IBM InfoSphere Data Replication for DB2 for z/OS, V11.4.0 improves support for zero-data-loss continuous availability and delivers performance enhancements

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At a glance

IBM\textsuperscript{R} InfoSphere\textsuperscript{R} Data Replication for DB2\textsuperscript{R} for z/OS\textsuperscript{R}, V11.4.0 offers the following enhancements and capabilities:

- Q Capture can use DB2 for z/OS proxy log to deploy a zero-data-loss active-active disaster recovery solution in a Geographically Dispersed Parallel Sysplex\textsuperscript{TM} (GDPS\textsuperscript{R}) Active/Active Solution environment.
- Q Replication V11.4.0 introduces a continuous enhancement delivery model, providing rapid delivery of new functionality without dependence on formal version upgrades while also protecting a user's ability to control the deployment of any specific enhancement.
- Change Data Capture (CDC), Q Replication, and SQL Replication support DB2 for z/OS, V12.
- CDC minimized network load support improves performance.
- CDC supports multiple simultaneous refreshes through the use of the DB2 load utility.
- CDC can retry on most instrumentation facility interface (IFI) decompression errors for a better user experience.
- CDC enables use of an ONTABLEERROR parameter to idle tables on error so replication can keep going on unaffected tables.

Overview

InfoSphere Data Replication for DB2 for z/OS, V11.4.0 provides a single offering to address a wide variety of data replication requirements, including continuous data availability (whether local or remote), dynamic data integration with traditional data warehousing, newer big data initiatives, and replication, to support database upgrades or migrations.

Key features of version 11.4.0 include:

- Scalable, high-volume, low-latency replication of DB2 for z/OS data with transactional integrity between DB2 subsystems, and when used with IBM Data Replication (additional entitlement required) on a Linux\textsuperscript{TM}, Unix, or Microsoft\textsuperscript{TM} Windows\textsuperscript{TM} platform.
- Distributed Relational database management systems (RDBMS) such as DB2, Oracle, and MS SQL Server
- Big data targets such as Hadoop (through the use of WebHDFS), Kafka, and IBM Pure Data for Analytics
- Distributed applications and tools such as IBM Information Server DataStage® and IBM InfoSphere Master Data Management
- Cloud targets such as DashDB, Cloudant®), and various RDBMSs running on IBM and third-party cloud platforms
  - Support of most DB2 for z/OS data types (including XML and Large Objects), DB2 Temporal Table support and archive table support, and Load from Cursor for fast load of target tables
  - Designed for IBM System z® with System Modification Program/Extended (SMP/E) install, Automatic Restart Manager (ARM) registration, and Resource Access Control Facility (RACF®) support
  - Log-based, CDC to minimize impact on source applications and database performance
  - Easy transmission of changed data to extract, load, and transform tools such as InfoSphere DataStage
  - Support for a wide array of topologies, including one-way and two-way data distribution solutions between a central master site and numerous remote locations
  - Robust conflict detection and resolution options to support data changes made to multiple databases through bidirectional usage
  - Built-in compare utilities for determining data differences between sources and targets
  - Consolidation of data from many sources into a single target
  - Live audit and consistent change data tables for a comprehensive audit trail of source changes
  - Transformation of changed data while replicating
  - Historical data for tuning and service level agreement compliance
  - GUIs, a full-featured command-line processor and APIs to simplify replication configuration and operational management
  - Web-based health and performance monitoring

**Key prerequisites**

For details, refer to the Hardware requirements and Software requirements sections.

**Planned availability date**

February 24, 2017

**Description**

**Accessibility by people with disabilities**

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be found on the IBM Accessibility website.

**Value Unit-based pricing**

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

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

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

For each z Systems IPLA program with Value Unit pricing, you should:
- Determine the required license capacity, in MSUs.
- Aggregate the MSUs across the enterprise.
- Convert the total MSUs to Value Units, using the applicable Value Unit Exhibit.
- Multiply the price per Value Unit by the total number of Value Units to determine the total cost.

To simplify conversion from the designated measurement to Value Units or vice-versa, use the Value Unit Converter Tool. For additional information or to obtain a copy of the Value Unit Converter Tool, visit the Value Unit Converter Tool, go to the IBM System z Software Pricing website.

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

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

**Product positioning**

IBM InfoSphere Data Replication for DB2 for z/OS is integrated into the IBM Information Integration and Governance software portfolio. The intended audience for this product includes:

- Any organization that needs to provide an active-active database solution for DB2 for z/OS.
- Customers who need accurate and frequent sales and customer reports to make good operational decisions regarding pricing, merchandising, and inventory management. This is enabled through consolidation of key business data from diverse operational systems into a centralized data warehouse in near real time.
- Organizations that build operational data stores, data lakes, or data hubs for enterprise information consumers based on everything from a traditional RDBMS to a big data Hadoop or Kafka cluster.
- Enterprises that require more business visibility through granular data changes in near real-time business intelligence.
- Organizations that want increased responsiveness to business events and the ability to capitalize on upcoming business opportunities through event detection.
- Retailers who want to sell in stores, over the web, and by phone, and who need consistent up-to-date information that is accessible to all three channels. For example, ensuring that wedding registry purchases are not duplicated and that
customers can inquire over the phone or on the web about product availability and the status of orders completed through other channels.

- Public companies that need to do consolidated financial reporting across a range of transactional systems in different regions, departments, or business units.
- Companies that need to migrate data from an incompatible Enterprise Resource Planning (ERP) application of an acquired company into their own ERP application, or between incompatible versions of an ERP application.
- Shipping companies that want customers to be able to access near real-time shipment information on their website while significantly reducing the impact on the mission-critical logistics systems they use to help ensure efficient, continuous operations.
- Government agencies that want to provide public access to up-to-date information on criminal proceedings on the internet but cannot risk letting users directly access sensitive information on offenders.
- Financial services companies that need to flow data from legacy financial systems on mainframes into systems on open platforms to support internet-based communications, statement processing, and other applications more efficiently with minimal impact to key legacy systems.
- Health insurers who need to offload queries, reports, and backups to avoid impacting performance and user response times on their claims processing systems that are essential for operations.

### Program number

<table>
<thead>
<tr>
<th>Program number</th>
<th>VRM</th>
<th>Program name</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-DRQ</td>
<td>11.4.0</td>
<td>IBM InfoSphere Data Replication for DB2 for z/OS</td>
</tr>
<tr>
<td>5655-DRS</td>
<td></td>
<td>IBM InfoSphere Data Replication for DB2 for z/OS S&amp;S</td>
</tr>
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</table>

### Product identification number

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

### Business Partner information

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

BP Attachment for Announcement Letter 217-016

### Education support

IBM training provides education to support many IBM offerings. Descriptions of courses for IT professionals and managers can be found on IBM authorized training website.

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

### Offering Information

Product information is available on the IBM Offering Information website.
Publications

No publications are shipped with these products.

Complete documentation for the Q Replication, SQL Replication, and CDC Replication technologies in InfoSphere Data Replication for DB2 for z/OS, V11.4.0 can be found in IBM Knowledge Center.

You can also download the following PDF documents from IBM Publications Center website:

- Replication and Event Publishing Guide and Reference Version 11.4 (SC-193637-03)
- ASNCLP Program Reference for Replication and Event Publishing Version 11.4 (SC19319501)

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided. A large number of publications are available online in various file formats, and they can all be downloaded by all countries.

Services

Software Services

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

To learn more about IBM Software Services, contact your Lab Services Sales or Delivery Leader.

Technical information

Specified operating environment

Hardware requirements

The hardware requirements can be found on the System requirements for IBM Data Replication Version 11.4 website.

Software requirements

The software requirements can be found on the System requirements for IBM Data Replication Version 11.4 website.

For Q Replication, WebSphereMQ for z/OS, V8.0, or later, is required. A restricted-use license of WebSphere MQ V9.0 is included at no additional charge.

Limitations

Additional information can be found in the License Information documents found on the IBM Software License Agreement website.

IBM Electronic Support
The IBM Support Portal is your gateway to technical support. This includes IBM Electronic Support tools and resources, for software and hardware, to help save time and simplify support. The Electronic Support tools can help you find answers to questions, download fixes, troubleshoot, automate data collection, submit and track problems through the Service Request online tool, and build skills. All these tools are made available through your IBM support agreement. Read about the Electronic Support portfolio of tools on the IBM Electronic Support website.

You can also access the IBM Support Portal page and the online Service requests and PMRs tool for more support.

Planning information

Packaging

InfoSphere Data Replication for DB2 for z/OS, V11.4.0 is distributed with the following components:

- InfoSphere Data Replication for DB2 for z/OS, V11.4 Tape
- WebSphere MQ for z/OS, V9.0
- Management Console and Access Server V11.4 CD
- Replication Installation and Customization Guide for z/OS
- DB2 Connect™ Enterprise Edition V10.5
- InfoSphere Data Replication for DB2 for z/OS, V11.4 License CD
- InfoSphere Data Replication for DB2 for z/OS, V11.4 Program Directory

Direct customer support

Direct customer support is provided by IBM Operational Support Services - SoftwareXcel. This fee service enhances your productivity by providing voice and electronic access into the IBM support organization. IBM Operational Support Services answer questions pertaining to usage and suspected software defects for eligible products. Installation and technical support is provided by Global Services. For more information call 800-IBM-4YOU (426-4968).

For technical support or assistance, contact your IBM representative or go to the IBM Support Portal website.

Security, auditability, and control

InfoSphere Data Replication for DB2 for z/OS, V11.4.0 uses the security and auditability features of the host hardware or software.

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

Ordering information

The programs in this announcement all have Value Unit-Based pricing.

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
<th>Value Unit exhibit</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-DRQ</td>
<td>IBM InfoSphere Data Replication for DB2 for z/OS</td>
<td>VUE007</td>
</tr>
<tr>
<td>5655-DRS</td>
<td>IBM InfoSphere Data Replication for DB2 for z/OS S&amp;S</td>
<td>VUE007</td>
</tr>
</tbody>
</table>

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

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

**Value Unit exhibit VUE007**

<table>
<thead>
<tr>
<th>Tier</th>
<th>MSUs minimum</th>
<th>MSUs maximum</th>
<th>Value Units/MSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Tier A</td>
<td>4</td>
<td>45</td>
<td>0.45</td>
</tr>
<tr>
<td>Tier B</td>
<td>46</td>
<td>175</td>
<td>0.36</td>
</tr>
<tr>
<td>Tier C</td>
<td>176</td>
<td>315</td>
<td>0.27</td>
</tr>
<tr>
<td>Tier D</td>
<td>316</td>
<td>+</td>
<td>0.20</td>
</tr>
</tbody>
</table>

**Ordering example**

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

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

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

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

**Ordering z/OS through the internet**

Shopz provides an easy way to plan and order your z/OS ServerPac or CBPDO. It will analyze your current installation, determine the correct product migration, and present your new configuration based on z/OS. Additional products can also be added to your order (including determination of whether all product requisites are satisfied). For more details and availability, go to the Shopz website.

**Charge metric**

<table>
<thead>
<tr>
<th>Program name</th>
<th>Part number or PID number</th>
<th>Charge metric</th>
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<tbody>
<tr>
<td>IBM InfoSphere Data Replication for DB2 for z/OS</td>
<td>5655-DRQ</td>
<td>Value Unit</td>
</tr>
<tr>
<td>IBM InfoSphere Data Replication for DB2 for z/OS S&amp;S</td>
<td>5655-DRS</td>
<td>Value Unit</td>
</tr>
</tbody>
</table>

**Basic license**

**On/Off CoD**

InfoSphere Data Replication for DB2 for z/OS, V11.4.0 is eligible for On/Off CoD with a temporary use charge calculated based on MSUs per-day usage.
To order, specify the program product number and the appropriate license or charge option. Also, specify the desired distribution medium. To suppress shipment of media, select the license-only option in CFSW.

Program name: InfoSphere Data Replication for DB2 for z/OS, V11.4.0

Program PID: 5655-DRQ

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License option/Pricing metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>S017PMD</td>
<td>InfoSphere Data Replication for DB2 for z/OS</td>
<td>Basic OTC, Per Value Unit, Per MSU-day TUC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Orderable supply ID</th>
<th>Description</th>
<th>Language</th>
<th>Distribution medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>S017PM9</td>
<td>Data Rep Q &amp; SQL Rep InfoSphere</td>
<td>Multilingual</td>
<td>1/2 Inch Data Cartridge -IBM 3590 - 30 GB - 128 Track</td>
</tr>
<tr>
<td>S017PMB</td>
<td>Info Data Rep WebS MQ</td>
<td>Multilingual</td>
<td>1/2 Inch Data Cartridge -IBM 3590 - 30 GB - 128 Track</td>
</tr>
<tr>
<td>S017PMC</td>
<td>Data Replication CDC</td>
<td>Multilingual</td>
<td>1/2 Inch Data Cartridge -IBM 3590 - 30 GB - 128 Track</td>
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</tbody>
</table>

Subscription and Support PID: 5655-DRS

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License option/Pricing metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>S016SJR</td>
<td>InfoSphere Data Rep z/OS S&amp;S</td>
<td>Basic ASC, per Value Unit SW S&amp;S</td>
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</table>

<table>
<thead>
<tr>
<th>Orderable supply ID</th>
<th>Description</th>
<th>Language</th>
<th>Distribution medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>S016SJN</td>
<td>Data Rep Q &amp; SQL Rep S&amp;S</td>
<td>Multilingual</td>
<td>Paper</td>
</tr>
</tbody>
</table>

Subscription and Support

To receive voice technical support via telephone and future releases and versions at no additional charge, Subscription and Support must be ordered. The capacity of Subscription and Support (Value Units) must be the same as the capacity ordered for the product licenses.

To order, specify the Subscription and Support program number (PID) referenced above and the appropriate license or charge option.

IBM is also providing Subscription and Support for these products via a separately purchased offering under the terms of the IBM International Agreement for Acquisition of Software Maintenance. This offering:

- Includes and extends the support services provided in the base support to include technical support via telephone.
- Entitles you to future releases and versions, at no additional charge. Note that you are not entitled to new products.
When Subscription and Support is ordered, the charges will automatically renew annually unless canceled by you.

The combined effect of the IPLA license and the Agreement for Acquisition of Software Maintenance gives you rights and support services comparable to those under the traditional ICA S/390® and z Systems license or its equivalent. To ensure that you continue to enjoy the level of support you are used to in the ICA business model, you must order both the license for the program and the support for the selected programs at the same Value Unit quantities.

**Customized Offerings**

Product deliverables are shipped only through CBPDO and ServerPac. These customized offerings are offered for internet delivery in countries where Shopz product ordering is available. Internet delivery reduces software delivery time and allows you to install software without the need to handle tapes. For more details on Internet delivery, go to the Help section on the Shopz website.

You choose the delivery method when you order the software. IBM recommends internet delivery. In addition to internet and DVD, the supported tape delivery options include:

- 3590
- 3592

Most products can be ordered in ServerPac the month following their availability in CBPDO. z/OS can be ordered through CBPDO and ServerPac at general availability. Many products will also be orderable in a Product ServerPac without also having to order the z/OS operating system or subsystem.

Shopz and CFSW will determine the eligibility based on product requisite checking. For more details on the product ServerPac, go to the Help section on the Shopz website.

For additional information about the Product ServerPac option, refer to Software Announcement 212-272, dated July 31, 2012.

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

- CBPDO shipments will begin one week after general availability.
- ServerPac shipments will begin four weeks after general availability.

**Terms and conditions**

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

**Licensing**

IBM International Program License Agreement including the License Information document and Proof of Entitlement (PoE) govern your use of the program. PoEs are required for all authorized use.

**Agreement for Acquisition of Software Maintenance**

The following agreement applies for Software Subscription and Support (Software Maintenance) and does not require customer signatures:
• IBM Agreement for Acquisition of Software Maintenance (Z125-6011)

These programs are licensed under the IBM Program License Agreement (IPLA) and the associated Agreement for Acquisition of Software Maintenance, which provide for support with ongoing access to releases and versions of the program. These programs have a one-time license charge for use of the program and an annual renewable charge for the enhanced support that includes telephone assistance (voice support for defects during normal business hours), as well as access to updates, releases, and versions of the program as long as support is in effect. IBM z Systems Operational Support Services - SoftwareXcel is an option if you desire added services.

**License Information number**

L-SORS-AEWK4P

See the [License Information documents](#) page on the IBM Software License Agreement website for more information.

**Limited warranty applies**

Yes

**Limited warranty**

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

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

IBM will maintain this information for at least one year after the original licensee acquires the program (warranty period).

**Program technical support**

Technical support of a program product version or release will be available for a minimum of five years from the general availability date, as long as your Software Subscription and Support (also referred to as Software Maintenance) is in effect.

This technical support allows you to obtain assistance (by telephone or electronic means) from IBM for product-specific, task-oriented questions regarding the installation and operation of the program product. Software Subscription and Support (Software Maintenance) also provides you with access to updates (modifications or fixes), releases, and versions of the program. You will be notified, through an announcement letter, of discontinuance of support with 12 months’ notice. If you require additional technical support from IBM, including an extension of support beyond the discontinuance date, contact your IBM representative or IBM Business Partner. This extension may be available for a fee.

For additional information on the IBM Software Support Lifecycle Policy, see the [IBM Software Support Lifecycle Policy](#) website.

**Program support**

Subscription and Support includes telephone assistance, as well as access to updates, releases, and versions of the program as long as support is in effect. You will be notified of discontinuance of support with 12 months' notice.
Money-back guarantee

If for any reason you are dissatisfied with the program and you are the original licensee, you may obtain a refund of the amount you paid for it, if within 30 days of your invoice date you return the program and its PoE to the party from whom you obtained it. If you downloaded the program, you may contact the party from whom you acquired it for instructions on how to obtain the refund.

For clarification, note that for programs acquired under any of IBM's On/Off Capacity on Demand (On/Off CoD) software offerings, this term does not apply since these offerings apply to programs already acquired and in use by you.

Volume orders (IVO)

No

Passport Advantage applies

No

Usage restriction

Yes

See the License Information documents page on the IBM Software License Agreement website for more information.

Software Subscription and Support applies

Yes. During the Software Subscription and Support period, for the unmodified portion of a program, and to the extent problems can be recreated in the specified operating environment, IBM will provide the following:

- Defect correction information, a restriction, or a bypass.
- Program updates: Periodic releases of collections of code corrections, fixes, functional enhancements and new versions and releases to the program and documentation.
- Technical assistance: A reasonable amount of remote assistance by telephone or electronically to address suspected program defects. Technical assistance is available from the IBM support center in the organization’s geography.

Additional details regarding Technical Assistance, which includes IBM contact information, are provided in the IBM Software Support Handbook.

Software Subscription and Support does not include assistance for:

- The design and development of applications.
- Your use of programs in other than their specified operating environment.
- Failures caused by products for which IBM is not responsible under the IBM Agreement for Acquisition of Software Maintenance.

Software Subscription and Support is provided only if the program is within its support timeframe as specified in the Software Support Lifecycle policy for the program.

For operating system software, the revised IBM Operational Support Services - SoftwareXcel offering will provide support for those operating systems and associated products that are not available with the Software Subscription and Support (Software Maintenance) offering.
This will ensure total support coverage for your enterprise needs, including IBM and selected non-IBM products. For complete lists of products supported under both the current and revised offering, go to the Supported product list website.

**IBM Operational Support Services - SoftwareXcel**

Yes

**System i Software Maintenance applies**

No

**Variable charges apply**

No

**Educational allowance available**

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

**Sub-capacity terms and conditions**

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

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

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

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
<th>Terms</th>
<th>Parent, if applicable</th>
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<tbody>
<tr>
<td>5655-DRQ</td>
<td>IBM InfoSphere Data Replication for DB2 for z/OS</td>
<td>Referenced -</td>
<td>5605-DB2, 5615-DB2, 5697-P31</td>
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<tr>
<td>5655-DRS</td>
<td>IBM InfoSphere Data Replication for DB2 for z/OS</td>
<td>S&amp;S</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Full-capacity mainframes**

In cases where full capacity is applicable, the following terms apply.

Execution based, z/OS based, full machine based: The required capacity of a z Systems IPLA program with these terms equals the MSU-rated capacity of the machines where the z Systems IPLA program executes.

For more information on mainframe MSU-rated capacities, go to the IBM System z Software Contracts website.

Reference based: The required license capacity of a z Systems IPLA program with these terms equals the license capacity of the applicable monthly license charge (MLC) program. This MLC program is called the parent program.

**Sub-capacity mainframes**
In cases where sub-capacity is applicable, the following terms apply.

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

z/OS based: The required license capacity of a z Systems IPLA program with these terms equals the license capacity of z/OS on the machines where the z Systems IPLA program executes.

Reference based: The required license capacity of a z Systems IPLA program with these terms equals the license capacity of the applicable monthly license charge (MLC) program. This MLC program is called the parent program.

Full machine based: The required license capacity of a z Systems IPLA program with full machine based terms equals the MSU-rated capacity of the machines where the z Systems IPLA program executes.

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

For additional information for products with reference-based terms, z Systems IPLA sub-capacity programs with reference-based terms adds value to the parent program across the environment, regardless of where in the environment the z Systems IPLA program executes.

An environment is defined as either a single or stand-alone machine or a qualified Parallel Sysplex\(^	ext{R}\). You may have one or more different environments across the enterprise. To determine the required license capacity for each z Systems IPLA program with referenced-based terms, each environment should be assessed separately.

When a z Systems IPLA sub-capacity program with reference-based terms is used in a qualified Parallel Sysplex environment, the required license capacity of the z Systems IPLA program must equal with the license capacity of the parent program across the Parallel Sysplex. Qualified Parallel Sysplex refers to one:

- Where MLC pricing is aggregated across the sysplex.

**Sub-capacity eligibility**

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

- All instances of the OS/390\(^	ext{R}\) operating system must be migrated to the z/OS operating systems.
- Any licenses for the OS/390 operating system must be discontinued.
- All instances of the z/OS operating systems must be running in z/Architecture\(^	ext{R}\) (64-bit) mode.

For that machine, you must create and submit a Sub-Capacity Report to IBM each month. Sub-Capacity Reports must be generated using the Sub-Capacity Reporting Tool (SCRT). For additional information or to obtain a copy of SCRT, go to the IBM System z Software Pricing website.

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

- The complete terms and conditions of sub-capacity WLC are defined in the IBM Customer Agreement - Attachment for z Systems Workload License Charges (Z125-6516).
• The complete terms and conditions for sub-capacity EWLC are defined in the IBM Customer Agreement - Attachment for EWLC, TWLC, zELC, and z/OS.e License Charges (Z125-6587).

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

**On/Off CoD**

To be eligible for On/Off CoD pricing, you must be enabled for temporary capacity on the corresponding hardware, and the required contract, Attachment for IBM z Systems On/Off Capacity on Demand (Z125-7883) must be signed prior to use.

**Statement of good security practices**

IT system security involves protecting systems and information through prevention, detection, and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, or misappropriated or can result in misuse of your systems to attack others. Without a comprehensive approach to security, no IT system or product should be considered completely secure and no single product or security measure can be completely effective in preventing improper access. IBM systems and products are designed to be part of a lawful, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective.

**Important:** IBM does not warrant that any systems, products, or services are immune from, or will make your enterprise immune from, the malicious or illegal conduct of any party.

**IBM Electronic Services**

Electronic Service Agent™ and the IBM Electronic Support web portal are dedicated to providing fast, exceptional support to organizations that have IBM Systems. The IBM Electronic Service Agent tool is a no-additional-charge tool that proactively monitors and reports hardware events, such as system errors, performance issues, and inventory. The Electronic Service Agent tool can help you stay focused on your company’s strategic business initiatives, save time, and spend less effort managing day-to-day IT maintenance issues. Servers enabled with this tool can be monitored remotely around the clock by IBM Support, all at no additional cost to you.

Now integrated into the base operating system of AIX® V5.3, AIX V6.1, and AIX V7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu, simply type smitty esa_main, and select Configure Electronic Service Agent. In addition, ESA now includes a powerful web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, go to the [IBM Electronic Support](https://www.ibm.com) website.

The IBM Electronic Support portal is a single internet entry point that replaces the multiple entry points traditionally used to access IBM internet services and support. This portal enables you to gain easier access to IBM resources for assistance in resolving technical problems. The My Systems and Premium Search functions make
it even easier for organizations that are Electronic Service Agent tool-enabled to track system inventory and find pertinent fixes.

Benefits

**Increased uptime:** The Electronic Service Agent™ tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the symptoms, diagnosing the error, and manually calling IBM Support to open a problem record. Its 24 x 7 monitoring and reporting mean human intervention is not required to report errors.

**Security:** The Electronic Service Agent tool is designed to be secure in monitoring, reporting, and storing the data at IBM. The Electronic Service Agent tool is designed to securely transmit either through the internet (HTTPS or VPN) or modem to provide organizations a single point of exit from their site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into an organization’s system.

For additional information, go to the IBM Electronic Service Agent website.

**More accurate reporting:** Because system information and error logs are automatically uploaded to the IBM Support Center in conjunction with the service request, you are not required to find and send system information, decreasing the risk of misreported or misdiagnosed errors. Once inside IBM, problem error data is run through a data knowledge management system and knowledge articles are appended to the problem record.

**Customized support:** Using the IBMid entered during activation, you can view system and support information in the My Systems and Premium Search sections of the IBM Electronic Support page.

My Systems provides valuable reports of installed hardware and software using information collected from the systems by Electronic Service Agent. Reports are available for any system associated with your IBMid. Premium Search combines the function of search and the value of Electronic Service Agent information, providing advanced search of the technical support knowledgebase. Using Premium Search and the Electronic Service Agent information that has been collected from your system, you are able to see search results that apply specifically to your systems.

For more information on how to utilize the power of IBM Electronic Services, contact your IBM Systems Services Representative, or go to the IBM Electronic Support website.

Prices

**Program name: InfoSphere Data Replication for DB2 for z/OS, V11.4.0**

**Program PID: 5655-DRQ**

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**Subscription and Support PID: 5655-DRS**

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