

Since its debut in 1968, IMS DB and IMS TM have become the foundation on which businesses run their mission-critical applications: IMS DB and IMS TM in tandem; IMS TM as the transaction manager for DB2® and VSAM; IMS DB as the database manager driven by CICS®. No other solution today offers the combination of performance, scalability, rock-solid reliability, and runtime efficiency. If you think IMS is not strategic to your business, it's time to re-think IMS.

IMS V11 Database Manager Enhancements

- IMS Open Database support offers direct distributed TCP/IP access to IMS data, providing cost efficiency, enabling application growth, and improving resilience.
- Broadened Java and XML tooling eases IMS application development and access to IMS data.
- IMS Fast Path Buffer Manager, Application Control Block library, and Local System Queue Area storage reduction utilize 64-bit storage, improving IMS availability and overall system performance.
- Enhanced Commands and User Exits simplify operations and improve IMS availability.

IMS V11 Transaction Manager Enhancements

- IMS Connect, the TCP/IP gateway to IMS transactions, operations, and now data, offers improved IMS flexibility, availability, resilience, and security.
- Broadened Java and XML tooling eases IMS application development and connectivity, and enhances IMS web services to assist developers with business transformation.
- Enhanced Commands and User Exits simplify operations and improve IMS availability.
- IMS Application Control Block library and Local System Queue Area reduction utilize 64-bit storage, improving IMS availability and system performance.

IMS 11 can be used with all IBM processors that run IBM z/OS Version 1 Release 9 (5694-A01), or later. Additional prerequisites exist for some IMS 11 enhancements.

IBM provides a robust portfolio of tools and utilities to manage IMS efficiently and to optimize performance. To learn more about how IMS 11 can help you capitalize on open standards and support your business's efficiency, growth, and resiliency objectives, call your IBM representative or IBM Business Partner, or visit www.ibm.com/ims.

Scalability and Performance continued...

Fast Path Enhancements

» IMS DB Enhancements

IMS 11 Fast Path enhancements provide storage relief and performance improvements, and improve usability and serviceability. The new Fast Path 64-bit Buffer Manager moves all DEDB data buffers into 64-bit private storage, which provides Extended CSA storage relief and enhances performance. Fast Path users can now open DEDB area data sets without having to predefine them as PREOPEN. Serviceability enhancements eliminate unnecessary messages, easing problem determination.

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September 2008
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Re-think IMS: IBM's high-performance application and data server for System z

Information Management System (IMS) Version 11

Highlights

- Integrate IMS™ assets with other products and platforms across the internet, capitalizing on open standards. Flexibility for growth and expansion in heterogeneous environments is ensured.
- Provide low cost SOA Services in an environment that is highly scalable, available, and safe.
- Capitalize on current industry tooling for application development and connectivity. Accelerate the alignment of business and IT, transforming the way you do business.
- Respond quickly to business opportunities by simply and efficiently building and delivering situational applications and services.
- Address and relieve skill constraints with installation, operations, and systems management ease-of-use enhancements.
- Optimize performance, capacity, availability, and recovery using current hardware and software facilities.

Information Management System (IMS) is IBM®'s high-performance application and data server for System z™. No other solution today offers the combination of extreme performance, scalability, rock-solid reliability, and runtime efficiency. When it comes to running core applications that are at the heart of business processing, most large corporations worldwide continue to depend on IMS. Today's enterprise IT needs are more closely tied to the business than ever before. Businesses require efficiency to meet the cost challenges and responsiveness demanded by the global economy. Enterprise IT must support growth, allowing the business to rapidly develop new products and services to remain competitive, while increasing productivity and flexibility on demand. Business today also requires that IT systems be resilient, reducing business risk and complying with all regulations and controls.

IMS and IBM IMS tools continue to evolve to provide value and meet the needs of enterprise customers. They have both provided investment protection for nearly four decades, and they will continue to do so far into the future.

IMS Version 11 (IMS 11) includes many features and improvements that, together with the System z platform, will not only help you meet your IT and enterprise data center cost challenges, but also improve the efficiency, resilience, and flexibility of your business.

Integration and Open Access

IMS 11 enhancements that support integration and open access help you comply with industry regulations and internal controls, and rapidly develop and deploy new applications and services, thereby reducing operational and maintenance costs.

- Direct, distributed TCP/IP access to IMS data, both within an IMSplex or with platforms other than System Z, is provided with IMS Open Database support, enabling cost efficiencies in application growth and improved system resilience.
- Improved IMS flexibility, availability, resilience, and security through IMS Connect enhancements. IMS Connect is the TCP/IP gateway to IMS transactions, operations, and now IMS data.
- Simplified creation of Web services, Enterprise Java™ Bean (EJB) components, and Java Server Pages (JSPs) from your existing MFS-based IMS applications. New applications can be deployed to run on WebSphere Process Server as part of your business choreography.

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Manageability and Ease of Use

IMS 11 enhancements that support manageability and ease of use help you optimize operational processes, secure your assets, and strengthen operational controls.

- Simplified operations and improved system availability through enhanced user exits and new type-2 commands.
- Enhanced database availability from support for IMSplex-wide recovery points that are taken while the system is online.
- Usability and serviceability enhancements including Syntax Checker support for Open Database.

Database Quiesce

» [IMS DB Enhancements](#)

Database Quiesce simplifies the establishment of recovery points across an IMSplex without requiring that systems be taken offline. IMS Fast Path Data Entry Databases (DEDBs), Fast Path areas, IMS Full Function databases, and database groups are all supported. Applications no longer will encounter an unavailable database. Using one command, you can improve IMS availability.

User Exit Enhancements

» [IMS DB and IMS TM Enhancements](#)

IMS 11 enhancements to user exits make it easier to manage specific user exit types. You can refresh selected IMS control region user exits and call multiple exit routines from a single exit point. Some user exits can be defined by type, rather than by exit name, which allows IMS to more efficiently manage multiple instances of the same user exit type. Exits can be changed dynamically, no longer requiring an IMS restart, which improves IMS availability. Commands are provided to display user exit information.

Type-2 Command Enhancements

» [IMS TM Enhancements](#)

In addition to the Database Quiesce and user exit commands, IMS 11 provides type-2 command enhancements in support of IMS TM resources and OTMA. Type-2 commands allow wildcards and filters that simplify management of IMS resources. Use the QUERY command to monitor and manage TM resources such as nodes, users, LTERMS, and user IDs. Use the QUERY OTMACI command to monitor OTMA transaction instances, identify potential message problems, and dynamically change output message destinations while IMS is running. These command enhancements ease workload balancing without requiring an IMS restart, thereby improving IMS availability.

Integration and Open Access continued...

IMS Open Database

» [IMS DB Enhancements](#)

IMS Open Database provides a standards-based direct interface (Java EE and JDBC) to IMS data from TCP/IP-enabled Windows®, Linux®, HP-UX, Sun Solaris, AIX®, zLinux, and z/OS® platforms. It simplifies the management of connections through the IMS Open Database Access (ODBA) interface, and uses IMS Connect for security authentication. Applications can access IMS databases across LPAR boundaries, extending the reach and impact of your IMS assets. IMS Open Database provides an integrated distributed data access solution, helping you to integrate IMS assets with other products and platforms across your enterprise and the internet.

IMS Connect

» [IMS DB and IMS TM Enhancements](#)

IMS Connect is the ultimate, optimized TCP/IP connectivity interface to IMS. The IMS TM enhancements to IMS Connect include enhanced commands, improved availability with a new recorder trace facility and through fewer required restarts, improved reliability of diagnostic information, and reduced operator intervention. IMS Connect enhancements help you to meet your cost challenges in an environment that is highly scalable, available, and safe.

IMS SOA Integration Suite

» [IMS DB and IMS TM Enhancements](#)

The IMS SOA Integration Suite provides tools and functions that help you modernize your existing IMS applications and preserve your investments by using IMS technology for connectivity, data representation, and application development. IMS 11 enhancements to the IMS SOA Integration Suite help you create Web Services, EJBs, and JSPs from MFS-based IMS applications, using the IMS TM Resource Adapter. Additional enhancements to the IMS TM Resource Adapter enable IMS applications to invoke external applications, allow IMS transactions to be invoked using standards-based transaction support on distributed platforms, and automate the resolution of communications failures. Collectively, these enhancements provide improved data quality, standards compliance, and enhanced IMS availability.

Scalability and Performance

IMS 11 enhancements that support the matchless scalability and performance of IMS provide an architectural roadmap that will support your growth for years to come.

- System availability and overall system performance are enhanced through the use of 64-bit storage. The IMS Fast Path Buffer Manager, the Application Control Block library, and Local System Queue Area storage reduction's use of 64-bit private storage simplifies operations and improves storage utilization and performance.
- The ability to run Database Recovery Control (DBRC) on the IMS Base Primitive Environment provides it with many system services, simplifying the management and operations of Database Recovery Control.

ACBLIB Enhancements

» [IMS DB and IMS TM Enhancements](#)

With IMS 11, you can load Application Control Block (ACBLIB) members into 64-bit storage and dynamically allocate them using DFSMDA members. Loading the ACBLIB members into 64-bit storage reduces the amount of read I/O, providing quick access to the ACBLIBs. The inactive ACBLIB can be taken offline for maintenance without requiring an IMS outage, improving IMS availability. Overall, storage utilization and system performance are enhanced.

LSQA Storage Reduction

» [IMS DB and IMS TM Enhancements](#)

IMS 11 provides enhancements to local system queue area (LSQA) storage, minimizing the likelihood of LSQA exhaustion. z/OS creates Content Directory Elements (CDEs) in LSQA storage to track types of storage. In some circumstances, an excessive number of CDEs can cause storage-related abends, requiring that the IMS system be brought down and that z/OS re-IPL as well. The LSQA enhancements provided in IMS 11 allow the use of 64-bit private storage for CDE-like elements in tracking certain types of storage from the IMS Control and DL/I regions, enhancing performance and minimizing system outages.

DBRC Enhancements

» [IMS DB Enhancements](#)

IMS 11 provides DBRC enhancements in the areas of serviceability and manageability. With IMS 11, you can choose to run DBRC regions on the IMS Base Primitive Environment (BPE) base, extending BPE's suite of system services (storage management, tracing, and dispatching) to DBRC, simplifying the management and operations of DBRC. Users of DBRC can now specify a maximum retention period for recovery information using a simple command, which reduces the amount and size of retained RECON information and simplifies the clean up of expired data sets. Finally, security is simplified with the removal of a security check bypass, eliminating unnecessary security checks in test and debugging environments.

Manageability and Ease of Use continued...

Systems Management Enhancements

» [IMS DB and IMS TM Enhancements](#)

A number of enhancements have been made in IMS 11 to simplify the management and troubleshooting of your IMS systems. The IMS Syntax Checker, which simplifies the definition, verification, and validation of parameters and their values of the IMS 11 IMS.PROCLIB data set, includes support for IMS Open Database. Several enhancements support IMS serviceability. A GSAM XRST is enabled even if the GSAM output data set is empty, thereby eliminating potential data loss and minimizing problem determination time. Troubleshooting enhancements to message DFS1058E, the IMS Dump Formatter, and more, reduce the time associated with problem determination, improving the availability of your systems.