
**Key Message: IBM continues to enhance IMS and the environment in which it runs**

In 1964 IBM announced the System 360. In 1965 IBM delivered the Operating System. And the first part of 1966, when I was born, a small group of IBMers put together the initial IMS architecture. Later that year, IBM, North American Aviation (Rockwell), and Caterpillar Tractor agreed to jointly develop a hierarchical database management system based on the IBM System 360 for the Apollo Space program. Today, IMS is the cornerstone of your Information On demand business transformation. IBM is continuing to provide enhancements to help you with this for IMS and for the environment in which it runs. I'll be talking about some of the latest of these enhancements and where we are heading in the future.


**Key Message: At IBM we are securing your investment in IMS**

At IBM, we are keeping your investment secure, by keeping IMS:

MODERN by utilizing New Technology for SOA and integrating with other Products across the Internet

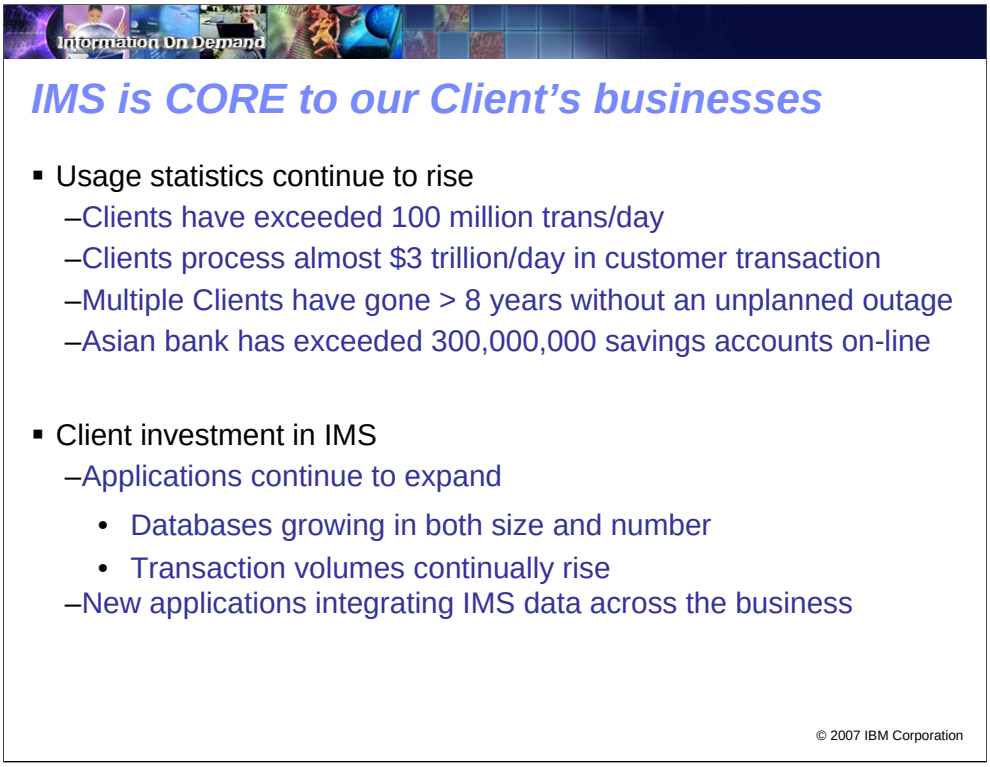
FOR NEW WORKLOADS by accelerating Production Readiness and providing Significant Core Value with Lowered Total Cost of Ownership

WITH OPTIMIZED MANAGEMENT by easing Resource Requirements and providing for planned evolutionary rollout.

New versions are planned well into the future

+ SUP tapes & technology previews

More than 90% of Fortune 1000 customers continue to use IMS!




**Key Message: IMS is critical to our clients and their continued growth**

IMS is critical to our client's businesses, allowing them to drive the capacity and availability numbers up to address their needs. Our customers continue to grow their investment in IMS, expanding their database sizes and transaction volumes with new users as well as adding new applications which continue to drive the numbers up. Only traditional Transaction Monitors, like IMS, can provide our customers unmatched qualities of services.


**Key Message: IMS usage continues to grow**

I'm pleased to report to you that the overall health of IMS is quite robust and has never been better, in it's 38 year history. IMS is on its way to its third record breaking year in a row, as measured by the revenue delivered to IBM. This is quite important, because if we want IBM to continue to invest in IMS we must show the business a satisfactory return on its investment. Therefore, if I haven't already said it, on behalf of the IMS team of Silicon Valley Lab: "Thanks for your business".

IMS growth comes in three flavors: additional workload as measured in MIPS; upgrades from old versions to new and additional licenses. The best indicators for us that we are addressing the requirements of our customers are workload growth and migrations to the latest versions. We also get some new licenses through mergers and acquisitions in the US and in Europe and the installation of new zSeries footprints in emerging countries, mostly in Asia. Our main focus however, is assuring that we are developing the right stuff for our existing customers, so we look at worldwide workload in MIPS as the best indicator of that.

There is no better way to show the value and strength of IMS to its customers and to IBM then through its increased growth.

Customer's IMS Mips have been growing rapidly +25% to over 3 million MIPS WW running IMS.

IMS V8 and V9 installations have also been growing rapidly with greater numbers in production faster then predecessor versions.

And the Revenue stream for IMS has been growing year to year with version upgrades and new license and mips growth.


**Key Message: Our customers are embracing key IMS function for growth and manageability.**

China Construction Bank is consolidating multiple branches from different platforms into two data centers in an IBM Sysplex. They have and extremely large customer base requiring extremely large database support

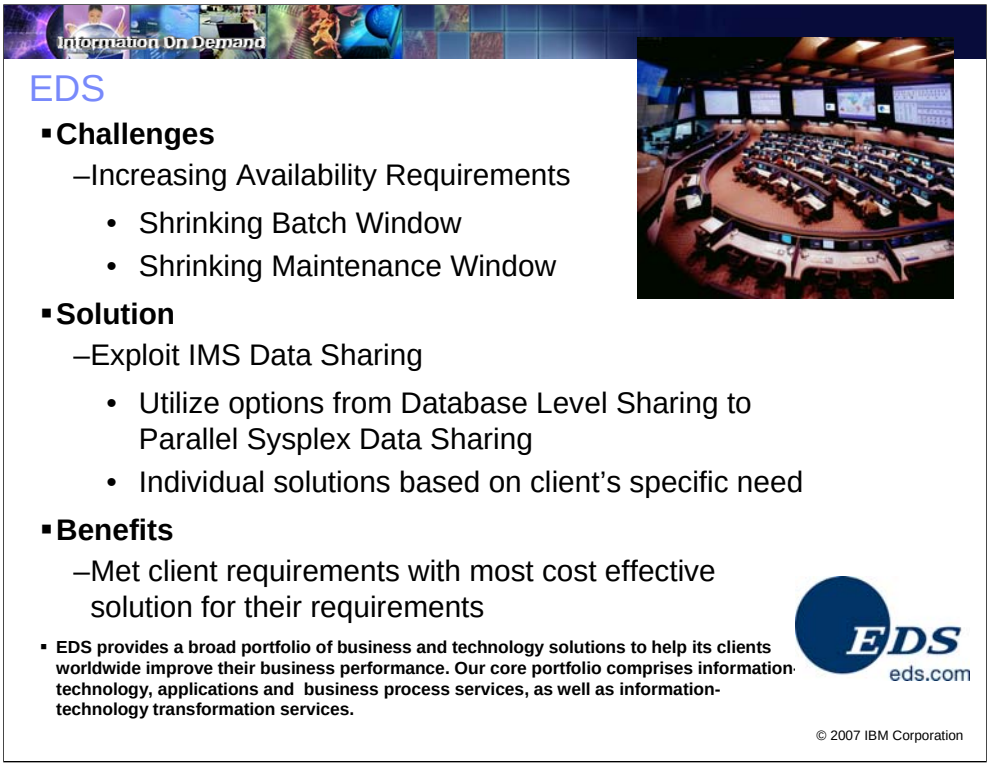
As different branches are added into the database there is a substantial increase in the amount of data stored and in the transaction volume each time. Because of the instantaneous jump in processing each time a branch is added the need for planning and up front performance analysis is critical.

Parallel Sysplex was implemented to accommodate the substantial capacity growth needs and for high availability.

IMS V8 DB, the IMS High Availability Large Database (HALDB) support, and the Fast Path Data Entry Database (DEDB) support, and particularly the IMS V8 >240 area support, was chosen for efficiency in processing very large data base capacity. In addition, the IMS Fast Data Base Recovery (FDBR) function, could be used for the quick restoration of availability for all databases in the event of a system failure.

In addition, to provide for automatic restoration of service in the event of a site disaster, planning is underway for using IBM's Peer-to-Peer Peer to Peer Remote Copy (PPRC) and Geographically Dispersed Parallel Sysplex (GDPS)

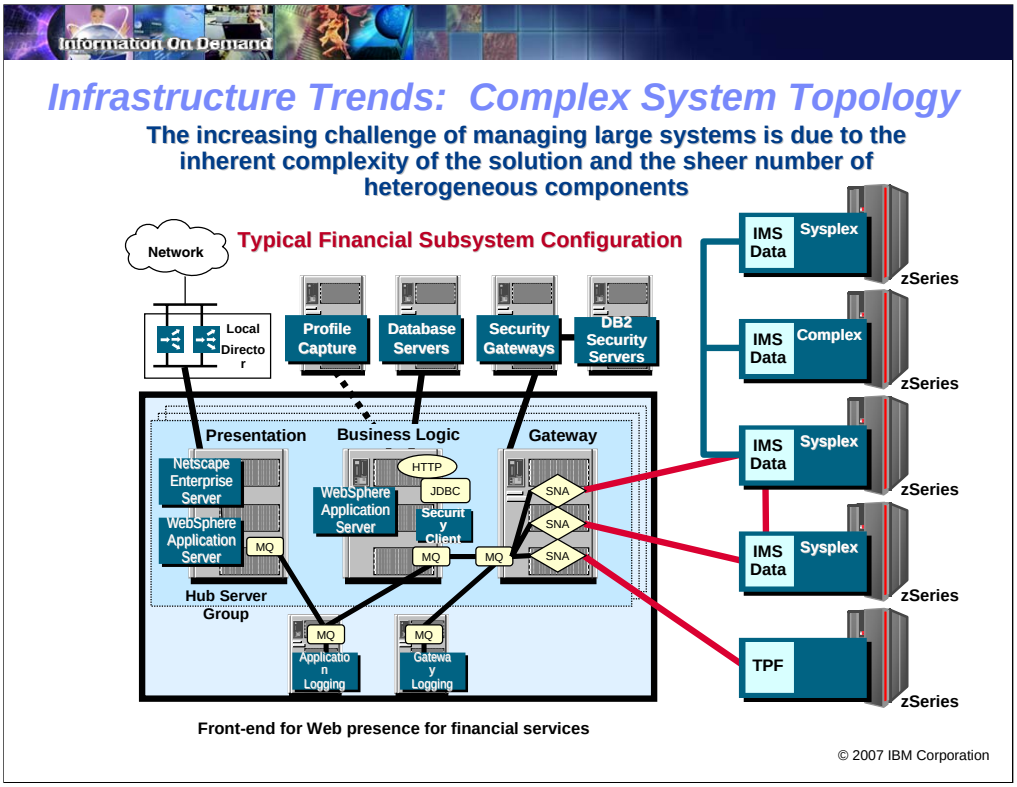
Additionally, IBM's Automatic Restart Manager (ARM) facilities and the IBM System automation Tools are being used to automate quick image restart and subsystem startup/shutdown/etc.




EDS is exploiting features of IMS to meet the needs of their diverse customer base. From a Manufacturing customer with a batch window concern – to the Airline industry with a need for 24x7 scheduled uptime – IMS offers a variety of Data Sharing options to choose from.

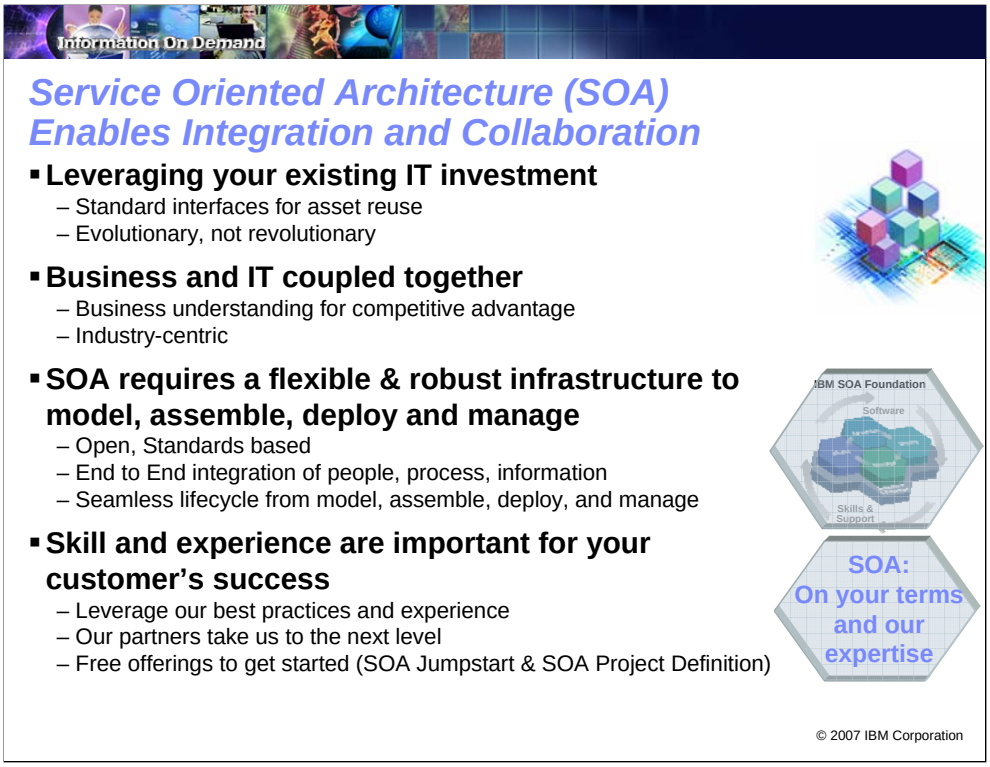
After analyzing the requirements, selecting the appropriate solution to meet the clients requirements in a cost effective manner.

In some cases, the simpler Database Level Sharing can suffice – but the extended capabilities of Parallel Sysplex Data Sharing can clearly meet the more demanding requirements for extended availability.




## Key Message: IMS Customers' environments are becoming more and more complex

Information technology has significantly changed to address the changing world of business. Market forces have been changing the way we do business. Regulation, economics, have been changing as businesses become more global. Growth of the Internet, the global reach, the new commerce channels are changing the way everybody does business, like the upswing in mergers and acquisitions. Views into information are becoming as important as the information itself. Amalgamation and aggregation have become widespread in the industry. Businesses are exploiting new technologies to enable new customers with new information across the web, in a global day. Businesses are being challenged with balancing priorities and need new ways to gain and retain competitive edge to address increasing demands and sophistication of their customers. IMS customers are at the bleeding edge of this reality. Yet at its heart, business stays the same. Industry forces are making the highest demands for performance and availability, along with interoperability, flexibility, and support for new, emerging technologies. This is something IMS people have been hearing for years. And IMS continues to help efficiently provide heterogeneous access across global networks and in addressing companies' changing needs. IBM is providing integrated solutions with IMS to help our customers with on demand processing. And the increasing challenges of managing the complexity of the solution and the sheer number of heterogeneous components are being addressed by IMS and the environment/products with which it runs.



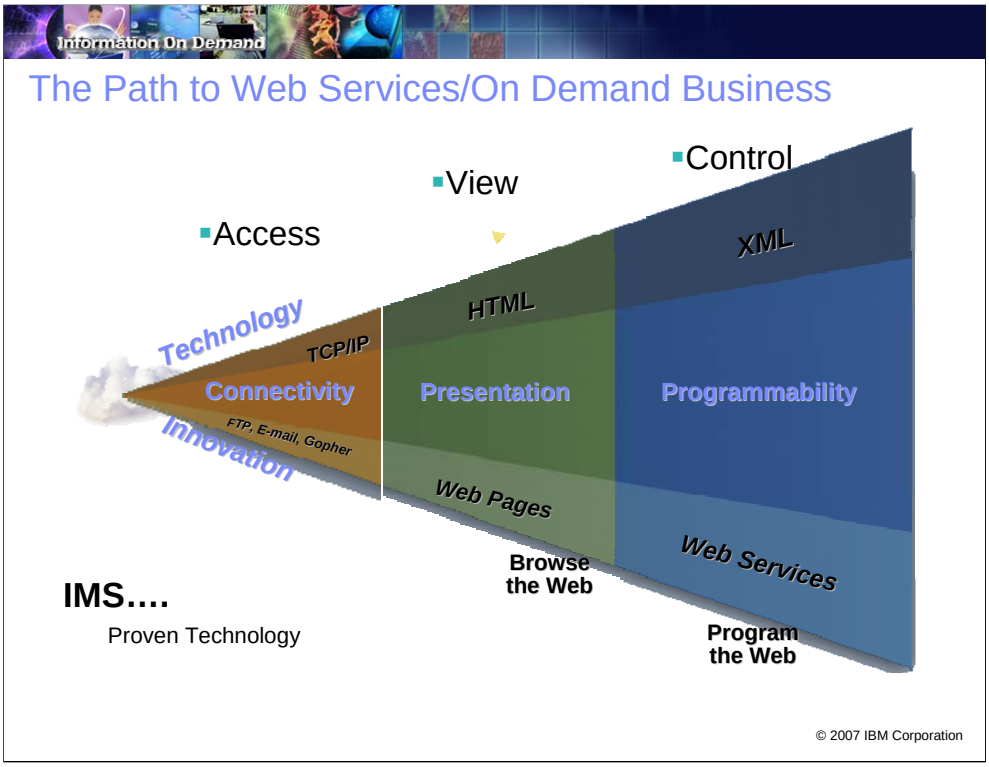

**Key Message: SOA helps integrate, collaborate, transform and IBM can help get you started**

To help address Information On Demand requirements, customers have been embracing a Service Oriented Architecture. Using applications and data as the web services building blocks, SOA can help company's leverage their investments

SOA can also provide a better coupling of business and IT goals, building on business knowledge with industry focus for a competitive edge. An extensive integration capability allows you to automate your business processes and provide benefits for your business and IT departments

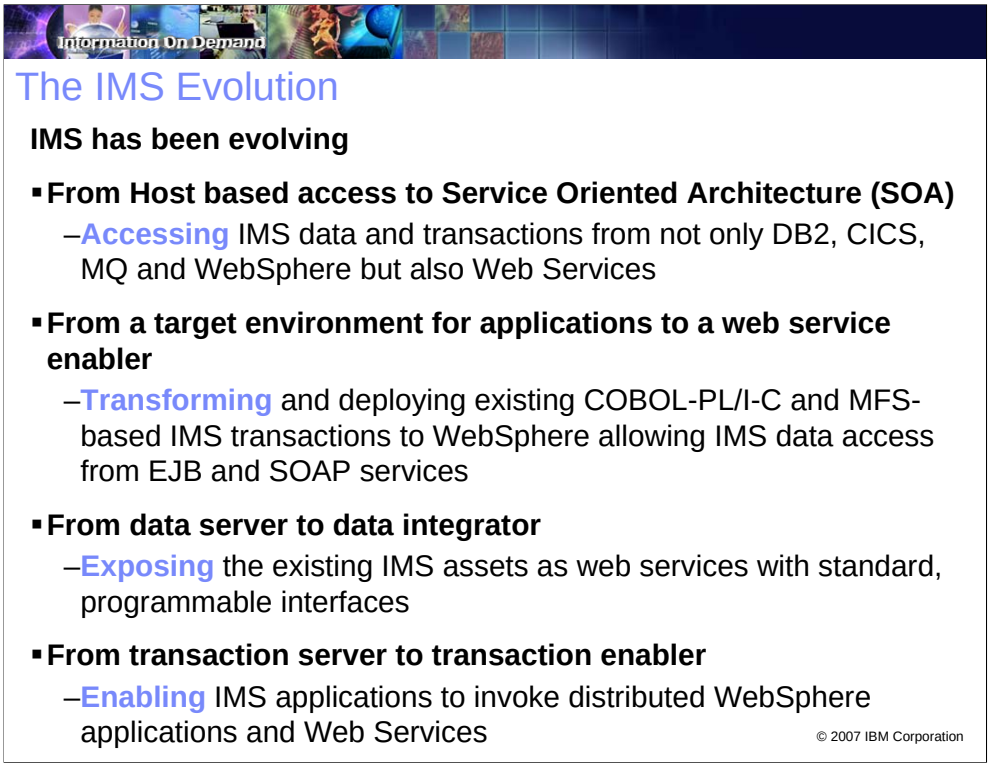
SOA creates a flexible and robust infrastructure to model, assemble, deploy and manage the open environment with seamless end-to-end integration using Open standards.

And we at IBM can offer our product tools, skills, and experience to help you in this endeavor.




**Key Message: IMS is continuing to address the latest technology as it evolves to address on demand business needs.**

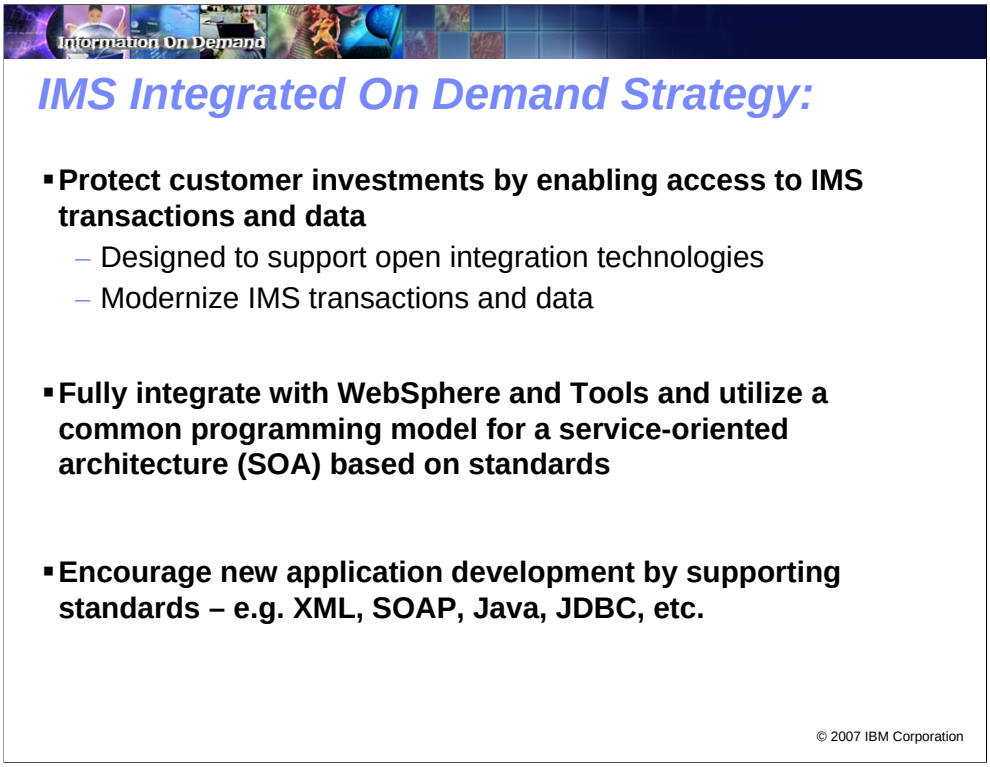
As technology has evolved over the years, companies demand more and more from their business applications and information infrastructure. Internet technology provides more flexibility to view that information. XML usage is growing exponentially in transactions, purchase orders, invoices, and other forms. IMS XML DB allows the storage and retrieval of XML documents from existing or new IMS databases, while maintaining the security, stability and performance that only IMS and the IBM Mainframe can provide.




**Key Message: IMS has evolved into the SOA world.**

Thanks to our On Demand solutions, today IMS users have the possibility to enable IMS applications as web services by using WebSphere and associated tooling and using IMS Connector for Java and IMS Connect to provide connectivity to IMS.

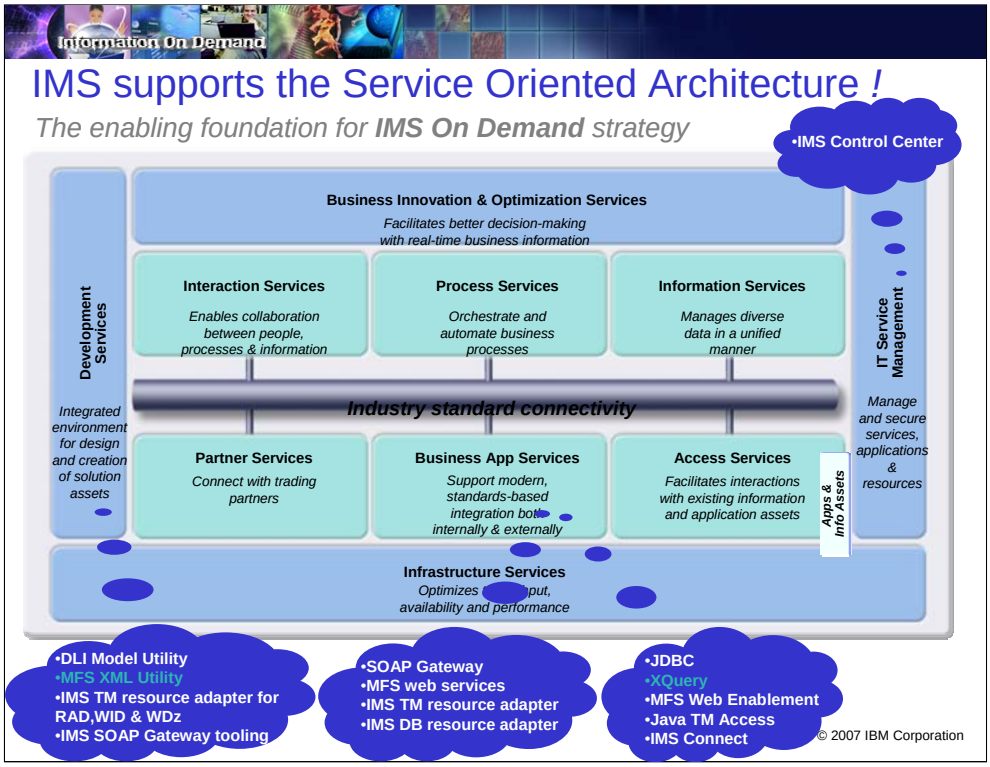
IMS customers can transform existing IMS C, COBOL and MFS-based transactions into definitions that can be deployed to WebSpere allowing IMS applications and data to be accessed from EJB or SOAP services.




**Key Message: IMS is providing Integrated on Demand solutions to protect customer investments.**

The IMS integrated on demand solutions protect customer investments by enabling access to IMS transactions and data. These solutions are designed to support open, integrated technologies and modernize use of IMS transactions and data.

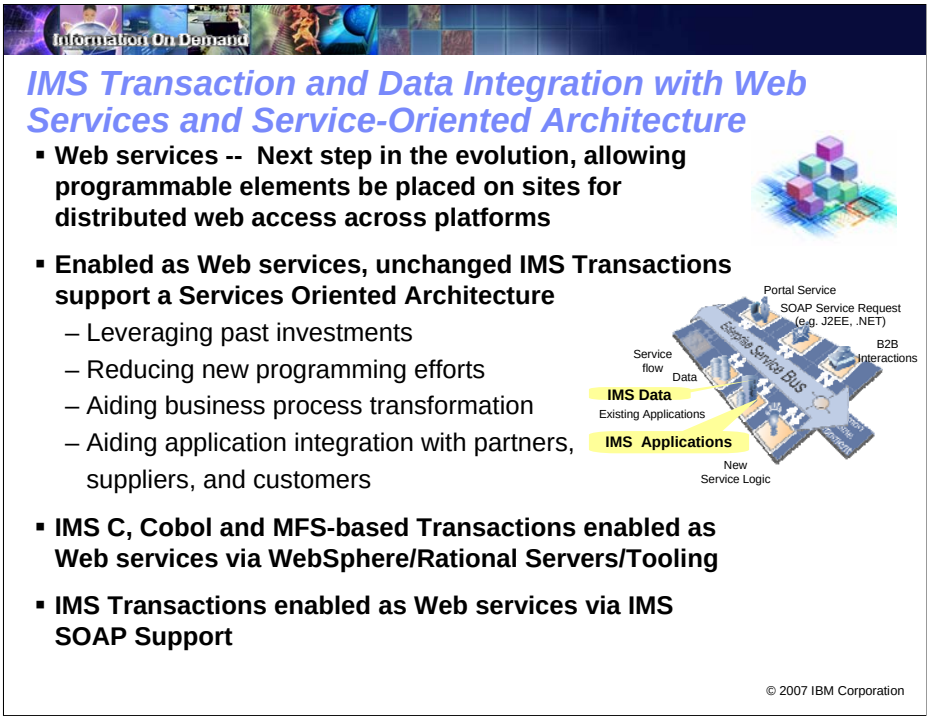
(Click) These solutions fully integrate with WebSphere and industry tooling. They utilize a common programming model for a service-oriented architecture (SOA), based on standards, such as XML, SOAP, Java, JDBC, etc., and new ones as they develop. Support of this advanced technology would then encourage new application development and new application developers.




**Key Message: IMS is supporting Web services and the Service Oriented Architecture.**

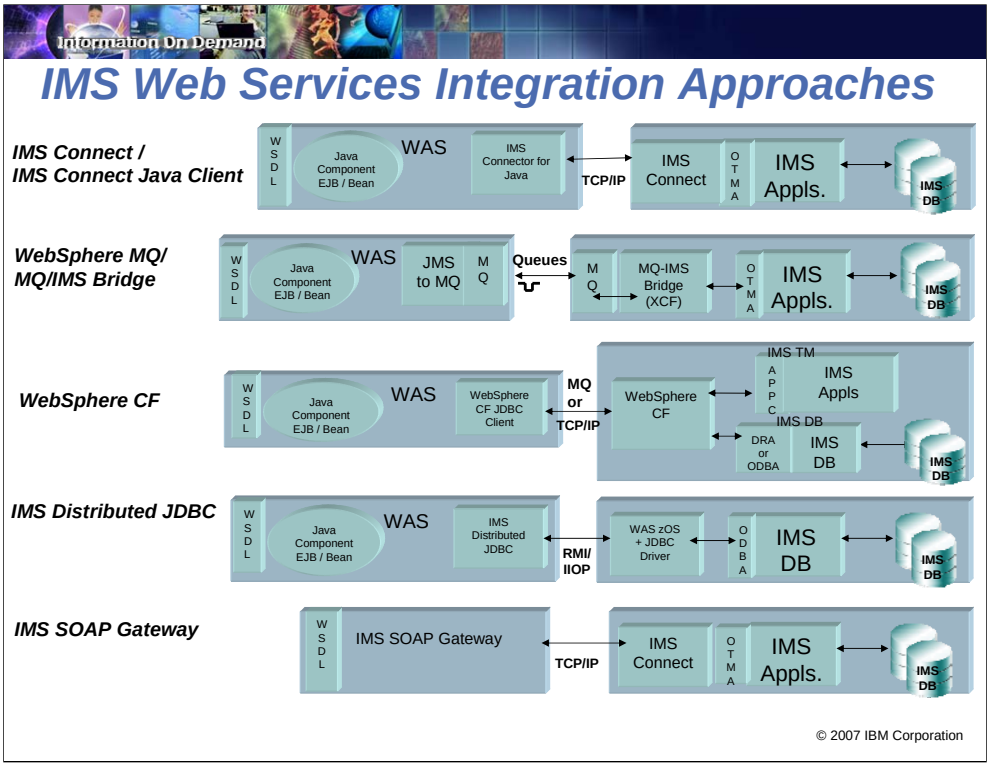
Today IMS Transactions and Data can be enabled as Web services, and be supported in a Service Oriented Architecture (SOA). This provides for the leveraging of past investments in application development. This can also eliminate or greatly reduce new programming effort, reduce end-to-end business process transformation, and facilitate integration with partners, suppliers, and customers.

SOA provides a flexible connectivity infrastructure for integrating applications and services to power your SOA. This chart shows the multitude of IMS product features enabling IBM customers to access their core IMS assets through web services using SOA.




**Key Message: IMS Transactions and Data integration is provided using Web services and the Service Oriented Architecture.**

IMS COBOL, C, and MFS-based applications can be enabled as Web services using WebSphere and Rational tooling. IMS transactions are also being enabled as Web services via the IMS SOAP support.



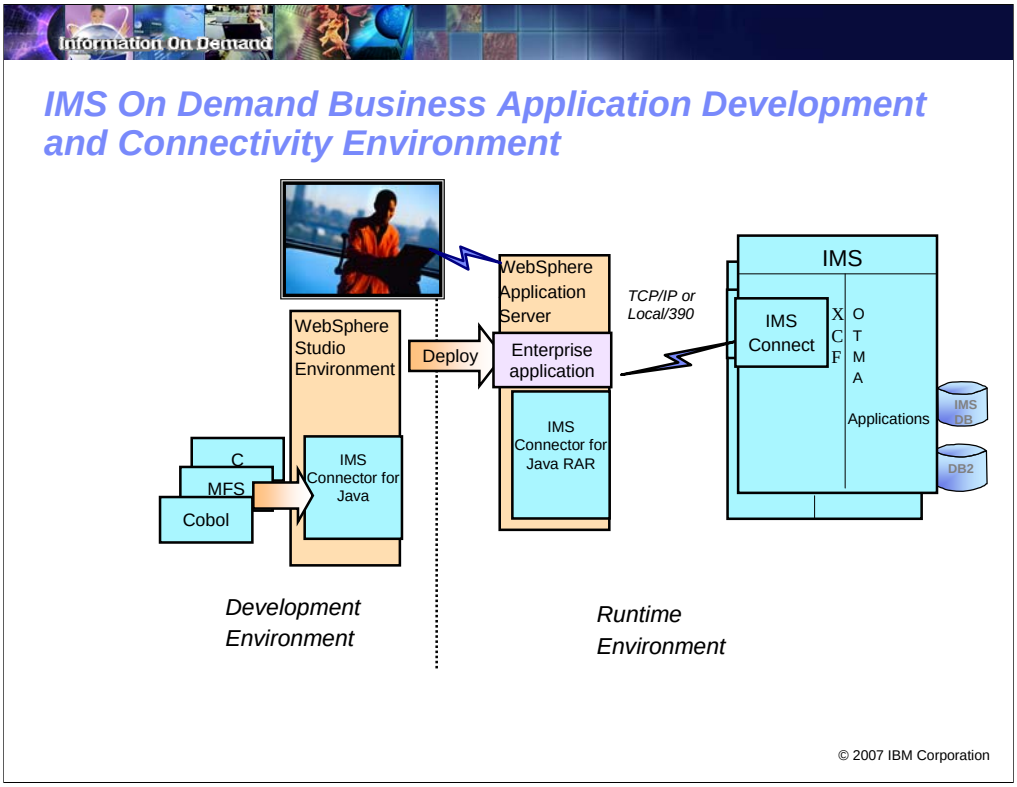

**Key Message: IMS is providing a variety of techniques for integrated access to IMS applications and data as web services.**

▪A key element of the On Demand environment in IMS V9 is the Integrated IMS Connect function. This function provides easy-to-install, easy to use, high performance/high volume and secure transparent access to IMS applications and their data. This can be done from any application environment, including LINUX. It utilizes the IMS Open Transaction Manager Access (OTMA) interface for access to IMS applications and the Structured Call Interface (SCI) for access to IMS operations.

•The IMS Connector for Java, provided as development and runtime code, works with IMS Connect to enable development and connectivity of Java applications running under WebSphere Servers.

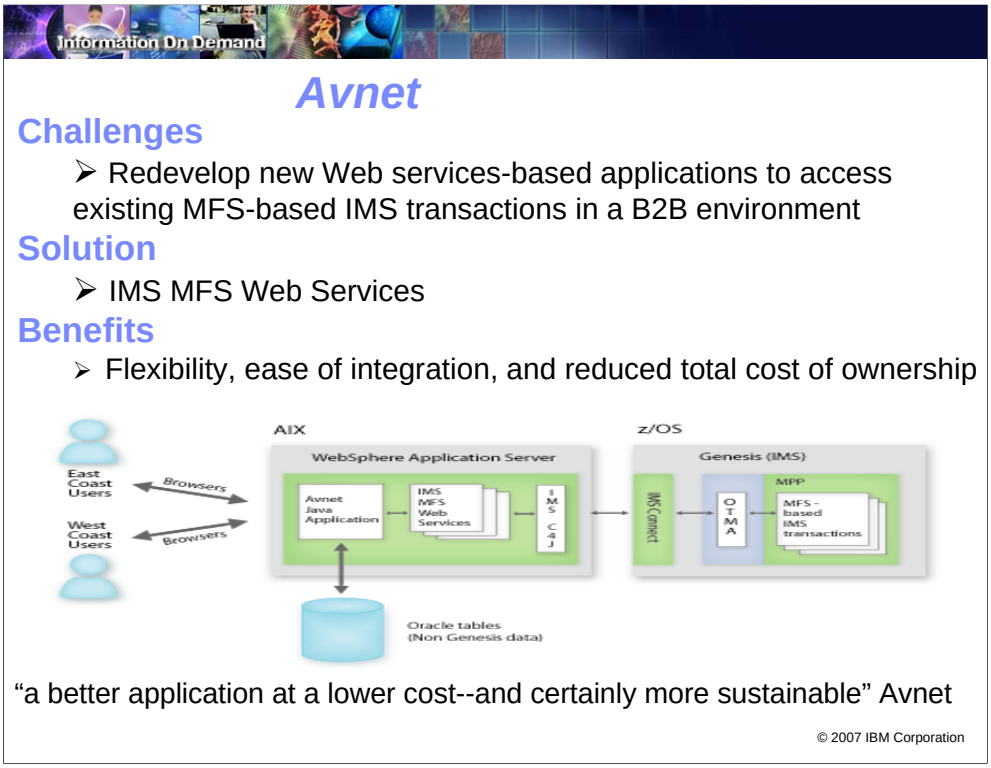
•WebSphere MQ also provides access to IMS applications through the OTMA interface.

•As we move down the page, WebSphere Information Integration Classic Federation (IICF) offers SQL and JDBC access to IMS Data through the IMS Open Database Access (ODBA) interface. This provides distributed, common access to IMS Databases along with non-IMS databases, using the Information Integration product family. IICF can also be used to provide access to IMS applications.
•Also providing Distributed JDBC access to IMS database resources is the integrated IMS V9 Remote Database Services support. This support provides an IMS JDBC driver for a distributed J2EE application server and requires no additional z/OS application programming.
•And lastly on this chart, the IMS Soap Gateway broadens IMS application integration to other web serving environments




**Key Message: IBM is providing Development and Deployment tooling for integrating IMS applications in on demand environments**

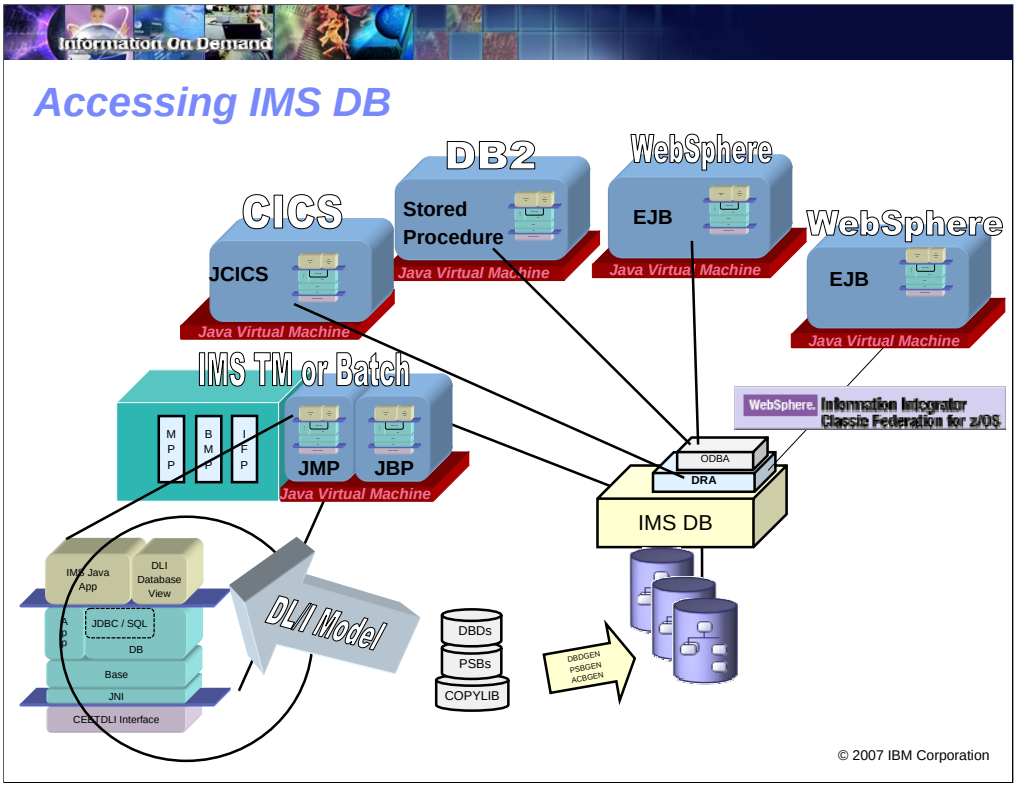
The IMS Connector for Java Development support, which enables development of Java applications running under WebSphere Servers, originally shipped with VisualAge Java, evolved and now provides mapping of Cobol, C, and MFS IMS applications, and ships as part of the WebSphere Studio Application Development Integration Edition (WSADIE). The IMS Connector for Java J2EE Runtime piece, ships as part of IMS Connect and can be downloaded to a WebSphere Server platform for deployment in connecting to IMS transactions via IMS Connect. IMS Connector for Java interacts with the J2EE server to provide you transparent support of Quality of Service (like Transaction management, Connection management, Security management). Your application is unaware of all the complicated issues. The Connector for Java continues to be enhanced for the latest WebSphere and RAD tooling.




**Key message: Avnet and other IMS customers are implementing IMS SOA solutions**

Avnet Inc. is one of the largest B2B electronics distributors, serving customers in 68 countries, ranked #217 on the Fortune 500 list. In order to improve the speed and efficiency to serve customers, Avnet has implemented the IMS MFS Web Services solution for the flexibility, reuse of existing business logic, open architecture, and ease of integration into other applications. Avnet's Vice President of Business Applications, Bob Pischke, describes IMS MFS Web Services as "…a better application at a lower cost--and certainly more sustainable.

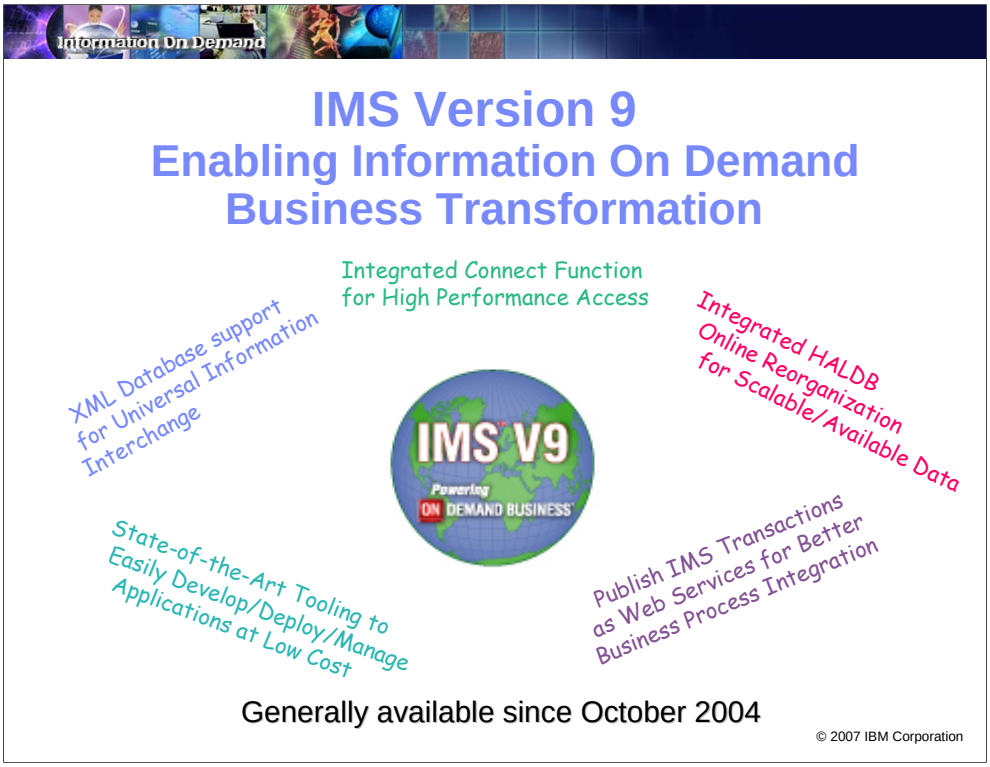
There is an article on this in the 2005 IMS Newsletter issue.




**Key Message: IBM is providing Development and Deployment tooling for integrating IMS data in on demand environments**

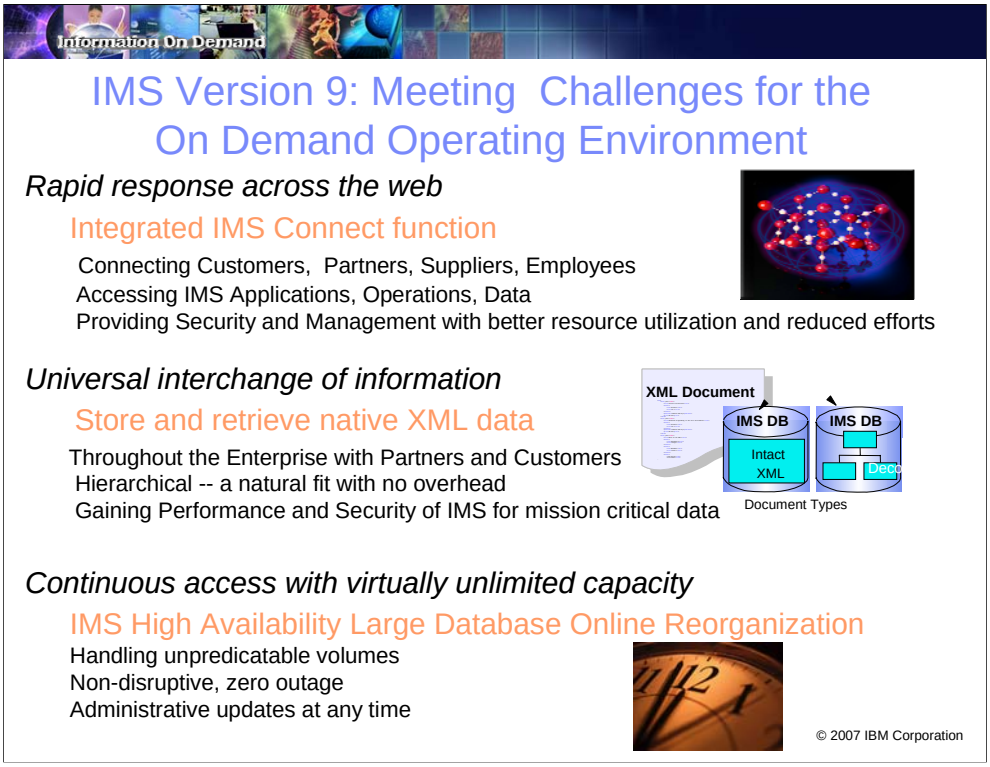
IMS Java application support and IMS Java Database (JDBC) access is built on the IMS Open Database Access (ODBA) facility. JDBC access to IMS DB is available from IMS TM and CICS Java applications, DB2 Java Stored Procedures, and WebSphere ejbs. Distributed SQL/JDBC access is also provided through WebSphere Information Integration Classic Federation (IICF).

Along with this is Development Tooling, the DLI Model Utility for generating information about your data. Different levels are provided for use by your IMS and/or your Java experienced people.




**Key Message: IMS V9 has been providing Information On Demand solutions**

IMS is the cornerstone of your Information On demand business transformation and IMS Version 9, generally available since October 2004, is a key element for enabling this transformation.

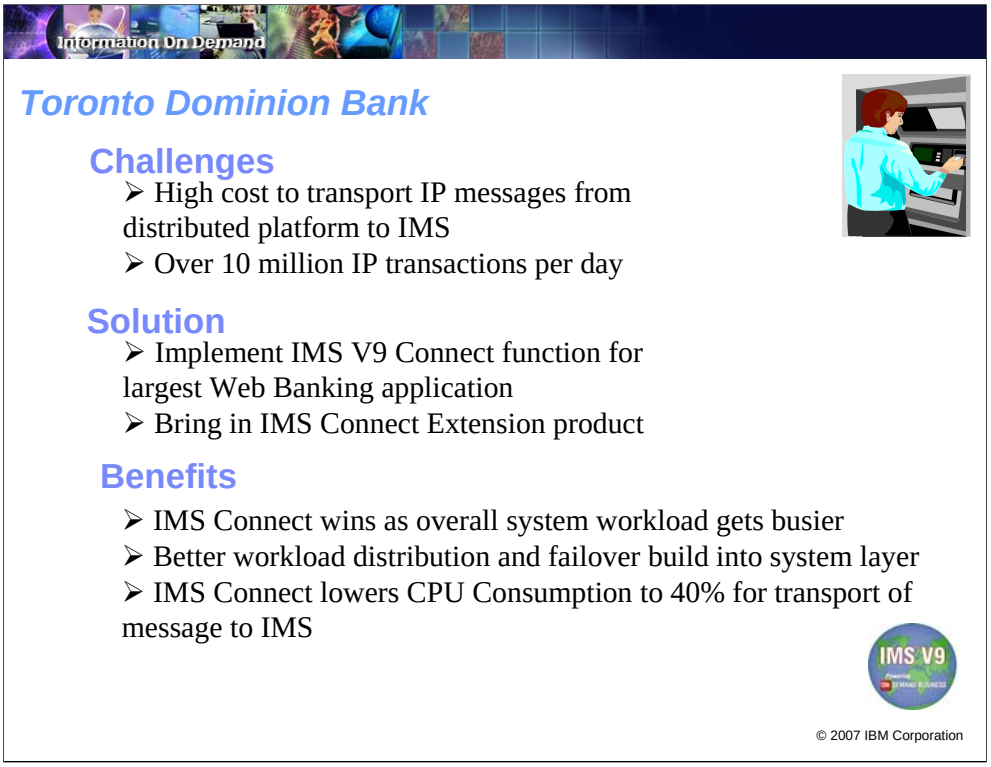



**Key Message: V9 is providing additional key enhancements for on demand environments.**

Today's On Demand Operating Environment must provide rapid response for business transactions and inquiries from many customer, partner, supplier and employee locations. To meet this need, the Integrated IMS Connect function provides high performance access to IMS applications, operations, and data, using TCP/IP from practically any application environment, including LINUX, across the Internet. It offers security options and provides commands to manage the network environment - resulting in better resource utilization and reduced design and coding efforts for client applications

For high speed, universal interchange of information throughout the enterprise and with partners and customers, IMS provides the ability to store and retrieve XML data natively. As both are hierarchical, there is a natural fit with no overhead required for translation or conversion. IMS also converts non-XML data to XML for interchange, and provides the flexibility to convert it back or store it natively. Without the need to store XML data on a file system or a separate database, users gain the performance and security of IMS for this mission-critical data.

For continuous access to critical business information and virtually unlimited data management capacity to handle unpredictable volumes, IMS now provides High Availability Large Database online reorganization capability. This is totally non-disruptive, with zero outage to customers for those applications that cannot go offline. DBAs love the ability to make administrative updates at any time.



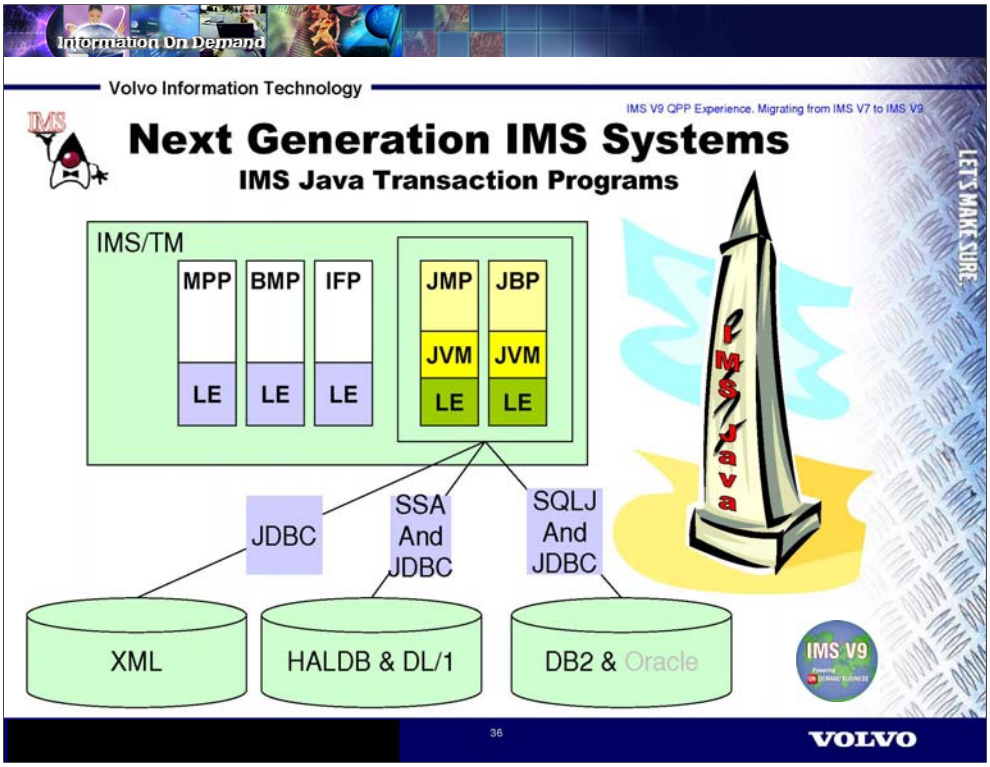

**Key Message: Toronto Dominion is utilizing IMS V9 function for their largest applications**

Toronto Dominion Bank implemented IMS V9 Connect function for their largest web banking application. It offers them better workload distribution and failover and lowers their cpu consumption for message transport to IMS.


**Key Message: And Volvo is embracing integrated IMS solutions with new technology**

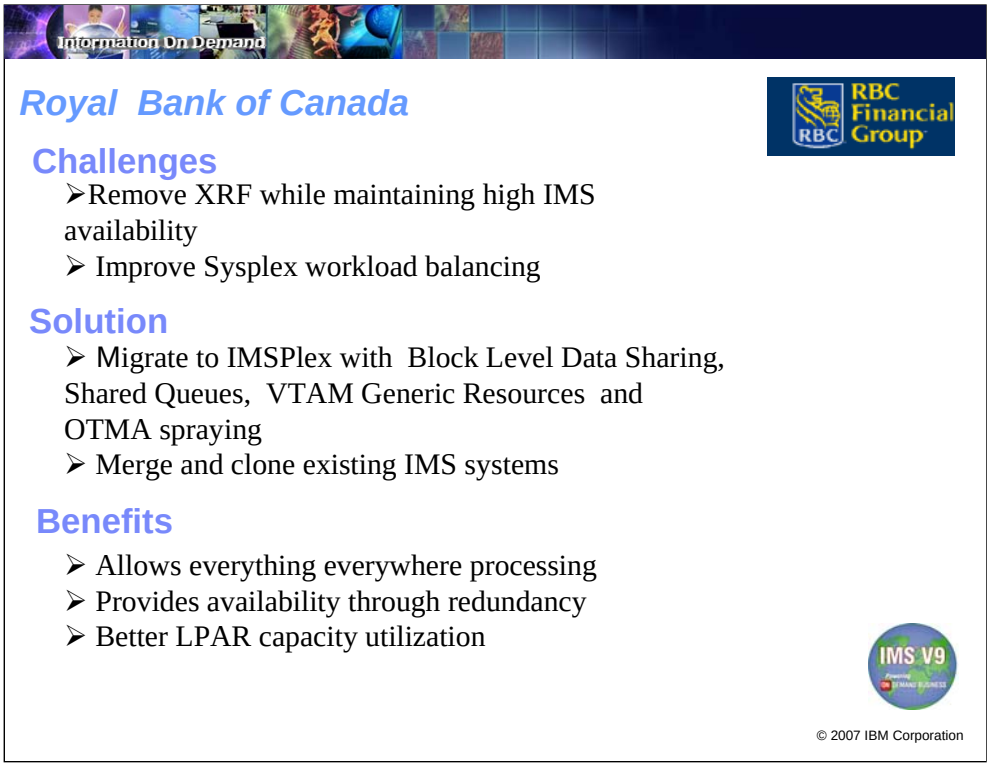
Volvo has been making a reality of the intranet and web browsers for legacy data. From Volvo's point of view, it maximizes the value of the corporate investment in zSeries technology, maximizes the value of their existing skills base, and, even more maximizes the value of the data, all delivering competitive advantages for the group. Taking the Parts business as example, the challenge is in delivering thousands of parts globally and at the same time providing various teams around the world with the proper information, including drawing, for example, for trucks, both old and new. The business driven process takes the traditional technical drawings on paper in filing cabinets to screens for business benefits. Using web browser technology, they are able to create a more integrated approach, delivering uniformity of presentation and ease of use, whether accessing financial data or technical drawing, while retaining complete security and control of the data at Volvo using the strengths of the zSeries processors. And they were pleasantly surprised by the ease of implementation (with high praise for the Open nature of the zSeries environment).

Volvo was one of the earliest users of IMS Version 9 for exploiting Java applications in their development environment and for exploiting the Integrated Connect function for access to IMS applications and data across the internet.
Their next generation systems use IMS TM Java Message and Batch applications using JDBC, as well as traditional database calls, to access IMS databases (including XML and HALDB), DB2 and Oracle. The new IMS Java regions can also run the new Object Oriented COBOL.



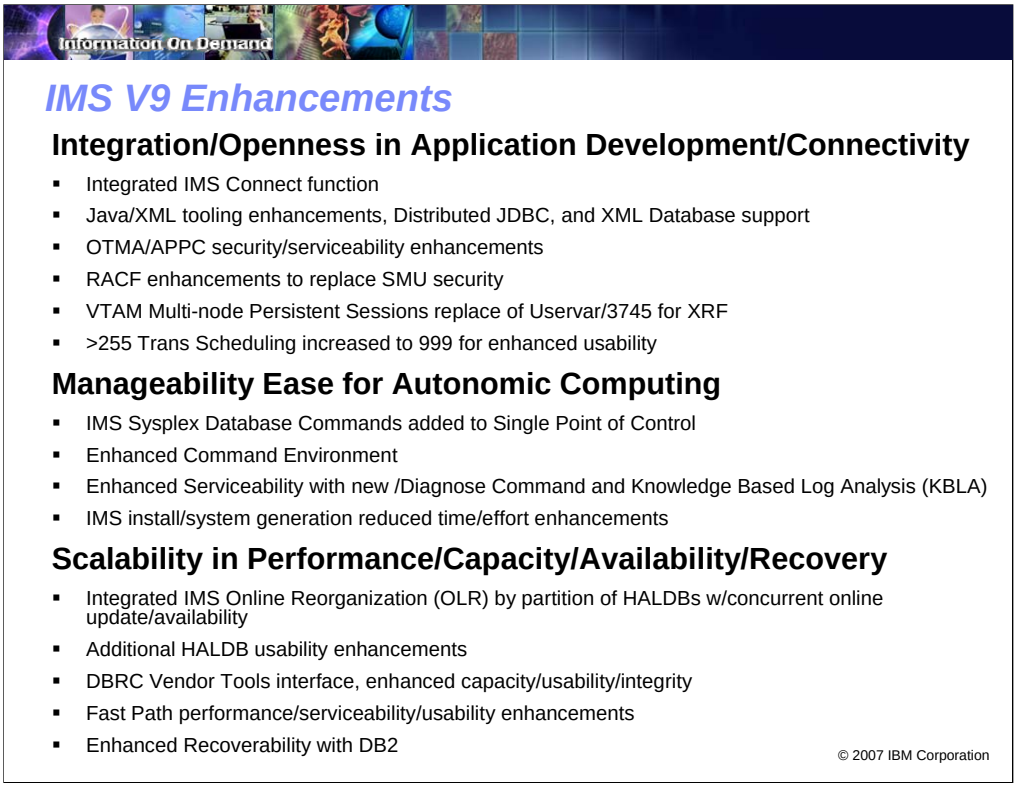

**Key Message: Volvo has implemented IMS V9 for their next generation systems.**
Volvo was one of the earliest users of IMS Version 9 for exploiting Java applications in their development environment and for exploiting the Integrated Connect function for access to IMS applications and data across the internet.
Their next generation systems use IMS TM Java Message and Batch applications using JDBC, as well as traditional database calls, to access IMS databases (including XML and HALDB), DB2 and Oracle. The new IMS Java regions can also run the new Object Oriented COBOL.

Volvo IT has provided an environment for their next generation of IMS Systems, enabling IMS V9 Java application development, JDBC access to IMS database, and IMS XML Databases




**Key Message: Royal Bank is also utilizing IMS V9 and Sysplex function for improved availability and capacity utilization.**

Royal Bank of Canada (RBC) is Canada's largest bank as measured by assets and market capitalization. IMS is their mission-critical platform in 3 production centres processing 50 million transactions a day, for their clients coast-to-coast in Canada through an extensive branch and ATM network, telephone banking, and internet banking. As such, IMS availability is critical to the bank, and XRF has been a dependable solution for them since 1989. They see the IMSPlex as the strategic infrastructure for availability, and through a number of IMS versions have implemented full data sharing and shared queues. They are is the final phases of completing the migration to VTAM generic resource and OTMA spraying. When completed, their new IMSPlex environment will help them maintain their high availability objectives without the cost of XRF, and provide more flexibility for workload balancing and LPAR utilization.

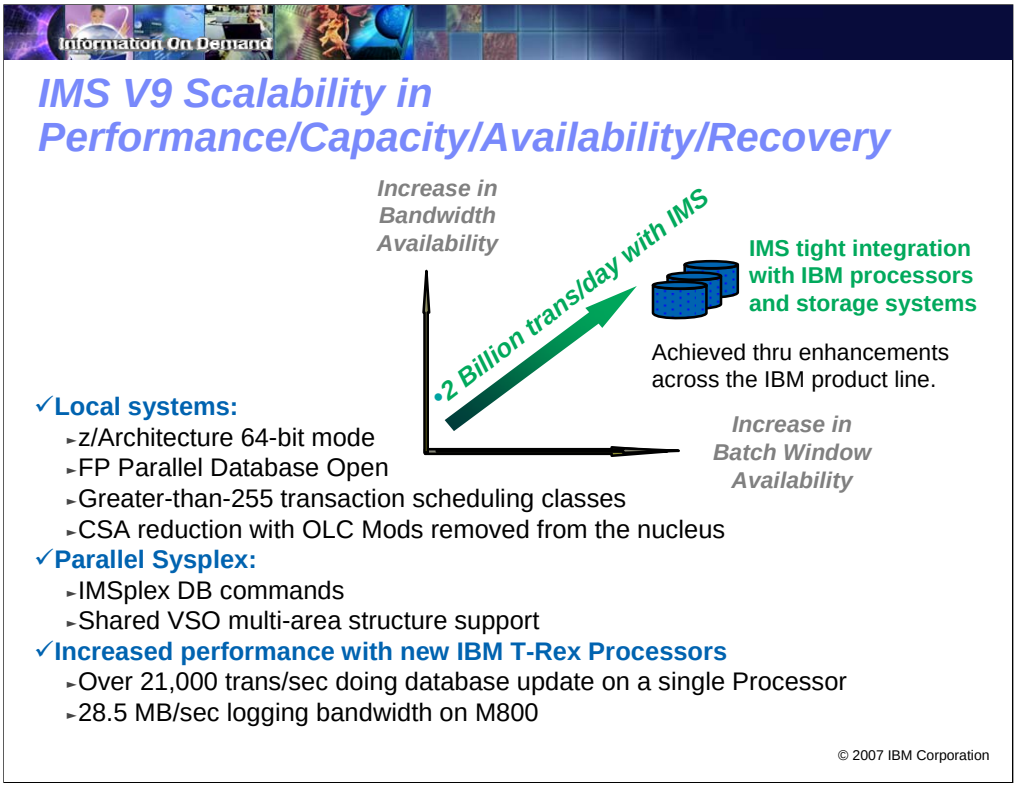



**Key Message: IMS V9 has a lot more function for integration, open, autonomics and virtualization**

The wide number of additional IMS Version 9 line items provide customer value in simplifying/expanding development and enablement with new technology and ensuring growth. IMS V9 addresses integration/openness in Application Development Connectivity with Integrated IMS Connect function, Java/XML tooling enhancements and other connectivity security, serviceability and usability enhancements across the product.

IMS V9 addresses Manageability ease for Autonomic Computing with enhanced commands and the command environment, enhanced serviceability with Knowledge Based Log Analysis facilities, and reduced time/effort for IMS installation/system generation

IMS V9 also addresses scalability with Integrated Online Reorganization by partition of HALDBs with concurrent online updates for availability, Database Recovery Control (DBRC) application programming interface, enhanced recoverability with DB2, and additional HALDB, DBRC, and Fast Path enhancements

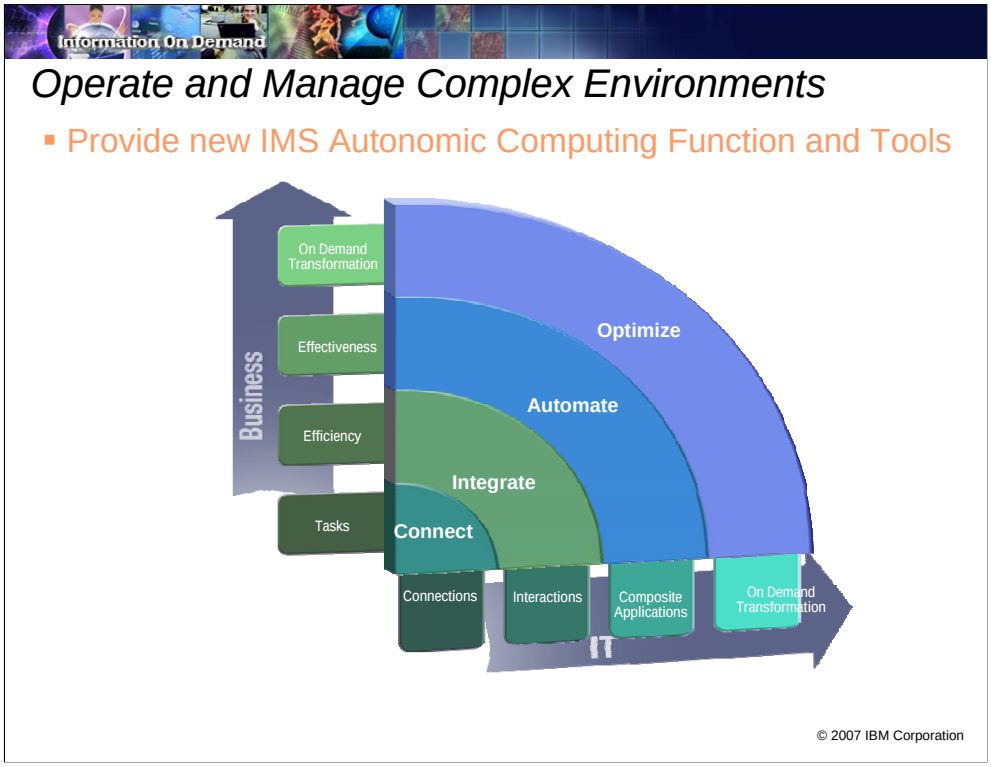



IMS V9 meets extreme IT needs for e-transaction processing with the ultimate in performance/capacity, availability and systems management and technological leadership in connectivity and new application development.

IMS along with the S/390 and the new zSeries have been delivering on the promise of e-business and continue to do so with new enhancements for e-transaction processing bandwidths capable of supporting the largest web sites and transaction rates through GB ethernet. Fiber connection technology and industry leading web serving with IMS and the IBM WebSphere Application Server, Security and Communications Servers. A balanced system is provided for world class solutions. IMS together with the S/390 and zSeries are delivering more comprehensive security protection, featuring centralized management and a strong suite of end-to-end products. We continue to provide and enhance our leading edge end-to-end transaction integrity and real time data currency with the sharing of data, networks, and messages, utilizing the Sysplex and its coupling facility. Our technology transition from bipolar to CMOS has allowed us to deliver exponentially improving price/performance to our customers. Customers are using this power to take on new e-business related applications.

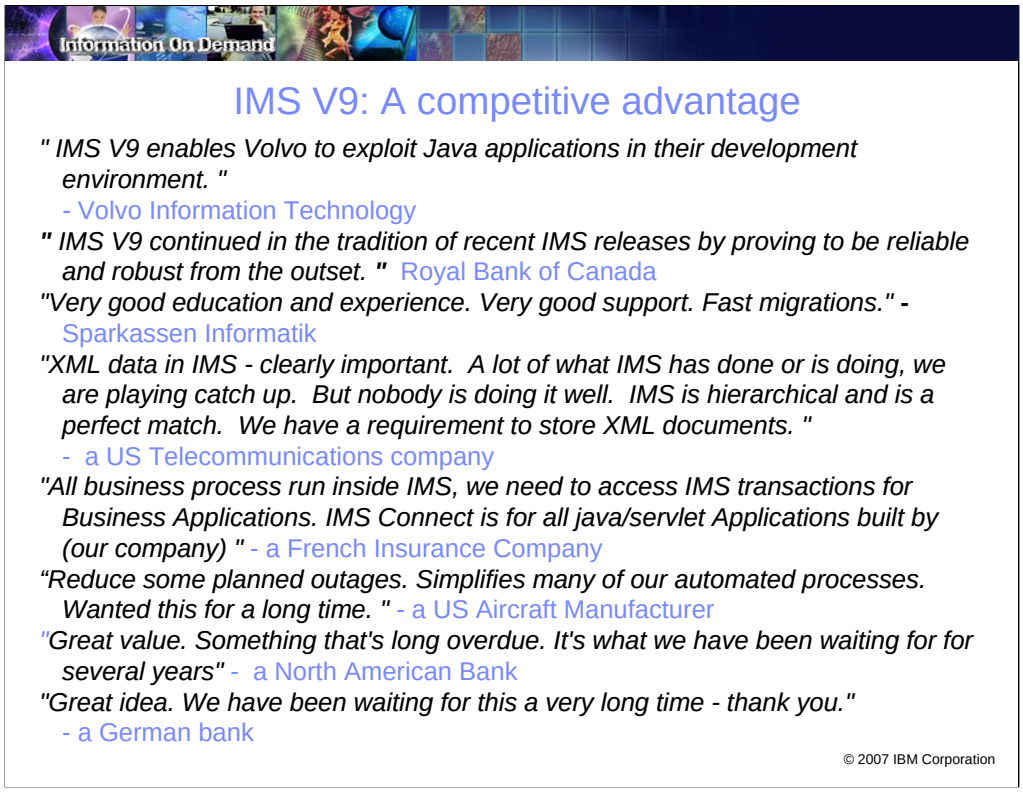
IMS V9 not only has increased the transaction rate to nearly 2 billion trans/day with database update on a single processor, but has also made a lot of improvements for performance and capacity.

IMS handles scaling to high capacity and for stress. IMS in house testing achieved over 21,000 trans/sec across 4 IMSs in 4-way data sharing and 4-way shared queues environment on ONE processor (T-Rex = 2084). The transactions are UPDATING the databases during the benchmark so it's running this fast with the most costly type of database access! If this was read only then we'd see MUCH higher numbers




**Key Message: IBM has many solutions to help IMS clients manage their complex environments.**

IMS V9 provides a number of additional application development/deployment and management enhancements. And IBM has also been providing WebSphere, Rational application tooling, and Tivoli and IMS management tooling, to ease the increasingly complex environments for our IMS Clients.



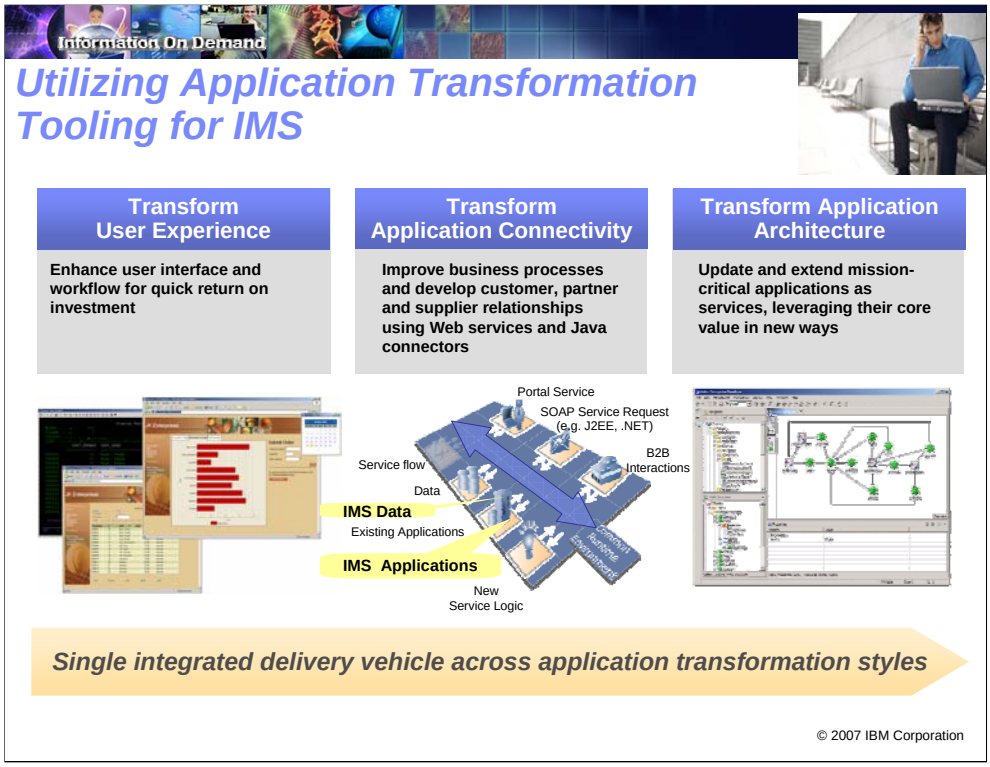

**Key Message: IMS V9 has also been well received by many other clients as well.**


**Key Message: IMS is also providing additional solutions to ease transformation, integration, and installability**

2006 has brought with it a number of additional announcements for IMS itself.

Enhanced support using new technology was provided for IMS to ease integration, installation and management. These were provided as web downloads, or through service.

(CLICK) We are also easing installation and management with enhanced delivery vehicles, New Tivoli and IMS Management Tooling that can help with infrastructure simplification, and increased education. I'll take you through a sampling of this but the rest of the conference offers numerous additional information about these and more.




**Key message: Continuing, new Application Tooling is being provided for help with transformation/integration**

Across platforms, we have Application transformation tooling, needed to allow each part of the environment to play to its respective strength with IMS providing mainstream processing with reuse of existing investments, and Web servers providing user interaction and distributed integration capabilities.

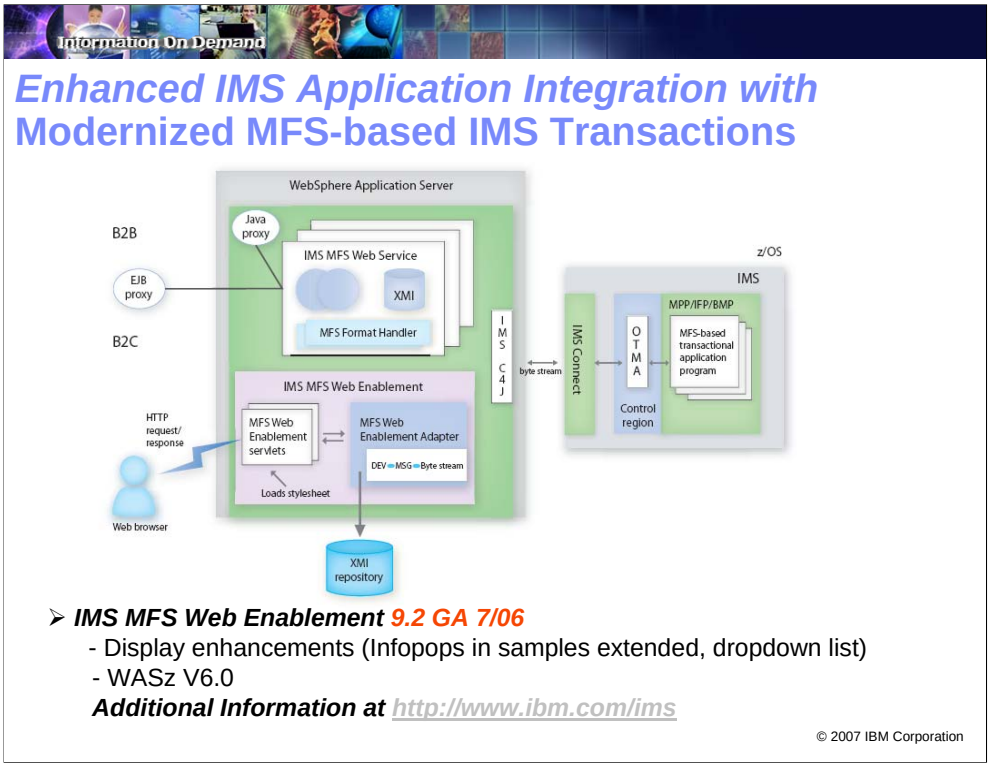
Customers are looking to

•Create new business value from existing IT systems

•Transform business-critical existing processes into reusable, shareable business components

•Integrate traditional zSeries and other application environments and new Java applications into an efficient mixed workload environment

•Leverage existing enterprise skills and improve developer productivity
To do this, requires a consistent set of tools.




**Key Message: This is an overview of the IMS MFS Solutions**

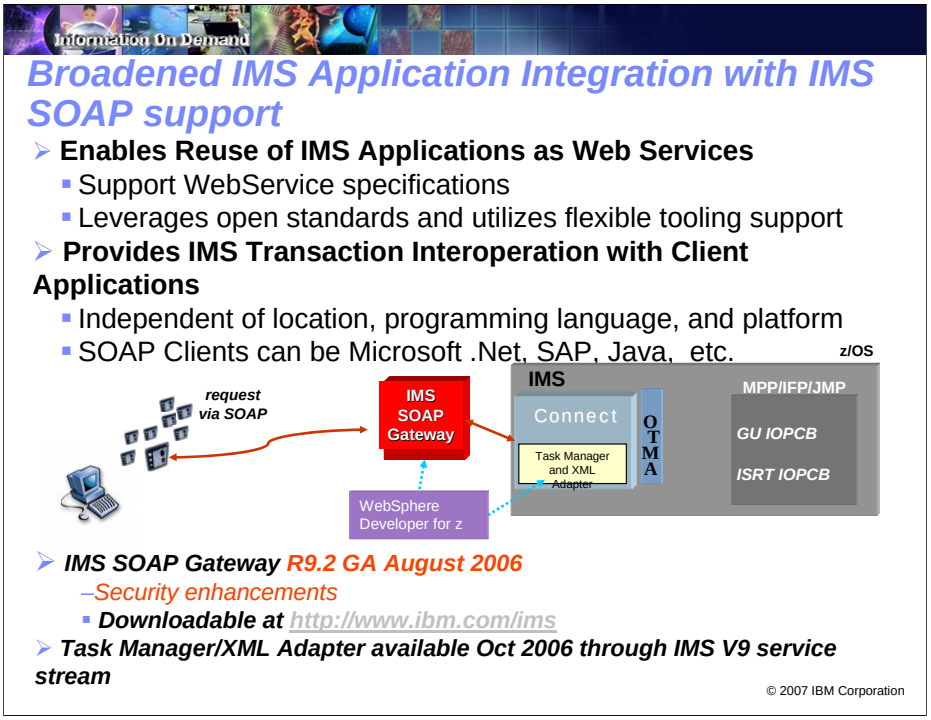
We've been offer two solutions to modernize and reuse your MFS-based IMS transactions

-The first solution converts your MFS-based IMS transactions to Web services in a B2B business scenario. Your client application calls the generated proxy to invoke the Web service. The solution gives your application the power and flexibility to consolidate the results of one or more Web service calls across your enterprise applications.

-The second solution Web-enables your MFS-based IMS transactions in a B2C business scenario. No coding is required to take advantage of this solution! It allows you to experience the same 3270 look, feel, and flow via Web browser! Furthermore, you have the flexibility to customize the generated HTML pages.

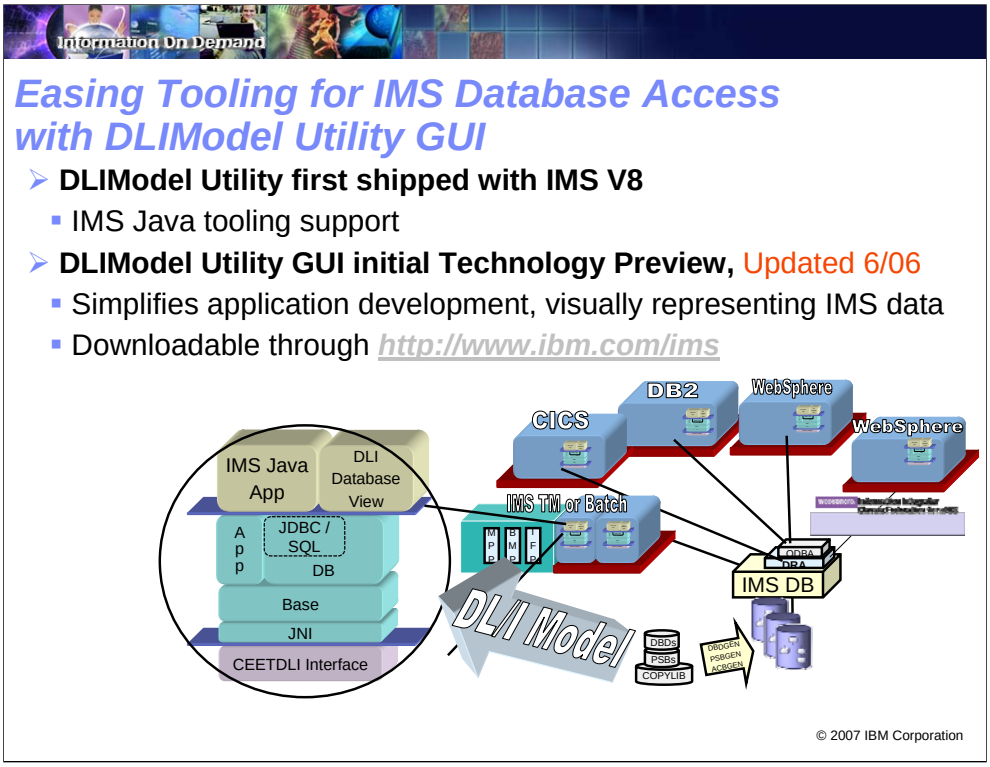
Both solutions just require valid MFS source files and run on WebSphere Application Server. And if you don't have the MFS Source files, we have an IMS MFS Reversal Utilities Tool that can help recreate them for you.

And in July we provided new display enhancements and WAS support to ease your use.




**Key Message: The IMS Soap support takes advantage of existing IMS Interfaces and enhanced adapters to broaden and ease access.**

IMS is now providing also direct SOAP support, to enable customers to reuse IMS applications as Web Services. The WebSphere Developer for z/Series can be used with this IMS SOAP support. The IMS Soap Gateway, Generally Available since last year is downloadable at www.ibm.com/ims. In August we provided new security enhancements to further secure your environment. And now the Connect XML Adapter and Task Manager is now available delivered through the IMS V9 service stream.

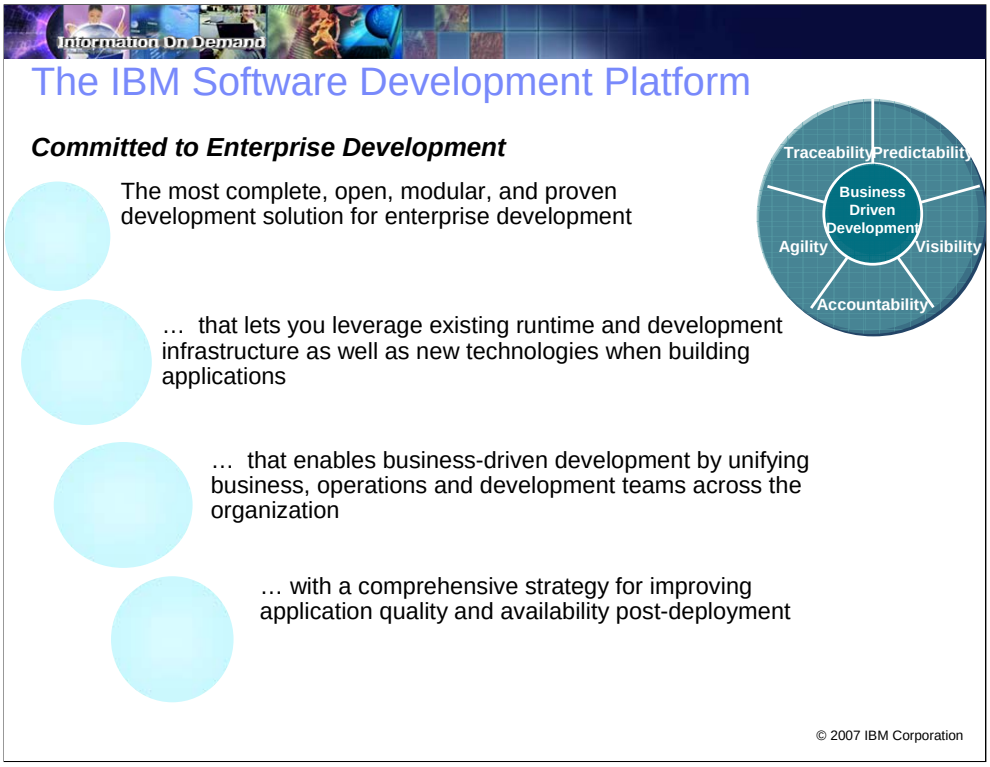



**Key Message: IBM has also been providing improved data access tooling**

IMS V8 introduced a way to view your IMS data with the DLIModel Utility for IMS Java tooling support. This has subsequently been enhanced further with V9 and a DLIModel Utility GUI. The DLI Model Utility GUI provides a graphical version of the DLIModel Utility, built as an Eclipse plug-in. This GUI simplifies IMS metadata generation, eases IMS Java and XML Database application development, and offers a visual representation of IMS databases. Initial support was provided as a Technology Preview on the IMS website at ibm.com/ims. In June we enhanced this Technology Preview with even more capability and continue to do so.

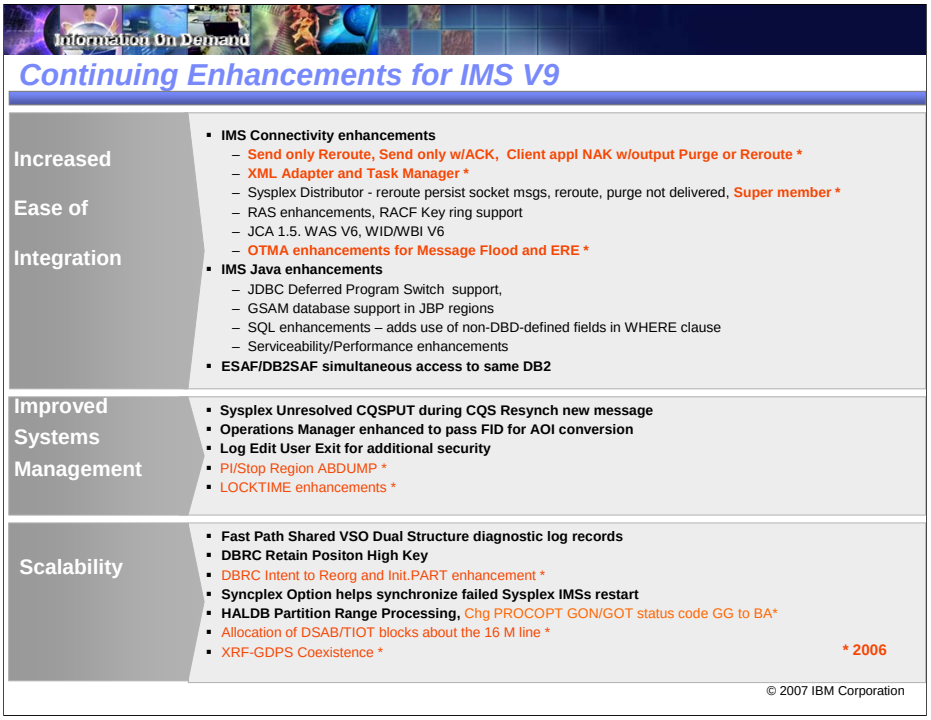
Background:

Prior to the DLIModel Utility, IMS Java users had to manually create the DLIDatabaseView class, which is required by IMS Java runtime. When the DLIModel Utility first came out, the customer only had to write control statements which specify what to generate and where it goes. With the initial DLIModel GUI, we not only provide a GUI front-end, but also eliminate the need to write control statements. We've since enhanced the GUI in 2006 with new interactive, visual facilities and new XML schema annotation support and provide the ability to import existing control statements and to import COBOL Copybook directly. With V10, we are further enhancing the visual facilities.




**Key Message: The IBM Software development platform continues to provide IMS application development tooling**

And there is more. IBM continues to be committed for Enterprise Development with IMS. They are continuing to roll out a number of development enhancements with new versions of WebSphere and Rational tooling with significant enhancements for IMS, delivering this year and next.




**Key Message: IMS Continues to roll out new enhancements for Integration, Manageability and Scalability.**

A number of new enhancements have also been rolling out for IMS V9 through the service stream. They include:

•IMS Connectivity enhancements for security and better integration with WebSphere and Sysplex environments

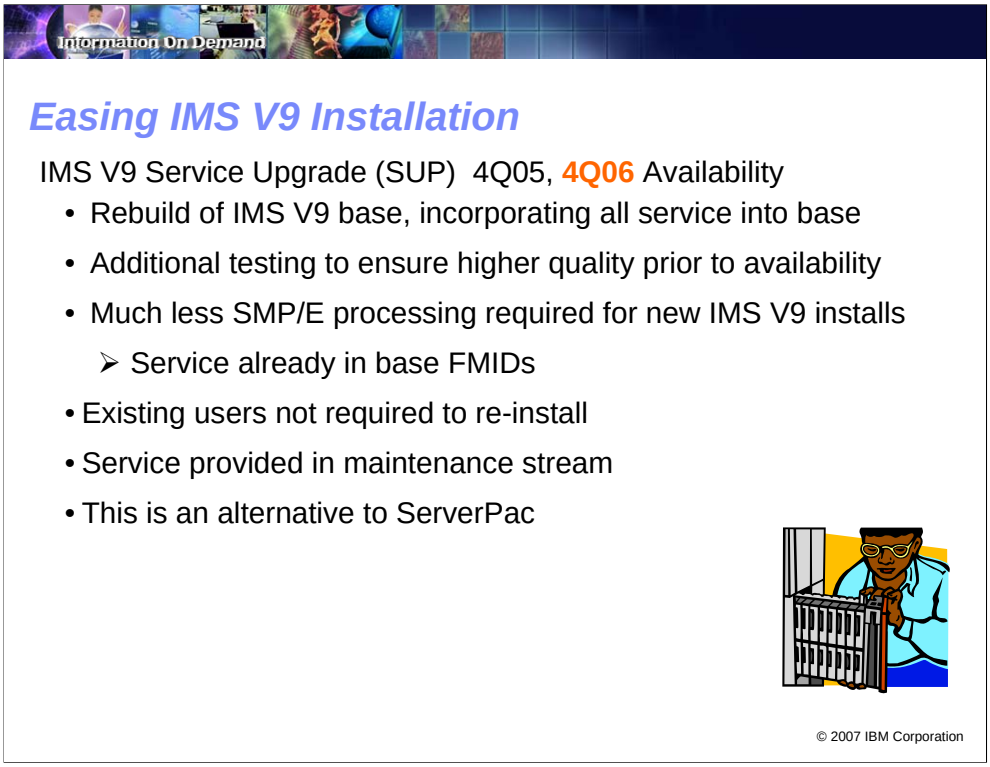
•Enhanced integration with DB2

•IMS Java enhancements for integration, open standards, and ease of use.

•Sysplex, Operations, and User exit enhancements for eased manageability, and

•Fast Path, HALDB, and DBRC enhancements for enhanced scalability

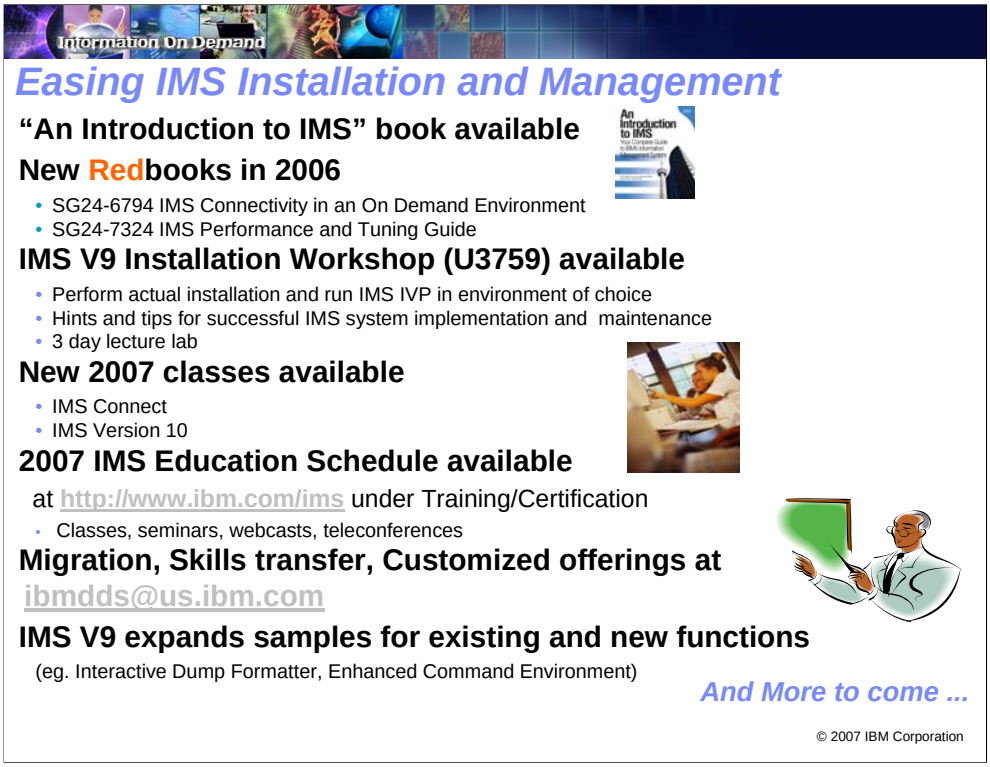
Throughout 2006 we have continued to deliver enhancements, shown here in bold/red.




**Key Message: IMS V9 and its service has been rolled into a SUP to ease installability**

In a continuing effort to make IMS easier to install and maintain and ensure continuing high quality, we are providing an IMS V9 Service Upgrade (SUP), first in 4Q2005 and now again in 4Q2006. This rebuilds the base of IMS V9, incorporates all the service and enhancements up to this point, provides additional testing, and makes it easier for new migrations to IMS V9. Since most of the maintenance would therefore be already incorporated into the product, SMP/E processing is only required for installing the base and for any maintenance after the SUP. Alternatively, ServerPac could be used for the installation. With ServerPac, the customer deliverable consists of the libraries with SMP/E processing already done, but additional SMP/E processing for maintenance may still need to be done.

And IMS has been providing trouble shooting tools as well.




**Key Message: IMS V9 Installation Workshops and other educational vehicles provide help with installation**

But even on the mainframe and with IMS, we are trying to reduce the people costs further. A major factor we hear in the people costs of the mainframe, are the skill requirements. To help you with your people costs for IMS, we are doing everything possible to reduce skill requirements and ease installation and management. Some of these are represented here:

We've provided a new textbook for an Introduction to IMS.

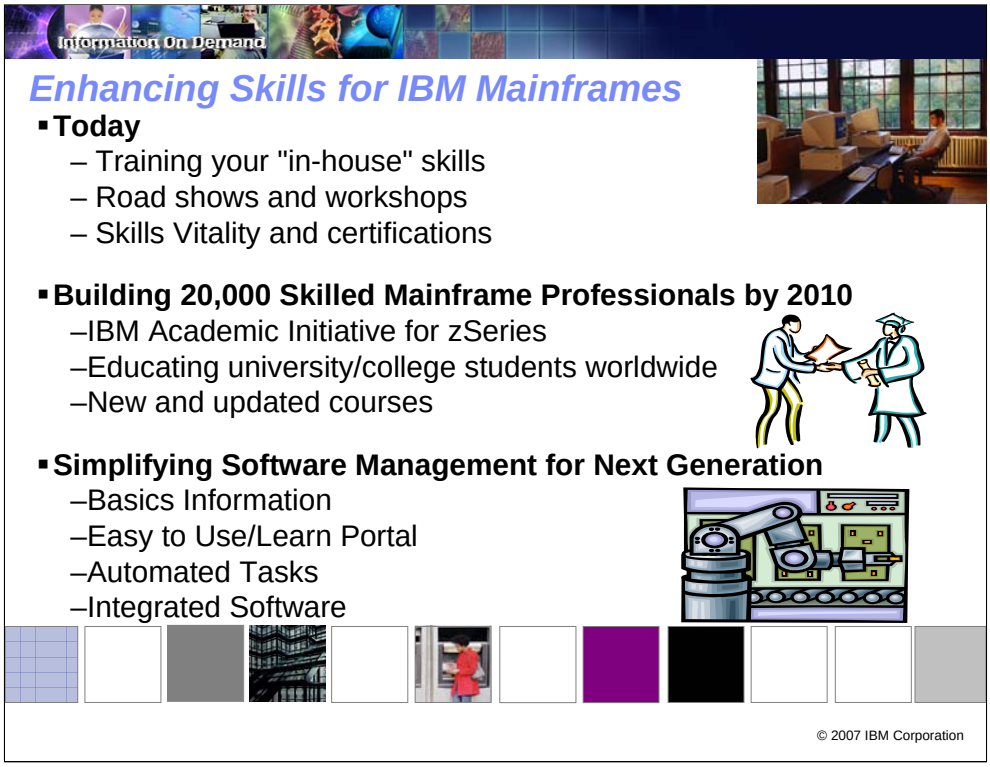
And we've also been providing new redbooks – One on IMS Connectivity came out last February, and one on IMS Performance will be coming out shortly.

We've been trying to ease installation and migration to IMS V9, with a 3-day IMS V9 Installation workshop. This consists of lecture and lab where you can perform the actual installation and run the IVP in the environment of your choice.

(CLICK) Additional IMS Education through classes, seminars, webcasts, teleconferences and consulting services are also available to help ease installation and migration. Find out more at the IMS website.

Also available are migration and skills transfer, as well as customized offerings through IBMDDS@us.ibm.com

And within the IMS product itself, with the V9 Installation Verification Program (IVP), we continued to provide expanded samples. These samples test and demonstrate new and existing function, to ease customers installation and use of IMS. Our customers can take advantage of these samples to tailor their own environments.




**Key Message: IBM continues to invest in skills for the IBM mainframe and IMS**

In IBM we're focusing on making IMS and the IBM mainframe environment easier to understand, use, and manage. We continue to invest heavily to build platform skills both internally and externally.

One initiative focuses on providing training and education for customer "In-house" skills, via classes, workshops, and educational materials accessible through a new education web portal.

Another initiative is the Roadshows and Workshops for building understanding of mainframe value, helping customers make design decision, or leveraging core technologies, such as GDPS and the Sysplex for greater value.

We set a goal of bringing 20,000 mainframe trained resources into the marketplace by 2010, and we've made significant advancement toward that goal. One indicator is the exponential growth in IBM Academic Initiative for zSeries, up from 20 in 2004 to over 150 colleges and universities today

In addition to building skills, we are simplifying z/OS interfaces, so skills requirements to manage the environment are reduced. Tasks are being automated, eliminated, or streamlined from operations to problem determination to configuration.

**Additional Info:**

Today we provide a comprehensive set of customer education programs available world wide and in a variety of formats, accessible through the portal. Our goal is to evolve the portal with new materials which leverage university courses and internal IBM education, new learning tools and classes with roadmaps and classifications ( beginner, advanced etc ) to enable greater learning. As it evolves, our customers will have access to an array of deliverables, some of which IBM uses internally, accessible from one place, there to address requirements by skill level and job assignment.

Internally to IBM, we implemented multi-year technical skills vitality initiatives, with investment in the millions, focused on bringing in new talent and enhancing IBM skills through education and mentor programs. These skills will directly help customers. We also launched our zSeries Sales Certification in December 2004, and had over 200 certified


# Enhanced IMS Management Tooling for Infrastructure Simplification

## 1H2006

- IMS DB Recovery Facility V3R1
- IMS High Performance Change Accumulation V1R3
- IMS Performance Analyzer V4R1
- IMS Problem Investigator V2R1

## 2H2006

- IMS Sysplex Manager V1R2
- IMS High Performance Pointer Checker V2R2
- IMS Parallel Reorganization V3R2
- IMS Command Control Facility V2R1
- IMS Audit Management Expert V1R1
- IMS High Performance Fast Path Utilities V3R1
- IMS Online Reorganization Facility V1R2
- IMS High Performance Sysgen Tools V2R2
- IBM OMEGAMON XE for IMS V4R1
- WebSphere Classic Data Event Publisher V9R1
- WebSphere Classic Federation Server V9R1
- WebSphere Classic Replication Server V9R1

……And more to come



**Key message: IBM is continuing to provide tooling for simplifying the management infrastructure for IMS**

IBM has also enhanced its rich set of IMS and Tivoli tools to enable database administrators and system programmers to manage their environment, easing and automating manageability.

In 2006 we announced IMS Audit Management Expert. IMS Audit Management Expert for z/OS is the newest edition to the IBM Tools Regulatory Compliance Suite. As the first centralized IMS auditing tool available from IBM, the software collects and correlates data access information from a variety of IMS resources. The information is collected primarily from IMS logs and SMF. It is stored in a DB2 repository and viewable through a GUI. This allows you to create reports that allow you and regulatory auditors to view, analyze and report on IMS data.

The compliance suite, designed to protect, encrypt and retain your sensitive data and report on related user-access, also includes tools for DB2 databases as well as the newest IMS Tools for IMS databases.

Also, in 2006 we have been enhancing the other tools listed with new options, functions, performance, usability and hardware copy support.

In addition, in 2006 IBM Tivoli announced General Availability of OMEGAMON XE for IMS V4.1 This helps you optimize performance and availability of your IMS systems. It provides a single point of control over IMS in Sysplex environments and reports on the performance of a number of key IMS attributes that help you stay ahead of potential delays or outages. OMEGAMON XE for IMS V4.1 offers a wide range of analysis and exceptions for managing critical elements of an IMS environment using a flexible, customizable browser interface.

And finally in 2006, WebSphere announced several brand new tools for z/OS that improve ease of use and change management.

**WebSphere Classic Data Event Publisher -** makes it easy to link changed-data events with business processes as well as drive change-only updating of data warehouses, data marts, and operational data stores. WebSphere Classic Data Event Publisher features support the capture of changes made to IMS, VSAM, Computer Associates CA-IDMS, and Software AG Adabas data and the publishing of these changes to WebSphere

MQ queues. Changes are captured during active log or journal processing or by reading source-specific recovery logs. Captured data is automatically reformatted into a consistent relational format before packaging into either XML or delimited values format for publishing. Transactional integrity is maintained and recovery is enabled for all sources. Any application, tool, or service that integrates either with WebSphere MQ directly or

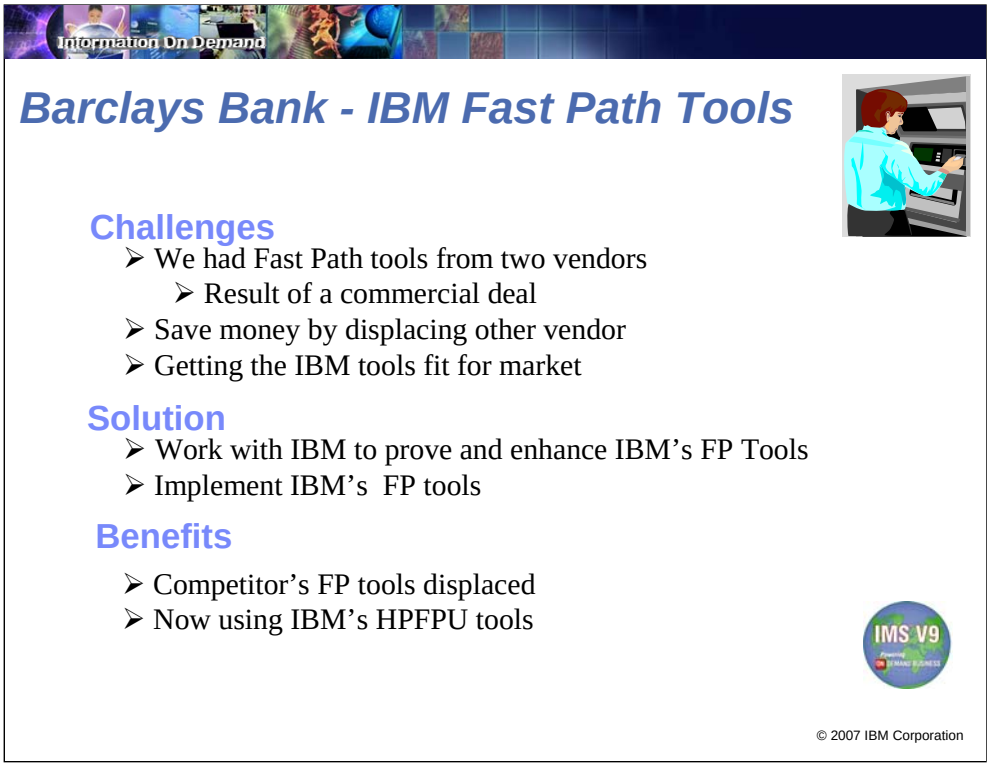
supports Java Message Service can asynchronously receive the data changes as they occur

**WebSphere Classic Federation Server -** provides SQL access to mainframe databases and files with transactional speed and enterprise scale

without mainframe programming. Using WebSphere Classic Federation Server, applications and tools can issue SQL SELECT, INSERT, UPDATE, and DELETE commands using open database connectivity, Java database connectivity, or a command-level interface to access System z data stored in VSAM, IAM, and sequential files, as well as DB2 UDB for z/OS, IMS, Software AG Adabas, and Computer Associates CA-Datacom and CA-IDMS databases — all without mainframe programming.

**WebSphere Classic Replication Server -** provides System z data sourcing for IBM's queue-based replication solution, WebSphere Replication

Server for z/OS, V9.1. WebSphere Classic Replication Server supports SQL-driven access and near-real time changed-data feeds over WebSphere MQ from VSAM files and IMS, Computer Associates CA-IDMS, and Software AG Adabas. Data is specifically formatted for consumption by WebSphere Replication Server's queue-replication capabilities, enabling targeting of DB2, Oracle, SQL Server, and Sybase.




**Key Message: Barclays Bank have converted to the IBM High Performance Fast Path Utilities**

Barclays Bank in the UK has converted their tools to take advantage of the IMS High Performance Fast Path Utilities.


**Key Message: IMS V10 continues providing Information On Demand solutions**

And now we are extending your Information On demand business transformation with the introduction of IMS Version 10, for early customer program delivery January 12, 2007.

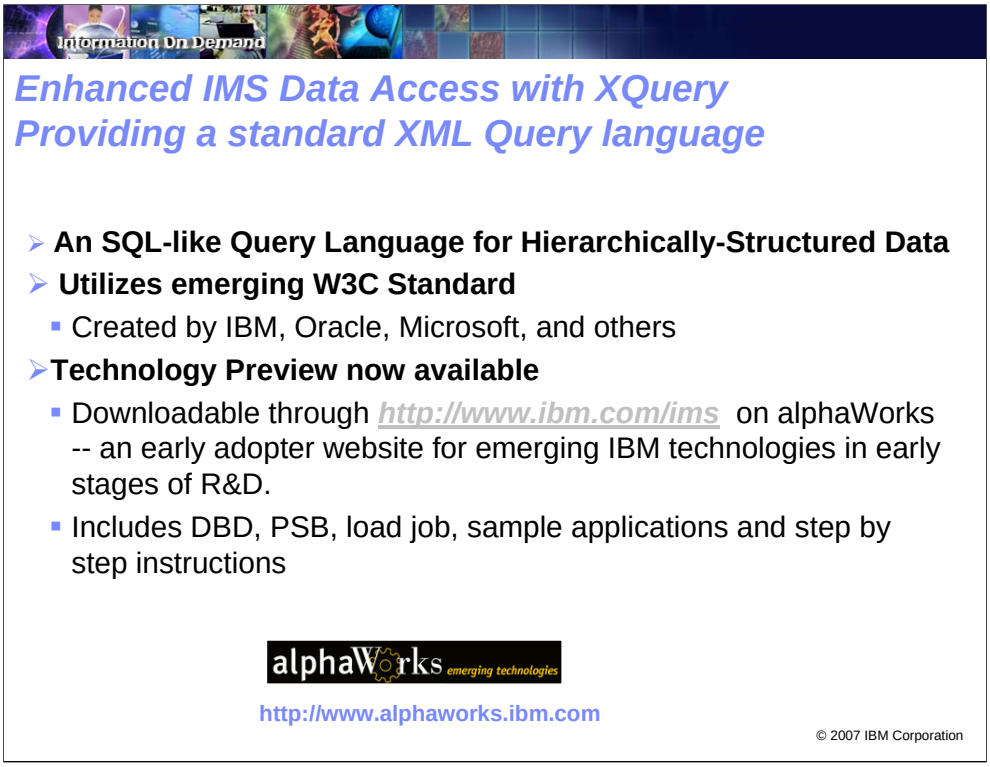

**Key Message: IBM continues to enhance IMS, addressing customer requirements with IMS Version 10**

IMS V10 continues to address customer requirements in the continuing journey.

(CLICK) We are providing solutions that ease integration with new technology for a service oriented architecture -- focusing on IMS XML and Web Services Connectivity And we are providing for integrated Operations across the platforms with integrated systems console support

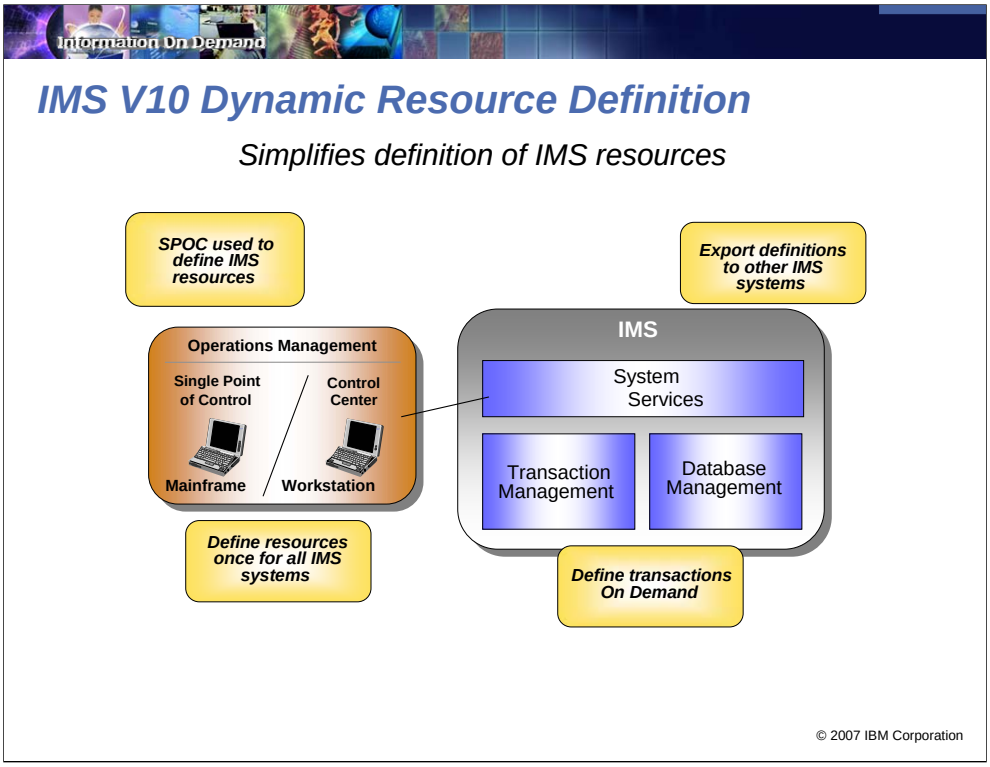
(CLICK) We are also providing solutions that help simplify installation and management --  focusing on Dynamic Resource Definitions, Operations management, and Systems management Enhancements.

(CLICK) And we are providing enhancements that address your requirements for high performance, scalable, reliable, and secure solutions -- focusing on Database Recovery Control parallelism, Multiple Systems Coupling bandwidth, and Security enhancements.



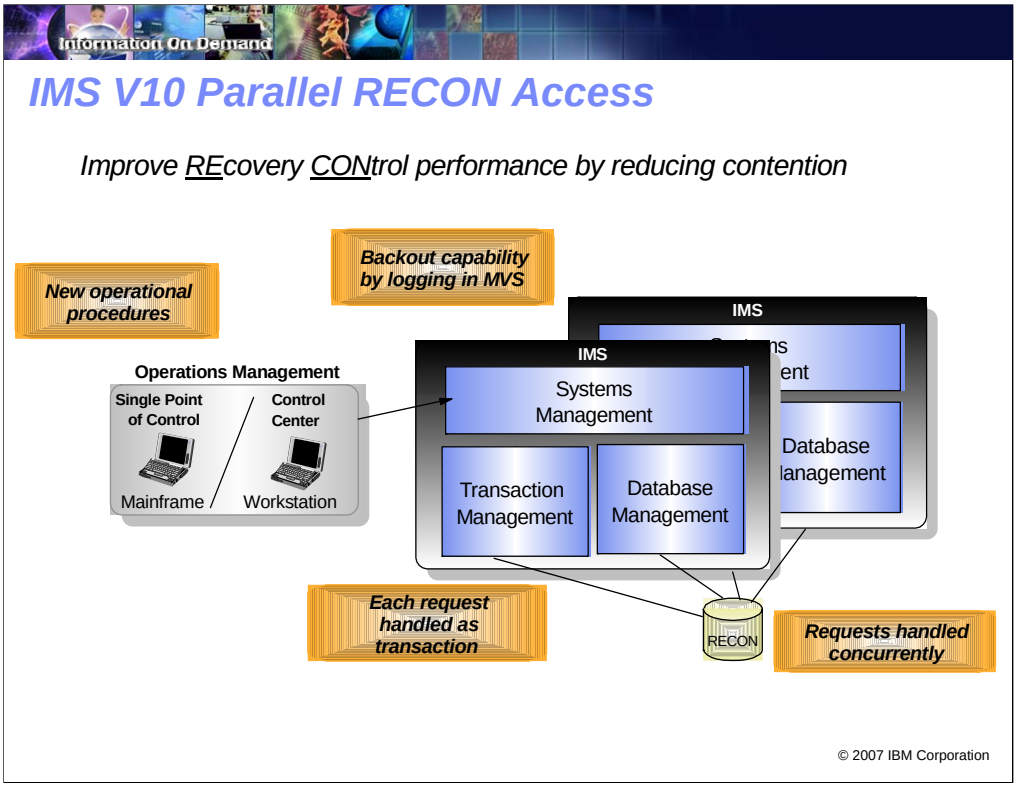

**Key Message: IBM is working on XQuery support for open standards and integrated access**

IMS V9 introduced a way to view your IMS data as collections of XML documents -- aligning the stored IMS records with the valid XML documents for retrieval and automated conversion between these. The emerging XQuery standard is a powerful query language to search, aggregate, evaluate, pick and choose parts of the XML collection and then convert the resulting data into XML. IBM development and research have teamed up to build a fully functional, performance-oriented XQuery implementation atop IMS. This is being provided as part of Version 10. But meanwhile an IMS XQuery Technology Preview is now available on alphaworks through the IMS website.



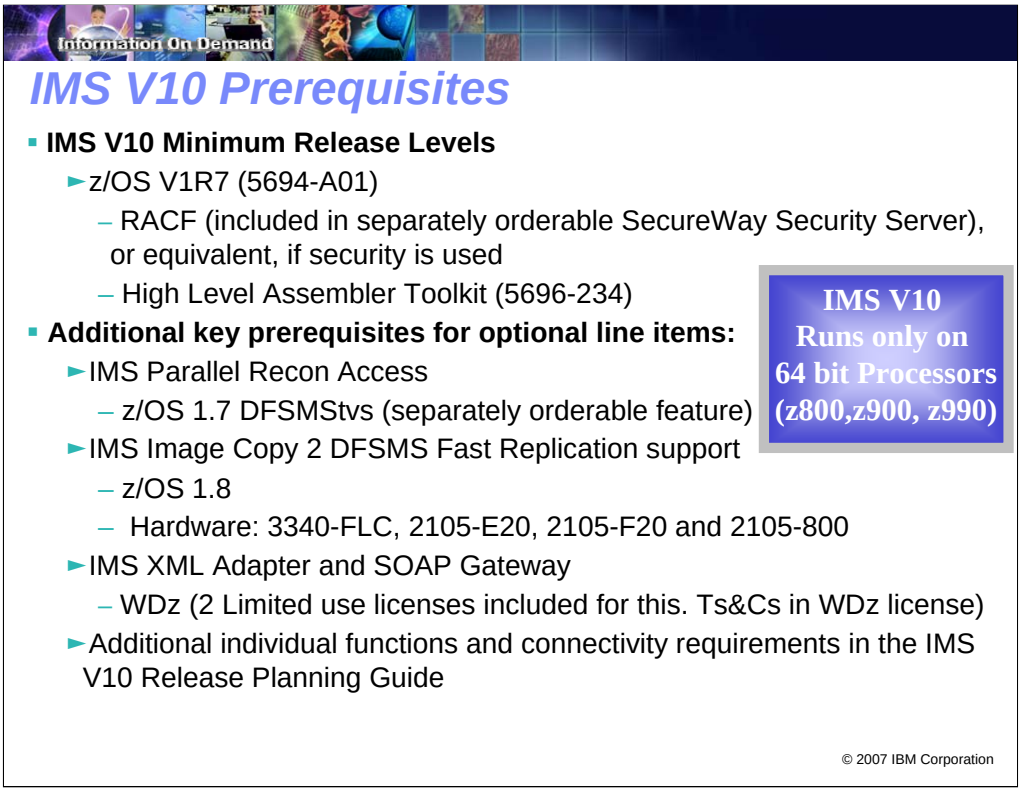

**Key Message: IMS V10 simplifies your definition of resources**

To ease manageability, with IMS V10 we are providing Dynamic Resource Definition to help simplify the definition of your IMS resources. Critical work to help with installation of new IMS function is the ability for IMS to provide Dynamic Resource Definition. This can help all IMS customers who need to define transactions, programs, routing codes and databases. The objective is to eventually eliminate system definition and online change for databases, applications, routing codes and transactions by providing a dynamic definition capability for these resources. This offers a non-disruptive capability to add, change and delete databases, applications, routing codes, and transactions in IMS.




**Key Message: IMS V10 provides improved RECON performance by reducing contention**

IMS V10 is also improving scalability with improved Database Recovery Control performance through Parallel access to the Recovery Control data set (RECON). This support can help address RECON contention issues. DBRC requests from multiple IMS systems are processed concurrently and record level sharing is implemented for the RECON, using z/OS DFSMS Transactional VSAM support and the MVS system logger.




**Key Message: IMS has some prerequesites**

IMS V10 operates under z/OS V1R7(5694-A01) configurations, or subsequent versions, releases and modification levels unless otherwise stated, and requires the following minimum version, or release or modification levels:
z/OS V1R7 (5694-A01) with DFSMS (a base element of z/OS V1R4).

RACF (included in a separately orderable SecureWay Security Server feature of z/OS V1R4), or equivalent, if security is used.

IBM High-level Assembler Toolkit (5696-234), a separately orderable feature of z/OS.
IMS also operates in a virtual machine (VM) under control of z/OS V1R7 and is intended for use in a customer program development, testing and non-XRF production environment with some restrictions.

IRLM 2.2 supports IMS V10.

IMS Parallel Recon Access requires z/OS DFSMStvs, a separately orderable feature of z/OS V1.7 or later. Special bids will be considered for IMS customers using the Parallel Recon function, who do not already have DFSMStvs, to acquire DFSMStvs for use restricted to IMS.

IMS Image Copy 2 DFSMS Fast Replication support requires z/OS 1.8

IMS V10 Integrated Connect XML Adapter support for COBOL, together with the IMS SOAP Gateway, requires WebSphere Developer for z (WDz). Two limited usage licenses of WDz are being provided with IMS V10 for this support of Web Services. Terms and conditions are outlined in the WDz licensing.

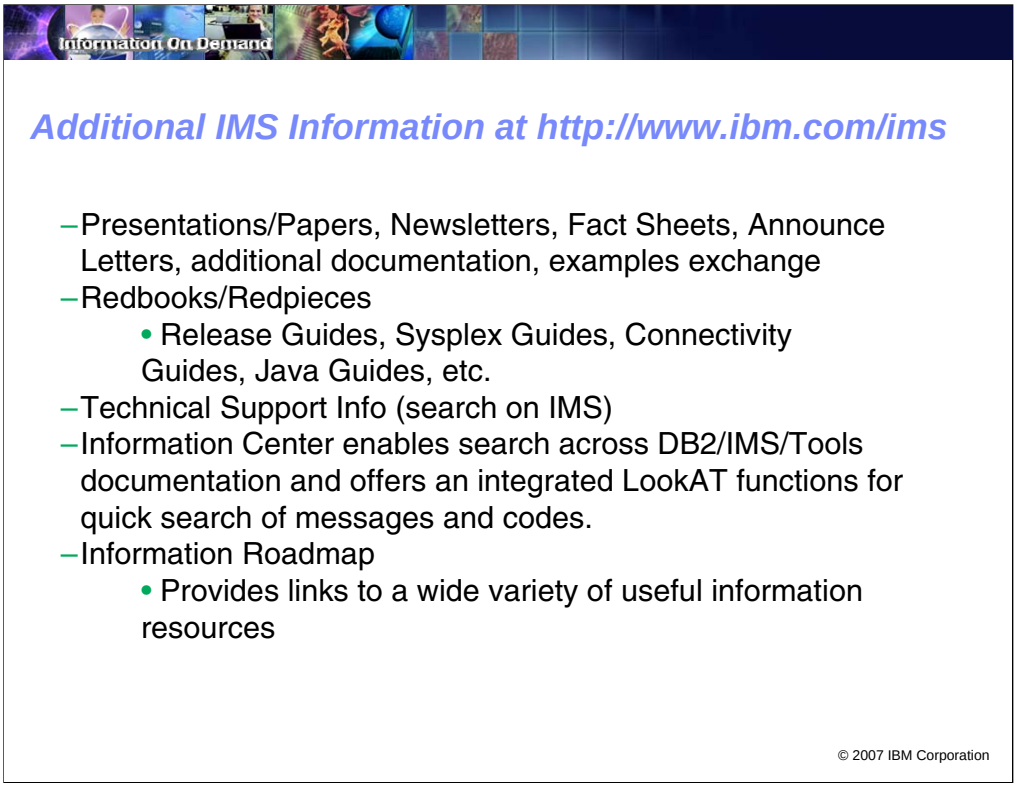
IMS V10 runs only on 64 bit IBM processors.

Additional line item requirement information is provided in the *IMS V10 Release Planning Guide* at *http://www.ibm.com/ims*


**Key Message: IBM is continuing to enhance IMS while easing manageability, providing this in regular, staged, deliverables, well into the future.**

And as I said earlier, we are now introducing IMS Version 10 and, as we roll out over time, we continue to provide enhancements to IMS, alternating our bigger requirements across the different areas of the product. IMS continues with each new deliverable to provide the utmost in scalability, easing integration, and simplifying management.

(CLICK) We provide this packaged in new IMS versions, as web downloads, or as service. In addition we continue providing new/enhanced application and management tools and products to enhance the IBM mainframe environment on which we run.




**Key Message: IMS continues to provide information and services for our clients**

A wide range of IMS Information is available

The IMS solutions are generally available along with other IBM products in support of IMS. Additional documentation and information is available from the IMS home page at http://www.ibm.com/ims.

The IBM International Technical Support Organization has been producing redbooks and redpieces with additional information, available at http://www.redbooks.ibm.com. A number of IMS Technical Conferences are also being provided on an ongoing basis.

Examples Exchange is a Web site dedicated to IMS samples and examples. You can view examples and submit your own examples for others to use e.g.How to build a Java application that uses the J2EE Connector Architecture Common Client Interface


Through nearly 40 years we've been traveling together on a Magic Carpet ride with proven IBM Mainframe and IMS product solutions. We are committed to continue to provide solutions in the future to address your needs. You can trust the reliability, availability and performance that only IBM Mainframes and IMS can provide. So come along with us into the world of Information On Demand with IMS. Go out and enjoy the conference.