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

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New and enhanced IMS™ tools deliver:

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- Recovery management

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    – IMS High Performance Image Copy for z/OS, V4.2 (5655-N45)

- Utilities

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    – IMS Database Solution Pack for z/OS, V1.1 (5655-S77)

    – IMS Database Reorganization Expert for z/OS, V4.1 (5655-S35)

For ordering, contact your IBM® representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: LE001).

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

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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:

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

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 one 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 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

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- 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.

Accessibility by people with disabilities

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

  http://www.ibm.com/able/product_accessibility/index.html

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 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 **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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Program                Program
number      VRM        name

5655-W14    1.1.0      IBM IMS Fast Path Solution Pack for z/OS
5655-S42    1.1.0      IBM IMS Performance Solution Pack for z/OS
5655-S77    1.1.0      IBM IMS Database Solution Pack for z/OS
5655-V86    1.1.0      IBM IMS Recovery Solution Pack for z/OS
5655-V93    1.1.0      IBM IMS Tools Base for z/OS
5655-S35    4.1.0      IBM IMS Database Reorganization Expert for z/OS
5655-N45    4.2.0      IBM IMS High Performance Image Copy for z/OS
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Product identification number

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                       Subscription and
Program PID number     Support PID number

5655-W14               5655-W15
5655-S42               5655-S43
5655-S77               5655-S78
5655-V86               5655-W13
5655-V93               5655-V94
5655-S35               5655-F73
5655-N45               5655-E20
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Offering Information

Product information is available via the Offering Information Web site

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

Business Partner information

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

https://www.ibm.com/partnerworld/mem/sla.jsp?num=210-030

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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        Title                                    Order Number

IBM IMS Fast Path Solution Pack for z/OS, V1.1.0 (5655-W14)
License Information                              GC19-2915
Program Directory                                GI10-8823


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


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


IBM IMS Recovery Solution Pack for z/OS, V1.1.0 (5655-V86)
License Information                              GC19-2906
Program Directory                                GI10-8824


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


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


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

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        Title                                   Order Number

IBM IMS Fast Path Solution Pack for z/OS, V1.1.0 (5655-W14)
IBM IMS Fast Path Solution Pack for z/OS: Overview and  SC19-2913
Customization
IBM IMS Fast Path Solution Pack for z/OS: IMS High      SC19-2914
Performance Fast Path Utilities User's Guide
IBM IMS High Performance Image Copy for z/OS User's     SC19-2756
Guide
IBM IMS Library Integrity Utilities for z/OS User's     SC19-2479
Guide
IBM IMS Database Repair Facility for IMS Solution Packs SC19-2916
User's Guide


IBM IMS Performance Solution Pack for z/OS, V1.1.0 (5655-S42)
IBM IMS Performance Solution Pack for z/OS: Overview    SC19-2900
and Customization
IBM IMS Connect Extensions for z/OS User's Guide        SC19-2817
IBM IMS Performance Analyzer for z/OS User's Guide      SC19-2732
IBM IMS Performance Analyzer for z/OS Report            SC19-2734
Reference
IBM IMS Problem Investigator for z/OS User's Guide      SC19-2757


IBM IMS Database Solution Pack for z/OS, V1.1.0
(5655-S77)
IBM IMS Database Solution Pack for z/OS: Overview       SC19-2911
and Customization
IBM IMS Database Reorganization Expert for z/OS         SC19-1137
User's Guide
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     SC19-2756
Guide
IBM IMS High Performance Unload for z/OS User's Guide   SC27-0936
IBM IMS High Performance Pointer Checker for z/OS       SC19-2401
User's Guide
IBM IMS High Performance Prefix Resolution for z/OS     SC18-9230
User's Guide
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       SC19-2902
and Customization
IBM IMS Recovery Solution Pack for z/OS:
IMS Database Recovery Facility User's Guide             SC19-2903
IBM IMS Recovery Solution Pack for z/OS:
IMS Database Recovery Facility: Extended Functions      SC19-2904
User's Guide
IBM IMS Recovery Solution Pack for z/OS:
IMS High Performance Change Accumulation Utility        SC19-2905
User's Guide
IBM IMS Index Builder for z/OS User's Guide             SC18-9101
IBM IMS High Performance Image Copy for z/OS            SC19-2756
User's Guide


IBM IMS Tools Base for z/OS, V1.1.0 (5655-V93)
IBM IMS Tools Base for z/OS:                            SC19-2896
IMS Tools Common Services User's Guide
IBM IMS Tools Base for z/OS:                            SC19-2895
IMS Tools Knowledge Base User's Guide
IBM IMS Tools Base for z/OS:                            SC19-2896
IMS Hardware Data Compression Extended User's Guide
IBM IMS Tools Base for z/OS:                            SC19-2898
Distributed Access Infrastructure User's Guide
```

```
IBM IMS Tools Base for z/OS:                        SC19-2718
Policy Services User's Guide

IBM IMS Database Reorganization Expert for z/OS     SC19-1137
User's Guide

IBM IMS High Performance Image Copy for z/OS        SC19-2756
User's Guide
```

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.

Software Services

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

To learn more about IBM Software Services or to contact a Software Services sales specialist, visit

   http://www.ibm.com/software/sw-services/

Ordering information

Charge metric

Program name	PID number	Charge metric
IMS Fast Path Solution Pack for z/OS, V1.1.0	5655-W14	Value Unit
IMS Performance Solution Pack for z/OS, V1.1.0	5655-S42	Value Unit
IMS Database Solution Pack for z/OS, V1.1.0	5655-S77	Value Unit
IMS Recovery Solution Pack for z/OS, V1.1.0	5655-V86	Value Unit
IMS Tools Base for z/OS, V1.1.0	5655-V93	Installs
IMS Database Reorganization Expert for z/OS, V4.1.0	5655-S35	Value Unit
IMS High Performance Image Copy for z/OS, V4.2.0	5655-N45	Value Unit

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.

Program number	Program name	Value Unit exhibit
5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1	VUE007
5655-S42	IMS Performance Solution Pack for z/OS, V1.1	VUE007

```
5655-S77   IMS Database        VUE007
           Solution Pack
           for z/OS, V1.1

5655-V86   IMS Recovery        VUE007
           Solution Pack
           for z/OS, V1.1

5655-S35   IMS Database        VUE007
           Reorganization
           Expert for z/OS,
           V4.1

5655-N45   IMS High            VUE007
           Performance Image
           Copy for z/OS,
           V4.2
```

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

```
           MSUs      MSUs
           minimum   maximum   Value Units/MSU

Base          1         3      1
Tier A        4        45      0.45
Tier B       46       175      0.36
Tier C      176       315      0.27
Tier D      316        +       0.2
```

Value Units for mainframes without MSU ratings:

```
 Hardware      Value Units/machine

MP3000 H30     6
MP3000 H50     8
MP3000 H70    12
ESL models     2
```

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

          MSUs   *  Value Units/MSU = Value Units
Base         3   *  1.00            =    3.00
Tier A      42   *   .45            =   18.90
Tier B     130   *   .36            =   46.80
Tier C     140   *   .27            =   37.80
Tier D   1,185   *   .20            =  237.00
```

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

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

            MSUs       Value Units/MSU
   Base      1-3            1.00
   Tier A    4-45            .45
   Tier B    46-175          .36
   Tier C    176-315         .27
   Tier D    316+            .20
```

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

Entitlement
Identifier           Description                   License Option/Pricing Metric

S015TZC              IMS FP Solution Pack          Basic OTC, Value Units
                                                   Basic OTC, Per MSU-day
                                                   TUC


Orderable Supply ID  Language                      Distribution Medium

S015TZ9              US English                    3480 Tape Cartridge
S015TZB              US English                    3590 Tape Cartridge


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

Entitlement
Identifier           Description                   License Option/Pricing Metric

S015TXZ              IMS Perf Solution Pack        Basic OTC, Value Units
                                                   Basic OTC, Per MSU-day
                                                   TUC


Orderable Supply ID  Language                      Distribution Medium

S015TXW              US English                    3480 Tape Cartridge
S015TXX              US English                    3590 Tape Cartridge
```

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

Entitlement
Identifier              Description                     License Option/Pricing Metric

S015TZ5                 IMS DB Solution Pack            Basic OTC, Value Units
                                                        Basic OTC, Per MSU-day
                                                        TUC


Orderable Supply ID    Language                         Distribution Medium

S015TZ3                 US English                       3480 Tape Cartridge
S015TZ4                 US English                       3590 Tape Cartridge


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

Entitlement
Identifier              Description                     License Option/Pricing Metric

S015TXG                 IMS Recovery Solution Pack      Basic OTC, Value Units
                                                        Basic OTC, Per MSU-day
                                                        TUC


Orderable Supply ID    Language                         Distribution Medium

S015TXD                 US English                       3480 Tape Cartridge
S015TXF                 US English                       3590 Tape Cartridge

Program Name: IMS Tools Base for z/OS, V1.1
Program PID: 5655-V93

Entitlement
Identifier              Description                     License Option/Pricing Metric

S015TXP                 IMS Tools Base                  Basic No Charge
                                                        Unlimited Installs


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

Entitlement
Identifier              Description                     License Option/Pricing Metric

S015TZL                 IMS DB Reorg Expert V4          Basic OTC, Value Units
                                                        Basic OTC, Per MSU-day
                                                        TUC


Orderable Supply ID    Language                         Distribution Medium

S015TZJ                 US English                       3480 Tape Cartridge
S015TZK                 US English                       3590 Tape Cartridge

Program Name: IMS High Performance Image Copy for z/OS, V4.2
Program PID: 5655-N45

Entitlement
Identifier              Description                     License Option/Pricing Metric


S011HDZ                 IMS HP Image Copy V4            Basic OTC, Value Units
                                                        Basic OTC, Per MSU-day
                                                          TUC
```

Orderable Supply ID	Language	Distribution Medium
S011HDX	US English	3480 Tape Cartridge
S015TZW	US English	3590 Tape Cartridge

Subscription and Support PID: 5655-W15

Entitlement Identifier	Description	License Options/Pricing Metrics
S015TZG	IMS FP Solution Pack S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S Per MSU SW S&S registration

Orderable Supply ID	Language	Distribution Medium
S015TZF	English	Hardcopy publication

Subscription and Support PID: 5655-S43

Entitlement Identifier	Description	License Options/Pricing Metrics
S015W6V	IMS Perf Solution Pack S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S Per MSU SW S&S registration

Orderable Supply ID	Language	Distribution Medium
S015TZ1	English	Hardcopy publication

Subscription and Support PID: 5655-S78

Entitlement Identifier	Description	License Options/Pricing Metrics
S015W6T	IMS DB Solution Pack S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S Per MSU SW S&S registration

Orderable Supply ID	Language	Distribution Medium
S015TZ7	English	Hardcopy publication

Subscription and Support PID: 5655-W13

Entitlement Identifier	Description	License Options/Pricing Metrics
S015TXK	IMS Recov Solution Pack S&S	Basic ASC, per Value Unit SW S&S No Charge, decline SW S&S Per MSU SW S&S Registration

Orderable Supply ID	Language	Distribution Medium
S015TXJ	English	Hardcopy publication

Subscription and Support PID: 5655-V94

Entitlement Identifier	Description	License Options/Pricing Metrics
S015TXR	IMS Tools Base S&S	No Charge Unlimited Installs SW S&S

Orderable Supply ID	Language	Distribution Medium
S015TXT	English	Hardcopy publication

```
Subscription and Support PID: 5655-F73

Entitlement
Identifier           Description                      License Options/Pricing Metrics

S00VL1W              IMS DB Reorg                     Basic ASC, per Value Unit SW S&S
                     Expert S&S                       No Charge, decline SW S&S
                                                      Per MSU SW S&S Registration


Orderable Supply ID  Language                         Distribution Medium

S00VL1X               English                         Hardcopy publication

Subscription and Support PID: 5655-E20

Entitlement
Identifier           Description                      License Options/Pricing Metrics

S00V7BL              IMS HP Copy                      Basic ASC, per Value Unit SW S&S
                     Image S&S                        No Charge, decline SW S&S
                                                      Per MSU SW S&S Registration


Orderable Supply ID   Language                        Distribution Medium

S00TH7R               English                         Hardcopy publication
```

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

```
                                         Program   License
Program name                             number    Information

IMS Fast Path Solution Pack for z/OS, V1.1     5655-W14  GC19-2915
IMS Performance Solution Pack for z/OS, V1.1   5655-S42  GC19-2901
IMS Database Solution Pack for z/OS, V1.1      5655-S77  GC19-2912
IMS Recovery Solution Pack for z/OS, V1.1      5655-V86  GC19-2906
IMS Tools Base for z/OS, V1.1                  5655-V93  GC19-2899
IMS Database Reorganization Expert for z/OS,   5655-S35  GC19-1136
V4.1
IMS High Performance Image Copy for z/OS, V4.2 5655-N45  GC18-9408
```

The programs' License Information will be available for review on the IBM Software License Agreement Web site

  http://www.ibm.com/software/sla/sladb.nsf

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

IBM Operational Support Services - SoftwareXcel

Yes

System i Software Maintenance applies

No

Variable charges apply

No

Educational allowance available

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

Products eligible for single version charging

The following are eligible for single-version pricing.

```
Replaced Program                 Replacement Program

Program                          Program
Number     Program Name          Number      Program Name

5697-D13   Parallel              5655-S35    IMS Database
           Reorganization for                Reorganization Expert
           IMS/ESA®, V1                        for z/OS, V4.1

5655-093   DBT, V2 (Image        5655-N45    IMS High Performance
           Copy Extensions                   Image Copy for z/OS,
           Feature)                          V4.2

5655-085   IMS Hardware Data     5655-V93    IMS Tools Base for
           Compression -                     z/OS, V1.1
           Extended, V1

5697-C33   IMS Index Builder,    5655-S77    IMS Database Solution
           V1                                Pack for z/OS, V1.1

5685-093   DBT, V2 (Fast         5655-S77    IMS Database Solution
           Reorganization                    Pack for z/OS, V1.1
           Reload Feature)

5668-856   DBT, V1 (High         5655-S77    IMS Database Solution
           Speed Sequential                  Pack for z/OS, V1.1
           Retrieval Feature)
```

5685-093	DBT, V2 (High Speed Sequential Retrieval Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (Image Copy Extensions Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5668-856	DBT, V1 (Space Management Utilities Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (Space Management Utilities Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5668-856	DBT, V1 (VSAM Zapper Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (VSAM Zapper Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5686-093	DBT, V2 (Fast Prefix Resolution Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (Fast ACBGEN Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (DBD/PSB/ACB Library Management Utilities Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5697-D13	Parallel Reorganization for IMS/ESA, V1	5655-S77	IMS Database Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (Image Copy Extensions Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5668-856	DBT,V1 (VSAM Zapper Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5685-093	DBT,V2 (VSAM Zapper Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5668-856	DBT, V1 (DEDB Unload/ Reload Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (DEDB Unload/ Reload Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5668-856	DBT, V1 (DEDB Pointer Checker Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (DEDB Pointer Checker Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5668-856	DBT, V1 (DEDB Tuning Aid Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (DEDB Tuning Aid Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (Fast ACBGEN Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.1
5685-093	DBT, V2 (DBD/PSB/ACB Library Management Utilities Feature	5655-W14	IMS Fast Path Solution 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

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

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

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

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

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

5685-093    DBT V2 (Image Copy     5655-V86    IMS Recovery
            Extensions Feature)                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.

```
Program
Number   Program Name          Terms            Parents - any of the following

5655-W14 IMS Fast Path Solution Reference-based IMS V9 (5655-J38)
         Pack for z/OS, V1.1                    IMS V10 (5635-A01)
                                                IMS V11 (5635-A02)

5655-S42 IMS Performance        Reference-based IMS V9 (5655-J38)
         Solution                               IMS V10 (5635-A01)
         Pack for z/OS, V1.1                    IMS V11 (5635-A02)


5655-S77 IMS Database Solution  Reference-based IMS V9 (5655-J38)
         Pack for z/OS, V1.1                    IMS V10 (5635-A01)
                                                IMS V11 (5635-A02)

5655-V86 IMS Recovery Solution  Reference-based IMS V9 (5655-J38)
         Pack for z/OS, V1.1                    IMS V10 (5635-A01)
                                                IMS V11 (5635-A02)

5655-S35 IMS Database           Reference-based IMS V9 (5655-J38)
         Reorganization Expert                  IMS V10 (5635-A01)
         for z/OS, V4.1                         IMS V11 (5635-A02)
```

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5655-N45 IMS High Performance    Reference-based   IMS V9 (5655-J38)
         Image Copy for z/OS,                      IMS V10 (5635-A01)
         V4.2                                      IMS V11 (5635-A02)
```

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

  http://www-1.ibm.com/servers/eserver/zseries/library/swpriceinfo/

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 204-184, 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 198-001, 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.

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Prices

For additional information and current prices, contact your local IBM representative.

```
Program Name: IMS Fast Path Solution Pack for z/OS, V1.1
Program PID: 5655-W14

Entitlement
Identifier           Description                License Option/Pricing Metric

S015TZC              IMS FP Solution Pack       Basic OTC, Value Units
                                                Basic OTC, per MSU-day TUC

Orderable Supply ID   Language                  Distribution Medium

S015TZ9              US English                 3480 Tape Cartridge
S015TZB              US English                 3590 Tape Cartridge

Subscription and Support PID: 5655-W15

Entitlement
Identifier           Description                License Options/Pricing Metrics

S015TZG              IMS FP Solution           Basic ASC, per Value Unit SW S&S
                     Pack S&S                  No charge, decline SW S&S
                                               Per MSU SW S&S registration

Orderable Supply ID   Language                 Distribution Medium

S015TZF              English                   Hardcopy publication


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

Entitlement
Identifier           Description                License Option/Pricing Metric

S015TXZ              IMS Perf Solution Pack     Basic OTC, Value Units
                                                Basic OTC, per MSU-day TUC

Orderable Supply ID  Language                   Distribution Medium

S015TXW              US English                 3480 Tape Cartridge
S015TXX              US English                 3590 Tape Cartridge
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Subscription and Support PID: 5655-S43

Entitlement
Identifier              Description                   License Options/Pricing Metrics

S015W6V                 IMS Perf Solution             Basic ASC, per Value Unit SW S&S
                        Pack S&S                      No charge, decline SW S&S
                                                      Per MSU SW S&S registration


Orderable Supply ID  Language                         Distribution Medium

S015TZ1                 English                       Hardcopy publication



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

Entitlement
Identifier              Description                   License Option/Pricing Metric

S015TZ5                 IMS DB Solution Pack          Basic OTC, Value Units
                                                      Basic OTC, per MSU-day TUC

Orderable Supply ID Language                          Distribution Medium

S015TZ3                 US English                    3480 Tape Cartridge
S015TZ4                 US English                    3590 Tape Cartridge

Subscription and Support PID: 5655-S78

Entitlement
Identifier              Description                   License Options/Pricing Metrics

S015W6T                 IMS DB Solution               Basic ASC, per Value Unit SW S&S
                        Pack S&S                      No charge, decline SW S&S
                                                      Per MSU SW S&S registration

Orderable Supply ID    Language                       Distribution Medium

S015TZ7                 English                       Hardcopy publication



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

Entitlement
Identifier              Description                   License Option/Pricing Metric

S015TXG                 IMS Recovery Solution Pack    Basic OTC, Value Units
                                                      Basic OTC, per MSU-day TUC

Orderable Supply ID    Language                       Distribution Medium

S015TXD                 US English                    3480 Tape Cartridge
S015TXF                 US English                    3590 Tape Cartridge

Subscription and Support PID: 5655-W13

Entitlement
Identifier              Description                   License Options/Pricing Metrics

S01TXK                  IMS Recov Solution            Basic ASC, per Value Unit SW S&S
                        Pack S&S                      No charge, decline SW S&S
                                                      Per MSU SW S&S registration

Orderable Supply ID    Language                       Distribution Medium

S015TXJ                 English                       Hardcopy publication



Program Name: IMS Tools Base for z/OS, V1.1
Program PID: 5655-V93
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Entitlement
Identifier              Description                License Option/Pricing Metric

S015TXP                 IMS Tools Base             Basic No Charge
                                                   Unlimited Installs


Orderable Supply ID     Language                    Distribution Medium

S015TXM                 US English                 3480 Tape Cartridge
S015TXN                 US English                 3590 Tape Cartridge


Subscription and Support PID: 5655-V94

Entitlement
Identifier              Description                License Options/Pricing Metrics

 S015TXR                IMS Tools Base S&S         No Charge
                                                   Unlimited installations SW S&S


Orderable Supply ID     Language                   Distribution Medium

S015TXT                 English                    Hardcopy publication



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

Entitlement
Identifier              Description                License Option/Pricing Metric

S015TZL                 IMS DB Reorg Expert V4     Basic OTC, Value Units
                                                   Basic OTC, per MSU-day TUC


Orderable Supply ID     Language                   Distribution Medium

S015TZJ                 US English                 3480 Tape Cartridge
S015TZK                 US English                 3590 Tape Cartridge


Subscription and Support PID: 5655-F73

Entitlement
Identifier              Description                License Options/Pricing Metrics

S00VL1W                 S&S, IMS DB Reorg           Basic ASC, per Value Unit SW S&
                        Expert                      No charge, decline SW S&S
                                                    Per MSU SW S&S registration


Orderable Supply ID     Language                   Distribution Medium

S00VL1X                 English                    Hardcopy publication



Program Name: IMS High Performance Image Copy for z/OS, V4.2
Program PID: 5655-N45

Entitlement
Identifier              Description                License Option/Pricing Metric

S011HDZ                 IMS HP Image Copy V4       Basic OTC, Value Units
                                                   Basic OTC, per MSU-day TUC


Orderable Supply ID     Language                   Distribution Medium

S011HDX                 US English                 3480 Tape Cartridge
S015TZW                 US English                 3590 Tape Cartridge
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```
Subscription and Support PID: 5655-E20

Entitlement
Identifier           Description               License Options/Pricing Metrics

S00V7BL              S&S, IMS HP Copy          Basic ASC, per Value Unit SW S&
                     Image                     No charge, decline SW S&S
                                               Per MSU SW S&S registration


Orderable Supply ID  Language                  Distribution Medium

S00TH7R              English                   Hardcopy publication
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Corrections

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