#### Let IMS Open Doors for Your New Business Opportunities

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### Agenda

- How to Sharpen your competitive edge with IMS
  - Driving Transaction Workload into IMS
  - IMS Data the Core of your Business
  - Improving Availability
  - Improving Usability for External Subsystem Connections
- How IMS Tools extend your edge
- IMS Value Unit Edition Can Save You Money
- Tell Me More!

#### **Announcing IMS 14**



### IMS 14 and IMS Enterprise Suite 3.2 General Availability

October 30, 2015



 Want to share IMS 14 with someone who missed this session? Tune into the on demand webcast



- IBM IMS Solutions: Sharpen Your Competitive Edge
- <u>http://ibm.biz/ims14solutions</u>

## Driving Transaction Workload into IMS



#### **IMS Connect - The TCP/IP gateway to IMS**

#### Enables access for

- Messages into and out of IMS applications through IMS TM
  - IMS Mobile Feature Pack and z/OS Connect Enterprise Edition
  - IMS to IMS, WebSphere Application Server, IMS Soap Gateway, and IBM DataPower through Open Transaction Manager Access (OTMA)
  - IMS to IMS through Multiple Systems Coupling (MSC)
  - IMS TM to CICS through InterSystems Communications (ISC)
- Direct IMS Database access through Open Database
- System Management using IBM Management Console for IMS or IMS Operations Manager
- IMS Connect is a component of IMS and executes in a z/OS address space



See Sessions A06

### **Enabling Cascaded Transactions**

- Distributed global transactions can combine IMS transactions with other workload requests (WAS, CICS, DB2 requests) into one unit of recovery
  - Resource Recovery Services (RRS) coordinates the syncpoint processing for global transactions
- Allow a global transaction using the IMS TM Resource Adapter to flow across an IMS Connect and an IMS Control region that reside on different LPARs





#### Why this is important

- Increases flexibility and workload balancing of IMS across LPARs
- Increases availability by allowing IMS Connect to route to another LPAR

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### Managing change in IMS Connect

- Commands allow dynamic change for IMS Connect configuration
- Allow additional commands to dynamically manage IMS Connect resources
  - Introduces DELETE PORT and DATASTORE commands
  - Enhances UPDATE PORT and DATASTORE commands to allow changes to selected attributes
  - Introduces CREATE and DELETE IMSPLEX commands
  - Provides synchronous command responses for selected IMS Connect



- Increases availability allowing dynamic creates, deletes and updates for selected resources
- Increases usability providing a synchronous command response

#### **Enable connectivity using OTMA Descriptors**

- Open Transaction Manager Access (OTMA) allows IMS to send/receive transaction messages to/from TCP/IP clients such as IMS Connect through transaction pipes
- Client descriptors define properties for an OTMA client
- Destination descriptors define message destinations that are routed through OTMA.

#### Better storage management for OTMA descriptors

- Eliminate fixed storage allocation at startup
- Can increase limits using DFSOTMA member descriptor





#### **Improved Scalability for OTMA Transaction Pipes**

#### • Allow multiple *active* Resume TPIPEs for a single Transaction Pipe (TPIPE)

- TPIPEs sending CM0 output require ACK before next message can be sent
- Multiple IMS Applications issuing ICAL to a single TPIPE



- Synchronous callout to an external server potential reduction in application wait time
- Asynchronous message delivery Potential throughput improvement
- Failover; throughput or workload balancing



### **Improving OTMA Security and Usability**

- Automatically refresh OTMA cached userids when they are changed in RACF
- Secure connections for OTMA clients using RACF without having to enable transaction and command security
- Improve dispatching during busy periods by allowing user specified limits for the save area prefix allocation for OTMA clients
- Allow conversations to be released easily via /EXIT CONV by showing the conversation identifier via QUERY OTMATI
- Enable callable service requests from OTMA routing exits DFSYPRX0 | OTMAYPRX and DFSYDRU0 | OTMAYDRU
- Allow OTMA Input/Output Edit Exit DFSYIOE0 | OTMAIOED to modify the message



#### Why this is important

- Improves security
- Removes performance bottleneck for peak loads
- Improves usability of user exits

**IMS 14** 

#### **Increase scalability for APPC conversations**

- Automatic scaling for APPC conversations and flood prevention
  - IMS system defaults for maximum number of
    - active conversations
    - queued conversations in 64-bit storage



- User can specify limits with APPCMAXC= parameter in DFSDCxxx
- When the number of APPC conversations exceeds the limit, new conversations are queued to 64-bit storage
- When the number of queued conversations is reached, new conversations are rejected



#### Why this is important

 Improves IMS resiliency and reduces unplanned outages due to APPC message flooding

### **IMS Application Callout**

#### Enable IMS applications as Service Requesters

- IMS Application can be an integration focal point in the enterprise
- Interoperate with business logic outside the IMS environment
- Callout to Java EE apps (EJB and MDB) and Web Services using WebSphere Application Server and IMS TM Resource Adapter
- Callout to Web services providers (e.g. Microsoft .NET) using SOAP Gateway
- Callout to DataPower and other applications

#### Asynchronous Callout

- IMS application invokes external applications without waiting for response
  - DL/I ISRT ALTPCB
  - Destination can be

Another IMS application (program switch)

An OTMA destination

Sent to any OTMA clients, such as IMS Connect or IBM MQ

TPIPE name specified via DRU exits or OTMA descriptor.

Any response sent back is a new transaction

#### Synchronous Callout

- IMS application invokes external application and waits for the response.
  - DL/I ICAL
  - Supports timeout capability and large messages
  - · Secondary application is not in the same two-phase commit scope
- IMS application waits until the response is returned or the request receives a timeout
- Callout response is sent back to the same transaction that initiated it

## Enable IMS Application callout request to specify control data

- Enhanced DL/I ICAL function allows user information to be passed to IMS Connect and its clients
  - XML string can have IBM and/or user defined tags
  - All tags are passed to each component to interrogate
  - Some usage scenarios
    - Pass security credential information to an external web service which can be used to authenticate the callout request
    - Override the XML converter name specified in the OTMA destination descriptor or the static endpoint address value in the WSDL for SOAP Gateway

- Strengthens callout security with the security token included in control data
- Reduces the number of OTMA destination descriptors due to unique converter names
- Provides flexible and dynamic endpoint routing

# IMS Data - The core of your business



#### **Growing your Full Function Databases**

- High Availability Large Database (HALDB) enables independent partitions for full function databases allowing growth greater than 40 terabytes
  - Supports OSAM and VSAM
- Use HALDB Online Reorganization to reorganize partitions without an application outage
- Allow OSAM database growth by supporting 8GB OSAM for HALDBs
  - You can choose either 8GB OSAM HALDB or the use of Online Reorganization for each database
- Reduce 24-bit storage usage for OSAM Database control blocks
  - OSAM DEB extension moved into 31-bit storage

#### Why this is important

Increased scalability for OSAM databases

#### Managing OSAM HALDB 8GB with IMS Tools

#### IMS Database Solution Pack

- Autonomics
- IBM Management Console
- IMS Online Reorg Facility
- DB Reorg Expert
  - Unload
  - Load
  - Prefix Resolution/Update
  - Index Builder
- ✤ HP Image Copy
- ✤ HP Pointer Checker
  - IMS DB Repair Facility
- ✤ IMS Library Integrity Utilities
- ✤ IMS HALDB Toolkit

- When an OSAM HALDB database is 8 GB-capable, the IMS HALDB online reorganization process cannot be run against that database.
- The following IMS Tools support 8 GB OSAM HALDB databases:
  - IMS Cloning Tool V1.2 (5655-U91)
  - IMS Database Solution Pack V2.1 (5655-DSP)

#### **Growing your Fast Path Data Entry Databases**

- Fast Path 64-bit buffer manager takes the guess work out of defining Data Entry Database (DEDB) buffer pools
  - IMS manages the subpools automatically
  - Multiple subpool sizes are used based on the database
- High Speed Reorganization (HSRE) and High Speed
   Sequential Processing (HSSP) buffers can now use 64-bit storage



#### Managing 64-bit Fast Path DEDBs with IMS Tools

IMS Fast Path Solution Pack

Autonomics

IMS Management Console

#### HP FP Utilities

- FP Advanced Utilities
- FP Online Utilities
- ✤ IMS DB Repair Facility
- ✤ IMS HP Image Copy
- IMS Library Integrity Utilities

 64-bit storage is now exploited for IMS high-speed utilities (HSRE and HSSP), improving scalability and availability

- IMS Fast Path Solution Pack V1.3 (5655-W14)
  - Online Expert Reorganization (OER) and Online Space Management (OSM) support FP 64-bit buffers for IMS High-Speed DEDB Direct Reorganization utility.

## Compress Data using zEDC in Image Copy 2 Utility (DFSUDMT0)

- Allows IMS to exploit DFSMSdss use of zEnterprise Data Compression (zEDC) to achieve higher compression ratios with lower CPU usage
  - zEDC is a compression acceleration capability that was available beginning with z/OS 2.1
- IMS uses zEDC services if available
  - Exploitation does not require a change to JCL
- Requirements
  - IBM z13 or IBM zEC12 with zEDC Express
  - z/OS 2.1 with UA74782 to exploit HW compression/decompression

#### Why this is important

Provides better compression ratios and reduces CPU usage

#### Now is the time to enable the IMS Catalog





**IMS 14** 

- What is the Catalog used for?
  - Comprehensive view of trusted IMS database metadata (including application metadata)
  - Managed by IMS with standard access patterns (JDBC/SQL)
  - Offers metadata discovery and exchange via IMS Open Database and the IMS Explorer for Development
  - Enables broad IMS integration into the IBM and non-IBM portfolio of tools
- Use the IMS Catalog as the source for all program and database schemas
  - IMS loads resource information from the catalog
  - ACBLIB is no longer used or needed by IMS

#### Why this is important

 Removes the external need for PSBGEN, DBDGEN, and ACBGEN

#### Managing the IMS Catalog with IMS Tools

#### IMS Database Solution Pack

- Autonomics
- IBM Management Console
- IMS Online Reorg Facility
- DB Reorg Expert
  - Unload
  - Load
  - Prefix Resolution/Update
  - Index Builder
- HP Image Copy
- HP Pointer Checker
  - IMS DB Repair Facility
- IMS Library Integrity Utilities
- ✤ IMS HALDB Toolkit

- The following IMS Tools support IMS managed ACBs:
  - IMS Cloning Tool V1.2 (5655-U91)
  - IMS Database Solution Pack V2.1 (5655-DSP)
  - IMS Library Integrity Utilities V2.2 (5655-U08)
    - Catalog Manager utility was added that ensures DBDs and PSBs in the IMS catalog are maintained correctly.

#### **Defining IMS Databases with Agility**

- Enable application programs to use different logical versions of the same database with database versioning without an application change
- Change the structure of an HALDB or DEDB using HALDB Alter or DEDB Alter without a DB outage
- Use Data Definition Language (DDL) to make database schema changes
  - No longer need to use system definition and generation to introduce new programs and databases
  - Audit trail captures the changes

- DDL is the industry standard
- DDL-authoring tools are prevalent in the market







### Change or add a DEDB Area without taking the Database offline

- IMS 13 Introduced the DEDB Alter Utility to provide DEDB dynamic change capability
- IMS 13 DEDB Alter added the capability to dynamically:
  - Alter physical attributes of DEDB Area: SIZE, UOW and/or ROOT parameters for DEDBs without sequential dependents (SDEPs)
  - Change the randomizer used for a DEDB Area

#### IMS 14 Extended the utility to support

- DEDBs that have with Sequential Dependents (SDEPs)
- Adding Areas to a DEDB
- Adding a Segment Edit/Compression exit
- Alter when using XRF/FDBR with ACBSHR=N



#### Why this is important

 Improves data availability by allowing selected changes to a DEDB without taking the database offline

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## Reduce unplanned outages due to insufficient space for Sequential Dependents

- IMS can automatically manage DEDB sequential dependent storage when processing of the SDEPs is asymmetric across the IMS systems
- Automatic SDEP buffer management reduces the need to perform manual steps to prevent an out of space condition in the SDEP that could cause a database outage.
- SDEP management accounts for asymmetric processing to ensure enough CIs are released
  - Enable and control through new parameters in DFSDFxxx
    - SDEPAUTO, SDEPFREQ, SDEPEXP, SDEPTIME

#### Why this is important

 Reduces unplanned outages for applications and/or databases due to insufficient space for SDEPs

### View data with IMS Explorer for Development

- Visualize IMS database structure as defined to IMS
- Change IMS Database and Program Definitions source
- Graphically access IMS data using SQL
- View your mainframe datasets
- Submit JCL and inspect output in JES
- Explore the IMS Catalog
- Invoke transactions for unit test
- Enable services for the IMS Mobile Feature Pack for z/OS Connect Enterprise Edition
- Generate and Issue DDL to manage IMS database schema



**IMS 14** 

#### Java and IMS – IMS 7 to IMS 14 highlights



#### Use SQL from COBOL to access IMS Data

- COBOL applications can issue SQL to access IMS database
  - Support for COBOL in addition to the current Java-based IMS applications
  - Uses metadata from the IMS catalog
  - Dynamic SQL in IMS dependent regions for COBOL
  - Requires COBOL V5.1
  - EXEC SQLIMS .....
  - SELECT LastName, FirstName, ZipCode FROM TELEPCB1.PHONEBOOK

#### Allow SQL aggregate function to process IMS data from COBOL applications

- Aggregate function (AVG, COUNT, MAX, MIN, SUM)
- GROUP BY with Aggregate function
- GROUP BY with Aggregate, ORDER BY
- GROUP BY more than one column

### Why this is important

 Provides standard SQL aggregation for aggregation for data warehouse and data mining





## **Improving Availability**

#### **Sharing the IMS Message Queues**

- Allows multiple IMS systems to share messages on a single set of queues in a Coupling Facility across a Parallel Sysplex
- Improves workload distribution, increases availability and can easily add capacity
- Indicates to the Queue Space Notification exit, DFSQSSP0, how much of the message queue structure is used
- Allows BMP-inserted transaction messages to be eligible for "local-first" processing
- Additional zIIP support for the Common Queue Server





Can improve availability and reduce cost

**Dynamically defining MSC resources without an IMS outage** 

- Improve the availability of the IMS online environment by dynamically defining Multiple Systems Coupling (MSC) resources
- New CREATE and DELETE commands
   MSLINK, MSPLINK, MSNAME, LTERM



- New startup parameters to select MSC feature and definition libraries
- Can eliminate MSC definitions from system definition



- Eliminate planned outages to modify MSC definitions
- Reduce 24-bit private storage usage

### Improving usability for the IMS Repository

- The IMS repository is a common store for managing resource definitions in an IMSplex
  - Provides consistent definitions across IMS systems
  - Allows resources to be removed from sysgen yet preserved for cold start
- Enable AUTOEXPORT to IMSRSC repository from IMS at end of IMS system checkpoint
- Provide the ability to show changes that have not yet been hardened to the IMS repository
  - QUERY .... SHOW(EXPORTNEEDED)

- Improves usability of the IMS Repository
- Reduces the chance of an IMS terminating without hardening changes to the IMS Repository

#### Enable faster rollout of application changes with less manual effort

- IMS optimizes the scheduling process allowing an application to remain scheduled waiting for the next input message
  - Eliminates unnecessary application program termination and rescheduling improving performance and reducing CPU usage
    - Pseudo Wait-for-Input (PWFI) option for MPP and JMP regions
    - BMP transactions defined WFI
  - Adds to operational processes to refresh application
- New command to terminate these applications in order to refresh an application
  - UPDATE PGM .... START(REFRESH)



- Enables faster rollout of application changes with less manual effort
- Reduces data integrity exposures due to missed application changes

### **Refresh user exits without an IMS outage**

- Improved usability for user exits
  - Specify multiple exit routines for a single user exit type
  - Refresh User Exits dynamically using a command
- •Additional exits with this capability
  - Type-2 AOI user exit (AOIE DFSAOE00)



- New IMS Monitor (IMSMON) user exit type
  - Used by OMEGAMON XE for IMS v5.3



- Increases availability for IMS by allowing refreshing of user exits without an IMS outage
- Improves usability for tools that provide monitor functions by providing an API for extensions

## Improving Usability for External Subsystem Connections



Improving Usability for External Subsystems

- Provide SubSystem Type values to define IBM MQ and WebSphere Optimized Local Adapter subsystems in addition to DB2
  - SST = DB2 | MQ | WOLA



- Positional SSM definitions assume SST=DB2
- Commands and log records changed to show SST value for subsystem
  - /DIS SUBSYS
  - /DIS OASN SUBSYS



#### Why this is important

 Improves usability by allowing you to distinguish between DB2, MQ and WOLA when multiple external subsystems are connected to IMS

### Simplifying the FDBR Resolve In-Doubt Notification Exit

- Simplify the resolution of in-doubt work for an external subsystem during Fast Database Recovery (FDBR)
  - Provides a sample Resolve In-Doubt Notification Exit, DFSFIDN0, that can trigger automation to resolve in-doubt work without having to write custom code
    - Issues a message for each in-doubt ESS UOR with the subsystem information
    - Automation can monitor the messages and act upon the in-doubt UOR



- Improves usability when using both FDBR and DB2 z/OS
- Can reduce the time DB2 z/OS holds locks during recovery

## How IMS Tools Extend Your Edge



#### IMS Tools from IBM Providing Modernization and Autonomics for a "Smarter IMS"

lex	Tools Bar	IBM Tools Base Administration Co	nsole for z/OS	Welcome	Resources	Reports	Welcome back Chris   Logou	• IBM	. IBN IBN	
	Add Resources Series al Resources W Ven	Search all resources C	Critical main storage  Database Properties Database Name: DBABC0 DBD Type: HDAN Seconset length; US	BC002 ► ())C1	Exceptions 8 As of May 27, 20 Critical (1)	间口 011 5:48PM	Reports         52           December 15, 2011 (12)         H1500 - Job# 1079 (5)	() C		
MS Database Solution Pack Autonomics MS DB Reorganization Expert - Unload, Load, Index Build, Prefix Resolution/Update MS HP Image Copy MS HP Pointer Checker MS Library Integrity Utilities MS HALDB Toolkit MS Online Reorg Facility		IMS Fast Path Solution Pack Autonomics IMS HP Fast Path Utilities IMS DB Repair Facility IMS HP Image Copy IMS Library Integrity Utilities			IMS Recovery Solution IMS HP Image Copy IMS Database Recovery Fac IMS HP Change Accumulatio IMS Index Builder IMS DRF Extended Function		on Pack Facility lation	IMS Performance Solution Pace IMS Connect Extensions IMS Performance Analyzer IMS Problem Investigator		ution Pack
			IBN	/I Tools	Base f	for z/OS				
Data Base Administration	<ul> <li>IMS Seque</li> </ul>	<ul> <li>IMS Sequential Randomizer Generator</li> <li>IMS Cloning Tool</li> <li>IMS Database Control Suite</li> <li>IMS HP Image Copy</li> <li>IMS DEDB Fast Recovery</li> <li>IMS Recovery Expert</li> </ul>			stem / T ministra	M S ation	System <ul> <li>IMS Command Control Facility</li> <li>IMS ETO Support</li> <li>IMS HP System Tools</li> </ul>			
Jtility Management	<ul> <li>IMS Clonin</li> <li>IMS Datab</li> </ul>						<ul> <li>IMS Queue Control Facility</li> <li>IMS Workload Router</li> <li>TM</li> <li>IMS Configuration Manager</li> <li>IMS Sysplex Manager</li> </ul>			
Recovery	<ul> <li>IMS HP Im</li> <li>IMS DEDB</li> <li>IMS Recov</li> </ul>				plicatio anageme	n ent	<ul> <li>Batch Terminal Simulator</li> <li>Program Restart Facility and Batch Backout Manager</li> <li>Guardium ITAP for IMS</li> <li>IBM Infosphere Guardium Data Encryption for DB2 and IMS Databases</li> </ul>			
Performance Management	<ul> <li>IBM Transaction Analysis Workbench</li> <li>IMS Buffer Pool Analyzer</li> <li>IMS Network Compression Facility</li> </ul>			Re Co	gulatory	/ ce				

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## IMS Tools for IMS Database Management System

## **Solutions for IMS Databases**

#### IMS Database Solution Pack

- Autonomics
- IBM Management Console
- IMS Online Reorg Facility
- DB Reorg Expert
  - Unload
  - Load
  - Prefix Resolution/Update
  - Index Builder
- ✤ HP Image Copy
- HP Pointer Checker
  - IMS DB Repair Facility
- IMS Library Integrity Utilities
- IMS HALDB Toolkit

#### IMS Fast Path Solution Pack

- Autonomics
- IMS Management Console
- ✤ HP FP Utilities
  - FP Advanced Utilities
  - FP Online Utilities
- ✤ IMS DB Repair Facility
- IMS HP Image Copy
- IMS Library Integrity Utilities

#### IMS Recovery Solution Pack

- DB Recovery Facility
- HP Change Accumulation
- ✤ HP Image Copy
- DRF Extended Functions

#### IMS Performance Solution Pack

- IMS Connect Extensions
- IMS Performance Analyzer
- IMS Problem Investigator

## **Utilities/Tools for IMS Databases**

•IMS HP Prefix Resolution         •IMS HP Pointer Checker         •IMS Cloning Tool         •IMS Database Control Suite    Performance Management •IMS Buffer Pool Analyzer •IMS Performance Analyzer •IMS Problem Investigator •IMS Problem Investigator	Utilities/Utility Management	<ul> <li>IMS DB Reorganization Expert</li> <li>IMS HP Unload</li> <li>IMS HP Load</li> <li>IMS Index Builder</li> </ul>	Backup and Recovery	<ul><li>IMS HP Image Copy</li><li>IMS DEDB Fast Recovery</li><li>IMS Recovery Expert V2</li></ul>		
		<ul> <li>IMS HP Prefix Resolution</li> <li>IMS HP Pointer Checker</li> <li>IMS Cloning Tool</li> <li>IMS Database Control Suite</li> </ul>	Performance Management	<ul> <li>IMS Buffer Pool Analyzer</li> <li>IMS Performance Analyzer</li> <li>IMS Problem Investigator</li> <li>IBM Transaction Analysis Workbanch</li> </ul>		

Regulatory Compliance

•IBM Infosphere Guardium Data Encryption for DB2 and IMS Databases

## IMS Tools for IMS Transaction Management System

## Solutions for IMS TM

Pack	Performance Management	<ul> <li>IMS Buffer Pool Analyzer</li> <li>IMS Connect Extensions</li> <li>IMS Performance Analyzer</li> <li>IMS Problem Investigator</li> <li>IBM Transaction Analysis Workbench</li> <li>IMS Network Compression Facility</li> </ul>			
	System / TM Administration	System IMS Command Control Facility IMS ETO Support IMS HP Sysgen Tools IMS Queue Control Facility IMS Workload Router TM IMS Configuration Manager IMS Sysplex Manager			
	Application Management	<ul> <li>Batch Terminal Simulator</li> <li>Program Restart Facility</li> </ul>			

**Utilities/Tools for** 

**IMS TM / Systems** 

#### **IMS Performance Solution Pac**

- IMS Connect Extensions
- IMS Performance Analyzer
- IMS Problem Investigator

**IMS Performance Solution Pack v1.3: IMS V14 toleration** 

- Toleration in all the tools:
  - IMS Performance Analyzer v4.4
  - IMS Problem Investigator v2.4 (APAR's PI27926, PI40569, PI45831)
  - IMS Connect Extensions v2.4
- Support for formatting and reporting of various IMS V14 log record improvements and log record changes
- Support for capturing new IMS V14 IMS Connect information in IMS Connect Extensions journals

IMS V14 toleration also in **IBM Transaction Analysis Workbench V1.3** (APAR PI43018)

#### **IMS Performance Solution Pack v1.3: IMS V14 exploitation**

- Reporting on the new TCB statistics records added in IMS v14: report on TCB performance and aggregate performance by TCB type (APAR PI29978)
- Support in the transaction index records generated by IMS Performance Analyzer for new DLI call types introduced with IMS V14 (APAR PI40573)
- Utilize IMS Connect dynamic resource changes in IMS Connect Extensions by:
  - Add/update/delete datastore: including routing to dynamicallydefined datastores and use of all other advanced features
  - Add/update/delete port
  - Add/update/delete IMSplex (reporting only)

(APAR PI27852)

#### **IMS Configuration Manager v2.2**

- Migration assistance from any supported version of IMS to IMS V14
- Discovery of IMS V14 systems
- Impact analysis: determine which systems in your topology have parameters that are impacted in IMS V14 or could potentially include V14 parameters.
- Support for the definition of dynamic MSC resources

#### **OMEGAMON XE for IMS v5.3**

#### **Increased efficiency**

New Real-Time and Near Term History workspaces in the enhanced 3270 user interface for easier problem analysis

#### New enhanced 3270 UI Content

- Application (ATF) Workload History
- Bottleneck Analysis
- DBCTL
- Multiple Systems Coupling (MSC)
- Response Time Analysis
- Shared Queues
- OTMA TMEMBER and TPIPE
- Storage Pools
- VSAM, OSAM, and database buffer pools
- Near Term History (NTH) on eligible workspaces
- Embedded data support for CICS
- IMS Command support (Type-1 added)

#### **New Near-Term History Workspaces**

- IMS and IMSPlex health and system information
- Address spaces
- Dependent regions
- Global and local locks
- Shared Queues
- DBCTL Threads
- Multiple Systems Coupling
- OTMA
- Storage Pools and subpools



## IMS Value Unit Edition Can Save You Money



## Providing new processing possibilities for the Digital Era

Yes, you **can** economically support new workloads!

### Do you need to:

- Grow workload without impacting operational expense?
- Manage the cost of new applications that have to access IMS data for Java or SQL workloads?
- Develop and cost-effectively run mobile applications that need to access critical enterprise data stored in IMS?



#### **IMS Value Unit Editions for IMS DB and TM**

Economically support new workloads

- Introduces a new one-time-charge pricing metric specifically for new Java workloads
- IMS Data Sharing clients can grow workload without impacting operational expense
- Develop mobile applications using critical enterprise data stored in IMS
- Net new applications access IMS Open Database for Java or SQL workloads
- Opportunities for new customers to take advantage of this Industryleading high performance DBMS

- IMS clients can grow workload without impacting operational expense
- IMS DB VUE can share data with traditional IMS DB systems
- IMS TM VUE can share message queues with traditional IMS TM systems
- Develop new IMS Java applications with access to DB2 VUE or IMS DB VUE
- Additional zIIP offload cost savings for Java
- Run an IMS TM/DB VUE when you have both IMS TM VUE and IMS DB VUE

#### **Deployment options for IMS TM VUE and IMS DB VUE**

#### Independent

- Single zNALC LPAR
- VUE Products only



#### Connected

- zNALC & regular z/OS LPAR
- IMS TM VUE and IMS TM MLC connected to each other



#### IMS DB VUE

- Single zNALC LPAR
- VUE Products only



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## Tell me more!



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### What's Next?

## Discover

- 2 new Point of View RedGuides your starting point for:
  - IMS and Mobile available soon!
  - IMS and Analytics: Applying Analytics to IMS Data Helps Achieve Competitive Advantage

## Adopt

– 2 follow-on RedBook Solution Guides

## Deploy

 IMS 14 Technical Roadshow from our Washington System Center team





#### Where can I learn more about IMS?



The IMS YouTube channel <a href="https://www.youtube.com/user/ReThinkIMS">https://www.youtube.com/user/ReThinkIMS</a>

Look for IMS Playlists which groups specific videos on the following topics:

- Fundamentals
- Security
- Mobile
- Analytics
- Simplified Interfaces
- Tools

## **Thank You!**

