complementary elements: IBM Electronic Services news page and IBM Electronic Service Agent™.

IBM Electronic Services news page provides you with a single Internet entry point that replaces the multiple entry points traditionally used by customers to access IBM Internet services and support. By using the news page, it enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The IBM Electronic Service Agent is no-additional-charge software that resides on your IBM eServer system that is designed to proactively monitor events and transmit system inventory information to IBM on a periodic customer-defined timetable. The IBM Electronic Service Agent tracks system inventory, hardware error logs and performance information. If the server is under a current IBM maintenance service agreement or within the IBM Warranty period, the Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to provide proactive service that maintains higher system availability and performance. In addition, information collected through the Service Agent will be made available to IBM service support representatives when they are helping answer your questions or diagnosing problems.

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

Prices

DB2 UDB for z/OS, V8

z800 models	zELC feature number	zELC MLC ¹
0E1 — 1 engine	0262	\$ 4,794
0A1 — 1 engine	0046	5,272
0B1 — 1 engine	0047	6,468
0C1 — 1 engine	0048	7,425
0X2 — 1 engine	0263	7,618
001 — 1 engine	0049	9,817
0A2 — 2 engines	0050	13,166
002 — 2 engines	0051	15,815
003 — 3 engines	0052	18,345
004 — 4 engines	0053	20,572

QMF Classic Edition

0E1 — 1 engine	0410	1,892
0A1 — 1 engine	0178	2,056
0B1 — 1 engine	0179	2,466
0C1 — 1 engine	0180	2,794
0X2 — 1 engine	0265	3,122
001 — 1 engine	0181	3,614
0A2 — 2 engines	0182	4,762
002 — 2 engines	0183	5,662

Machines MSU capacity	PSLC feature number	PSLC basic license MLC feature description	Charge	Machines MSU capacity	PSLC feature number	PSLC basic license MLC feature description	Charge
3	0100	PSLC Base, 3 MSUs	\$2,082	4 to 45	0485	PSLC Level A, 1 MSU	\$ 19
4 to 45	0101	PSLC Level A, 1 MSU	95		0486	PSLC Level A, 42 MSUs	798
	0102	PSLC Level A, 42 MSUs	3,990	46 to 175	0487	PSLC Level B, 1 MSU	8
46 to 175	0103	PSLC Level B, 1 MSU	40		0488	PSLC Level B, 10 MSUs	80
	0104	PSLC Level B, 10 MSUs	400		0489	PSLC Level B, 50 MSUs	400
	0105	PSLC Level B, 50 MSUs	2,000	176 to 315	0490	PSLC Level C, 1 MSU	6
176 to 315	0106	PSLC Level C, 1 MSU	30		0491	PSLC Level C, 10 MSUs	60
	0107	PSLC Level C, 10 MSUs	300		0492	PSLC Level C, 50 MSUs	300
	0108	PSLC Level C, 50 MSUs	1,500	316 or more	0493	PSLC Level D, 1 MSU	5
316 or more	0109	PSLC Level D, 1 MSU	23		0494	PSLC Level D, 50 MSUs	250
	0110	PSLC Level D, 50 MSUs	1,150				

VWLC

QMF Enterprise Edition

				Description	VWLC feature number	VWLC Charge
1	0054	PSLC Base, 1 MSU	861			
2	0055	PSLC Base, 2 MSUs	1,642	DB2 UDB for z/OS, V8		
3	0056	PSLC Base, 3 MSUs	2,584	Level 0 incl 3 MSU, Workload Per User Base	4100	\$4,554
4 to 45	0057	PSLC Level A, 1 MSU	117	Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	4101	240
	0058	PSLC Level A, 42 MSUs	4,914	Level 1 46-175 MSU, Per Usage Addl Qty Workload	0029	
46 to 175	0059	PSLC Level B, 1 MSU	48	Level 2 176-315 MSU, Per Usage Addl Qty Workload	0030	84
	0060	PSLC Level B, 10 MSUs	480	Level 3 316-575 MSU, Per Usage Addl Qty Workload	0031	64
	0061	PSLC Level B, 50 MSUs	2,400	Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0032	3,200
176 to 315	0062	PSLC Level C, 1 MSU	37	Level 4 576-875 MSU, Per Usage Addl Qty Workload	0033	48
	0063	PSLC Level C, 10 MSUs	370	Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0034	2,400
	0064	PSLC Level C, 50 MSUs	1,850	Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0035	48
316 or more	0065	PSLC Level D, 1 MSU	28	Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0036	2,400
	0066	PSLC Level D, 50 MSUs	1,400	Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0254	48
				Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0255	2,400
				Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0256	48
				Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0257	2,400

DB2 Net Search Extender V7

1	0482	PSLC Base, 1 MSU	120	QMF Classic Edition		
2	0483	PSLC Base, 2 MSUs	228	Level 0 incl 3 MSU, Workload Per User Base	4104	1,810
3	0484	PSLC Base, 3 MSUs	360	Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	4105	82

Description	VWLC feature number	VWLC Charge	Description	VWLC feature number	VWLC Charge
Level 1 46-175 MSU, Per Usage Addl Qty Workload	0161	\$ 37	Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0076	\$1,550
Level 2 176-315 MSU, Per Usage Addl Qty Workload	0162	29	Level 4 576-875 MSU, Per Usage Addl Qty Workload	0077	24
Level 3 316-575 MSU, Per Usage Addl Qty Workload	0163	22	Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0078	1,200
Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0164	1,100	Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0079	24
Level 4 576-875 MSU, Per Usage Addl Qty Workload	0165	17	Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0080	1,200
Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0166	850	Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0230	24
Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0167	17	Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0231	1,000
Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0168	850	Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0232	24
Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0246	17	Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0233	1,200
Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0247	850			
Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0248	17	DB2 Net Search Extender V7		
Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0249	850	Level 0 incl 3 MSU, Workload Per User Base	0496	360
			Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	0497	19
QMF Distributed Edition			Level 1 46-175 MSU, Per Usage Addl Qty Workload	0498	9
Level 0 incl 3 MSU, Workload Per User Base	4112	2,082	Level 2 176-315 MSU, Per Usage Addl Qty Workload	0499	7
Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	4113	95	Level 3 316-575 MSU, Per Usage Addl Qty Workload	0500	6
Level 1 46-175 MSU, Per Usage Addl Qty Workload	0117	44	Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0501	300
Level 2 176-315 MSU, Per Usage Addl Qty Workload	0118	34	Level 4 576-875 MSU, Per Usage Addl Qty Workload	0502	5
Level 3 316-575 MSU, Per Usage Addl Qty Workload	0119	26	Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0503	250
Level 3 316-575 MSU, Per 50 MSU Addl Qty Workload	0120	1,300	Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0504	5
Level 4 576-875 MSU, Per Usage Addl Qty Workload	0121	20	Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0505	250
Level 4 576-875 MSU, Per 50 MSU Addl Qty Workload	0122	1,000	Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0506	5
Level 5 876-1315 MSU, Per Usage Addl Qty Workload	0123	20	Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0507	250
Level 5 876-1315 MSU, Per 50 MSU Addl Qty Workload	0124	1,000	Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0508	5
Level 6 1316-1975 MSU, Per Usage Addl Qty Workload	0238	20	Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0509	250
Level 6 1316-1975 MSU, Per 50 MSU Addl Qty Workload	0239	1,000			
Level 7 1976 MSU and up, Per Usage Addl Qty Workload	0240	20	Sub-capacity charges for VWLC products		
Level 7 1976 MSU and up, Per 50 MSU Addl Qty Workload	0241	1,000	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 four-hour average utilization used by the combination of the relevant LPARs during the reporting period. Refer to Software Announcement 200-354, dated October 3, 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.		
QMF Enterprise Edition					
Level 0 incl 3 MSU, Workload Per User Base	4108	2,584			
Level 0 Up to 45 MSU, Per Usage Addl Qty Workload	4109	117			
Level 1 46-175 MSU, Per Usage Addl Qty Workload	0073	52			
Level 2 176-315 MSU, Per Usage Addl Qty Workload	0074	41			
Level 3 316-575 MSU, Per Usage Addl Qty Workload	0075	31			

Sub-capacity charges terms and conditions

zSeries 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 a zSeries 900, 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 — Pre-ILM (Z125-6516).
- Obtain the latest version of the Sub-Capacity Reporting Tool
- Install any VWLC product and zSeries 900 Licensed Internal Code (LIC) service required for 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 in the current Workload License Charge Exhibit (Z125-6324), and on the zSeries Software Pricing Web site at

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

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 zSeries 900 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

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

Description	EWLC Feature number	EWLC charge
DB2 UDB for z/OS, V8		
Level 1 incl 3 MSU, Basic Per User Base EWLC	4116	\$4,554
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	4117	64
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	4118	228
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	4119	355
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	4120	112
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	4121	112
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	4122	84
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	4123	84
Level 7 261 and up MSU, Per 50 MSU Usage Addl Qty EWLC	4148	4,200
QMF Classic Edition		
Level 1 incl 3 MSU, Basic Per User Base EWLC	4124	1,810
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	4125	22
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	4126	78
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	4127	121
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	4128	37
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	4129	37
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	4130	29
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	4131	29
Level 7 261 and up MSU, Per 50 MSU Usage Addl Qty EWLC	4149	1,450
QMF Distributed Edition		
Level 1 incl 3 MSU, Basic Per User Base EWLC	4140	2,082
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	4141	26
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	4142	90
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	4143	140
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	4144	43
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	4145	43
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	4146	34
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	4147	34
Level 7 261 and up MSU, Per 50 MSU Usage Addl Qty EWLC	4151	1,700

Description	EWLC Feature number	EWLC charge
QMF Enterprise Edition		
Level 1 incl 3 MSU, Basic Per User Base EWLC	4132	\$2,584
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	4133	31
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	4134	111
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	4135	173
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	4136	52
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	4137	52
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	4138	41
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	4139	41
Level 7 261 and up MSU, Per 50 MSU Usage Addl Qty EWLC	4150	2,100

DB2 Net Search Extender V7

Level 1 incl 3 MSU, Basic Per User Base EWLC	0534	360
Level 1 4-17 MSU, Per Usage Additional Qty EWLC	0535	5
Level 2 18-30 MSU, Per Usage Additional Qty EWLC	0536	18
Level 3 31-45 MSU, Per Usage Additional Qty EWLC	0537	28
Level 4 46-87 MSU, Per Usage Additional Qty EWLC	0538	9
Level 5 88-175 MSU, Per Usage Additional Qty EWLC	0539	9
Level 6 176-260 MSU, Per Usage Additional Qty EWLC	0540	7
Level 7 261 and up MSU, Per Usage Additional Qty EWLC	0541	7
Level 7 261 and up MSU, Per 50 MSU Usage Addl Qty EWLC	0542	350

Usage pricing

Description	Usage pricing feature number	Charge
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DB2 UDB for z/OS, V8

License option — Basic monthly license charge

Up to 0.25 MSU Basic	0015	\$ 1,517
Up to 0.5 MSU Basic	0016	2,884

Value metric category — ULC above 0.5

License option — Basic monthly license charge

Level A incl 1 MSU, Basic Per User Base	0017	4,794
Level A Up to 11 MSU, Per Usage Additional Quantity	0018	957
Level B 12-44 MSU, Per Usage Additional Quantity	0019	405
Level C 45-78 MSU, Per Usage Additional Quantity	0020	304
Level D 79 MSU and up, Per Usage Additional Quantity	0021	228

Description	Usage pricing feature number	Charge
Level D 79 MSU and up, Per 50 MSU Additional Quantity	0022	\$11,400

License option — System registration no charge

System Usage Registration	0023	N/C
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