IBM IMS Tools enhanced to help better manage your IMS database environments

At a glance

IBM® is enhancing various IMS™ tools to deliver innovative, new capabilities to your IMS environment. Enhancements are being made to the following IMS tools:

- Administration management
  IBM IMS Library Integrity Utilities for z/OS®, V2.2 (5655-U08)
- Application management
  IBM IMS Program Restart Facility for z/OS, V2.2 (5655-E14)
- Utilities management
  IBM IMS Database Solution Pack for z/OS, V2.1 (5655-DSP)
  IBM IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14)
  IBM IMS Enterprise Suite for z/OS, V3.1 (5655-TDA)

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

Overview

IBM IMS Tools are being enhanced to support the latest IBM System z® core products and new technologies and can help improve system performance and promote enhanced productivity.

IBM IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08) is an administration management tool that provides a set of utilities that:

- Is designed to validate, compare, map, recover, report, and regenerate a number of IMS libraries used for operations
- Can be used in conjunction with database maintenance tasks and migration operations to help prevent accidental misuse in production

IBM IMS Program Restart Facility for z/OS, V2.2 (5655-E14) is an application management tool that helps to:

- Automate the backout and restart of abended IMS Batch Message Processing (BMP) regions and Data Language/I (DL/I) batch jobs
- Improve database availability by automating IMS DL/I batch backout
IBM IMS Database Solution Pack for z/OS, V2.1 (5655-DSP) is a utilities management tool that:

- Combines the entire set of IBM IMS Tools database products that are needed to manage IMS Full Function and HALDB databases into a single, consolidated solution
- Provides everything to help keep databases operational and tuned

IBM IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14) is a utilities management tool that:

- Offers comprehensive utilities and functions that database administrators (DBAs) can use to analyze and maintain IMS Fast Path databases (DEDBs) and to build and analyze Fast Path Secondary Index databases supported in IMS V12 and IMS Database Value Unit Edition V12, or later
- Provides features that can help boost system availability by enabling the operation of a variety of key functions without taking IMS databases offline

IMS Database Solution Pack for z/OS and IMS Fast Path Solution Pack for z/OS trade-up options:

IMS Database Solution Pack for z/OS and IMS Fast Path Solution Pack for z/OS are available with trade-up options offering an even easier way to obtain all the utilities, features, and functions needed to effectively manage your IMS environment.

The following list includes the products eligible to be traded in when trading up to either IMS Database Solution Pack for z/OS or IMS Fast Path Solution Pack for z/OS

- IMS Database Solution Pack trade-up options include:
  - IBM IMS Database Reorganization Expert for z/OS, V4.1 (5655-S35)
  - IBM IMS High Performance Image Copy for z/OS, V4.2 (5655-N45)
  - IBM IMS High Performance Load for z/OS, V2.1 (5655-M26)
  - IBM IMS High Performance Pointer Checker for z/OS, V3.1 (5655-U09)
  - IBM IMS High Performance Prefix Resolution for z/OS, V3.1 (5655-M27)
  - IBM IMS High Performance Unload for z/OS, V1.2 (5655-E06)
  - IBM IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08)
  - IBM IMS Index Builder for z/OS, V3.1 (5655-R01)
  - IBM IMS On-line Reorganization Facility for z/OS, V1.3 (5655-H97)
  - IBM IMS High Availability Large Database (HALDB) Toolkit for z/OS, V3.2 (5655-N46)

- IMS Fast Path Solution Pack trade-up options include:
  - IBM IMS Database Repair Facility for z/OS, V1.2 (5655-E03)
  - IBM IMS High Performance Fast Path Utilities for z/OS, V3.2 (5655-R05)
  - IBM IMS High Performance Image Copy for z/OS, V4.2 (5655-N45)
  - IBM IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08)

For a complete list of eligible products and eligible product combinations, refer to the Ordering information section.

IBM IMS Enterprise Suite for z/OS, V3.1 (5655-TDA) components are designed to enhance your use of IBM Information Management System (IMS) applications and data. In this release of the suite, components deliver innovative new capabilities for your IMS environment that can:

- Enhance connectivity
- Expand application development
- Extend standards and tools for a service-oriented architecture (SOA)
- Ease installation
• Provide simplified interfaces
• Provide ready access to IMS product information

The Installable Information Centre framework, which was shipped with IMS Enterprise Suite for z/OS, V2.2 (5655-T62), is not included in IMS Enterprise Suite V3.1 (5655-TDA). Customers who are interested in installing a local information centre for local access to documentation for IMS Enterprise Suite and other products (including IMS, IBM IMS Tools, IBM DB2® for z/OS, and IBM DB2 Tools) can download the latest version of the framework at


Key prerequisites

The products in this announcement will operate on any System z hardware configuration that supports the required software. Refer to the Hardware requirements and Software requirements sections for details.

Planned availability date

• October 25, 2013
  - IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08)
  - IMS Program Restart Facility for z/OS, V2.2 (5655-E14)
  - IMS Enterprise Suite for z/OS, V3.1 (5655-TDA)
• November 22, 2013
  - IMS Database Solution Pack for z/OS, V2.1 (5655-DSP)
  - IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14)

Description

IBM IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08) is an administration management tool that provides a set of utilities designed to validate, compare, map, recover, report, and regenerate a number of IMS libraries used for operations. Supported libraries include the ACB (application control block), DBD (database description), PSB (program specification block), MFS (message format services) libraries, and RECON data sets. The utilities can be used in conjunction with database maintenance tasks and migration operations to help prevent accidental misuse in production.

The new release contains all of the features and functions of the previous release and offers:

• New features provided by the new utility Multiple Resource Checker.
• Enhancements to the LICON utility in Integrity Checker to create registered DMB entries (RDEs) for HALDB partitions and to verify HALDB partitions.
• Enhancements to the DBD/PSB/ACB compare utility, which compares ACB members across IMS releases.
• An add-on feature for Administration Console that displays a graphical visualization of DBDs regenerated from a DBD library (the Administration Console is a component of the separately licensed IBM Tools Base for z/OS, V1.4 (5655-V93) program offering).

Utilities provided:

• Integrity Checker can help prevent database corruption caused by using an incorrect DBD.
Consistency Checker helps verify that the definitions in an IMS subsystem necessary for database operations are in place.

DBD/PSB/ACB Compare compares members of the applicable libraries and reports the differences.

DBD/PSB/ACB Mapper provides a pictorial representation of library members.

DBD/PSB/ACB Reversal provides the capability to regenerate source control statements for library members.

Advanced ACBGEN Utility functionally replaces the standard IMS-provided ACB generation utility (DFSUACB0) with a high-speed generation facility.

MFS Utilities provide compare and reversal capabilities for MFS libraries similar to the capabilities provided for DBD, PSB, and ACB libraries.

**IMS Library Integrity Utilities for z/OS, V2.2 enhancements:**

- **New utility "Multiple Resource Checker"**
  This new utility provides the ability to check the consistency of DBD and PSB definitions in the RECON, DBDLIB, PSBLIB, and ACBLIB libraries. A single JCL file can specify for processing a maximum of 10 RECONS and 10 of each of the following libraries: DBDLIB, PSBLIB, and ACBLIB. Included in this new utility is a matrix format summary report that provides the capability to view what DBDs and PSBs exist or do not exist in the RECON data sets and libraries, and if they exist, to show if they are identical.

  This is helpful information, which can be used when verifying whether DBD and PSB definitions in the RECON data sets and the DBD/PSB/ACB libraries have been created correctly and when identifying any inconsistencies among these multiple resources. Additionally, the Multiple Resource Checker Utility has an option that can be used to report differences between multiple sets of RECON data sets.

- **RDE creation and DB verification for the HALDB using the LICON utility in Integrity Checker**
  RDEs can now be created for HALDB partitions using the INIT.DB command. The VERIFY.DB command allows for verification of HALDB partitions.

- **Compare ACB members across IMS versions with DBD/PSB/ACB Compare**
  The DBD/PSB/ACB Compare is enhanced to allow the comparison of ACB members generated with different IMS version levels.

- **Feature for graphical and simplified web access to DBDs**
  A new feature is provided for displaying the graphical visualization of a database structure map, the DBD macro source, and the DBD XML document in the Administration Console (a component of the separately licensed IBM Tools Base for z/OS, V1.4 (5655-V93)). This is an add-on feature to the Administration Console component. This add-on feature works with:

  - Distributed Access Infrastructure (a component provided with IBM Tools Base for z/OS, V1.4 (5655-V93))
  - The separately licensed IBM IMS Database Solution Pack for z/OS, V2.1 (5655-DSP) or the separately licensed IBM IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14)

**IBM IMS Program Restart Facility for z/OS, V2.2 (5655-E14)** is an application management tool that helps automate the backout and restart of abended IMS Batch Message Processing (BMP) regions and Data Language/I (DL/I) batch jobs. Restarting IMS jobs is potentially error prone, as manual job control language (JCL) changes are required to add the checkpoint ID and the log data set name that contains the restart checkpoint. If either of these manual changes are incorrect or omitted, or if a job that should be restarted is not restarted, database corruption can occur.

IMS Program Restart Facility for z/OS assists with the following:
• A batch job requiring restart is restarted in accordance with proper restart procedures.
• Will identify and use the correct log data set and the correct checkpoint ID.
• The backout of abended DL/I batch jobs is automated without the need to manually code and execute multiple IMS utility jobs.
• Database availability is improved by automating IMS DL/I batch backout processing at the time an abend occurs (or when the job is restarted if backout cannot be done at abend time). The backout process releases database locks and makes database segments available to other tasks.

In a data sharing IMSPlex environment, IMS Program Restart Facility for z/OS provides the additional feature of allowing a BMP to be restarted using a different IMS system. Taking advantage of this feature helps to provide improved restart times in the event of a system outage.

In addition, IMS Program Restart Facility for z/OS provides the ability to restart an IMS job on a different version of IMS than was in use when the job abended. This allows the implementation of an IMS version upgrade by simply abending running IMS jobs before the upgrade, and restarting the jobs after the upgrade is completed.

IMS Program Restart Facility for z/OS is easily implemented and typically requires no application changes. While an IMS batch job is running, IMS Program Restart Facility for z/OS intercepts and writes checkpoint records to two data sets. These data sets are deleted when the batch job completes successfully. In the event of an abend, however, the data sets remain in place and are used to restart the job.

IMS Program Restart Facility for z/OS , V2.2 offers:

• New ISPF interface:
  – The updated ISPF interface includes a new process for specifying IMS Program Restart Facility for z/OS options. The updated process provides for on-line help and verification for each parameter in the options data set. Additionally, with the new release, several new options are provided that were previously only available as user modifications.
  – Significant reduction of contention when updating options:
    – IMS Program Restart Facility for z/OS options are now stored in load module format after being validated through the new ISPF interface. This eliminates ISPF EDIT contention that prevented IMS batch jobs from starting when updating the options data set.
  – Maintenance roll-up, in particular:
    – Support for restarting jobs across different versions of IMS.
    – Capability to specify options based on job name, step name, and IMSID instead of only by job name.
  – Support of IMS Versions 11, 12, and 13 and IMS Database Value Unit Edition Versions 12 and 13

IMS Program Restart Facility for z/OS , V2.2 contains all the functions of IBM IMS Batch Backout Manager for z/OS (5697-H75).

Contact your IBM representative for migrating to IMS Program Restart Facility for z/OS , V2.2 (5655-E14) and its Subscription and Support (5655-E17) if you:

• Purchased IBM IMS Batch Backout Manager for z/OS (5697-H75) and its Subscription and Support (5697-H76)
• Are current with the subscription

**IBM IMS Database Solution Pack for z/OS , V2.1 (5655-DSP)** is a utilities management tool that combines the entire set of IBM IMS Tools database products that are needed to manage IMS Full Function and HALDB databases into a single, consolidated solution. IMS Database Solution Pack for z/OS provides all you need to help keep databases operational and tuned. It helps reduce the operational complexity and the impact of database reorganization on system resources.
IMS Database Solution Pack for z/OS:

- Provides a complete set of high-performance utilities to load, unload, reorganize, verify, and report on Full Function and HALDB databases
- Can work with the Autonomics Director (a component of the separately licensed IBM Tools Base for z/OS, V1.4 (5655-V93)) to assist DBAs in identifying and performing the normal functions associated with maintaining the health, performance, and recoverability of IMS databases
- Extends the capabilities of Administration Console (a component of the separately licensed IBM Tools Base for z/OS, V1.4) by providing detailed insight into the health and availability of Full Function and HALDB databases through its more easily accessible web interface
- Provides features for the "smart" reorganization of databases that can help improve system availability
- Provides high-performance image copy using advanced technology

IMS Database Solution Pack for z/OS, V2.1 provides the following new features and functions, further extending the product’s capabilities and usability:

- **Consolidation of IBM IMS On-line Reorganization Facility for z/OS and IBM IMS High Availability Large Database (HALDB) Toolkit for z/OS**
  IMS On-line Reorganization Facility enables the reorganization of IMS Full Function and HALDB databases. It provides users with full access to the database during data reorganization, helps to improve the overall database availability, and helps to prevent or significantly reduce planned downtime.
  IMS HALDB Toolkit provides features for the improved management and operation of the IMS HALDB environment.

  The elements of the two tools are assimilated into IMS Database Solution Pack for z/OS, V2.1 and are new components of the Solution Pack.

- **Extension to the Administration Console Component of IBM Tools Base for z/OS, V1.4**
  Working in conjunction with the Administration Console component (a component delivered with the separately licensed IBM Tools Base for z/OS, V1.4 (5655-V93)), IMS Database Solution Pack for z/OS provides support of graphical visualization of a decoded DBD in a hierarchal structure map, a DBD macro source, and an XML instance document.

- **Support of IMS Database Group Managed Reorganization**
  Working with Autonomics Director, a component of the separately licensed IBM Tools Base for z/OS V1.4, IMS Database Solution Pack for z/OS supports IMS Database Group Managed Reorganization. IMS Database Group Managed Reorganization helps to define a database group to be reorganized as a single unit. This is especially useful when the group contains databases with external logical relationships.

- **Option to include Partitioned Secondary Indexes (PSINDEXes) when the HALDB databases are being reorganized**
  An option is provided to include HALDB PSINDEXes when the HALDB primary database (PHDAM or PHIDAM) is being reorganized. This option is supported in IMS High Performance Load, IMS Index Builder, and IMS Database Reorganization Expert.

IMS Database Solution Pack for z/OS 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 functionality for reorganizing databases on an as-needed basis. It includes the following new features for the conditional reorganization of databases and allows the user to establish:
  – Definition and configuration of reorganization policies for a database
  – Policy-based detection and notification of database exceptions
  – Policy-based conditional reorganization
  – Database exception tracking
• With Version 2.1:
  – Supports the Group Managed Reorganization capability of Autonomics Director, a component of the separately licensed IBM Tools Base for z/OS V1.4, for a group of logically related databases
  – Supports a new option for rebuilding HALDB Partitioned Secondary Indexes when the HALDB primary database is being reorganized
  – Reports the maximum chain length for twin pointers

IMS High Performance Unload
• Provides high-speed database unloading while providing additional capabilities not found in the IMS base utilities
• Provides an 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 the IMS base utilities
• Provides an 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 run an image copy
• With Version 2.1:
  – Work File for PSINDEXes (WFP) output files of IMS High Performance Load can be used as input for building HALDB PSINDEXes.

IMS High Performance Image Copy
• Provides fast backup and recovery of database data sets using advanced copy technology
• With Version 2.1:
  – Offers the fallback process that internally switches from the batch image copy process to the concurrent image copy process when exclusive authorization is not granted

IMS High Performance Pointer Checker
• Provides utilities to help verify that databases are operational, tuned, repaired, and ready for use
• With Version 2.1:
  – Enhanced to detect the duplication of HALDB Indirect List key (ILK) to prevent a HALDB corruption that could result from such duplication
**IMS Library Integrity Utilities**

- Provides utilities to validate, compare, map, and report on IMS libraries
- With Version 2.1:
  - Complements and exploits the visualization of a decoded DBD from a DBD library in the Administration Console.
  - A new utility named Multiple Resource Checker provides the ability to check the consistency of RECON data sets, DBDLIB, PSBLIB, and ACBLIB libraries. It can process up to 10 sets of RECON data sets and up to 10 DBD/PSB/ACB libraries simultaneously. Additionally, it reports consistencies and differences between the RECON data sets and the DBD/PSB/ACB libraries.

Additionally, with Version 2.1, the Solution Pack includes as components:

**IMS On-line Reorganization Facility**

- Provides users with full access to the database during data reorganization, helps to improve the overall database availability, and helps to prevent or significantly reduce planned downtime.

**IMS HALDB Toolkit**

- Provides features for the management and operation of the IMS HALDB environment.

**IBM IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14)** is a utilities management tool offering comprehensive utilities and functions that database administrators (DBAs) can use to analyze and maintain IMS Fast Path databases (DEDBs) and to build and analyze Fast Path Secondary Index (FPSI) databases supported in IMS V12 and IMS Database Value Unit Edition V12, or later. Additionally, IMS Fast Path Solution Pack for z/OS provides features that can help boost system availability by enabling the operation of a variety of key functions without taking the IMS databases offline.

IMS Fast Path Solution Pack for z/OS complements and exploits the Autonomics Director and the Administration Console, both components of the separately licensed IBM Tools Base for z/OS, V1.4 (5655-V93).

Once an IMS database has been designed, implemented, and is in use, IMS Fast Path Solution Pack for z/OS uses the Autonomics Director to assist DBAs in identifying and performing the normal functions associated with maintaining the health, performance, and recoverability of IMS Fast Path databases.

IMS Fast Path Solution Pack for z/OS offers:

- A complete set of high-performance utilities to initialize, load, unload, reorganize, verify, tune, and report on Fast Path databases
- A "Diagnosis for DEDB areas health" function that helps DBAs to perform time-consuming database reorganization tasks more efficiently and with the ability to view diagnosis reports
- High-performance image copy using advanced technology
- Utilities to manage IMS libraries to help provide database integrity and to correct pointer problems
- Support for DBAs who use the Autonomics Director component of Tools Base for z/OS to identify and perform the normal functions associated with maintaining the health, performance, and recoverability of IMS Fast Path databases

IMS Fast Path Solution Pack for z/OS, V1.3 provides the following new features and functions, further extending the product's capabilities and usability:

- **Support of ease-of-use tuning**
  - In order to assist DBAs in changing database attributes, the tool provides a comprehensive tuning facility to select physical database attributes that meet
designated performance and space utilization requirements. DBAs can simulate segment reloads with new DBD keywords or with a randomizer without actually loading segment data.

- **Extension to the Administration Console Component of the separately licensed IBM Tools Base for z/OS, V1.4 (5655-V93) product**

  Working with the Administration Console component, IMS Fast Path Solution Pack for z/OS can provide support of graphical visualization of a decoded DBD in a hierarchal structure map, a DBD macro source, and an XML instance document.

IMS Fast Path Solution Pack for z/OS is composed of the following tools:

**IMS High Performance Fast Path Utilities**

- **IMS Fast Path Advanced Tool**
  - Integrates tool functions, improving processing efficiency and greatly reducing the time and resources needed for operation
  - Can provide, in a single job step, for the initialization, unload, reload, reorganization, restructure, analysis, DEDB area control list (DMAC) print, tuning, and extract of multiple DEDB areas without impacting all areas of a database
  - Provides Build and Analyze capabilities for the Fast Path Secondary Index databases that are supported in IMS V12, or later

- **IMS Fast Path On-line Tools**
  - Consists of an On-line Pointer Checker, On-line Data Extract, On-line Area Extender, On-line Expert Reorganization, and On-line DMAC print utilities
  - Provides for all operations without having to take the IMS database offline
  - With Version 1.3:
    - The On-line Pointer Checker reduces the elapsed time when multiple areas are specified.
    - The On-line Area Extender is enhanced and now provides a new option parameter that allows the invocation of the IMS SDEP SCAN/DELETE utilities in a single step.

- **Autonomics in IMS Fast Path**
  - DEDB area statistics are collected automatically during the DBA's daily or weekly operations, and are accumulated in a repository. The accumulated statistics are automatically evaluated from various perspectives and DBAs are notified of identified exceptional states of a DEDB area through email or texting or by a message to the operator console. Additionally, the history of exceptions can be verified by using the Autonomics Director component's ISPF user interface. This can help DBAs determine how and when the database reorganization tasks should be performed.
  - The new tuning facility helps DBAs to change database attributes by selecting physical database attributes that meet designated performance and space utilization requirements. DBAs can simulate segment reload with new DBD keywords or randomizer without actually loading segment data.
  - Lightens the DBA's workload and can help to improve reorganization tasks of a DEDB area to keep the DEDB area in better condition.

**IMS Library Integrity Utilities**

- Provides utilities to validate, compare, map, and report on IMS libraries

- With Version 1.3:
  - Complements and exploits the visualization of a decoded DBD from a DBD library in the Administration Console component of Tools Base for z/OS.
  - A new utility named Multiple Resource Checker provides the ability to check the consistency of RECON data sets, DBDLIB, PSBLIB, and ACBLIB libraries. It can process up to 10 sets of RECON data sets and up to 10 DBD/PSB/ACB libraries simultaneously. Additionally, it reports consistencies and differences between the RECON data sets and the DBD/PSB/ACB libraries.
IMS High Performance Image Copy

- Provides fast backup and recovery of database data sets using advanced copy technology
- With Version 1.3:
  - Offers a fallback process that internally switches from the batch image copy process to the concurrent image copy process when exclusive authorization is not granted.

IMS Database Repair Facility

- Provides the capability to locate and fix problem pointers

IBM IMS Enterprise Suite for z/OS, V3.1 (5655-TDA) components deliver in this release of the suite, innovative new capabilities for your IMS environment. The IMS SOAP Gateway, IMS Enterprise Suite Connect API for Java™, Java Message Services (JMS) API, IBM Installation Manager, and Base Services components, which run in the z/OS environments, are orderable, whereas IMS Explorer for Development, IMS SOAP Gateway, Connect API for C, IMS Enterprise Suite Connect API for Java, and IBM Installation Manager components, which run in Windows™ or Linux™ environments, are available for download at

http://www.ibm.com/ims

IMS SOAP Gateway helps you maximise reuse of your IMS assets, using standard interfaces with HTTP/SOAP transport to IBM and non-IBM components and utilizing Rational® tooling for XML conversion. New IMS SOAP Gateway enhancements use industry standards and enhanced tooling to further extend the reach and participation of your IMS assets in an SOA, with 64-bit support for the z/OS platform, allowing organizations to take advantage of their 64-bit operating environment for extended memory usage. Another enhancement is the Send-only with acknowledgement protocol support for synchronous callout allowing IMS SOAP Gateway to receive a final confirmation that the response message was delivered to the original IMS application that issued the callout request, providing IMS SOAP Gateway users additional information about whether a callout response message was sent to IMS and whether IMS received the message.

Connect APIs for Java and C extend connectivity of distributed platforms to IMS and simplify application development for stand-alone, user-written IMS Connect clients.

IMS Explorer for Development support enables IMS application developers and database architects and developers to easily perform common and essential tasks in an end-to-end application development lifecycle, through an Eclipse-based user interface that seamlessly integrates with other Eclipse-based solutions. Graphical editors simplify the development and visualization of Database Description (DBD) and Program Specification Block (PSB) resource definitions. IMS Explorer for Development also enables you to graphically edit PSBs and DBDs. It generates new PSB and DBD source and enables you to export that source to the host where normal PSBGEN, DBDGEN, and ACBGEN processing can be done. It also leverages the IBM IMS Universal JDBC Driver to provide a relational view of IMS data, and offers the ability to graphically build and run ad hoc queries against live IMS data. The new features of IMS Explorer for Development include the following:

- Catalogue Navigation View: This view allows you to browse all of their PSBs/DBDs and launch "read only" editors to view details. You can also search for DBDs referenced by a PSB, PSBs that reference a given DBD, a PSB/DBD whose name contains a string of characters, and all instances of a given PSB/DBD.
- Usability enhancements: Improved usability for importing PSBs/DBDs and COBOL or PLI data structures. You can import these source files from the IMS Catalogue, host data sets, or the local file system. The import PSB/DBD function is also improved to enable you to import an arbitrarily large set of sources at one time.
- Problems View support: New support for reporting IMS Explorer project errors and warnings in the Eclipse problems view.
- IMS Transaction Unit Test support: A system has been added to enable you to define IMS transactions, import COBOL or PLI data structures that map input and output messages, and invoke those transactions in support of their unit testing process.
- DCLGEN: Based on DBD metadata in either the IMS Catalogue or IMS Explorer projects, the user can automatically generate the COBOL or PLI data structures source code that map their database segments.
- JMP metadata generation: Generation of metadata that can be consumed by the Universal Drivers in support of Java Message Processing transactions.

JMS API expands Java application development in Java dependent regions to offer IMS 13 synchronous program switch support with the ICAL DL/I call. JMS API also supports IMS 12 and IMS 11.

IBM intends, at a future time, possibly via its support and service processes, to make available IMS Data Provider for Microsoft .NET as part of the IMS Enterprise Suite for Distributed Systems offering. IMS Data Provider for Microsoft .NET will be designed to provide standard SQL access to IMS data from Microsoft .NET applications. The intention is to allow Microsoft .NET applications to transparently and directly read and manipulate IMS data without the need for intermediate steps and additional tooling to accomplish these tasks. Refer to the Statement of direction section for additional important information.

IBM Installation Manager provides an effective way of managing installations through a hosted repository that clients install with the added ability to apply APARs, rollback, and uninstall the product. This also provides the flexibility for the IMS SOAP Gateway server components to be installed on different mount points and optionally in read-only mode, enhancing the server’s ability to grow with the increasing demands for web services, with improved security.

Base Services can help to ease installation, and includes the Java Development Kit and sample jobs for installation of z/OS based components.

The Installable Information Centre framework, which was shipped with IMS Enterprise Suite V2.2 (5655-T62), is not included in Version 3.1 (5655-TDA). Customers who are interested in installing a local information centre for local access to documentation for IMS Enterprise Suite and other products (including IMS, IMS Tools, DB2 for z/OS, and DB2 Tools) can download the latest version of the framework from its download site at


**IBM IMS Explorer for Administration**, a replacement for IMS Control Centre, is introduced as a web-based console to operate and administer IMS. IMS Explorer for Administration can query, start, and stop IMS resources from an easy-to-use browser interface. It can discover IMS resources, show the health of the resources, and show relationships between them. Resources can be filtered and context sensitive help is provided.

IMS Explorer for Administration connects to the IMS Operations Manager through IMS Connect. Customers currently using the IMS Control Centre should use IMS Explorer for Administration. IBM IMS Explorer for Administration is available through APAR PM94292 as an extension of the Administration Console component of IBM Tools Base for z/OS, V1.4.

**Accessibility by people with disabilities**

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

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 stipulates 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 want 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 website

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.

Statement of direction

IBM intends, at a future time, possibly via its support and service processes, to make available IMS Data Provider for Microsoft .NET as part of the IMS Enterprise Suite for Distributed Systems offering. IMS Data Provider for Microsoft .NET will be designed to provide standard SQL access to IMS data from Microsoft .NET applications. The intention is to allow Microsoft .NET applications to transparently and directly read and manipulate IMS data without the need for intermediate steps and additional tooling to accomplish these tasks.

IBM’s statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM’s sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. Information about potential future products
may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

### Program number

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<tr>
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<th>Program name</th>
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<tr>
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<td>2.2.0</td>
<td>IBM IMS Library Integrity Utilities for z/OS</td>
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<tr>
<td>5655-E14</td>
<td>2.2.0</td>
<td>IBM IMS Program Restart Facility for z/OS</td>
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<td>5655-DSP</td>
<td>2.1.0</td>
<td>IBM IMS Database Solution Pack for z/OS</td>
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<td>5655-W14</td>
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<td>IBM IMS Fast Path Solution Pack for z/OS</td>
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<td>5655-TDA</td>
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### Product identification number

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<td>5655-TDA</td>
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### Offering Information

Product information is available via the Offering Information website

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

### Publications

The IBM Publications Centre portal is at


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

One copy of each of the following publications is supplied automatically with the material.

<table>
<thead>
<tr>
<th>Title</th>
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<tbody>
<tr>
<td>IBM IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08)</td>
<td>GC19-2478</td>
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<tr>
<td>License Information'</td>
<td>GI10-8798</td>
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<td>Program Directory</td>
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<tr>
<td>IBM IMS Program Restart Facility for z/OS, V2.2 (5655-E14)</td>
<td>GC27-0911</td>
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<td>License Information'</td>
<td>GI10-8258</td>
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<tr>
<td>IBM IMS Database Solution Pack for z/OS, V2.1 (5655-DSP)</td>
<td>GC19-4008</td>
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IBM IMS Fast Path Solution Pack for z/OS, V1.3
(5655-W14)
License Information' GC19-2915
Program Directory GI10-8823

IBM IMS Enterprise Suite for z/OS, V3.1 (5655-TDA)
License Information' GC19-4111
Program Directory GI10-8964
Installation Manager for z/OS, V1.4 Program Directory GI11-9852

Included with this publication order number are the Base License Agreements: (a) IBM International Program License Agreement (form Z125-3301) and (b) IBM Agreement for Acquisition of Software Maintenance (form Z125-6011).

The publications for products in this announcement cannot be ordered in hardcopy.

IBM IMS Library Integrity Utilities for z/OS, IBM IMS Program Restart Facility for z/OS, IBM IMS Database Solution Pack for z/OS, and IBM IMS Fast Path Solution Pack for z/OS publications in this announcement are available at


All IBM IMS Enterprise Suite for z/OS product information is available in the Information Centre at

http://pic.dhe.ibm.com/infocenter/dzichelp/v2r2/index.jsp

<table>
<thead>
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<td>IBM IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08)</td>
<td>SC19-3979</td>
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<td>User's Guide</td>
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<td>User's Guide</td>
<td></td>
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<td>IBM IMS Database Solution Pack for z/OS, V2.1 (5655-DSP)</td>
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<tr>
<td>Overview and Customization</td>
<td></td>
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<tr>
<td>IBM IMS HALDB Toolkit for z/OS User's Guide</td>
<td>SC19-4102</td>
</tr>
<tr>
<td>IBM IMS On-line Reorganization Facility for z/OS, User's Guide</td>
<td>SC19-4103</td>
</tr>
<tr>
<td>IBM IMS Solution Packs Database Sensor User's Guide</td>
<td>SC19-3283</td>
</tr>
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<td>IBM IMS Solution Packs IMS Database Space Tuning Guide</td>
<td>SC19-3395</td>
</tr>
<tr>
<td>IBM IMS Database Reorganization Expert for z/OS, User's Guide</td>
<td>SC19-1137</td>
</tr>
<tr>
<td>IBM IMS Database Repair Facility for IMS Solution Packs User's Guide</td>
<td>SC19-2916</td>
</tr>
<tr>
<td>IBM IMS Index Builder for z/OS for z/OS, User's Guide</td>
<td>SC18-9101</td>
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<tr>
<td>IBM IMS High Performance Load for z/OS, User's Guide</td>
<td>SC18-9222</td>
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<tr>
<td>IBM IMS High Performance Image Copy for z/OS, User's Guide</td>
<td>SC19-2756</td>
</tr>
<tr>
<td>IBM IMS High Performance Unload for z/OS, User's Guide</td>
<td>SC27-0936</td>
</tr>
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<td>IBM IMS High Performance Pointer Checker for z/OS, User's Guide</td>
<td>SC19-2401</td>
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<td>IBM IMS High Performance Prefix Resolution for z/OS, User's Guide</td>
<td>SC18-9230</td>
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<td>IBM IMS Library Integrity Utilities for z/OS, User's Guide</td>
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<tr>
<td>IBM IMS Fast Path Solution Pack for z/OS, V1.3:</td>
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<td>Overview and Customization</td>
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<td>IBM IMS High Performance Fast Path Utilities User's Guide</td>
<td>SC19-4010</td>
</tr>
<tr>
<td>IBM IMS Solution Packs Database Sensor User's Guide</td>
<td>SC19-3283</td>
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<tr>
<td>IBM IMS Solution Packs IMS Database Space Tuning Guide</td>
<td>SC19-3395</td>
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<tr>
<td>IBM IMS High Performance Image Copy for z/OS, User's Guide</td>
<td>SC19-2756</td>
</tr>
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<td>IBM IMS Library Integrity Utilities for z/OS, User's Guide</td>
<td>SC19-3979</td>
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<td>IBM IMS Library Integrity Utilities for z/OS, User's Guide</td>
<td>SC19-3979</td>
</tr>
<tr>
<td>IBM IMS Database Repair Facility for IMS Solution Packs User's Guide</td>
<td>SC19-2916</td>
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</table>
Technical information

Specified operating environment

Hardware requirements

The following programs operate on any hardware configuration that supports the required versions of IMS:

- IBM IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08)
- IBM IMS Program Restart Facility for z/OS, V2.2 (5655-E14)
- IBM IMS Database Solution Pack for z/OS, V2.1 (5655-DSP)
- IBM IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14)

IMS Enterprise Suite for z/OS, V3.1 (5655-TDA) operates on any hardware configuration that supports the following:

- Any 64-bit IBM processors that are capable of running the required z/OS V1.13 for functions that are to run on z/OS
- IBM processors capable of running Linux on System z for functions that are to run on this operating system and which are available for download at [http://www.ibm.com/ims](http://www.ibm.com/ims)
- Workstations capable of running Windows and Linux for functions that are to run on these operating systems and which are available for download at [http://www.ibm.com/](http://www.ibm.com/)
- Additional line-item requirement information is provided in the IMS Enterprise Suite Program Directory (GI10-8964)

Software requirements

Mandatory installation requirements

- IBM IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08)
- IBM IMS Program Restart Facility for z/OS, V2.2 (5655-E14)
- IBM IMS Database Solution Pack for z/OS, V2.1 (5655-DSP)
- IBM IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14)

The programs above require one of the following:

- IBM z/OS V1.12 (5694-A01), or later
- IBM z/OS V2.1 (5650-ZOS)

IBM IMS Enterprise Suite for z/OS, V3.1 (5655-TDA) requires:

- z/OS V1.13 (5694-A01), or later

IMS Library Integrity Utilities for z/OS, V2.2, IMS Database Solution Pack for z/OS, V2.1, and IMS Fast Path Solution Pack for z/OS, V1.3 require:

- IBM Tools Base for z/OS, V1.4 (5655-V93) at the latest maintenance level

IMS Fast Path Solution Pack for z/OS, V1.3 requires one of the following:

- IBM IMS V11.1 (5635-A02)
- IBM IMS V12.1 (5635-A03)
• IBM IMS V13.1 (5635-A04)
• IBM IMS Database Value Unit Edition V13.1 (5655-DSM)

**Mandatory operational requirements**

IBM Library Integrity Utilities for z/OS, V2.2, IMS Program Restart Facility for z/OS, V2.2, and IMS Database Solution Pack for z/OS, V2.1 require one of the following:

- IBM IMS V11.1 (5635-A02)
- IBM IMS V12.1 (5635-A03)
- IBM IMS Database Value Unit Edition V12.1 (5655-DSQ) (with IMS Database Value Unit Edition PTF UK93908)
- IBM IMS V13.1 (5635-A04)
- IBM IMS Database Value Unit Edition V13.1 (5655-DSM)

IMS Enterprise Suite, V3.1 (5655-TDA) component function operates with:

- Connect APIs (C and Java)
  - IBM IMS V11.1 (5635-A02)
  - IBM IMS V12.1 (5635-A03)
  - IBM IMS V13.1 (5635-A04)
- IMS Enterprise Suite Explorer for Development
  - IBM IMS V11.1 (5635-A02)
  - IBM IMS V12.1 (5635-A03)
  - IBM IMS Database Value Unit Edition V12.1 (5655-DSQ) (with IMS Database Value Unit Edition PTF UK93908)
  - IBM IMS V13.1 (5635-A04)
  - IBM IMS Database Value Unit Edition V13.1 (5655-DSM)
- JMS API
  - IBM IMS V11.1 (5635-A02)
  - IBM IMS V12.1 (5635-A03)
  - IBM IMS V13.1 (5635-A04)
- IMS SOAP Gateway
  - IBM IMS V11.1 (5635-A02)
  - IBM IMS V12.1 (5635-A03)
  - IBM IMS V13.1 (5635-A04)

IMS Enterprise Suite V3.1 component requirements:

- IMS SOAP Gateway runs on z/OS V1.13 (5694-A01), or later, Linux on System z, and Windows
- JMS API open source runs on z/OS
- IMS Enterprise Suite Connect API for Java runs on z/OS and Windows
- Connect API for C runs on Windows XP SP2, or later
- IMS Enterprise Suite Explorer for Development runs on Windows XP or Windows 7

Additional line-item requirement information is provided in the IMS Enterprise Suite Program Directory (GI10-8964).

**Conditional operational requirements**

- IMS Library Integrity Utilities for z/OS, V2.2 requires:
  - DFSORT (provided with z/OS V1.12 (5694-A01), or later, or z/OS V2.1 (5650-ZOS)) or a functionally equivalent sort program for function ACBLIB Analyzer Utility and function Integrity Checker
• IMS Database Solution Pack for z/OS, V2.1 (5655-DSP) requires:
  – Language Environment (provided with z/OS V1.12 (5694-A01), or later, or z/OS V2.1 (5650-ZOS)) for IBM IMS High Performance Load using the LE interface for an user exit routine written in either COBOL or PL/I
  – DFSORT or a functionally equivalent sort program for function HD Pointer Checker, HD Tuning Aid, Space Monitor, Integrity Checker, IMS Index Builder, IMS High Performance Load, and for the ACBLIB Analyzer Utility
  – ISPF, GDDM® (provided with z/OS V1.12 (5694-A01), or later, or z/OS V2.1 (5650-ZOS)) for the display of DB Historical Analyzer charts on TSO terminals
  – ISPF for IMS HALDB Toolkit and for IMS DB Repair on TSO terminals and batch
  – IMS Database Solution Pack for z/OS, V2.1 - IMS High Performance Pointer Checker for HDPC Hash Pointer Check of IMS High Performance Image Copy
  – Tools Base for z/OS, V1.4 with APAR PM94292, PM96587, and PM96450 for the graphical and simplified web access to DBDs

• IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14) requires:
  – DFSORT or a functionally equivalent sort program for Pointer Checker and Restructure/Reorganization and FP Secondary Index building, for function Integrity Checker, and for the ACBLIB Analyzer Utility
  – ISPF for IMS DB Repair on TSO terminals and batch
  – IMS Fast Path Solution Pack, V1.3 (5655-W14) - IMS High Performance Image Copy for various IMS Fast Path Solution Pack functions
  – Tools Base for z/OS, V1.4 with APAR PM94292, PM96587, and PM96450 for the graphical and simplified web access to DBDs

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.

Compatibility
IMS Explorer for Administration, part of the IBM IMS Tools Base Administration Console for z/OS V1.4 (5655-V93) replaces IMS Control Centre and will be available in the IMS Tools Base Administration Console for z/OS V1.4 service process. Customers using the IMS Control Centre should use IMS Explorer for Administration and will need the IBM Tools Base Administration Console for z/OS component of IBM Tools Base for z/OS, V1.4.

User group requirements
This announcement satisfies or partially satisfies requirements from one or more of the worldwide user group communities. Groups include COMMON, COMMON Europe, Guide Share Europe (GSE), InterAction (Australia/New Zealand), Japan Guide Share (JGS), and SHARE Inc.

IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08) satisfies the following requirements:

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<tr>
<th>32315</th>
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<th>MR0222106736</th>
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<td>MR082812519</td>
<td>MR0831125424</td>
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IMS Program Restart Facility for z/OS, V2.2 (5655-E14) satisfies the following requirements:

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<td>MR0228114740</td>
<td>MR0730121911</td>
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</table>

IMS Database Solution Pack for z/OS, V2.1 (5655-DSP) satisfies the following requirements:
IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14) satisfies the following requirements:

MR1115115316        MR0523123541        MR0601125840
MR0424124143        MR0523126450        MR0216094120
MR0424125642        MR0626123732        MR0222106736
MR0424126131        MR061412676         MR1001093255
MR0424126436        MR0628122810        MR082812519
MR0424121537        MR0910125534        MR0831125122
MR052212236         MR032212588         MR0831125424
MR0523122623

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)
- IBM Agreement for Acquisition of Software Maintenance (IAASM)

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

Ordering z/OS through the Internet

ShopzSeries provides an easy way to plan and order your z/OS ServerPac or CBPDO. It will analyze your current installation, determine the correct product migration, and present your new configuration based on z/OS. Additional products can also be added to your order (including determination of whether all product requisites are satisfied). ShopzSeries is available in the US and several countries in Europe. In countries where ShopzSeries is not available yet, contact your IBM representative.
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</th>
<th>MSUs</th>
<th>Value Units/MSU</th>
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<tr>
<td>minimum</td>
<td>maximum</td>
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<td>Base</td>
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<tr>
<td>Tier A</td>
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<td>45</td>
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<tr>
<td>Tier B</td>
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<td>Tier C</td>
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<tr>
<td>Tier D</td>
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<td>+</td>
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For mainframes without MSU ratings:

<table>
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<tr>
<th>Hardware</th>
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<td>MP3000 H30</td>
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<td>MP3000 H50</td>
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<td>MP3000 H70</td>
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<tr>
<td>ESL models</td>
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</tbody>
</table>

**Ordering example**

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

If your required license capacity is 1,500 MSUs for your selected 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>
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</thead>
<tbody>
<tr>
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<td>Tier A</td>
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<td>Tier B</td>
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<td>.36</td>
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<tr>
<td>Tier C</td>
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<td>.27</td>
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<tr>
<td>Tier D</td>
<td>1,185</td>
<td>.20</td>
</tr>
<tr>
<td>Total</td>
<td>1,500</td>
<td>343.50</td>
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</table>

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

Example: In the above ordering example, for the product running on a machine with 1,500 MSUs requiring 344 Value Units, order feature number G4FG, quantity 94, and feature number G4FH, quantity 1.

**Basic license**

**On/Off CoD**

The products in this announcement are eligible for On/Off Capacity on Demand (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>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>1-3</td>
</tr>
<tr>
<td>Tier A</td>
<td>4-45</td>
</tr>
<tr>
<td>Tier B</td>
<td>46-175</td>
</tr>
<tr>
<td>Tier C</td>
<td>176-315</td>
</tr>
<tr>
<td>Tier D</td>
<td>316+</td>
</tr>
</tbody>
</table>

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:** IBM IMS Library Integrity Utilities for z/OS, V2.2  
**Program PID:** 5655-U08

**Entitlement identifier**  
**Description**  
**License option/ Pricing metric**  
**S0152PP**  
IMS Library Integrity Utilities for z/OS  
Basic OTC, Value Units  
Basic OTC, Per MSU-day  
TUC

**Orderable supply ID**  
**Language**  
**Distribution medium**  
S0166CF  
US English  
Tape Cartridge

**Program name:** IBM IMS Program Restart Facility for z/OS, V2.2  
**Program PID:** 5655-E14

**Entitlement identifier**  
**Description**  
**License option / Pricing metric**  
**S00V79H**  
IMS Program Restart Facility for z/OS  
Basic OTC, Value Units  
Basic OTC, Per MSU-day  
TUC

**Orderable supply ID**  
**Language**  
**Distribution medium**  
S016623  
US English  
Tape Cartridge
Program name: IBM IMS Database Solution Pack for z/OS, V2.1
Program PID: 5655-DSP

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<td>Trade up from 5655-U09</td>
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<td>Trade up from 5655-E06</td>
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<td>Trade up from 5655-U08</td>
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Orderable supply ID | Language | Distribution medium
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S0178XD              | US English | Tape Cartridge

Program name: IBM IMS Fast Path Solution Pack for z/OS, V1.3
Program PID: 5655-W14

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Orderable supply ID | Language | Distribution medium
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S015TZB              | US English | 3590 Tape Cartridge
Program name: IBM IMS Enterprise Suite for z/OS, V3.1
Program PID: 5655-TDA

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Orderable supply ID | Language | Distribution medium |
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Orderable supply ID    Language         Distribution medium
S015NC9                US 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.

**Subscription and Support for IMS Tools Solution Packs**

Customers who license IMS Solution Packs, and who have previously separately licensed one or more of the component products included in a Solution Pack, should discontinue subscription and support for the previously licensed component products. For additional information about IMS Solution Packs and their component products, refer to Software Announcement A10-0078, dated February 09, 2010.

**Withdrawal from Marketing (WFM) Information**

A new product release within a version supersedes the release level that precedes it. Accordingly, the following product releases will be withdrawn from marketing, effective on the date the new release becomes available.

**Releases to be withdrawn from marketing effective October 25, 2013**

<table>
<thead>
<tr>
<th>Name of product being withdrawn</th>
<th>Ver</th>
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Replacement information

- 5655-U08, IBM IMS Library Integrity Utilities for z/OS , V2.1.0 is replaced by 5655-U08, IBM IMS Library Integrity Utilities for z/OS , V2.2.0
- 5655-E14, IBM IMS Program Restart Facility for z/OS , V2.1.0 is replaced by 5655-E14, IBM IMS Program Restart Facility for z/OS , V2.2.0

Release to be withdrawn from marketing effective November 22, 2013

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Replacement information:

- 5655-W14, IBM IMS Fast Path Solution Pack for z/OS , V1.2.0 is replaced by 5655-W14, IBM IMS Fast Path Solution Pack for z/OS , V1.3.0

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 CBPDO and ServerPac. These customized offerings are offered for Internet delivery in countries where ShopzSeries product ordering is available. Internet delivery reduces software delivery time and allows you to install software without the need to handle tapes. For more details on Internet delivery, refer to the Shopz help information at

http://www.software.ibm.com/ShopzSeries

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

- 3590
- 3592

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

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


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 general availability.

Terms and conditions

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

**Licensing**

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

**Agreement for Acquisition of Software Maintenance**

The following agreement applies for Software Subscription and Support (Software Maintenance) and does not require customer signatures:

- IBM Agreement for Acquisition of Software Maintenance (Z125-6011)

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

IBM System z Operational Support Services - SupportLine is an option if you desire added services.

**License Information form numbers**

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<tr>
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**Trade-in terms for DB2 and IMS Solution Packs**

IBM may offer trade-in terms for customers who have separately licensed one or more of the individual products that are included in a Solution Pack and who wish to trade in the licenses to one or more such individual products when licensing a Solution Pack. If IBM offers such trade-in terms, then as part of any such trade in, all entitlements to the products being traded in will be terminated. In some cases, the entitlements to the Solution Packs being licensed by the customer as part of the trade-in arrangement may not be equal to the entitlements being terminated. For example, if the customer holds entitlement to 100 Value Units of product A which has been included in a Solution Pack, and is trading in its license to product A in return for 90 Value Units of the Solution Pack, then, in keeping with the specific trade-in terms, the customer agrees to terminate all its entitlements to product A (100 VUs).

The program’s License Information will be available for review on the IBM Software License Agreement website

**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.

**Volume orders (IVO)**

No

**Passport Advantage applies**

No

**Software Subscription and Support applies**

No. For operating system software, the revised IBM Operational Support Services - SupportLine 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 -- SupportLine**

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.

Academic use allowance: Yes

Products eligible for single version charging

IBM IMS Library Integrity Utilities for z/OS, V2.2:

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Utilities/Data Base Tools (DBT), V2, High Speed Sequential Retrieval Feature

5685-093 IBM IMS System Utilities/Data Base Tools (DBT), V2, Image Copy Extensions Feature

5668-856 IBM IMS System Utilities/Data Base Tools (DBT), V1, Space Management Utilities Feature

5685-093 IBM IMS System Utilities/Data Base Tools (DBT), V2, Space Management Utilities Feature

5668-856 IBM IMS System Utilities/Data Base Tools (DBT), V1, VSAM Zapper Feature

5685-093 IBM IMS System Utilities/Data Base Tools (DBT), V2, VSAM Zapper Feature

5685-093 IBM IMS System Utilities/Data Base Tools (DBT), V2, Fast Prefix Resolution Feature

5685-093 IBM IMS System Utilities/Data Base Tools (DBT), V2, Fast ACBGEN Feature

5685-093 IBM IMS System Utilities/Data Base Tools (DBT), V2, DBD/PSB/ACB Library Management Utilities Feature

5697-D13 Parallel Reorganization for IMS/ESA®, V1

IBM IMS Fast Path Solution Pack for z/OS, V1.3:

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IBM is a registered trademark of International Business Machines Corporation
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.
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| 5655-U08       | IMS Library Integrity Utilities for z/OS, V2.2        | Reference-based         | IMS V11.1 (5635-A02)  
IMS V12.1 (5635-A03)  
IMS Database Value Unit Edition V12.1 (with IMS Database Value Unit Edition PTF UK93908) (5655-DSQ)  
IMS V13 (5635-A04)  
IMS Database Value Unit Edition V13.1(5655-DSM) |
| 5655-E14       | IMS Program Restart Facility for z/OS, V2.2           | Reference-based         | IMS V11.1 (5635-A02)  
IMS V12.1 (5635-A03)  
IMS Database Value Unit Edition V12.1 (with IMS Database Value Unit Edition PTF UK93908) (5655-DSQ)  
IMS V13.1 (5635-A04)  
IMS Database Value Unit Edition V13.1(5655-DSM) |
| 5655-DSP       | IMS Database Solution Pack for z/OS, V2.1             | Reference-based         | IMS V11.1 (5635-A02)  
IMS V12.1 (5635-A03)  
IMS Database Value Unit Edition V12.1 (with IMS Database Value Unit Edition PTF UK93908) (5655-DSQ)  
IMS V13.1 (5635-A04)  
IMS Database Value Unit Edition V13.1(5655-DSM) |
| 5655-W14       | IMS Fast Path Solution Pack for z/OS, V1.3            | Reference-based         | IMS V11.1 (5635-A02)  
IMS V12.1 (5635-A03)  
IMS Database Value Unit Edition V12.1 (with IMS Database Value Unit Edition PTF UK93908) (5655-DSQ)  
IMS V13.1 (5635-A04)  
IMS Database Value Unit Edition V13.1(5655-DSM) |
| 5655-TDA       | IMS Enterprise Suite for z/OS, V3.1                   | Full Machine based      | N/A                                                                                     |

**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 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 IBM System z Machines Exhibit*, Z125-3901, or visit the Mainframes section of the System z Exhibits website.

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

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 with the license capacity of the parent program across the Parallel Sysplex. Qualified Parallel Sysplex refers to one:

- Where MLC pricing is aggregated across the sysplex

**Sub-capacity eligibility**

To be eligible for sub-capacity charging on select 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 operating systems.
- Any licenses for the OS/390 operating system must be discontinued.
- All instances of the z/OS operating systems must be running in z/Architecture® (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 website.

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 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 System z 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 IBM System z On/Off Capacity on Demand (Z125-7883) must be signed prior to use.

**Statement of good security practices**

IT system security involves protecting systems and information through prevention, detection, and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, or misappropriated or can result in misuse of your systems to attack others. Without a comprehensive approach to security, no IT system or product should be considered completely secure and no single product or security measure can be completely effective in preventing improper access. IBM systems and products are designed to be part of a comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective. IBM does not warrant that systems and products are immune from the malicious or illegal conduct of any party.

**Prices**

Prices are subject to change without notice.

GST, QST, and sales taxes, where applicable, are extra.

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

**Program name:** IBM IMS Library Integrity Utilities for z/OS, V2.2  
**Program PID:** 5655-U08

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**Program name:** IBM IMS Program Restart Facility for z/OS, V2.2  
**Program PID:** 5655-E14

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**Program name:** IBM IMS Database Solution Pack for z/OS, V2.1  
**Program PID:** 5655-DSP

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**Program name:** IBM IMS Fast Path Solution Pack for z/OS, V1.3  
**Program PID:** 5655-W14

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Program name: IBM IMS Enterprise Suite for z/OS, V3.1
Program PID: 5655-TDA

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S0179JR                US English       3590 Tape Cartridge

Subscription and Support PID: 5655-K65

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Orderable supply ID Language Distribution medium
S0103KB                English          Hardcopy publication

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Orderable supply ID Language Distribution medium
S00TH8G                English          Hardcopy publication

Subscription and Support PID: 5655-S78

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S015TZ7 | US English | Hardcopy publication

Subscription and Support PID: S655-W15

Entitlement identifier | Description | License Options/Pricing Metrics
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S015TZG | IMS Fast Path Solution Pack for z/OS S&S | Basic ASC, per Value Unit SW S&S Registration

Orderable supply ID | Language | Distribution medium
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S015TZF | US English | Hardcopy publication

Subscription and Support PID: S655-T61

Entitlement identifier | Description | License Options/Pricing Metrics
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S015NCC | IMS Enterprise Suite for z/OS S&S | No charge Unlimited installs SW S&S Registration

Orderable supply ID | Language | Distribution medium
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S015NC9 | US English | Hardcopy publication

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Corrections

(Corrected on November 5, 2013)

The Software requirements section was revised.