New and enhanced IBM IMS tools help to better manage your IMS environments

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At a glance

New and enhanced IMS™ tools deliver:

- Application management -- IMS Tools Base for z/OS®, V1.1 (5655-V93)
- Performance management -- IMS Performance Solution Pack for z/OS, V1.1 (5655-S42)
- Recovery management
  - IMS Recovery Solution Pack for z/OS, V1.1 (5655-v86)
  - IMS High Performance Image Copy for z/OS, V4.2 (5655-N45)
- Utilities
  - IMS Fast Path Solution Pack for z/OS, V1.1 (5655-W14)
  - IMS Database Solution Pack for z/OS, V1.1 (5655-S77)
  - IMS Database Reorganization Expert for z/OS, V4.1 (5655-S35)

Overview

Four new integrated solution packs, one new product version, and one new product release offer enhancements to help database administrators (DBAs) and system programmers better manage IMS database environments:

New products

- IMS Fast Path Solution Pack for z/OS, V1.1 (5655-W14) delivers extensive utilities that include functions a database administrator can use to analyze, maintain, and tune IMS Fast Path databases. Included are features that can help boost system availability by enabling the operations of a variety of key functions without taking the IMS database offline.
- IMS Performance Solution Pack for z/OS, V1.1 (5655-S42) delivers a more affordable, comprehensive portfolio of IBM® database performance management tools. The product combines the features and functions of IMS Connect Extensions for z/OS, IMS Performance Analyzer for z/OS, and IMS Problem Investigator for z/OS. The three products are tightly integrated, making the end-to-end analysis of IMS transactions faster and easier than ever, and better able to support improved productivity for problem analysts, improved IMS application performance, more efficient IMS resource utilization, and higher system availability.
- IMS Database Solution Pack for z/OS, V1.1 (5655-S77) combines features, functions, and processes your database administrator can use to more effectively analyze, maintain, and tune IMS full-function databases, including High Availability.
Large Databases (HALDBs). It provides a comprehensive set of high-performance utilities to unload, load, index build, reorganize, backup, verify, and report on full-function databases.

- **IMS Recovery Solution Pack for z/OS, V1.1 (5655-V86)** combines all the features, functions, and processes to support efforts to implement "best practices" backup and recovery scenarios. This product combines the features and functions of IMS Recovery Expert for z/OS and IMS Database (DB) Recovery Facility for z/OS. Additionally, it provides IMS Index Builder, IMS High Performance (HP) Change Accumulation, and IMS HP Image Copy capabilities.

- **IMS Tools Base for z/OS, V1.1 (5655-V93)** combines several IMS products and the entire collection of IMS Tools common infrastructure components into a single consolidated installation package. The IMS Tools Base provides technologies and services to support key strategic architectures including Autonomics, Rule Based Programming, and GUI.

**New version**

IMS Database Reorganization Expert for z/OS, V4.1 (5655-S35), formerly named IMS Parallel Reorganization for z/OS, delivers integrated database reorganization infrastructure for IMS full-function databases.

**New release**

IMS High Performance Image Copy for z/OS, V4.2 (5655-N45) provides fast back up and recovery of database data sets using advanced copy technology and extends the capabilities of IMS.

To view a complete list of the DB2® and IMS tools, visit:


IBM continues to increase its investment in tools to deliver comprehensive solutions that respond to customer requirements faster than ever before. Increased focus is on common interfaces, cross-tool integration, and testing with the same criteria used for the databases.

**Key prerequisites**

Prerequisites are listed in the Hardware requirements and Software requirements sections.

**Planned availability date**

- **February 19, 2010**
  - IMS Fast Path Solution Pack for z/OS, V1.1
  - IMS Performance Solution Pack for z/OS, V1.1
  - IMS Database Solution Pack for z/OS, V1.1
  - IMS Tools Base for z/OS, V1.1
  - IMS Database Reorganization Expert for z/OS, V4.1
  - IMS High Performance Image Copy for z/OS, V4.2

- **March 12, 2010**
  - IMS Recovery Solution Pack for z/OS, V1.1
Description

New IMS Solution Packs

**IMS Fast Path Solution Pack for z/OS, V1.1 (5655-W14)** delivers extensive utilities that include functions a database administrator can use to analyze, maintain, and tune IMS Fast Path databases. It also provides features that can help boost system availability by enabling the operation of a variety of key functions without taking the IMS database offline.

IMS Fast Path Solution Pack is composed of the following tools:

**IMS Fast Path Advanced Tool**
- Integrates tool functions, improving processing efficiency and greatly reducing the time and resources needed for operation
- Provides for the concurrent unload, reload, reorganization, restructure, analysis, DEDB area control list (DMAC) print, and extract of multiple DEDB areas without impacting all areas of a database in a single job step
- Provides features to:
  - Create Job Control Language (JCL) easily and efficiently
  - Develop a common driver for key functions
  - Clone JCL by merely changing the command

**IMS Fast Path Basic Tools**
- Provide high performance utilities for more efficient loading, unloading, and tuning of Fast Path databases
- Deliver a more efficient mechanism for verifying database integrity
- Enable integrity verification and statistical information reporting

**IMS Fast Path Online Tools**
- Consist of an Online Pointer Checker, Online Data Extract, Online Area Extender, Online Expert Reorganization, and Online DMAC print utilities
- Provide for operation without having to take the IMS database offline
- Enable integrity verification and statistical information reporting in a single step

**IMS Library Integrity Utilities --** Provide utilities to validate, compare, map, and report on IMS libraries

**IMS High Performance Image Copy --** Provides fast back up and recovery of database data sets using advanced copy technology

**IMS Database Repair Facility --** Provides the capability to locate and fix problem pointers

IMS Fast Path Solution Pack provides features and functions to implement 'best practices' for managing an IMS Fast Path environment.

**IMS Performance Solution Pack for z/OS, V1.1 (5655-S42)** delivers a more affordable, comprehensive portfolio of IBM database management tools. The product combines the features and functions of IMS Connect Extensions for z/OS, IMS Performance Analyzer for z/OS, and IMS Problem Investigator for z/OS. The three products are tightly integrated, making the end-to-end analysis of IMS transactions faster and easier than ever, supporting improved productivity for problem analysts, improved IMS application performance, more efficient IMS resource utilization, and higher system availability.

- **IMS Connect Extensions** is a tool that enhances the manageability of TCP/IP access to IMS through IMS Connect (an integrated function of IMS).
• **IMS Performance Analyzer** provides comprehensive transaction performance and system resource usage reporting for your Information Management System Database (IMS DB) and Transaction Manager (IMS TM) systems and is the standard for IMS resource and performance management.

• **IMS Problem Investigator** allows interactive analysis of log files to gain insight into IMS transaction events within and across systems.

**IMS Connect Extensions** consists of components that run with IMS Connect, journal data sets that record IMS Connect activity. It offers an ISPF dialog-based client to manage IMS Connect systems and their IMS Connect Extensions features, as well as a GUI client. IMS Connect Extensions extends IMS Connect by providing the following features:

• Monitoring and recording of IMS Connect activity: IMS Connect Extensions offers a detailed audit of activity, providing you with the information to help you analyze performance, throughput, resource availability, and security. You can also use this information to debug clients and new applications.

• Single point of centralized control for multiple IMS Connect systems: Centralized management and control of all your IMS Connect systems in the enterprise from an ISPF dialog or from a distributed workstation.

• Enhanced transaction management: Dynamic management of TCP/IP transactions, allowing you to define rules to automatically distribute workloads and reroute messages when network failures or IMS flood stages occur.

• Improved client services: Additional features for IMS Connect clients include enhanced information in error messages, password change facility, and extended message translation.

These features help you to:

• Improve the availability, reliability, and performance of IMS Connect
• Speed and simplify problem determination
• Make your systems more transparent so that they are easier to audit and manage

**IMS Performance Analyzer** provides comprehensive transaction performance and system resource usage reporting for your IMS DB and IMS TM systems. It is the standard for IMS resource and performance management. This database management tool provides a wide variety of performance, resource usage, and availability reports that can help you:

• Analyze transaction response time

• Measure usage and availability of important resources, including databases, programs, regions, buffers (including database) and queues (message and other internal queues)

• Plan for IMS operational management, including scheduling database reorganizations, monitoring service level adherence, charge-back accounting and capacity planning

• Monitor significant system events that can adversely affect system performance and availability

• Boost system and application programmer productivity

• Report critical performance information -- from high-level management summaries to detailed traces for in-depth analysis

• Analyze the impact of IMS Connect on transaction performance

IMS Performance Analyzer processes IMS Log, Monitor, IMS Connect event data, and OMEGAMON® TRF data to provide comprehensive reports for use by IMS specialists to tune their IMS systems, and to managers to verify service levels and to better predict trends.

IMS Performance Analyzer provides an ISPF-based dialog to create and maintain report and extract requests, and to generate the batch JCL to run the requests using specified systems and data files. The IMS performance Analyzer Control Data Sets are used to store report and extract requests.
From IMS Log data, IMS Performance Analyzer provides comprehensive information about transit times (actual system performance time), and IMS resource usage and availability. IMS Performance Analyzer can process logs from a single IMS system, or from multiple IMS subsystems running in a sysplex and using shared queues.

Log files can be specified explicitly or by allowing IMS Performance Analyzer to use DBRC Log Selection and IMS RECON data sets to automatically locate the files for the required reporting interval. User-defined performance thresholds provide the ability to set goals and report exceptions. A history of transaction performance can be maintained in Transaction History Files.

Extracts of transit time by time interval data can be created from log files, then graphed or exported (with transfer to PC) using IMS Performance Analyzer facilities. Extracts of total transaction traffic or exception transactions (MSGQ or Fast Path), CPU usage and database update activity can also be created for direct import by external programs such as DB2 or PC-based reporting tools.

Report forms can be used to tailor transit summary and list reports to include only the data fields of interest. Form-based extracts can be created then directly loaded into DB2 tables.

• IMS Monitor data: From Monitor data, IMS Performance Analyzer creates summary and analysis reports for regions, resources, programs, transactions, databases, and the total system, to analyze the IMS system environment. IMS Performance Analyzer provides comprehensive reporting for the IMS Fast Path Monitor, including DEDB, BALG/EMH, FP Buffer, OTHREAD, and VSO.

• External Subsystem: External Subsystem call activity can be incorporated in applicable reports. Alternative sequencing of reports by Occupancy, Calls, or Delay can be requested to highlight substandard performance.

• IMS Connect: IMS Performance Analyzer provides comprehensive reporting from the IMS Connect performance and accounting data collected by IMS Connect Extensions. Connect data sets can be specified explicitly or IMS Performance Analyzer uses the Connect Journal File selection and the IMS Connect Extensions Definitions Data Set to locate the Journal data sets for the required reporting interval. Summary and detailed reports analyze IMS Connect transaction internal and external transit times and latencies, highlighting critical events for message processing. They also provide information about significant processing events with the potential to impact performance, including resource availability and session errors.

• End-to-End: A more complete end-to-end picture of transaction transit performance can be obtained by using Form-based reporting and combined IMS and Connect data.

• OMEGAMON XE for IMS: IMS Performance Analyzer provides comprehensive reporting of IMS Transaction performance and resource utilization statistics collected by the Transaction Reporting Facility (TRF) for OMEGAMON XE for IMS (5698-A34). The TRF data includes transaction response time breakdown, CPU time, and other resource usage statistics, Full Function and Fast Path data DL/I call count and elapsed time, and DB2 database call count and elapsed time.

**IMS Problem Investigator** is a powerful problem analysis aid for IMS DB and IMS TM systems. It enables IMS administrators and programmers to interactively explore a formatted, interpreted, and more easily customizable view of log records; identifying and analyzing problems more quickly, without requiring an expert understanding of log data structures and the relationships between log records.

IMS Problem Investigator connects log records from across various sources to create a composite view of the entire transaction, allowing you to walk through events in the lifecycle of the transaction, even as it spans multiple IMS systems, IMS Connect, WebSphere® MQ, and DB2. As a result, you can more quickly isolate problems in even the most complex transactions to a specific area and then work to solve these problems in significantly less time.

IMS Problem Investigator supports the following types of log records:

• IMS log
• IMS Transaction Index created by IMS Performance Analyzer
• IMS monitor and DB monitor files
• Common Queue Server (CQS) log stream
• IMS Connect event data collected by IMS Connect Extensions
• OMEGAMON Transaction Reporting Facility (TRF) log and extract
• DB2 log
• WebSphere MQ log
• SMF - IRLM Long Lock records

An analysis of these records can be performed through an ISPF dialog, batch reports, and REXX™ programming services. Filtered extracts can be created for more efficient problem investigation. The IMS Problem Investigator ISPF dialog allows you to:

• View formatted logs with detailed field descriptions
• Navigate to an exact point in time within a log file
• Investigate specific problem areas. For example, transaction, database, security, or checkpoint processing
• Merge log files to combine different aspects of IMS processing into a single view
• Track and show all events from a single transaction across multiple subsystems or an entire IMSplex
• Determine response times and latencies

**IMS Database Solution Pack for z/OS, V1.1 (5655-S77)** combines features, functions, and processes your database administrator can use to more effectively analyze, maintain, and tune IMS full-function databases, including High Availability Large Databases (HALDBs). It provides a complete set of high-performance utilities to unload, load, index build, reorganize, backup, verify, and report on full-function databases.

IMS Database Solution Pack is composed of the following tools:

**IMS Database Reorganization Expert**

• Provides an integrated database reorganization infrastructure for operating the process in a fast and efficient manner by running unload, load, index-building and image copy tasks concurrently.
• Provides advanced function for reorganizing databases on an as-needed basis. It includes the following new features for the conditional reorganization of databases:
  – Definition and configuration of reorganization policy for a database
  – Policy-based detection and notification of database exceptions
  – Policy-based conditional reorganization
  – Database exception tracking

**IMS High Performance Unload**

• Provides high-speed database unloading while providing additional capabilities not found in IMS base utilities
• Provides API allowing certain customer applications to take advantage of the high-speed read engine

**IMS High Performance Load**

• Provides high-speed database loading while providing additional capabilities not found in IMS base utilities
• Provides API allowing certain customer applications to take advantage of the high-speed initial load capability
**IMS High Performance Prefix Resolution** -- Simplifies the management of IMS database environments by concurrently performing, in a single job step, the resolution and updating of pointers for logically related databases

**IMS Index Builder** -- Offers an easier-to-use, one-step procedure for building all IMS indexes, avoiding the need to Image Copy

**IMS High Performance Image Copy** -- Provides fast back up and recovery of database data sets using advanced copy technology

**IMS High Performance Pointer Checker** -- Provides utilities to help ensure databases are operational, tuned, repaired, and ready for use

**IMS Library Integrity Utilities** -- Provides utilities to validate, compare, map, and report on IMS libraries

IMS Database Solution Pack offers features and functionality to help keep databases operational and tuned. This solution helps reduce the operational complexity and the impact of database reorganization on system resources.

**IMS Recovery Solution Pack for z/OS, V1.1 (5655-V86)** combines features, functions, and processes to support efforts to implement "best practices" backup and recovery scenarios. This product combines the features and functions of IMS Recovery Expert for z/OS and IMS Database (DB) Recovery Facility for z/OS. Additionally, it provides IMS Index Builder, IMS High Performance (HP) Change Accumulation, and IMS HP Image Copy capabilities.

The major benefits of IMS Recovery Solution Pack are:

- Verification of recovery assets to support availability and usability
- Recovery point identification and creation
- RECON cleanup to prepare RECON data sets for the disaster recovery environment
- High-speed creation of image copy data sets for multiple database data sets simultaneously
- Recovery of multiple database data sets and Fast Path areas simultaneously
- Integration of recovery tasks into a single job step, which can include:
  - Rebuilding Index data sets
  - Creating Image copies
- Automatic stop and start up for databases around backup and recovery processes
- High-speed creation of change accumulation data sets
- Index rebuilding rather than recovery from Image copy

IMS Recovery Solution Pack allows for the simultaneous backup and recovery of multiple data sets and Fast Path areas. This solution can help reduce the operational complexity and the impact of database backup and recovery on system resources.

**IMS Tools Base for z/OS, V1.1 (5655-V93)** combines several IMS products and the entire collection of IMS Tools common infrastructure components into a single consolidated installation package. The IMS Tools Base provides technologies and services to support key strategic architectures including Autonomics, Rule Based Programming, and GUIs.

The IMS Tools Base package provides the following features, functions, and common services:

**IMS Tools Knowledge Base**

IMS Tools Knowledge Base (IMS Tools KB) provides a common information management service that allows the sharing of data generated by multiple tool products within a sysplex from a single, centralized interface.
With its common report repository and viewing interface, IMS Tools KB can provide centralized report storage, access, and management capabilities for a complex sysplex environment. The central report repository allows access to historical report data for more accurate decision making. Reports can be found quickly by using the powerful search capability, and data can be preserved for future trend analysis and decision making. IMS Tools KB becomes the single platform within a sysplex environment for multiple IMS Tools products to share report output.

**IMS Tools Generic Exits**

IMS Tools Generic Exits, which includes the IMS Tools Online System Interface functions, supports the operation of IMS tools in an IMS environment. The Generic Exits are a set of specialized utilities used by IMS Tools product code to manage various interfaces including the managing of IMS exits and commands.

**Policy Services**

Policy Services is a core IMS Tools technology that supports participating IMS Tools products in providing conditional autonomic database health management functionality. Conditional autonomic functionality is the ability of an IMS Tools product to monitor specific database activity and, based on analysis of collected data against custom policy thresholds, to provide the following responses:

- Evaluate the need for any given maintenance operation to occur or not
- Make recommendations for corrective actions based on customer-defined (policy driven) requirements

Policy Services supports IBM IMS Database Reorganization Expert for z/OS, V4.1 (5655-S35).

**Distributed Access Infrastructure**

The Distributed Access Infrastructure enables distributed TCP access to any capable IMS tool. This infrastructure allows graphical user interfaces that have been developed to communicate with back-end z/OS tools through standard TCP/IP communication.

The Distributed Access Infrastructure is made up of two main components: A TCP Server that manages access to your z/OS system, and a Tools Access Server (TAS) that relays communications to the appropriate IMS tool. You can configure the security of the infrastructure and the server parameters for each component to support the needs of your environment.

**IMS Hardware Data Compression Extended**

This component provides all the features and functions of the IMS Hardware Data Compression Extended product. It provides utilities for evaluating impact, and creating, monitoring and managing compressed databases via an easier-to-use ISPF interface. Generic, Enterprise, and Custom compression scenarios are supported.

**IMS Database (DB) Reorganization Expert for z/OS, V4.1 (5655-S35)**, formerly named IMS Parallel Reorganization for z/OS, delivers database reorganization infrastructure for IMS full-function databases. It includes all the features and function of IMS Parallel Reorganization for z/OS, V3.2 and the following new features:

- Definition and configuration of reorganization policy on a database
- Policy-based detection and notification of database exceptions
- Policy-based conditional reorganization of a database
- Exception tracking on databases

These new features of IMS DB Reorganization Expert for z/OS respond to the following questions from IMS database administrators (DBAs) regarding database space management:
• **Policy definition and configuration**
  – How should the space of this database be managed?
  – Which database statistics can or should be observed?

• **Conditional reorganization**
  – Is the database state so critical that immediate action is required?
  – Why was the database reorganized?
  – How effective was the reorganization at removing severe exceptions?

• **Exception detection and notification**
  – What exceptional state is observed for the database?
  – Is there warning of the database state before it becomes severe or critical?

• **Process tracking**
  – When was this database reorganized last time?
  – Were the past database reorganizations effective?
  – Is the policy configured for the database effective?

With IMS DB Reorganization Expert for z/OS, DBAs can now have central control of policies on conditions for exception detection and reorganization of IMS full-function databases. The ISPF-based Policy Dialog helps DBAs to create, customize, and manage policies. The exception notification and conditional reorganization is provided by the main utility of IMS DB Reorganization Expert for z/OS, Smart Reorg utility. This helps save time and resources for database exception detection and reorganization.

The centralized IMS Tools Knowledge Base report repository allows for the tracking of database exceptions and stores database reorganization results. This history of diagnostic reports can be analyzed to provide more accurate information for future analysis, problem-solving, and research. All information including policy definitions, collected database statistics, and database diagnosis reports are stored in repositories that are managed by the IMS Tools Knowledge Base server.

**IMS High Performance (HP) Image Copy for z/OS, V4.2 (5655-N45)** delivers faster back up and recovery of database data sets using advanced copy technology and extends the capabilities of IMS.

Using image copies to create backup data is essential to the timely recovery of databases after a loss of data or a programming mistake. However, taking data offline can reduce user productivity and negatively impact your business. IMS High Performance Image Copy helps you speed recovery time by supporting quicker copy and restarting methods, and can help your system users to become more productive and support efforts to avoid expensive losses from missed business opportunities.

**IMS High Performance Image Copy for z/OS:**

• Provides rapid image copy features to help reduce the unavailability time of database data sets
• Enables automated operation that takes the database offline before taking a batch image copy and restarts it after the process
• Allows you to check the accuracy of the pointers of your database during the image copy process
• Lets you take image copies of multiple database data sets in parallel
• Creates copies from an IMS standard image copy data set or from a compressed image copy data set
• Helps reduce operational and media costs by compressing image copies
• Reduces the number of tapes used by stacking more than one image copy on the same tape
• Takes image backups while various reorganization tools are executing which enables you to use the databases immediately after they are reorganized
• Enables you to run the image copy process automatically after a database is reorganized when used with IMS High Performance Fast Path Advanced Tool or IMS Database Reorganization Expert (formerly named IMS Parallel Reorganization)

• Enables you to check the accuracy of the pointers of your database while the database is reorganized when used with IMS High Performance Pointer Checker or IMS Database Reorganization Expert (formerly named IMS Parallel Reorganization)

IMS High Performance Image Copy for z/OS, V4.2 provides the following new functions and enhancements:

• **Checkpoint/Restart capability with image copy stacking.**
  If one of the image copy processes fails, you can retry the failed image copy process and its subsequent image copy processes on the same stacked tape.

• **Minimize DB offline time for database when using stacking.**
  All databases are made available right after their logical copy end, without waiting for physical image copy stacking.

• **Capability to suspend online applications from allocating the database for which the batch image copy process is requested.**
  Using this function, you do not need to terminate online applications before the batch image copy process begins. Additionally, the online applications will automatically restart after the image copy process ends. This function uses the database quiesce function of IMS. It is not supported before IMS V11.

• **Hash check option enabled with the Fast Recovery Image Copy option of the Advanced Image Copy function.**
  Hash check is done for output image copy data sets, after Flash Copy or Snap Shot is done. Using this function, you can ensure your image copy data set is correct. You can choose when to make the database available for online use, either before or after Hash Check.

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**Accessibility by people with disabilities**

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


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**Value Unit-based pricing**

Value Unit pricing for eligible IBM System z® IBM International Program License Agreement (IPLA) programs enables a lower cost of incremental growth and enterprise aggregation. Each System z 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 System z 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 System z IPLA program that you have acquired is referred to as the **entitled license capacity**. If you wish to grow your entitled license capacity for a System z IPLA program, the calculation to determine additional needed Value Units is based upon the number of Value Units already acquired.
For each System z 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 Web site http://ibm.com/zseries/swprice/vuctool

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 System z IPLA program you selected, refer to the Terms and conditions section.

### Program number

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### 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 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. 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.

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

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| IBM IMS Performance Solution Pack for z/OS, V1.1.0 (5655-S42) | GC19-2901 |
| License Information                                |              |
| Program Directory                                  | GI10-8821    |

| IBM IMS Database Solution Pack for z/OS, V1.1.0 (5655-S77) | GC19-2912 |
| License Information                                |              |
| Program Directory                                  | GI10-8822    |

| IBM IMS Recovery Solution Pack for z/OS, V1.1.0 (5655-V86) | GC19-2906 |
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| IBM IMS Tools Base for z/OS, V1.1.0 (5655-V93) | GC19-2899 |
| License Information                                |              |
| Program Directory                                  | GI10-8819    |

| IBM IMS Database Reorganization Expert for z/OS, V4.1.0 (5655-S35) | GC19-1136 |
| License Information                                |              |
| Program Directory                                  | GI10-8756    |

| IBM IMS High Performance Image Copy for z/OS, V4.2.0 (5655-N45) | GC18-9408 |
| License Information                                |              |
| Program Directory                                  | GI10-8671    |

The publications for products in this announcement cannot be ordered in hardcopy. All the publications in this announcement are available at:

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

Publications are available in PDF and BookManager® formats on DVD on the next release of the software product library:

z/OS and Software Products DVD Collection (SK3T-4271)

<table>
<thead>
<tr>
<th>Title</th>
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<td>IBM IMS Fast Path Solution Pack for z/OS, V1.1.0 (5655-W14)</td>
<td>SC19-2913</td>
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<tr>
<td>IBM IMS Fast Path Solution Pack for z/OS: Overview and Customization</td>
<td>SC19-2914</td>
</tr>
<tr>
<td>IBM IMS High Performance Image Copy for z/OS User's Guide</td>
<td>SC19-2756</td>
</tr>
<tr>
<td>IBM IMS Library Integrity Utilities for z/OS User's Guide</td>
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<td>IBM IMS Database Repair Facility for IMS Solution Packs User's Guide</td>
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<td>IBM IMS Performance Solution Pack for z/OS, V1.1.0 (5655-S42)</td>
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<td>IBM IMS Connect Extensions for z/OS User's Guide</td>
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IBM IMS Database Solution Pack for z/OS, V1.1.0  
(5655-S77)
IBM IMS Database Solution Pack for z/OS: Overview and Customization  
SC19-2911
IBM IMS Database Reorganization Expert for z/OS User's Guide  
SC19-1137
IBM IMS Index Builder for z/OS User's Guide  
SC18-9101
IBM IMS High Performance Load for z/OS User's Guide  
SC18-9222
IBM IMS High Performance Image Copy for z/OS User's Guide  
SC19-2756
IBM IMS High Performance Unload for z/OS User's Guide  
SC27-0936
IBM IMS High Performance Pointer Checker for z/OS User's Guide  
SC19-2401
IBM IMS High Performance Prefix Resolution for z/OS User's Guide  
SC18-9230
IBM IMS Library Integrity Utilities for z/OS User's Guide  
SC19-2479
IBM IMS Recovery Solution Pack for z/OS, V1.1.0  
(5655-V86)
IBM IMS Recovery Solution Pack for z/OS: Overview and Customization  
SC19-2902
SC19-2903
SC19-2904
SC19-2905
IBM IMS Index Builder for z/OS User's Guide  
SC18-9101
IBM IMS High Performance Image Copy for z/OS User's Guide  
SC19-2756
IBM IMS Tools Base for z/OS, V1.1.0 (5655-V93)
IBM IMS Tools Base for z/OS: IMS Tools Common Services User's Guide  
SC19-2896
IBM IMS Tools Base for z/OS: IMS Tools Knowledge Base User's Guide  
SC19-2895
IBM IMS Tools Base for z/OS: IMS Hardware Data Compression Extended User's Guide  
SC19-2896
IBM IMS Tools Base for z/OS: Distributed Access Infrastructure User's Guide  
SC19-2898
IBM IMS Tools Base for z/OS: Policy Services User's Guide  
SC19-2718
IBM IMS Database Reorganization Expert for z/OS User's Guide  
SC19-1137
IBM IMS High Performance Image Copy for z/OS User's Guide  
SC19-2756

The Overview brochure, IBM DB2 and IMS Tools Overview (IMD11760-USEN), is available at

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

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**

**Specified operating environment**

**Hardware requirements**

The products in this announcement will operate on any System z hardware configuration that supports the required versions of IMS.
IMS Performance Solution Pack for z/OS, V1.1 (5655-S42), IMS Connect Extensions component, has the following additional requirements:

- **Client:** Any hardware that is capable of running Windows® XP Professional (32-bit) or Windows Vista (32-bit) with a minimum of:
  - 1 GB memory (Windows XP Professional)
  - 1.5 GB memory (Windows Vista)
  - A minimum of 350 MB free disk space
- **Server:** Any hardware that is capable of running IMS V9.1, or later

**Software requirements**

The IMS Tools products in this announcement require z/OS V1.9 (5694-A01), or later, and any currently supported version of IMS.

All Solution Packs in this announcement, IMS Database Reorganization Expert for z/OS, V4.1, and IMS High Performance Image Copy for z/OS, V4.2 require IMS Tools Base for z/OS, V1.1 (5655-V93).

**IMS Performance Solution Pack for z/OS, V1.1**

The IMS Connect Extensions Operations Console is designed to operate with Windows XP Professional (32-bit) or Windows Vista (32-bit) operating system. IMS Problem Investigator for z/OS requires IBM Tivoli® OMEGAMON XE for IMS on z/OS, V4.1 (5698-A34) or later, for collecting OMEGAMON TRF data

IMS Database Solution Pack for z/OS, V1.1 requires DFSORT™ (provided with z/OS, V1.9 or later) or a functionally equivalent sort program for functions HD Pointer Checker, HD Tuning Aid, Space Monitor, Integrity Checker, Index Builder, for the PSSR function of IMS HP Load, and for the ACBLIB Analyzer Utility.

ISPF and GDDM® (provided with z/OS, V1.9 or later) are required for the display of DB Historical Analyzer charts on TSO terminals.

ISPF is required for IMS DB Repair on TSO terminals and batch.

The Language Environment® (LE) is required for IMS HP Load using the LE interface for an user exit routine written in either COBOL or PL/I.

Additionally, IMS High Performance Fast Path Utilities for z/OS, V3.1 or later (5655-R05) or IMS Fast Path Solution Pack for z/OS. V1.1 (5655-W14) is required for DEDB Hash Pointer Check for the IMS HP Image Copy Hash Check option of DEDB.

IMS Fast Path Solution Pack for z/OS, V1.1 requires DFSORT, provided with z/OS, V1.9 or later, or a functionally equivalent sort program for functions Pointer Checker and Restructure/Reorganization, for Integrity Checker, and for the ACBLIB Analyzer Utility. ISPF provided with z/OS, V1.9 or later, is required for IMS DB Repair on TSO terminals and batch.

IMS Recovery Solution Pack for z/OS, V1.1 requires IMS High Performance Pointer Checker for z/OS, V3.1 (5655-U09) or IMS Database Solution Pack for z/OS, V1.1 (5655-S77) for Hash Checking.

IMS High Performance Fast Path Utilities for z/OS, V3.2 (5655-R05) or IMS Fast Path Solution Pack for z/OS, V1.1 (5655-W14) is required for DEDB Hash Pointer Check.

The product requires IMS Library Integrity Utilities for z/OS, V2.1 (5655-U08) or IMS Fast Path Solution Pack for z/OS, V1.1 (5655-W14) for verification of the DBD being used for recovery.

IMS Database Reorganization Expert for z/OS, V4.1 requires IMS High Performance Unload for z/OS, V1.2 (5655-E06) and IMS High Performance Load for z/OS, V2.1 (5655-M26) or IMS Database Solution Pack for z/OS, V1.1 (5655-S77).
Additionally, IMS DB Reorganization Expert requires the following software products for specific functions:

- IMS Index Builder for z/OS, V2.3 (5655-E24) or IMS Index Builder for z/OS, V3.1 (5655-R01)
- IMS High Performance Image Copy for z/OS, V4.1 or later (5655-N45)
- IMS High Performance Pointer Checker for z/OS, V3.1 (5655-U09)
- IMS High Performance Prefix Resolution for z/OS, V3.1 (5655-M27)
- IMS Library Integrity Utilities for z/OS, V2.1 (5655-U08)

The following Solutions Packs can be used to satisfy the above listed requirements of IMS DB Reorganization Expert:

- IMS Database Solution Pack for z/OS, V1.1 (5655-S77)
- IMS Fast Path Solution Pack for z/OS, V1.1 (5655-W14)
- IMS Recovery Solution Pack for z/OS, V1.1 (5655-V86)

**IMS High Performance Image Copy for z/OS, V4.2** requires IMS V11.1 (5635-A02) if the capability of suspending online applications in IMS High Performance Image Copy is used

Additionally, IMS HP Image Copy requires one of the following for DEDB Hash Pointer Checking:

- IMS High Performance Fast Path Utilities for z/OS, V3.1 or later (5655-R05)
- IMS Fast Path Solution Pack for z/OS, V1.1 (5655-W14)

IMS HP Image Copy requires one of the following for HDPC Hash Pointer Checking:

- IMS High Performance Pointer Checker for z/OS, V3.1 (5655-U09)
- IMS Database Solution Pack for z/OS, V1.1 (5655-S77)

The program's specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a README file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

**Customer requirements:**

Customer requirements are used extensively to determine how database tools evolve.

IMS Fast Path Solution Pack for z/OS, V1.1 (5655-W14) satisfies the following requirements:

- MR1007081647
- MR0622093343
- MR0510043640
- MR040309532
- MR1202075943

IMS Database Solution Pack for z/OS, V1.1.0 (5655-S77) satisfies the following requirements:

- MR080905635
- MR0126062022
- MR0622093343
- MR0510043640
• MR040309532
• MR1202075943

IMS Recovery Solution Pack for z/OS, V1.1.0 (5655-V86) satisfies the following requirements:

• MR0920075474
• MR0920075011
• MR0217066622
• MR1110084545
• MR0605074716

IMS Database Reorganization Expert for z/OS, V4.1.0 (5655-S35) satisfies the following requirement:

• MR080905635

IMS High Performance Image Copy for z/OS, V4.2.0 (5655-N45) satisfies the following requirements:

• MR0126062022
• MR0622093343
• MR0510043640
• MR040309532
• MR1202075943

Planning information

Packaging
The programs in this announcement are distributed with the following content:

• Basic machine-readable material
• Program Directory
• IBM International Program License Agreement (IPLA)

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.

Global Technology Services
Contact your IBM representative for the list of selected services available in your country, either as standard or customized offerings for the efficient installation, implementation, or integration of this product.
Ordering information

Consult your IBM representative.

**Charge metric**

<table>
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<tr>
<th>Program name</th>
<th>PID</th>
<th>Charge metric</th>
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<tbody>
<tr>
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<td>5655-W14</td>
<td>Value unit</td>
</tr>
<tr>
<td>IMS Performance Solution Pack for z/OS, V1.1.0</td>
<td>5655-S42</td>
<td>Value unit</td>
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<tr>
<td>IMS Database Solution Pack for z/OS, V1.1.0</td>
<td>5655-S77</td>
<td>Value unit</td>
</tr>
<tr>
<td>IMS Recovery Solution Pack for z/OS, V1.1.0</td>
<td>5655-V86</td>
<td>Value unit</td>
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<tr>
<td>IMS Tools Base for z/OS, V1.1.0</td>
<td>5655-V93</td>
<td>Installs</td>
</tr>
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<td>IMS Database Reorganization Expert for z/OS, V4.1.0</td>
<td>5655-S35</td>
<td>Value unit</td>
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<td>IMS High Performance Image Copy for z/OS, V4.2.0</td>
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<td>Value unit</td>
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</table>

**Value Unit (VU)**

VU is the unit of measure by which this program is licensed. VU entitlements are based on the quantity of a specific designated measurement, either users or resources, for the given program. A Proof of Entitlement (PoE) must be obtained for the appropriate number of VUs required for your environment as defined by the specific program terms. The VU entitlements are specific to the program and may not be exchanged, interchanged, or aggregated with VU entitlements of another program. To understand these benefits of VU licensing, and to determine how many VUs to obtain for the program, contact your IBM representative.

The following programs all have Value Unit-Based pricing.

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
<th>Value Unit exhibit</th>
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</thead>
<tbody>
<tr>
<td>5655-W14</td>
<td>IMS Fast Path Solution Pack for z/OS, V1.1</td>
<td>VUE007</td>
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<tr>
<td>5655-S42</td>
<td>IMS Performance Solution Pack for z/OS, V1.1</td>
<td>VUE007</td>
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<tr>
<td>5655-S77</td>
<td>IMS Database Solution Pack for z/OS, V1.1</td>
<td>VUE007</td>
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<tr>
<td>5655-V86</td>
<td>IMS Recovery Solution Pack for z/OS, V1.1</td>
<td>VUE007</td>
</tr>
<tr>
<td>5655-S35</td>
<td>IMS Database Reorganization Expert for z/OS, V4.1</td>
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<td>5655-N45</td>
<td>IMS High Performance Image Copy for z/OS, V4.2</td>
<td>VUE007</td>
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</tbody>
</table>

For each System z 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 System z 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>
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<th>MSUs minimum</th>
<th>MSUs maximum</th>
<th>Value Units/MSU</th>
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<td>3</td>
<td>1</td>
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<tr>
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<td>Tier B</td>
<td>46</td>
<td>175</td>
<td>0.36</td>
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<td>Tier C</td>
<td>176</td>
<td>315</td>
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<tr>
<td>Tier D</td>
<td>316</td>
<td>+</td>
<td>0.2</td>
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Value Units for mainframes without MSU ratings:

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<td>MP3000 H50</td>
<td>8</td>
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<tr>
<td>MP3000 H70</td>
<td>12</td>
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<td>ESL models</td>
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**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 System z IPLA product, the applicable Value Units would be:

**Translation from MSUs to Value Units**

<table>
<thead>
<tr>
<th>MSUs</th>
<th>Value Units/MSU</th>
<th>Value Units</th>
</tr>
</thead>
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<tr>
<td>Base</td>
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<td>3.00</td>
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<tr>
<td>Tier B</td>
<td>130</td>
<td>46.80</td>
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<td>Tier C</td>
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<tr>
<td>Tier D</td>
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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**

ShopzSeries provides an easier 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 IBM Business Partner) to handle your order via the traditional IBM ordering process. For more details and availability, visit the ShopzSeries Web site at [http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp](http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp)
**Basic license**

**On/Off CoD**

Except for IBM IMS Tools Base for z/OS, V1.1.0 the products in this announcement are eligible for On/Off CoD with a temporary use charge calculated based on MSUs per-day usage.

Translation from MSUs to Value Units

<table>
<thead>
<tr>
<th>MSUs</th>
<th>Value Units/MSU</th>
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<tr>
<td>Base</td>
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<td>Tier B</td>
<td>46-175</td>
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<td>Tier C</td>
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<td>Tier D</td>
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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: IMS Fast Path Solution Pack for z/OS, V1.1
Program PID: 5655-W14

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Program Name: IMS Performance Solution Pack for z/OS, V1.1
Program PID: 5655-S42

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Program Name: IMS Database Solution Pack for z/OS, V1.1
Program PID: 5655-S77

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Program Name: IMS Recovery Solution Pack for z/OS, V1.1
Program PID: 5655-V86

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Orderable Supply ID Language Distribution Medium
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Program Name: IMS Tools Base for z/OS, V1.1
Program PID: 5655-V93

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Orderable Supply ID Language Distribution Medium
S015TXM US English 3480 Tape Cartridge
S015TXN US English 3590 Tape Cartridge

Program Name: IMS Database Reorganization Expert for z/OS, V4.1
Program PID: 5655-S35

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Orderable Supply ID Language Distribution Medium
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Program Name: IMS High Performance Image Copy for z/OS, V4.2
Program PID: 5655-N45

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Orderable Supply ID Language Distribution Medium
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Subscription and Support PID: 5655-W15

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<td>S015TZG</td>
<td>IMS FP Solution Pack S&amp;S</td>
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<td>No charge, decline SW S&amp;S</td>
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### Subscription and Support PID: 5655-W13

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<tbody>
<tr>
<td>S015TXK</td>
<td>IMS Recov Solution</td>
<td>Basic MSC, per Value Unit SW S&amp;S</td>
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<td>Pack S&amp;S</td>
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### Subscription and Support PID: 5655-V94

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<td>IMS Tools Base</td>
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<td>Unlimited Installs SW S&amp;S</td>
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### Subscription and Support PID: 5655-F73

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<tr>
<td>S00VL1W</td>
<td>IMS DB Reorg</td>
<td>Basic MSC, per Value Unit SW S&amp;S</td>
</tr>
<tr>
<td>Expert S&amp;S</td>
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<td>No charge, decline SW S&amp;S</td>
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</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 (IAASM). 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 cancelled 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 System z 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.

Single version charging

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

Customized Offerings

Product deliverables are shipped only via Customized Offerings (for example, CBPDO, ServerPac, SystemPac®).

CBPDO and ServerPac are offered for Internet delivery, where ShopzSeries product ordering is available. Internet delivery of ServerPac may help improve automation and software delivery time. For more details on Internet delivery, refer to the ShopzSeries help information at

http://www.software.ibm.com/ShopzSeries
Media type for this software product is chosen during the Customized Offerings ordering process. Based on your customer environment, it is recommended that the highest possible density tape media is selected. Currently offered media types are:

- CBPDOs - 3480, 3480 Compressed, 3490E, 3590, 3592*
- ServerPacs - 3480, 3480 Compressed, 3490E, 3590, 3592*
- SystemPacs - 3480, 3480 Compressed, 3490E, 3590, 3592*

*3592 is highest density media. Selecting 3592 will ship the fewest number of media.

Once a product becomes generally available, it will be included in the next ServerPac and SystemPac monthly update.

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

- CBPDO shipments will begin one week after general availability.
- ServerPac shipments will begin two weeks after inclusion in ServerPac.
- SystemPac shipments will begin four weeks after inclusion in SystemPac due to additional customization, and data input verification.

**Terms and conditions**

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

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.

**License Information form number**

<table>
<thead>
<tr>
<th>Program name</th>
<th>Program number</th>
<th>License Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS Fast Path Solution Pack for z/OS, V1.1</td>
<td>5655-W14</td>
<td>GC19-2915</td>
</tr>
<tr>
<td>IMS Performance Solution Pack for z/OS, V1.1</td>
<td>5655-S42</td>
<td>GC19-2901</td>
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<td>IMS Database Solution Pack for z/OS, V1.1</td>
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<td>IMS Recovery Solution Pack for z/OS, V1.1</td>
<td>5655-V86</td>
<td>GC19-2906</td>
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<td>IMS Tools Base for z/OS, V1.1</td>
<td>5655-V93</td>
<td>GC19-2899</td>
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<tr>
<td>IMS Database Reorganization Expert for z/OS, V4.1</td>
<td>5655-S35</td>
<td>GC19-1136</td>
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<tr>
<td>IMS High Performance Image Copy for z/OS, V4.2</td>
<td>5655-N45</td>
<td>GC18-9408</td>
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</table>
The programs' License Information will be available for review on the IBM Software License Agreement Web site


**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, consult the IBM Software Support Handbook found at

http://www.ibm.com/support/handbook

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

**Program support**
Enhanced support, called 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.

**Authorization for use on home/portable computer**
You may not copy and use this program on another computer without paying additional license fees.

**Volume orders (IVO)**
No

**Passport Advantage applies**
No

**Software Subscription and Support (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 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, visit

http://www.ibm.com/services/sl/products

**System i Software Maintenance applies**

No

**Variable charges apply**

No

**Educational allowance available**

Yes. When ordering through the program number process, a 15% education allowance applies to qualified education institution customers.

Education Software Allowance Program applies when ordering through the program number process.

**ESAP available**

Yes, to qualified customers.

**Products eligible for single version charging**

The following are eligible for single-version pricing.

<table>
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<tr>
<th>Replaced Program</th>
<th>Replacement Program</th>
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<tr>
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<td>Program Name</td>
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<td>5697-D13</td>
<td>Parallel Reorganization for IMS/ESA®, V1</td>
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<tr>
<td>5655-093</td>
<td>DBT, V2 (Image Copy Extensions Feature)</td>
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<tr>
<td>5655-085</td>
<td>IMS Hardware Data Compression - Extended, V1</td>
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<tr>
<td>5697-C33</td>
<td>IMS Index Builder, V1</td>
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<tr>
<td>5685-093</td>
<td>DBT, V2 (Fast Reorganization Reload Feature)</td>
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<table>
<thead>
<tr>
<th>Replacement Program</th>
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<tbody>
<tr>
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<td>5655-V93</td>
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</table>

IBM is a registered trademark of International Business Machines Corporation
Library Management Utilities Feature) Pack for z/OS, V1.1

5798-CHJ IMS Monitor Summary and Systems Analysis Program (IMSASAP) 5655-S42 IMS Performance Solution Pack for z/OS, V1.1

5798-CQP IMS Performance Analysis and Reporting (IMSPARS) 5655-S42 IMS Performance Solution Pack for z/OS, V1.1

5697-B89 IMS Performance Analyzer V1 5655-S42 IMS Performance Solution Pack for z/OS, V1.1

5697-F02 IMS Performance Analyzer V2 5655-S42 IMS Performance Solution Pack for z/OS, V1.1

5655-A68 IMS/ESA Recovery Saver 5655-V86 IMS Recovery Solution Pack for z/OS, V1.1

5697-E32 Parallel Change Accumulation for IMS/ESA z/OS, V1.1 5655-V86 IMS Recovery Solution Pack for z/OS, V1.1

5685-093 DBT V2 (Image Copy Extensions Feature) 5655-V86 IMS Recovery Solution Pack for z/OS, V1.1

5697-C33 IMS Index Builder, V1 5655-V86 IMS Recovery Solution Pack for z/OS, V1.1

**Sub-capacity terms and conditions**

For each System z 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 System z 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 System z 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>Parents - any of the following</th>
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<tr>
<td>5655-W14</td>
<td>IMS Fast Path Solution Pack for z/OS, V1.1</td>
<td>Reference-based</td>
<td>IMS V9 (5655-J38) IMS V10 (5635-A01) IMS V11 (5635-A02)</td>
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<td>5655-S42</td>
<td>IMS Performance Solution Pack for z/OS, V1.1</td>
<td>Reference-based</td>
<td>IMS V9 (5655-J38) IMS V10 (5635-A01) IMS V11 (5635-A02)</td>
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<tr>
<td>5655-S77</td>
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<td>Reference-based</td>
<td>IMS V9 (5655-J38) IMS V10 (5635-A01) IMS V11 (5635-A02)</td>
</tr>
<tr>
<td>5655-V86</td>
<td>IMS Recovery Solution Pack for z/OS, V1.1</td>
<td>Reference-based</td>
<td>IMS V9 (5655-J38) IMS V10 (5635-A01) IMS V11 (5635-A02)</td>
</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 System z IPLA program with these terms equals the MSU-rated capacity of the machines where the System z IPLA program executes.

For more information on mainframe MSU-rated capacities, visit


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

z/OS-based: The required license capacity of a System z IPLA program with these terms equals the license capacity of z/OS (and z/OS.e) on the machines where the System z IPLA program executes.

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

For more information on mainframe MSU-rated capacities, refer to *The System/370™, System/390®, and System z Machine Exhibit* (Z125-3901), or visit the Mainframes section of the System z Exhibits Web site

http://ibm.com/zseries/library/swpriceinfo/

For more information on sub-capacity System z IPLA terms and conditions, refer to Software Announcement ZA04-0227, dated August 10, 2004.

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

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

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

- That meets the criteria defined in Hardware Announcement ZA98-0120, dated January 13, 1998; and
- Where MLC pricing is aggregated across the Sysplex

**Sub-capacity eligibility**

To be eligible for sub-capacity charging on select System z 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 System z (or equivalent). On that machine:

- All instances of the OS/390® operating system must be migrated to the z/OS (or 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 the System z Software Pricing Web site 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 System z Workload License Charges (Z125-6516).
- The complete terms and conditions for sub-capacity EWLC are defined in the IBM Customer Agreement - Attachment for IBM eServer™ System z 890 and 800 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 IBM System z9® and eServer zSeries® Programs Sub-Capacity Pricing (Z125-6929). Once the amendment is signed, the terms in the amendment replace any and all previous System z IPLA sub-capacity terms and conditions.

**Sub-capacity utilization determination**

Sub-capacity utilization is determined based on the utilization of a sub-capacity eligible reference product and machine.

**On/Off Capacity on Demand (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 Customer Initiated Upgrade and IBM eServer On/Off Capacity on Demand - Software (Z125-6611) must be signed prior to use.

**IBM Electronic Services**

IBM has transformed its delivery of hardware and software support services to help you achieve higher system availability. Electronic Services is a Web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services are designed to provide
the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent™ is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer your questions or diagnose problems. Installation and use of IBM Electronic Service Agent for problem reporting enables IBM to provide better support and service for your IBM server.

To learn how Electronic Services can work for you, visit

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

Prices

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http://www.ibm.com/planetwide/

Corrections

(Corrected on February 16, 2010)
The Ordering information section is revised.