New and enhanced IBM IMS tools help you manage database environments

Overview
DB2® and IMS™ tools help enhance the performance of IMS and DB2 Universal Database® (UDB) for z/OS®. They support the newest versions of the databases when they are available, making it easier to migrate from version to version. Increased focus is on common interfaces, cross-tool integration, and testing with the same criteria used for the databases.

All IMS tools support IMS V9.

• Refer to IMS Software Announcement 204-211, dated September 21, 2004.
• To view a complete list of IMS tools, visit http://www.ibm.com/software/data/db2imstools

One new and six enhanced versions of IMS tools offer many innovative features to assist database administrators (DBAs) and system programmers in managing all aspects of IMS database environments.

New
IMS Parameter Manager for z/OS

Enhanced
• IMS Database Repair Facility for z/OS, V1.2
• IMS High Performance Fast Path Utilities for z/OS, V2
• IMS High Performance Image Copy for z/OS, V3.2
• IMS High Performance Load for z/OS, V2
• IMS High Performance Prefix Resolution for z/OS, V3
• IMS Parallel Reorganization for z/OS, V3

On/Off Capacity on Demand (On/Off CoD) charging is available for three previously announced IMS tools:

• IMS Database Recovery Facility for z/OS, V2 (5655-I44)
• IMS Multi-Dialong Manager for z/OS (5697-H91)
• IMS Problem Investigator for z/OS (5655-K50)


Key prerequisites
Any hardware configuration that supports the required versions of DB2 and IMS. Refer to the Hardware requirements and Software requirements sections.

Planned availability dates
• September 24, 2004:
  - IMS High Performance Fast Path Utilities for z/OS, V2
  - IMS Parameter Manager for z/OS

• November 5, 2004:
  - IMS Database Repair Facility for z/OS, V1.2
  - IMS High Performance Image Copy for z/OS, V3.2
  - IMS High Performance Load for z/OS, V2
  - IMS High Performance Prefix Resolution for z/OS, V3
  - IMS Parallel Reorganization for z/OS, V3

On/Off Capacity on Demand (On/Off CoD) charging is available for three previously announced IMS tools.

At a glance
New and enhanced IMS tools support IMS V9 and offer additional functions in these areas:

• Database administration:
  - IMS Database Repair Facility for z/OS, V1.2
  - IMS Parameter Manager for z/OS

• Recovery management: IMS High Performance Image Copy for z/OS, 3.2

• Utilities management:
  - IMS High Performance Fast Path Utilities for z/OS, V2
  - IMS High Performance Load for z/OS, V2
  - IMS High Performance Prefix Resolution for z/OS, V3
  - IMS Parallel Reorganization for z/OS, V3

For ordering, contact:
Your IBM representative, an IBM Business Partner, or the Americas Call Centers at 800-IBM-CALL
Reference: LE001

This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: http://www.ibm.com.
**Description**

IBM offers more than 70 tools that feature common interfaces and cross-tool integration, tested under the same configurations and workloads as the databases they support. As we enter the era of autonomic computing, DB2 and IMS Tools will become increasingly self-managed in terms of dynamically monitoring and managing data, and taking responsibility for decision making and initiating action.

To view the list of DB2 and IMS tools, visit [http://www.ibm.com/software/data/db2imstools](http://www.ibm.com/software/data/db2imstools)

**Database administration**

**IMS Database Repair Facility for z/OS, V1.2 (5655-E03)** enables you to view and change IMS databases. It can be run in interactive or batch mode:

- **In interactive mode:**
  - You can view entire blocks of data or individual IMS segments. When viewing segments, you can navigate to other segments via the display of pointers.
  - Any changes you make are tracked and they can be undone.

- **In batch mode:**
  - You can dump blocks from the data set or submit changes to the block data.
  - You cannot undo changes.

**IMS Database Repair Facility for z/OS, V1.2** provides:

- All maintenance supplied for IMS Database Repair Facility for z/OS, V1.1
- PSINDEX records that offer more details than the previous release
- Support for OSAM data sets in batch mode
- Logging database changes to a file that can be used as the SYSIN to IMS Database Repair Facility batch mode
- Help panel support

**IMS Parameter Manager for z/OS (5655-L69)** is an IMS administration tool to control the specification and maintenance of IMS parameter library members. New enhancements simplify parameter management and provide increased levels of parameter control.

These functions and services include:

- Support for the 19 IMS startup parameter members
- Parameter specification by way of ISPF panels or integrated ISPF editor
- Extensive online help and parameter descriptions
- Parameter syntax and value checking
- Automatic parameter card construction
- Previous version histories
- View of active (current) parameter members by IMS system
- Automatic backup member creation
- Parameter member conversion to new IMS versions

**IMS Parameter Manager** introduces an ISPF dialog:

- To manage the specification of parameter settings. The dialog employs a "fill-in-the-blanks" approach to parameter management. Full parameter value and syntax checking is performed, along with parameter value prompting, default values display, extensive online help, and automatic parameter card construction. The IMS Parameter Manager ISPF dialog is immediately operable with existing IMS PROCLIB data sets. There is no requirement to convert or import parameter members in order to use IMS Parameter Manager for z/OS.

- That supports two views for managing the IMS parameter members:
  - The Proclib Data Set view supports the traditional method of displaying member lists from the IMS PROCLIB data set.
  - The IMS system view is a more powerful alternative to displaying parameter members. The IMS administrator views only those parameter members that are currently in use for an IMS system. The other members are automatically suppressed from the display. The IMS administrator can focus on the current parameter members and their settings. An option enables the administrator to drill down to view the other parameter members that are not in use.

From either the Proclib Data Set view or the IMS system view, you can edit individual parameter members using either IMS Parameter Manager ISPF parameter display panels or integrated standard ISPF editor support. The IMS administrator can toggle between display formats, making online help, brief descriptions, and default value notes only a keystroke away when using the ISPF editor. Regardless of the display mode selected, IMS Parameter Manager parameter-member services apply, including parameter syntax and value checking.

**IMS Parameter Manager** for z/OS automatically collects previous version histories for parameter members altered through the ISPF dialog. IMS administrators can view, compare, edit, or restore a previous version of a parameter member by using the ISPF dialog.

**IMS Parameter Manager** can optionally copy parameter members into backup members immediately prior to applying changes. The IMS administrator can develop a backup member strategy to be used in conjunction with an alternate IMS startup procedure or command.

The **IMS Parameter Manager ISPF** dialog includes facilities to assist IMS software version migration. IMS Parameter Manager supports IMS V7, or later, and recognizes the differences between IMS versions. By using the online displays, you can edit or copy parameter members from one IMS version to another. Defunct parameters for the old IMS version are automatically removed and new mandatory parameters for the upgraded IMS version are inserted and assigned their default values where applicable. New optional parameters for the upgraded IMS version appear on the parameter maintenance panels, with notification prompts to the IMS administrator on the initial editing of the upgraded parameter member.

**Recovery management**

**IMS High Performance Image Copy for z/OS, V3.2** (5655-K96) enables you to run the image copy function with the hash checking of IMS High Performance Pointer Checker for z/OS, V2 (5655-K53) under the control of IMS Parallel Reorganization for z/OS, V3 (5655-M28). As a result, you can reduce the run time of the reorganization process for an IMS full-function database.
New features and functions include:

- Image copy of the reorganized database within the IMS Parallel Reorganization step:
  - Enables a major reduction in run time of the reorganization process for a full-function database
  - Checks the accuracy of an image copy
  - Supports processes in parallel within an IMS Parallel Reorganization
- Optional parameter for controlling the secondary image copy data set

**Utilities management**

**IMS High Performance Fast Path Utilities for z/OS, V2 (5655-K94)** includes all the features available in:

- IMS Fast Path Basic Tools for z/OS, V1.2 (5655-E30):
  - DEDB Pointer Checker is a fast and efficient mechanism for verifying the integrity of all IMS pointer values, free space element chains, VSAM control fields, and space utilization in IMS data entry databases (DEDBs). It also supplies the comprehensive analysis information required to effectively manage the space utilization, performance characteristics, and physical attributes of an IMS DEDB.
  - DEDB Tuning Aid is an extension of the DEDB Pointer Checker. It supports evaluation of the potential benefits or impacts of changes to an existing DEDB without a time-consuming unload and reload of the database.
  - DEDB Unload/Reload is a set of high-performance utilities for efficiently unloading and reloading or reorganizing DEDBs.
- IMS Fast Path Online Tools for z/OS, V2 (5655-F78):
  - DEDB Online Pointer Checker runs as a fast path utility to collect pointer verification data from a DEDB area while that area is online and being updated by users. The collected data can then be passed to report-generating programs that are part of the batch DEDB Pointer Checker package.
  - DEDB Online Data Extract extracts segment data from an online DEDB area and writes the output to a sequential file.
  - DEDB Online Area Extender lets you extend the size of the DEDB area dynamically without taking the DEDB area offline. By providing an alternative to taking the DEDB offline, this utility is extremely helpful in environments where database availability is crucial.
- The new High Performance Fast Path Reorganization Tool component provides:
  - JCL ease of use
  - Determination of utility use based on control statements
  - Dynamic allocation of databases
  - Dynamic allocation of sort work data sets
  - Support for making DEDBs available to IMS after reloading
  - Single SYSIN DD statement
  - SYSIN: Nonpositional control statement
  - Support for multiple area data sets (ADS)

**IMS High Performance Load for z/OS, V2 (5655-M26)** offers high-performance database reloading for IMS full-function databases. Improvements include:

- Restructuring code to reduce CPU time utilization
- Improving I/O processing to reduce I/O wait
- Exploiting high performance I/O driver

Functional enhancements include support for:

- IMS V8 and V9 Reorganization reload of HALDB partitions, including HALDB partitions defined in RECON as online reorganization capable (OLRCAP).
- ILDSBLD=YES option, which greatly reduces EXCPs for the HALDB Indirect List Data Set (ILDS) during HALDB reorganization reload.
- IMS Parallel Reorganization for z/OS, V3 (5655-M28): IMS High Performance Load V2 is required to enable such functions as image copy during database reorganization.
- Various formats of the unloaded data sets.

IMS High Performance Load V2 includes the Physical Sequence Sort for Reload (PSSR) utility.

JCL statements for IMS High Performance Load V2 are fully compatible with those for its previous version. You can use your IMS High Performance Load V1 JCL streams with IMS High Performance Load V2 without modification.

**IMS High Performance Prefix Resolution for z/OS, V3 (5655-M27)** incorporates the prefix resolution and update functions.

- The HPPRPIPE data transfer service eliminates the intermediate Work File 2 (WF2) and Work File 3 (WF3) data sets to avoid much of the I/O, tape handling, and DASD requirements associated with prefix resolution and update.
- You can:
  - Resolve and update the prefixes of IMS databases involved in logical relationships as a single job step.
  - Execute the prefix resolution and prefix update functions as replacements for the IMS Prefix Resolution and IMS Prefix Update utilities. Each of these functions provides performance improvements over the corresponding utilities by taking advantage of the HPPRPIPE data transfer service and HPPR buffer handler.

**IMS Parallel Reorganization for z/OS, V3 (5655-M28)** integrates the following IMS tools for database reorganization and operates them in a single job step:

- IMS High Performance Unload for OS/390® (5655-E06)
- IMS High Performance Load for z/OS, V2 (5655-M26)
- IMS Index Builder for z/OS, V2.3 (5655-E24)
- IMS High Performance Image Copy for z/OS, V3.2 (5655-K96)
- IMS High Performance Pointer Checker for z/OS, V2 (5655-K53)
- IMS High Performance Prefix Resolution for z/OS, V3 (5655-M27)

Integration of these IMS tools by IMS Parallel Reorganization V3 significantly improves administrative productivity for reorganizing IMS full-function databases.

IMS Parallel Reorganization for z/OS, V3 adds the following functions and features:
- Execution of the image copy task with optional hash pointer checking in a parallel reorganization job step, concurrently with the unload, reload, and index builder tasks
- Execution of the prefix resolution/update task in a parallel reorganization job step for a database that has internal logical relationship
- Reorganizing selected consecutive HALDB partitions in a single parallel reorganization job step
- Supporting IMSDALIB DD statement used for specifying the library of dynamic allocation members
- Optional deletion of the old database data sets at successful completion of a parallel reorganization

Also included are all the functional enhancements made to IMS Parallel Reorganization for z/OS, V2 through the program maintenance service. Some of the major enhancements are support for:
- IMS V8 and V9 Parallel reorganization of HALDB partitions, including HALDB partitions defined in RECON as online reorganization capable (OLRCAP).
- Parallel reorganization of HISAM and SHISAM databases
- Improved reporting of database statistics provided by:
  - IMS Parallel Reorganization Unload
  - IMS Parallel Reorganization Reload

JCL statements for IMS Parallel Reorganization, V3 are fully compatible with those for IMS Parallel Reorganization, V2. You can use your IMS Parallel Reorganization, V2 JCL streams with IMS Parallel Reorganization, V3 without modification.

### Section 508 of the U.S. Rehabilitation Act

The products in this announcement are capable as of their general availability, when used in accordance with IBM’s associated documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assistive technology used with the product properly interoperates with it.

### Value Unit-based pricing

Value Unit pricing for eligible IBM @server zSeries® IPLA programs enables a lower cost of incremental growth and enterprise aggregation. Each zSeries 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. Because MSUs are the most common measurement, that measurement is used for the remainder of this description.

Value Unit pricing offers price benefits for customers. For each zSeries IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as entitled license capacity. If you want to increase your entitled license capacity for a zSeries IPLA program, the calculation to determine additional needed Value Units is based on the number of Value Units already acquired.

For each zSeries IPLA program with Value Unit pricing:
- 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 http://ibm.com/zseries/swprice/vuctool

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

To determine the applicable Value Unit exhibit for the zSeries IPLA program you selected, refer to the Ordering information section.

### IPLA and subscription and support considerations

IPLA licenses can be transferred from one machine to another within, but not limited to an enterprise. The customer may aggregate the capacity for all the processors the product is operated on to achieve a more economic price. This will result in a single Proof of Entitlement. It is the customer’s responsibility to manage the distribution of Value Units within the limits of the entitlement of the product license.

Subscription and Support must cover the same capacity as the product license entitlement. Subscription and Support will be available in the country in which the agreement is made.

### Trademarks

IMS is a trademark of International Business Machines Corporation in the United States or other countries or both. DB2, DB2 Universal Database, z/OS, OS/390, the e-business logo, and zSeries are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Other company, product, and service names may be trademarks or service marks of others.
Offering Information

Product information is available via the Offering Information Web site

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

Publications

The IBM Publications Center portal is at

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

The IBM Publications Center portal is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided. Payment options for orders are via credit card or customer number. A large number of publications are available online in various file formats. They can all be downloaded free of charge.

The IBM Publications Notification System (PNS) portal is at

http://service5.boulder.ibm.com/pnsrege.nsf/messages/welcome

The PNS enables subscribers to set up profiles of interest by order number/product number. PNS subscribers automatically receive notifications by e-mail of all new publications defined in their profiles. These may then be ordered/downloaded via the Publications Center.

One copy of the following publications is supplied automatically with the basic machine-readable material.

<table>
<thead>
<tr>
<th>Title</th>
<th>Order number</th>
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<tbody>
<tr>
<td>IMS High Performance Prefix Resolution for z/OS, V3 (5655-M27)</td>
<td>GC18-9229</td>
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<tr>
<td>Program Directory</td>
<td>GI10-8592</td>
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<tr>
<td>IMS Parallel Reorganization for z/OS, V3 (5655-M28)</td>
<td>GC18-9227</td>
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<tr>
<td>License Information</td>
<td>GI10-8591</td>
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<tr>
<td>IMS Parameter Manager for z/OS (5655-L69)</td>
<td>GC18-9099</td>
</tr>
<tr>
<td>License Information</td>
<td>GI10-8570</td>
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<tr>
<td>Program Directory</td>
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</table>

The following publications cannot be ordered in hardcopy. They are available at

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

Publications on CD-ROM for the products in this announcement will be available on the next release of z/OS Software Products Collection (SK3T-4270) in BookManager® and PDF formats.

<table>
<thead>
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<tbody>
<tr>
<td>IMS Database Repair Facility for z/OS, V1.2 User’s Guide</td>
<td>SC27-0942</td>
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<tr>
<td>IMS High Performance Fast Path Utilities for z/OS, V2 User’s Guide: Volume 1 High Performance Fast Path Reorganization Tool</td>
<td>SC18-7615</td>
</tr>
<tr>
<td>IMS High Performance Image Copy for z/OS, V3.2 User’s Guide</td>
<td>SC18-7617</td>
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<tr>
<td>IMS High Performance Load for z/OS, V2 User’s Guide</td>
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<td>IMS High Performance Prefix Resolution for z/OS, V3 User’s Guide</td>
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<td>IMS Parallel Reorganization for z/OS, V3 User’s Guide</td>
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<tr>
<td>IMS Parameter Manager for z/OS User’s Guide</td>
<td>SC18-9099</td>
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</table>

The following material is available at

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

• Overview brochure: IBM DB2® and IMS Tools (GC27-1070)
Fact sheets:
- IMS Database Repair Facility for z/OS (GC27-1066)
- IMS High Performance Fast Path Utilities for z/OS (GC27-1067)
- IMS High Performance Image Copy for z/OS (GC27-1076)
- IMS High Performance Load for z/OS (GC27-1065)
- IMS High Performance Prefix Resolution for z/OS (GC27-1065)
- IMS Parallel Reorganization for z/OS (GC27-1360)
- IMS Parameter Manager for z/OS (G507-1461)

Specification sheets, user’s guides, and white papers are also available on CD-ROM (GK3T-7099). This CD-ROM can be ordered from the IBM Publications Center Portal at http://www.ibm.com/shop/publications/order

Technical information

Hardware requirements: The products in this announcement will operate on any hardware configuration that supports the required versions of IMS.

Software requirements: The IMS products in this announcement require IMS V7, or later.
- IMS V7 (5655-B01)
- IMS V8 (5655-C56)
- IMS V9 (5655-J38)

IMS High Performance Fast Path Utilities for z/OS, V2 (5655-K94) has additional requirements based on the following conditions:
- If you use High Performance Fast Path Reorganization Tool or Fast Path Basic Tools (Reload or Pointer Checker), z/OS V1.4 (5694-A01), or later, is required. The DFSORT™ included in these z/OS releases, or a functionally equivalent sort program, is needed.
- If you use the image copy function in the reload utility, IMS Image Copy Extensions for z/OS, V2 (5655-J56) or IMS High Performance Image Copy for z/OS, V3.1 (5655-K96), or later, is required.

IMS Parallel Reorganization for z/OS, V3 (5655-M28) has additional:
- Mandatory requirements:
  - For IMS V7, APAR PQ56783 is mandatory.
  - For IMS V8, APAR PQ58303 is mandatory.
- Optional requirements:
  - IMS High Performance Unload for OS/390® (5655-E06) with the latest maintenance applied.
  - IMS High Performance Load for z/OS, V2 (5655-M26).

IMS High Performance Image Copy for z/OS Copy for z/OS, V3.2 (5655-K96) has additional:
- Mandatory requirements:
  - For IMS V7, APAR PQ56783 is mandatory.
  - For IMS V8, APAR PQ58303 is mandatory.
- Optional requirements:
  - IMS High Performance Pointer Checker for z/OS, V2 (5655-K53) with the latest maintenance applied if the hash pointer checking function is used.
  - IMS High Performance Prefix Resolution for z/OS, V3 (5655-M27) if the prefix resolution/update function is used.

Planning information

Packaging: The programs in this announcement are distributed with the following content:
- Basic machine-readable material on tape
- Program Directory
Security, auditability, and control

The announced programs use the security and auditability features of the host operating system 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

This product is only available via Passport Advantage®. It is not available as shrinkwrap.

Charge structure: For each zSeries® 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 on the following factors:

- The zSeries IPLA program you select
- The applicable Value Unit exhibit
- The applicable terms
- Whether your current mainframes are full-capacity or sub-capacity

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

The products in this announcement have one charge unit: Value Unit.

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

<table>
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<th>Program Number</th>
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<tbody>
<tr>
<td>5655-E03</td>
<td>IMS Database Repair Facility for z/OS, V1.2</td>
<td>VUE007</td>
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<tr>
<td>5655-K94</td>
<td>IMS High Performance Fast Path Utilities for z/OS, V2</td>
<td>VUE007</td>
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</table>

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

Example: In the above ordering example, for the product running on a machine with 1,500 MSUs requiring 344 Value Units, order feature number 0001, quantity 94, and feature number 0002, quantity 1.

Ordering z/OS through the Internet: ShopzSeries (formerly SHOPS390) provides an easy way to plan and order your z/OS ServerPac or CBPDO. It will analyze your current installation, determine the correct product migration, and present your new configuration based on z/OS. Additional products can also be added to your order (including determination of whether all product requisites are satisfied). ShopzSeries is available in the U.S. and several countries in Europe. In countries where ShopzSeries is not available yet, contact your IBM representative (or Business Partner) to handle your order via the traditional IBM ordering process. For more details and availability, visit the ShopzSeries Web site at http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp

Basic license: To order, specify the program number, feature number 9001 for asset registration, and the one-time charge (OTC) feature number. Also specify the feature number of the desired distribution medium. To suppress shipment of media, select the license-only option in CFSW.

The ordering information for the following products has not changed.
Subscription and Support: To receive voice technical support via telephone during normal business hours, 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 support program number and feature number 9001 for asset registration. 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 Support (IAAS). This offering:

- Includes and extends the support services provided in the base support to include technical support via telephone during normal business hours.
- Entitles customers to future releases and versions at no additional charge. Note that the customer is not entitled to new products.

When Subscription and Support is ordered, the charges will renew automatically annually unless cancelled by the customer.

Subscripton Support

<table>
<thead>
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<th>Program</th>
<th>Entitlement</th>
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<td>5655-L70</td>
<td>0010PJV</td>
<td>IMS Parameter Manager S&amp;S</td>
<td>SW Subscription and Support ASC Decline</td>
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<td>SW S&amp;S No Charge SW Registration No Charge</td>
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</table>

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

Customized Offerings

Product media is shipped only via Customized Offerings (for example, 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

For each zSeries 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 on the following factors:

- The zSeries 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 zSeries IPLA program you selected, refer to the Ordering information section.

Licensing: IBM International Program License Agreement. PoE are required for all authorized use.
These products are licensed under the IPLA, the associated Agreement for Acquisition of Support, and the Addendum for Support (Z125-6336), which offer 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 ongoing recurring charge for the enhanced support that includes telephone assistance (voice support for defects during normal business hours) and access to updates, releases, and versions of the program as long as support is in effect. IBM Operational Support Services — Support Line for S/390® and zSeries is an option for customers who want added services.

**Limited warranty applies:** Yes

**Warranty:** This program has warranty for a minimum of one year from acquisition from IBM or authorized IBM Business Partner. The warranty provided to the customer, for at least one year from acquisition, is access to databases (read Web sites) for program information and FAQs, including any known fixes to defects, which the customer can download or obtain otherwise and install at leisure.

**Program support:** Enhanced Support, called Subscription and Support, 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. The customer will be notified of discontinuance of support with 12 months’ notice.

**Money-back guarantee:** If for any reason you are dissatisfied with the program, return it within 30 days from the invoice date, to the party (either IBM or its reseller) from whom you acquired it, for a refund. This applies only to your first acquisition of the program.

**Copy and use on home/portable computer:** No

**Volume orders (IVO):** No

**Passport Advantage applies:** No

**Software Maintenance applies:** No

For operating system software, the revised IBM Operational Support Services — SoftwareXcel offering will provide support for those operating systems and associated products that are not available with the newly announced 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 SoftwareXcel offering, visit http://www.ibm.com/services/sl/products

For additional information on the revised IBM Operational Support Services, refer to Services Announcement 601-023, dated July 10, 2001.

**IBM operational support services — SoftwareXcel:** Yes

**AIX®/UNIX® Upgrade Protection applies:** No

**Entitled Upgrade for current AIX/UNIX upgrade protection licensees:** No

**iSeries™ Software Subscription applies:** No

**Variable charges apply:** No

**Educational allowance available:** Yes, 15% education allowance applies to qualified education institution customers.

<table>
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<th>Replaced programs</th>
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<td>IMS Parallel Reorganization for z/OS, V3 (5655-M28)</td>
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</tbody>
</table>
For more information on sub-capacity zSeries IPLA terms and conditions, refer to Software Announcement 204-184, dated August 10, 2004.

**Full-capacity mainframes:** In cases where full-capacity is applicable, the following terms apply:

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

For more information on mainframe MSU rated capacities, refer to the System/370, System/390, and zSeries Machine Exhibit (Z125-3901) or visit the Mainframes section of the zSeries Exhibits Web site [http://ibm.com/zseries/library/swpriceinfo/](http://ibm.com/zseries/library/swpriceinfo/)

- **Reference-based:** The required license capacity of a zSeries 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:

- **Full-machine-based:** The required license capacity of a zSeries IPLA program with full-machine-based terms equals the MSU rated capacity of the mainframes where the zSeries IPLA program executes.

For more information on mainframe MSU rated capacities, refer to the System/370, System/390, and zSeries Machine Exhibit (Z125-3901) or visit the Mainframes section of the zSeries Exhibits Web site [http://ibm.com/zseries/library/swpriceinfo/](http://ibm.com/zseries/library/swpriceinfo/)

- **Reference-based:** The required license capacity of a zSeries IPLA program with these terms equals the license capacity of the applicable MLC program. This MLC program is called the parent program.

For more information on sub-capacity zSeries IPLA terms and conditions, refer to Software Announcement 204-184, dated August 10, 2004.

**Additional information for products with reference-based terms:** zSeries IPLA sub-capacity programs with reference-based terms add value to the parent program across the environment, regardless of where in the environment the zSeries IPLA program executes.

An environment is defined as either a single stand-alone machine or a qualified Parallel Sysplex®. Customers may have one or more different environments across their enterprise. To determine the required license capacity for each zSeries IPLA program with referenced-based terms, each environment should be assessed separately.

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

1. That meets the criteria defined in Hardware Announcement 198-001, dated January 13, 1998
2. Where MLC pricing is aggregated across the Sysplex

**Sub-capacity eligibility:** To be eligible for sub-capacity charging on select zSeries 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 zSeries (or equivalent). On that machine:

- All instances of the OS/390 operating system must be migrated to the z/OS (or, if applicable, z/OS.e) operating systems
- Any licenses for the OS/390 operating system must be discontinued
- All instances of the z/OS operating (or z/OS.e) systems must be running in z/Architecture™ (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, visit [http://ibm.com/zseries/swprice](http://ibm.com/zseries/swprice)

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 zSeries Workload License Charges (Z125-6516).
- The complete terms and conditions for sub-capacity EWLC are defined in the IBM Customer Agreement — Attachment for z800 and z890 Software 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 zSeries Platform Programs Sub-Capacity Pricing (Z125-6929). Once the amendment is signed, the terms in the amendment replace any and all previous zSeries IPLA sub-capacity terms and conditions.

**On/Off Capacity on Demand**

To be eligible for On/Off Capacity on Demand pricing, customers must be enabled for temporary capacity on the corresponding hardware, and the required contract — Z125-6611, Attachment for Customer Initiated Upgrade and IBM eServer® On/Off Capacity on Demand — Software — must be signed prior to use.
Prices

Contact your IBM representative for pricing information for this announcement.

The only change in the ordering information for the following previously announced products is that On/Off Capacity on Demand (On/Off CoD) charging is now available.

The prices of the following IMS tools products did not change with the new releases. Contact your IBM representative for price information on:

- IMS Database Repair Facility for z/OS, V1.2 (5655-E03)
- IMS High Performance Image Copy for z/OS, V3.2 (5655-K96)

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