Compare the distributed DB2 10.5 database servers

Amyris Rada
Senior Information Developer, DB2 for Linux, UNIX, and Windows
IBM

Roman Melnyk, B.
DB2 Information Development
IBM Toronto Lab

January 2015
(First published 04 November 2013)

In a side-by-side comparison table, the authors make it easy to understand the basic licensing rules, functions, and feature differences among the members of the distributed DB2® 10.5 for Linux®, UNIX®, and Windows® server family as of June 14, 2013.

Introduction

The DB2 10.5 product family consists of six priced editions, one separately priced feature, and one no-charge package. The purpose of this article is to help you to understand the differences among them.

The article also outlines the new capabilities that are available in DB2 10.5, such as BLU Acceleration, DB2 pureScale enhancements, SQL compatibility enhancements, and simplified product packaging.

- DB2 with BLU Acceleration combines advanced, innovative capabilities to accelerate analytic workloads for databases and data warehouses. DB2 with BLU Acceleration also integrates with IBM Cognos® Business Intelligence to provide reporting and deeper analysis.
- High availability disaster recovery (HADR) support for DB2 pureScale environments, increased availability, improved workload balancing, and database restoration from DB2 pureScale instances to regular DB2 instances are among the enhancements that are introduced in DB2 10.5.
- New enhancements in SQL compatibility, such as support for large row sizes and the exclusion of NULL keys from indexes, reduce the complexity of enabling applications to run in a DB2 environment.
- Changes to product packaging increase value because more capabilities and features, such as warehouse functionality, are included in the base DB2 editions.

Easy comparison tables

To help you determine which DB2 edition and package is right for you, see the following tables for a side-by-side comparison of the following features and capabilities in the DB2 editions.

- Platform support
- Processor core limitations, memory limitations, and user data limitations
- Supported licensing options and virtualization and subcapacity licensing options
- IBM technical support
- BLU Acceleration
- DB2 pureScale® support
- High availability (HA) support, SA MP support, and High Availability Disaster Recovery (HADR) support
- DB2 Advanced Copy Services (ACS)
- Online table reorganization (REORG)
- Label-based access control (LBAC) and row and column access control (RCAC) support
- Time travel
- Multi-temperature storage
- Scan sharing
- Continuous data ingest
- DB2 workload management
- MQTs, query parallelism, MDC tables, and table (range) partitioning
- Backup compression, value compression, and archived log file compression
- Classic row compression and adaptive compression
- Connection concentrator and DB2 Connect functionality
- Federation across IBM relational databases, SQL replication, and Q replication
- pureXML, DB2 Text Search, DB2 Net Search Extender, and DB2 Spatial Extender
- JavaScript Object Notation (JSON) and Resource Description Framework (RDF) Graph Store support
- SQL compatibility
- IBM Data Studio, IBM InfoSphere Data Architect, IBM InfoSphere Optim Configuration Manager , IBM InfoSphere Optim Performance Manager, IBM InfoSphere Optim Query Workload Tuner , and IBM InfoSphere Optim pureQuery Runtime
- Administration Console, Design Studio, SQL Warehousing Tool (SQW), and documented warehousing samples
- Intelligent mining process and unstructured text analysis process, intelligent mining and visualization tools, and cubing services client and tools

Features and capabilities that are not listed in the tables are included in all of the DB2 editions.

The following table shows how the operating system support varies by DB2 edition. For the most up-to-date information, see System requirements for IBM DB2 for Linux, UNIX, and Windows.

Table 1. Platform support in DB2 editions

DB2 edition	Details

DB2 Express-C	**Linux® (x86, x64, and POWER servers), Solaris x64, and Windows® (x86 and x64)**
DB2 Express	**Linux (x64 and POWER servers), Solaris x64, and Windows x64**
DB2 Workgroup	**Linux (x64 and POWER servers), AIX, HP-UX, Solaris (SPARC and x64), and Windows x64**
DB2 Enterprise and DB2 Advanced Workgroup	**Linux (x64, POWER systems, and System z servers), AIX, HP-UX, Solaris (SPARC and x64), and Windows x64**
DB2 Advanced Enterprise	**Linux (x64, POWER systems, and System z servers), AIX, HP-UX, Solaris (SPARC and x64), and Windows x64** Linux x86 and Windows x86 are supported only in test and development environments as part of the Developer Edition.

Certain DB2 editions require that you restrict the number of cores. The following table shows the processor core limitations by DB2 edition:

Table 2. Limits in DB2 editions

DB2 edition	Details
DB2 Express-C	**2 cores** This limit is automatically enforced by the DB2 software on Windows and Linux. On Solaris x64, you must manually enforce the restriction. For example, you could install DB2 Express-C on a 4-core Windows server and the DB2 software would only use 2 cores. However, to install DB2 on a 4-core Solaris x64 server, you must use an eligible virtualization technology to restrict a virtual server to 2 cores, and then install DB2.
DB2 Express	**8 cores** As with Express-C, this limit is automatically enforced by the DB2 software on Windows and Linux. On Solaris x64, you must manually enforce the restriction by using an eligible partitioning or virtualization technology. Regardless of the platform, additional restrictions might be required depending on the license metric in effect. For details, see the virtualization or subcapacity eligibility table.
DB2 Workgroup and DB2 Advanced Workgroup	**16 cores** As with Express-C, this limit is automatically enforced by the DB2 software on Windows and Linux. On all other platforms, you must manually enforce the restriction by using an eligible partitioning or virtualization technology. Regardless of the platform, additional restrictions might be required depending on the license metric in effect. For details, see the virtualization or subcapacity eligibility table.
DB2 Enterprise and DB2 Advanced Enterprise	**The number of processor cores is unlimited.** The DB2 Enterprise Edition software uses all available cores. If licensed by PVU, ensure that you have properly licensed all cores to which DB2 has access.

Certain DB2 editions require that you restrict the amount of memory that can be made available to a DB2 instance. The following table shows the memory limits in DB2 editions:

Table 3. Memory limits in DB2 editions

DB2 edition	Details
DB2 Express-C	**16 GB per physical server or virtualization session** This limit is automatically enforced per instance by the DB2 software. In data servers with memory greater than 16 GB, you must manually enforce the 16-GB limit across all instances by using the instance memory configuration parameter.

	For example, you could install and run one instance of DB2 Express-C on a server with 32 GB of RAM and restrict the instance to use only 16 GB.
DB2 Express	**64 GB** This limit is automatically enforced per instance by the DB2 software. If multiple instances are running on the same physical or virtual server, you must manually enforce this limit across all instances.
DB2 Workgroup	**128 GB** This limit is automatically enforced per instance by the DB2 software. If multiple instances are running on the same physical or virtual server, you must manually enforce this limit across all instances. There is a maximum limit of 4 processor sockets.
DB2 Advanced Workgroup	**For AUSI and PVU licenses, 128 GB.** The number of processor sockets is not limited. **For TB licenses, no restrictions on memory.** However, there is a maximum limit of 4 processor sockets.
DB2 Enterprise and DB2 Advanced Enterprise	**No restrictions on the memory available to DB2 instances**

Certain DB2 editions restrict the amount of user data in a database. The following table shows the user-data limitations for such editions:

Table 4. User-data limits in DB2 editions

DB2 edition	Details
DB2 Express-C	**15 TB of user data per database**
DB2 Express	**15 TB of user data per database under all charge metrics**
DB2 Workgroup	**15 TB of user data per database under all charge metrics**
DB2 Enterprise	**Unlimited amount of user data per database**
DB2 Advanced Workgroup	**15 TB of user data per database** DB2 Advanced Workgroup includes a script that calculates the amount of user data.
DB2 Advanced Enterprise	**Unlimited amount of user data per database** DB2 Advanced Enterprise includes a script that calculates the amount of user data.

Different DB2 editions support different licensing methods. The following table shows these differences:

Table 5. Licensing options by DB2 editions

DB2 edition	Details
DB2 Express-C	**Not applicable** DB2 Express-C is a complimentary DB2 package.
DB2 Express	**PVU, AUSI, FTL, or LUVS license**. The FTL and LUVS license options often provide the most cost-effective way to license DB2 Express. • The PVU license allows an unlimited number of users to access a DB2 Express server. This license is based on the PVU rating of the physical or virtual server on which DB2 Express is installed. • The AUSI license allows access to a DB2 Express server on a per-user, per-installation basis. With this licensing option, you have to buy an AUSI license for each user who connects to a specific DB2 Express server. You must purchase a minimum

	of 5 AUSI licenses per physical or virtual server on which DB2 Express is installed. • The FTL license allows unlimited user access to a DB2 Express server and includes a support contract for one year. You just buy an FTL license for every physical or virtual server on which DB2 Express is installed. If you have 5 servers, you need 5 licenses. It's that easy. • The LUVS license is procured in the same manner as the FTL license: on a per-server basis. The difference between an FTL license and an LUVS license is that the FTL license is a subscription (you are leasing the software), and the LUVS license is a perpetual license (you own the software). The LUVS license also allows an unlimited number of users to access the DB2 Express server.
DB2 Workgroup	**PVU, AUSI, or LU SOCKET license**. The SOCKET license can provide the most value compared to other licensing options. • The PVU license allows an unlimited number of users to access a DB2 Workgroup server. It's licensed in the same manner as the DB2 Express PVU license. • The AUSI license allows access to a DB2 Workgroup server on a per-user, per-installation basis and has the same minimum licensing requirements as the DB2 Express AUSI license. • The LU SOCKET license allows unlimited access to a DB2 Workgroup server. One LU SOCKET license is required for each socket on the physical or virtual server to which DB2 Workgroup has access. For example, if you have an unpartitioned four-socket four-core server that is rated at 1920 PVUs, you would need four LU SOCKET licenses. Comparing the cost of four DB2 Workgroup LU SOCKET licenses to licensing 1920 PVUs shows why the LU SOCKET license delivers the best value on powerful servers.
DB2 Enterprise	**PVU or AUSI license** • The PVU license allows an unlimited number of users to access a DB2 Enterprise server. You have to buy the number of PVUs that matches the PVU rating of the physical or virtual server on which DB2 Enterprise is installed. • The AUSI license is licensed in the same manner as the DB2 Workgroup AUSI license. The minimum number of AUSI licenses that you need for a DB2 Enterprise server is 25 per 100 PVUs for the server on which this edition is installed.
DB2 Advanced Workgroup and DB2 Advanced Enterprise	**PVU, AUSI, or TB license** • The PVU license allows an unlimited number of users to access a DB2 server with a DB2 advanced edition. You have to buy the number of PVUs that matches the PVU rating of the physical or virtual server on which DB2 advanced edition is installed. • The AUSI license is licensed in the same manner as the DB2 Enterprise AUSI license. The minimum number of AUSI licenses is 25 per 100 PVUs for the DB2 server on which this edition is installed. • The Terabyte (TB) license provides a license by the terabyte of user data (rounded up to the nearest terabyte), as reported by the script that is provided with the DB2 advanced editions. You must also calculate the required TB licenses on a per database basis. This licensing metric is intended for use with predominantly warehouse workloads. For that reason, you are required to either use database partitioning with at least two active database partitions or maintain at least 75% of your user data in BLU Acceleration column-organized tables.

Different licensing models, platforms, and virtualization technologies (for example, LPAR, DLPAR, VMware) have different prerequisites for a DB2 edition or package in a virtualized or subcapacity

environment. For details about the rules that govern PVU, LUVS, or LU SOCKET licenses, see the Subcapacity Licensing Guide.

Table 6. Virtualization and subcapacity licensing by DB2 edition

DB2 edition	Details
DB2 Express-C	**Yes. You can deploy DB2 Express-C servers in a virtualized environment by using** supported virtualization software. For example, if you have an 8-core server, you might install DB2 Express-C in four different virtualization sessions that are assigned two cores and 64 GB of RAM each. For more details, see processor core limitations or memory limitations.
DB2 Express	**Yes. The same DB2 license and resource limitations apply to each virtual session.** If you are installing DB2 Express on Windows or Linux operating systems, the number of cores per partition or virtual server doesn't matter as DB2 Express automatically uses up to 8 cores in total per virtual server. However, if you are installing DB2 Express on Solaris x64, you must use an eligible virtualization technology to limit the virtual servers to only 8 processor cores. If you are using AUSI, FTL, or LUVS licenses, the number of cores per partition or virtual server doesn't matter because these licensing metrics aren't based on cores. However, if you are using PVU licenses, then in addition to the resource restrictions outlined earlier, you must also use an eligible virtualization technology to restrict each virtual server to meet all resource limitations. For example, if you install DB2 Express in four VMware sessions on the same server and use AUSI licenses, you need a minimum of five AUSI licenses for each session. If a single user wants to access the software in all four partitions, that user needs four AUSI licenses. Another example: For an unpartitioned 20-core Linux x64 server, you could install DB2 Express licensed under the LUVS metric, but if the software is licensed under the PVU metric, you would need to use partitioning or virtualization to restrict each virtual server to at most 8 cores and 64 GB of RAM per virtual server.
DB2 Workgroup	**Yes. The same DB2 license and resource limitations apply to each virtual session.** If you are using AUSI licenses, you don't need to worry about subcapacity licensing because this licensing metric isn't based on cores. If you are using PVU or LU SOCKET licenses, then in addition to the resource restrictions outlined earlier, you must use an eligible virtualization technology to restrict each virtual server to meet all resource limitations. For example, if you install DB2 Workgroup licensed under the PVU or LU SOCKET metric on an unpartitioned 64-core Linux x64 server, you must use partitioning or virtualization to restrict DB2 to at most 16 cores and 128 GB of RAM per virtual server.
DB2 Advanced Workgroup	**Yes. The same DB2 license and resource limitations apply to each virtual session.** If you are using AUSI licenses, you don't need to worry about subcapacity licensing because this licensing metric isn't based on cores. If you are using PVU or TB licenses, then in addition to the resource restrictions outlined earlier, you must use an eligible virtualization technology to restrict each virtual server to meet all resource limitations. For example, if you install DB2 Advanced Workgroup in a virtualized session and use AUSI licenses, you need the minimum of 25 AUSI licenses per 100 PVUs. If you install DB2 Advanced Workgroup licensed under the PVU or TB metric in an unpartitioned 64-core Linux x64 server, you must use partitioning or virtualization to restrict DB2 to at most 16 cores and 128 GB of RAM per virtual server.
DB2 Enterprise **DB2 Advanced Enterprise**	**Yes. The same DB2 license and resource limitations apply to each virtual session.** Although DB2 Enterprise has no resource limits, some licensing metrics require a minimum number of licenses.

	For example, if you install DB2 Enterprise or DB2 Advanced Enterprise in a virtualized session and use an AUSI license, you need the minimum of 25 AUSI licenses per 100 PVUs. If a single user wants to access the software in four different partitions, that user needs four AUSI licenses.

The following table shows the different options for technical support by DB2 edition:

Table 7. IBM technical support by DB2 edition

DB2 edition	Details
DB2 Express-C	**DB2 Express-C does not include IBM support.** DB2 Express-C does not have a predefined maintenance schedule, and there is only one version of DB2 Express-C available at any time. In other words, the moment a new version of DB2 Express-C is released, the previously available version is removed from the download site. For community-based assistance, ask questions in the DB2 Express-C forum. This forum is a place where you can share ideas and solutions. DB2 Express-C can be easily upgraded to DB2 Express for a low-cost support subscription.
DB2 Express **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included** IBM's legendary 24x7 direct-to-engineer support model with set maintenance streams for fixes and additional features is included. For more information, see IBM DB2 support portal.

The following table shows the support of BLU Acceleration by DB2 edition:

Table 8. BLU Acceleration support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise**	**Not available**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included** DB2 10.5 advanced editions include columnar capabilities in DB2 databases, such as storing data with column organization (column-organized tables) and vector processing of column-organized data. For more information, see Column-organized tables.

The following table shows the support for DB2 pureScale by DB2 edition:

Table 9. DB2 pureScale support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise**	**Not available**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included only with PVU and AUSI licences** For DB2 Advanced Workgroup, use of DB2 pureScale is further restricted to a total of 16 processor cores and four sockets across all members in the cluster, excluding caching facility (CF) servers. DB2 pureScale enables you to transparently scale OLTP clusters without application changes while at the same time maintaining the

	highest availability levels on distributed platforms. For more information, see Introduction to the IBM DB2 pureScale Feature.

The following table shows the licensing options for high availability (HA) environments by DB2 edition:

Table 10. HA support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available** You cannot use HA clustering software of any kind to cluster DB2 Express-C servers for HA. For example, availability clustering through Microsoft Clustering Services, SteeleEye, or even the built-in DB2 HA clustering facilities are not available with DB2 Express-C.
DB2 Express **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Available** For information on how to license DB2 servers in an HA environment, see Licensing distributed DB2 Version 10.5 servers in a high availability configuration.

The following tables shows which DB2 editions include usage rights for the DB2 integrated cluster manager software that is provided by IBM Tivoli® System Automation for Multiplatforms (SA MP):

Table 11. Usage rights for SA MP by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available** DB2 Express-C isn't eligible for HA clustering of any kind.
DB2 Express **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included** For more information, see IBM Tivoli System Automation for Multiplatforms (SA MP) base component.

The following table shows the High Availability Disaster Recovery (HADR) support by DB2 edition:

Table 12. HADR support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available** You cannot use HA clustering software of any kind to cluster DB2 Express-C servers for HA. For example, availability clustering through Microsoft Clustering Services, SteeleEye, or even the built-in DB2 HA clustering facilities is not allowed with DB2 Express-C.
DB2 Express **DB2 Workgroup** **DB2 Enterprise**	**Included** DB2 HADR is a technology that provides turnkey high availability with optional read on standby and disaster recovery support for DB2 databases in nonpartitioned database or non-pureScale environments. DB2 HADR supports up to three standby servers. For more information about DB2 HADR, see High availability disaster recovery (HADR). For more information about licensing, see Licensing distributed DB2 10.5 servers in a high availability environment.
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included** DB2 HADR is not available with TB licensing.

The following table shows the DB2 Advanced Copy Services (ACS) support by DB2 edition:

Table 13. DB2 ACS support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**
DB2 Express **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included** With DB2 ACS, you can leverage the fast copy technology of supported storage devices to perform the data copy part of backup and restore operations. Being able to use the storage device to perform the data copy phase makes backup and restore operations run much faster. For more information, see DB2 Advanced Copy Services (ACS).

Online (sometimes referred to as *inplace*) table reorganization enables you to reorganize a table while having full access to that table. For more information, see Inplace (online) table reorganization. The following table shows the Online table reorganization (REORG) support by DB2 edition:

Table 14. Online REORG support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**
DB2 Express **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

You can use row and column access control to restrict the data that a particular user can access. This functionality is ideal for implementing multi-tenant databases. For more information, see Row and column access control (RCAC) overview. The following table shows the Row and column access control (RCAC) support by DB2 edition:

Table 15. RCAC support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**
DB2 Express **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

Label-based access control (LBAC) is a technology for implementing security policies based on clearance hierarchies. For more information, see Label-based access control (LBAC) overview. The following table shows the LBAC support by DB2 edition:

Table 16. LBAC support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**

DB2 Express **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

Time travel query provides SQL-level support for temporal data and queries against that data. With this feature, you can easily see what data looked like at some point in the past or what it will look like at some point in the future. For more information, see Time Travel Query using temporal tables. The following table shows the Time travel query support by DB2 edition:

Table 17. Time travel query by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

Multi-temperature storage enables you to distribute data across different storage devices according to data usage patterns. This capability will help you to get the best performance from your storage investment. For example, the most commonly accessed ("hot") data could be stored on fast SSD, whereas infrequently accessed ("cold") data could be stored on slow SATA drives. For more information, see Data management using multi-temperature storage.
Multi-temperature data can be managed in combination with DB2 workload management to enable workload prioritization based on storage temperature. The following table shows the multi-temperature storage support by DB2 edition:

Table 18. Multi-temperature storage by DB2 edition

DB2 edition	Details	
Multi-temperature storage	**DB2 Express-C** **DB2 Express** **DB2 Workgroup**	**Not available**
	DB2 Enterprise **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

Scan sharing enables specific scanners to exploit the work being done by another scanner and avoid repeated I/O cycles for the same pages. Scan sharing is primarily a data warehousing feature. Examples of work that can use shared scans include disk page reads, disk seeks, buffer pool content reuse, decompression, and so on. For more information, see Scan sharing. The following table shows the Scan sharing support by DB2 edition:

Table 19. Scan sharing support by DB2 edition

DB2 edition	Details	
Scan sharing support	**DB2 Express-C** **DB2 Express** **DB2 Workgroup**	**Not available**

	DB2 Enterprise **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

Continuous data ingest is a client-side utility that enables you to "trickle feed" data that is being read from a file or pipe into a data warehouse without locking tables or otherwise affecting performance. For more information, see Ingest utility. The following table shows the continuous data ingest support by DB2 edition:

Table 20. Continuous data ingest by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise**	**Not available**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included**

DB2 workload management makes it possible to throttle or accelerate workloads based on business priorities. This feature is ideal for data warehouses and operational data stores, mixed workload environments in which you want to prevent high priority work from being slowed down by less important work running concurrently. For more information, see Introduction to DB2 workload management concepts. The following table shows the DB2 workload management support by DB2 edition:

Table 21. DB2 workload management by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup**	**Not available**
DB2 Enterprise	**Partially included** You can monitor your system using DB2 workload management, but you cannot change the priorities of your workloads.
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included**

Materialized query tables (MQTs), query parallelism, and multidimensional clustering (MDC) table are primarily data warehousing capabilities that improve the performance of complex queries. For more information about MQTs, see Improving query optimization with materialized query tables. For more information about query parallelism, see Parallelism. For more information about MDC tables, see Multidimensional clustering tables. The following table shows the complex query support by DB2 edition:

Table 22. Complex query support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**

DB2 Express **DB2 Workgroup**	
DB2 Enterprise **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

Table partitioning (also known as *range partitioning*) enables you to store ranges of values from a single table in different data partitions for easier table maintenance and index management. For more information, see Table partitioning. The following table shows the table partitioning support by DB2 edition:

Table 23. Table partitioning by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express**	**Not available**
DB2 Workgroup **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

DB2 compression capabilities include backup compression, value compression, and archived log file compression. For more information about backup compression, see Backup compression. For more information about value compression, see Value compression. For more information about archived log file compression, see Archived log file compression. The following table shows the support of these compression capabilities by DB2 edition:

Table 24. DB2 compression support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

Classic row and adaptive compression capabilities compresses tables, indexes, temporary tables, XML XDA, and more. DB2 row compression can cut storage costs by up to 10-fold and can improve performance at the same time. For more information, see Row compression. The following table shows the row compression support DB2 edition:

Table 25. Row compression support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise**	**Not available**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included**

Connection concentrator reduces the resources required on DB2 connect and DB2® for z/OS® database servers to support large numbers of workstation and web users. For more information, see Connection concentrator. The following table shows the Connection concentrator support by DB2 edition:

Table 26. Connection concentrator support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup**	**Not available**
DB2 Enterprise **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

The following table shows the DB2 Connect support by DB2 edition:

Table 27. DB2 Connect support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Not included** This functionality is available through purchasable licenses for any DB2 Connect edition.

The following table shows the support for Federation across IBM relational databases (DB2 on all platforms and Informix®) and through MQ and Web Services by DB2 edition:

Table 28. Federation support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup**	**Includes homogeneous federation** *Homogeneous federation* enables you to perform distributed joins and updates across different IBM relational databases. For example, in a single SELECT statement, you could perform a three-way join of data from tables that reside in Informix for AIX, DB2 for Linux, and DB2 for Windows databases. For more information, see Supported data sources. Federation to DB2 for z/OS and DB2 for System i requires the purchase of DB2 Connect at a minimum.
DB2 Enterprise **DB2 Advanced Workgroup**	**Includes federation to Oracle databases** These editions also include federation to Oracle databases by using only the SQL Warehousing (SQW) tool. Federation to DB2 for z/OS and DB2 for System i requires the purchase of DB2 Connect at a minimum.
DB2 Advanced Enterprise	**Includes full federation to Oracle databases and other data sources** Federation to DB2 for z/OS and DB2 for System i requires the purchase of DB2 Connect at a minimum.

The following table shows the SQL replication support by DB2 edition:

Table 29. SQL replication by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**
DB2 Express **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included** Support is provided for SQL-based replication to the DB2 family. SQL replication replicates data to one or more targets using SQL statements. For more information, see SQL replication. DB2 for z/OS and DB2 for System i require the purchase of DB2 Connect at a minimum.

The following table shows the Q Replication support by DB2 edition:

Table 30. Q Replication by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise**	**Not available**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included** These DB2 editions include restricted use of Q replication functionality to replicate data to a maximum of three DB2 for Linux, UNIX, and Windows servers in active-active environments. Q-replication uses message queue technology to provide high performance replication services to one or more target servers. For more information, see Q Replication.

The pureXML capability enables you to store and manage XML data easily and without sacrificing performance or searchability. For more information, see pureXML overview. The following table shows the pureXML support by DB2 edition:

Table 31. pureXML support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

DB2 Text Search enables you to search text columns that are stored in a DB2 table. For more information, see DB2 Text Search
DB2 Text Search replaces the deprecated DB2 Net Search Extender function. To learn the difference between them, see DB2 Text Search and the Net Search Extender comparison. The following table shows the DB2 Text Search and DB2 Net Search Extender support by DB2 edition:

Table 32. DB2 Text Search and DB2 Net Search Extender support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Included**

DB2 Express **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advance Enterprise**	

DB2 Spatial Extender enables you to include spatial attributes, such as distance, in queries. For more information, see DB2 Spatial Extender. The following table shows the DB2 Spatial Extender support by DB2 edition:

Table 33. DB2 Spatial Extender support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

DB2 JavaScript Object Notation (JSON) provides a Java API, a command line interface, and a wire listener feature to manage and query JSON documents that are stored in a DB2 database through a JSON-oriented query language. For more information, see JSON application development for IBM data servers. The following table shows the DB2 JSON support by DB2 edition:

Table 34. DB2 JSON support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

Resource Description Framework (RDF) enables you to preserve the relationships among subject, predicate, and object data triplets, so that you can easily run queries that are based on the relationships within and among triplets by using the SPARQL query language. For more information, see RDF application development for IBM data servers. The following table shows the RDF support by DB2 edition:

Table 35. RDF support by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

All DB2 editions have the DB2 compatibility feature set for Oracle, which includes PL/SQL, SQL*Plus, Oracle database concurrency, data types, and more. These capabilities help reduce the

complexity of migrating Oracle applications to DB2. The following table shows the support for easy migration from Oracle by DB2 edition:

Table 36. SQL compatibility by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

IBM Data Studio provides an integrated environment for database development and administration for DB2, Informix, and Oracle databases. For more information, see IBM Data Studio. The following table shows the IBM Data Studio support by DB2 edition:

Table 37. IBM Data Studio support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Available as a separate download**
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise** **DB2 Advanced Workgroup** **DB2 Advanced Enterprise**	**Included**

IBM InfoSphere Data Architect helps you to model, integrate, and standardize data across your organization. For more information, see IBM InfoSphere Data Architect. The following table shows the IBM InfoSphere Data Architect support by DB2 edition:

Table 38. IBM InfoSphere Data Architect support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**
DB2 Express **DB2 Workgroup** **DB2 Enterprise**	**Available as a separately purchased product**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included** This tool is restricted to 10 authorized users, except in the case of AUSI licensing, which includes only one authorized user.

IBM InfoSphere Optim Configuration Manager (OCM) offers centralized management of database and client configuration. For more information, see IBM InfoSphere Optim Configuration Manager. The following table shows the OCM support by DB2 edition:

Table 39. OCM support by DB2 edition

DB2 edition	Details

DB2 Express-C	**Not available**
DB2 Express **DB2 Workgroup** **DB2 Enterprise**	**Available as a separately purchased product**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included**

IBM InfoSphere Optim Performance Manager (OPM) provides a comprehensive and proactive performance management solution for database applications. For more details, see IBM InfoSphere Optim Performance Manager. The following table shows the OPM support by DB2 edition:

Table 40. OPM support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**
DB2 Express **DB2 Workgroup** **DB2 Enterprise**	**Available as a separately purchased product**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included** Includes OPM and Extended Insight through OPM Extended Edition. For more information about Extended Insight, see IBM InfoSphere Optim Performance Manager Extended Insight.

IBM InfoSphere Optim Query Workload Tuner provides time-saving and expert advice through a graphical user interface to help you quickly maximize query performance. For more information, see IBM InfoSphere Optim Query Workload Tuner for DB2 for Linux, UNIX, and Windows. The following table shows the InfoSphere Optim Query Workload Tuner support by DB2 edition:

Table 41. InfoSphere Optim Query Workload Tuner support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**
DB2 Express **DB2 Workgroup** **DB2 Enterprise**	**Available as a separately purchased product**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included**

IBM InfoSphere Optim pureQuery Runtime enables you to transparently replace dynamic JDBC with static JDBC to improve performance and security. For more information, see IBM InfoSphere Optim pureQuery Runtime. The following table shows the InfoSphere Optim pureQuery Runtime support by DB2 edition:

Table 42. InfoSphere Optim pureQuery Runtime support by DB2 edition

DB2 edition	Details
DB2 Express-C	**Not available**

DB2 Express DB2 Workgroup DB2 Enterprise	**Available as a separately purchased product**
DB2 Advanced Workgroup DB2 Advanced Enterprise	**Included**

Certain DB2 editions include Administration Console, Design Studio, SQL Warehousing Tool (SQW), and documented warehousing samples. For more information about the administration console, see Administering data warehouse applications.
For more information about Design Studio and SQW, see Designing data warehousing applications. The following table shows the support for these warehousing capabilities by DB2 edition:

Table 43. Warehousing capabilities by DB2 edition

DB2 edition	Details
DB2 Express-C DB2 Express DB2 Workgroup	**Not available**
DB2 Enterprise DB2 Advanced Workgroup DB2 Advanced Enterprise	**Included**

DB2 advanced editions include warehousing functionality. For more information, see Components of DB2 Warehouse. The following table shows the support for Intelligent mining process and unstructured text analysis process by DB2 edition:

Table 44. Intelligent mining support by DB2 edition

DB2 edition	Details	
Intelligent mining process and unstructured text analysis process	**DB2 Express-C DB2 Express DB2 Workgroup DB2 Enterprise**	**Not available**
	DB2 Advanced Workgroup DB2 Advanced Enterprise	**Included**

Certain DB2 editions include intelligent mining and visualization tools. For more information, see Intelligent Miner. The following table shows the support for intelligent mining and visualization tools by DB2 edition:

Table 45. Intelligent mining and visualization tools by DB2 edition

DB2 edition	Details
DB2 Express-C DB2 Express DB2 Workgroup DB2 Enterprise	**Not available**
DB2 Advanced Workgroup DB2 Advanced Enterprise	**Included**

Certain DB2 editions include cubing services client and tools. For more information, see OLAP and cubing. The following table shows the support for cubing services client and tools by DB2 edition:

Table 46. Cubing services client and tools by DB2 edition

DB2 edition	Details
DB2 Express-C **DB2 Express** **DB2 Workgroup** **DB2 Enterprise**	**Not available**
DB2 Advanced Workgroup **DB2 Advanced Enterprise**	**Included**

For more information about the different DB2 editions, read "Which distributed edition of DB2 10.5 is right for you?"

That's all for now

Different businesses have different needs. But all businesses need cost-effective, robust, and scalable solutions. The different DB2 editions and packages enable you to pick the DB2 features that are right for you, without sacrificing core strengths. Rest assured that whatever edition or package you choose, future decisions will not be limited if you need to scale or extend the power of DB2: just upgrade the license key.

Packaging is an ever-changing landscape, so we suggest that you refer back to this article periodically, taking note of revision dates.

Resources

Learn

- Read "Which distributed edition of DB2 10.5 is right for you?" for the details on what makes each edition of DB2 for Linux, UNIX, and Windows unique.
- Check out "Licensing distributed DB2 10.5 data servers in a high availability environment" and ensure that you're correctly licensing your DB2 for Linux, UNIX, and Windows data servers in a high-availability environment.
- Learn about DB2 Express-C, the no-charge version of DB2 Express Edition for the community.
- Learn more about Information Management at the developerWorks Information Management zone. Find technical resources, how-to articles, education, downloads, product information, community, forums, and more.
- Stay current with developerWorks technical events and webcasts.
- Follow developerWorks on Twitter.

Get products and technologies

- Now you can use DB2 for free. Download DB2 Express-C, a no-charge version of DB2 Express Server Edition for the community that offers the same core data features as DB2 Express Server Edition and provides a solid base to build and deploy applications.
- Build your next development project with IBM software for evaluation, available for download from developerWorks.

Discuss

- Check out the developerWorks blogs and get involved in the developerWorks community.

About the authors

Amyris Rada

Amyris Rada is a senior writer with the DB2 for Linux, UNIX, and Windows product team at the IBM Canada Lab in Markham, Ontario. She has been part of the DB2 team since 1998, and has held different positions in partner enablement, quality assurance, and information development. Amyris is a computer engineer (Simon Bolivar University), currently responsible for several content areas for the DB2 online documentation, and collaboration with DB2 best practices development. She recently co-authored DB2 editions: Which distributed edition of DB2 10.5 is right for you? and DB2 10.1 for Linux, UNIX, and Windows DBA certification exam 611 prep, Part 1: Server management. Before working for IBM, Amyris worked at KL Group and INTERGRAPH.

Roman Melnyk, B.

Roman B. Melnyk, Ph.D., is a senior member of the DB2 Information Development team. Roman edited *DB2 10.5 with BLU Acceleration: New Dynamic In-Memory Analytics for the Era of Big Data* (McGraw-Hill, 2013), *Harness the Power of Big Data: The IBM Big Data Platform* (McGraw-Hill, 2013), *Warp Speed, Time Travel, Big Data, and More: DB2 10 for Linux, UNIX, and Windows New Features* (McGraw-Hill, 2012), and *Apache Derby - Off to the Races* (Pearson Education, 2006). Roman co-authored *DB2 Version 8: The Official Guide* (Prentice Hall Professional Technical Reference, 2003), *DB2: The Complete Reference* (Osborne/McGraw-Hill, 2001), *DB2 Fundamentals Certification for Dummies* (Hungry Minds, 2001), and *DB2 for Dummies* (IDG Books, 2000).