

Evolving Your Business with Imagination, Magic and Speed

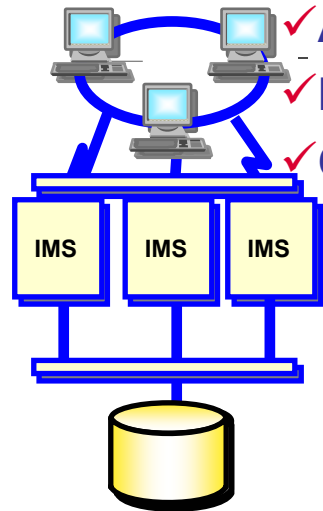
Bob Gilliam
Director, IMS

IMS Version 9

Available October 2004 !

Ideal for OnDemand e-business

- ✓ Integration with Application Development and Connectivity
- ✓ Manageability
- ✓ Scalability
- ✓ Availability/Recovery
- ✓ Performance
- ✓ Capacity



**Strategic Open Access
z/OS Enterprise Servers**

Enhancements

- Integration
 - XML data in IMS Databases
 - Enhanced Security
 - Broadened Java/XML Tooling
 - E-Business Connect Functions
- Manageability with Autonomic Computing
 - Eased Sysplex Manageability
 - Eased Serviceability/Usability
 - Simplified Install/Definition Process
 - Enh Systems/Data Mgmt Tools
- Scalability
 - HALDB Integrated Online Reorganization
 - Enhanced Recovery/Control
 - System Growth

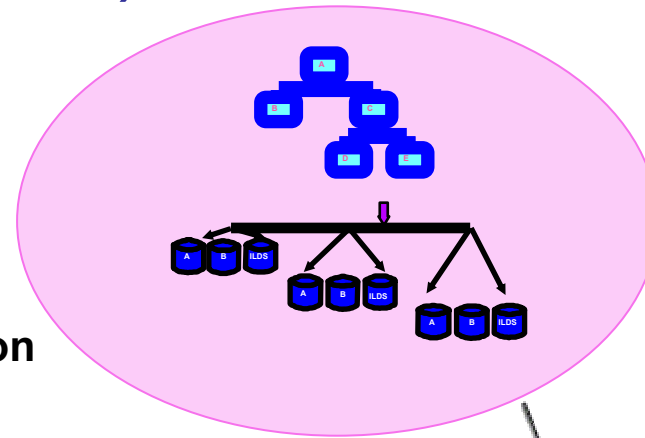
Benefits

- ✓ Enable Customer Growth
- ✓ Enhance Workload Balancing
- ✓ Increase Availability; Ease of Use
- ✓ Preserve Current Application Investment
- ✓ Enable New Applications

IMS V9 HALDB - Online Reorganization

(for IMPROVED AVAILABILITY)

- Providing Data Availability during reorganization
- Making 100% of data available 100% of time
 - Integrated IMS Online Reorganization by partition of HALDBs with concurrent online update and availability
 - Providing recovery from system, IMS, media failure
 - Users can adjust pace of OLR to minimize online impact
 - Data Sharing with other online and batch environments
 - Coordination through DBRC
 - Base for even better Manageability/Scalability enhancements



[Launch OLR Demo](#)

XML Support

(w/in Transaction Manager and Database)

- **Facilitates B2B and B2C Applications**
 - Implementation is native IMS
 - Convert legacy IMS data to XML
 - Decomposed XML data for use by non-XML enabled applications
 - DL/I Model Utility can generate XML schema at runtime
 - Operate / Invoke IMS transactions using XML
- **Consistent implementation with other database and TP products**
 - Fully integrated with DB2 and Websphere
 - Standardized Query Language/APIs



Integrated IMS Connect Functionality

- **Top Customer Requirement from 2002 and 2003**
 - Provides commands to manage the network and balance workload
 - Reduces design/coding effort for client applications
 - Used with IBM WebSphere Application Server and Studio Tools
 - Used with DB2 and the IMS Control Center for Distributed Operations
 - Integrates function of separately orderable/installable IMS Connect Tool

OVER 7,000 trans/sec



IMS V9 Features

Integration/Openness to ease Application Development/Connectivity

Integrated IMS Connect Function

XML Database support, Java/XML tooling enh, and Distributed JDBC

Open Transaction Manager Access (OTMA) and APPC enhancements

RACF enhancements

VTAM Multi-node Persistent Sessions (MNPS) replace of Uservar/3745 for XRF

255 Trans Scheduling increased to 999 for enhanced usability

Manageability Ease toward Autonomic Computing

IMS Sysplex Database Commands added to Single Point of Control (SPOC)

Enhanced Command Environment

Enhanced Serviceability with new /Diagnose Command and Knowledge Based Log Analysis

- Remove conditional link edit modules

- Remove Online Change modules from the nucleus

- Remove Extended Terminal Option feature install checking

- Dynamic change of Type 4 SVC and add of Resource Cleanup

- Installation Verification Program Release support

- Syntax Checker enhancements

Scalability with Virtualization in Performance/Capacity/Avail/Recovery

Integrated IMS Online Reorganization (OLR) by partition of HALDBs w/concurrent online update

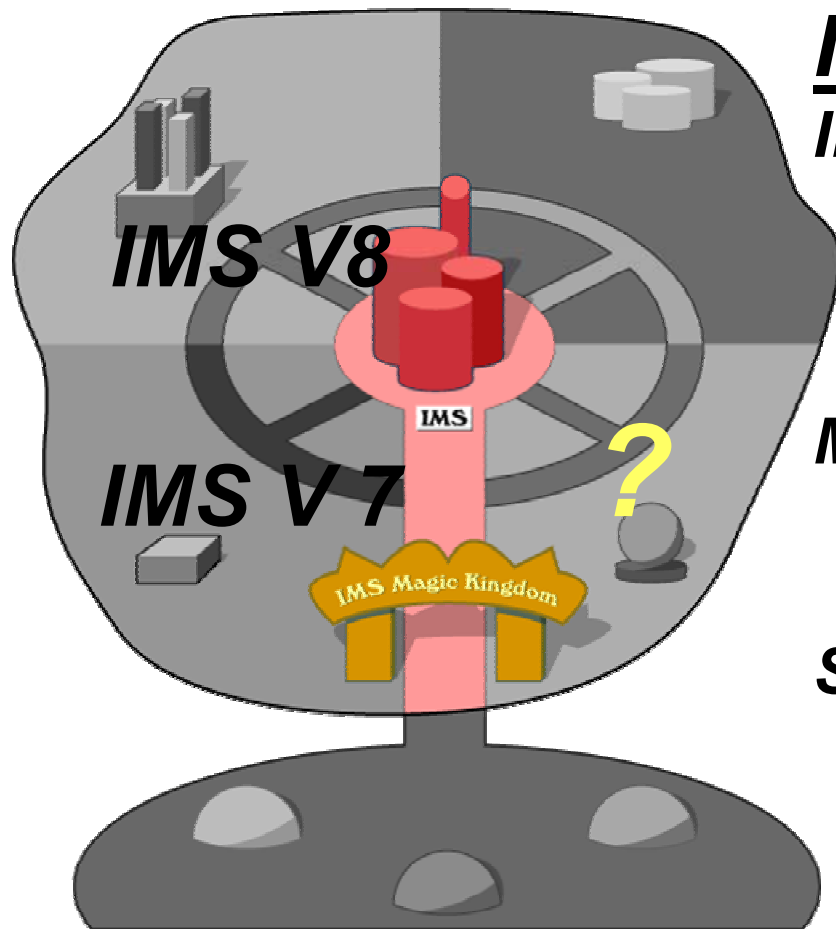
Additional HALDB enhancements

Database Recovery Control (DBRC) Vendor Tools interface, enhanced capacity/usability/integrity

Fast Path performance/serviceability/usability enhancements

Enhanced Recoverability with DB2

IMS Magic Kingdom



IMS V9

Integration

XML in DB/TM

Integrated Connect Functions

OTMA / APPC Enhancements

Manageability

On-Line Reorganization

Sysplex DB Commands

Scalability

Over 22,000 trans/sec

DBRC enhancements

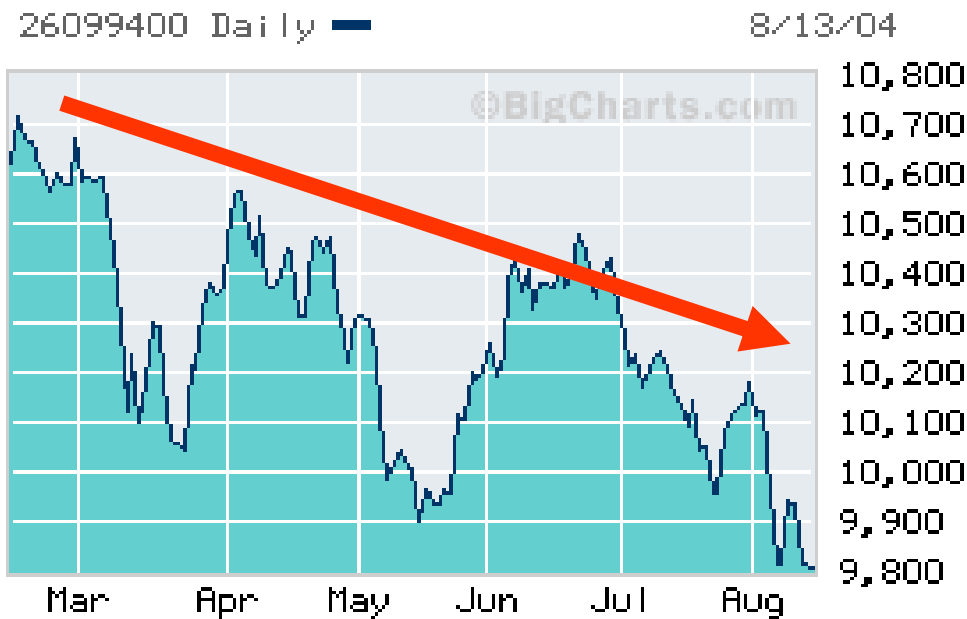
FastPath Perf



Where are we headed?



Where has the Market Been in 2004?

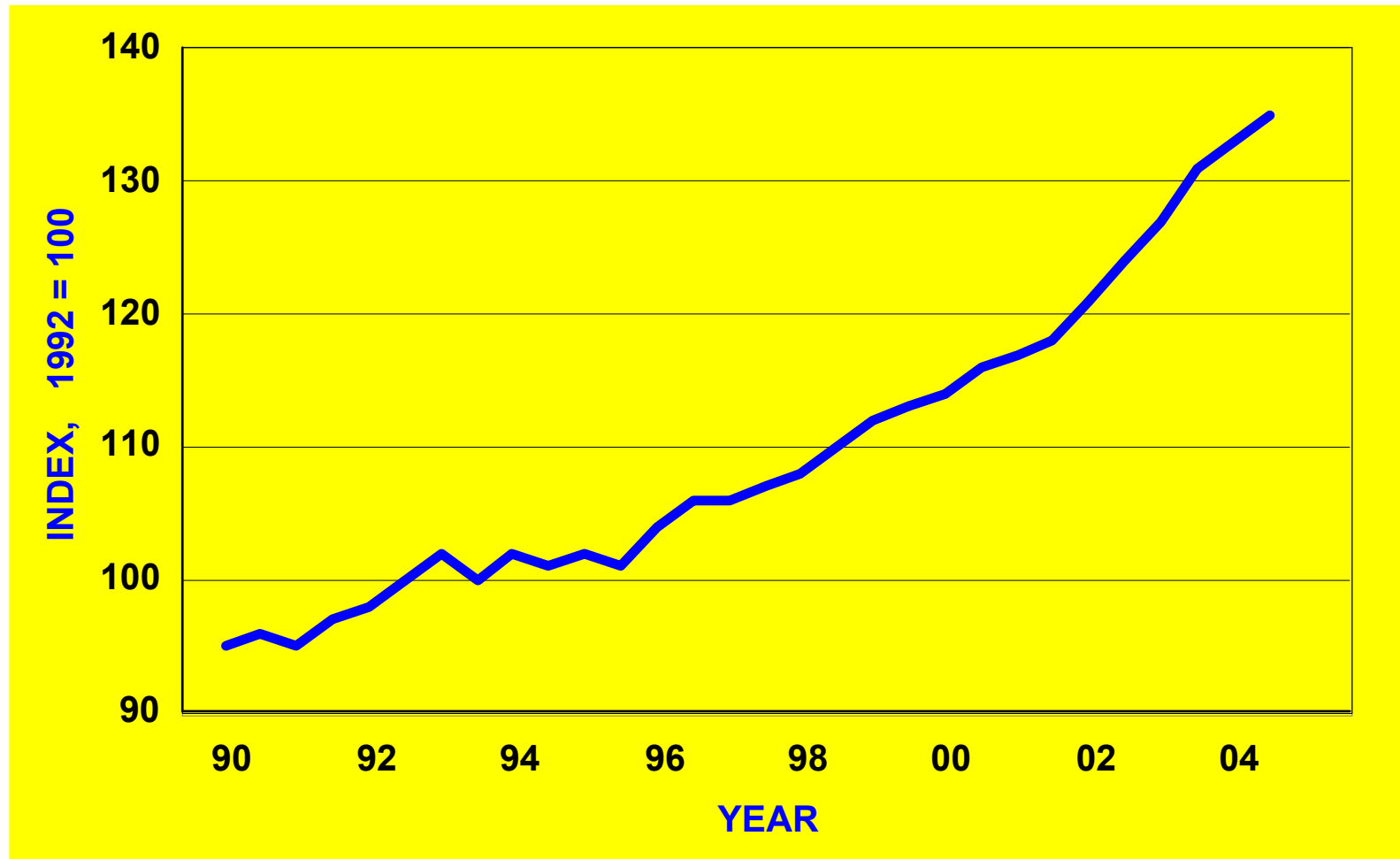


Dow Jones Industrial Avg



NASDAQ

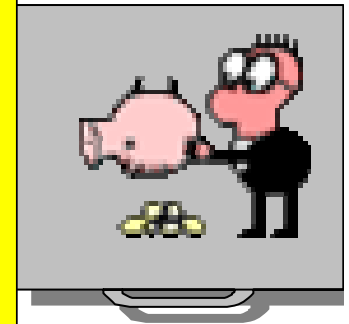
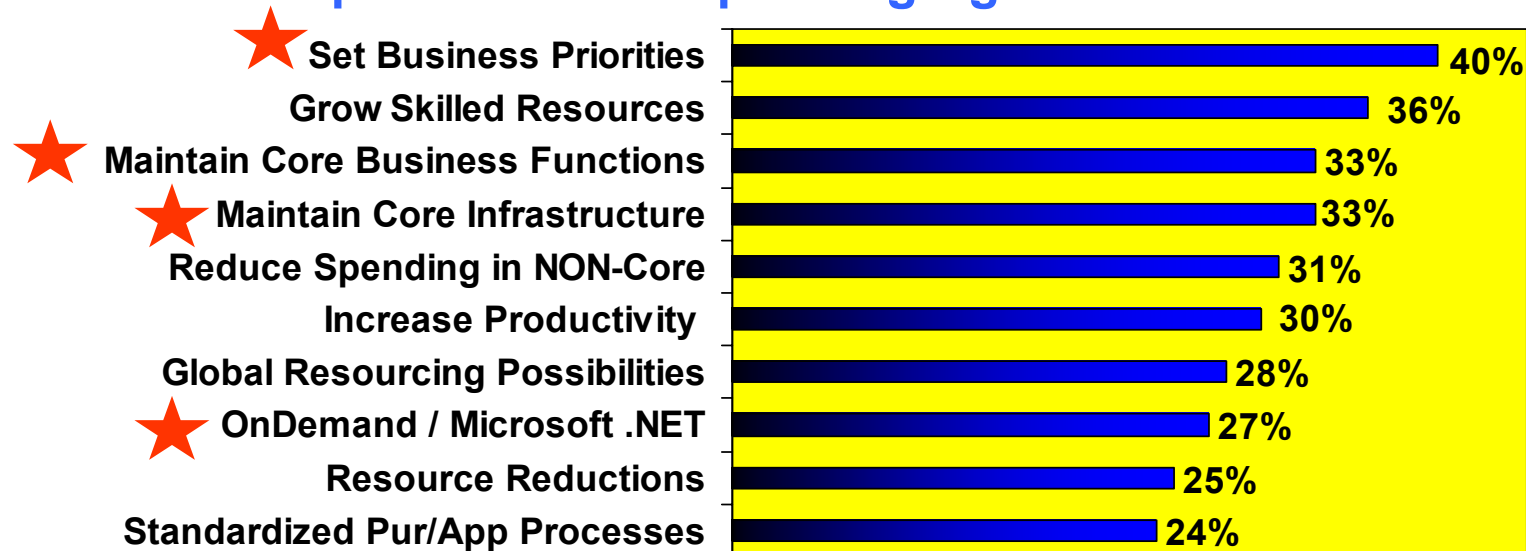
Business Productivity History : 1990 - 2004



Source : US Bureau of Labor Statistics

2004 CIO Business Survey – “Risk Reductions”

Top IT Business Spending Agenda's for CIOs in 2004

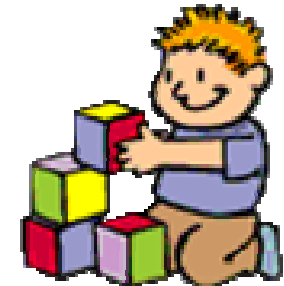


- Steve Ballmer : "Although we are a profitable company with good growth prospects, we do not have the financial resources, the people or the interest in doing things that are not consistent with our priorities,"
- Microsoft : "continue being a lot more decisive about NOT doing certain things."
- *ComputerWorld* : ... prolonged stretch of "doing more with less."

IMS is CORE to your Business

- Usage numbers continue to increase
 - US company has exceeded 100 million trans/day
 - US customer business transaction almost \$3 trillion/day
 - 4 customers w/o unplanned outage in 8 years
 - AP bank has exceeded 200,000,000 savings accounts on-line

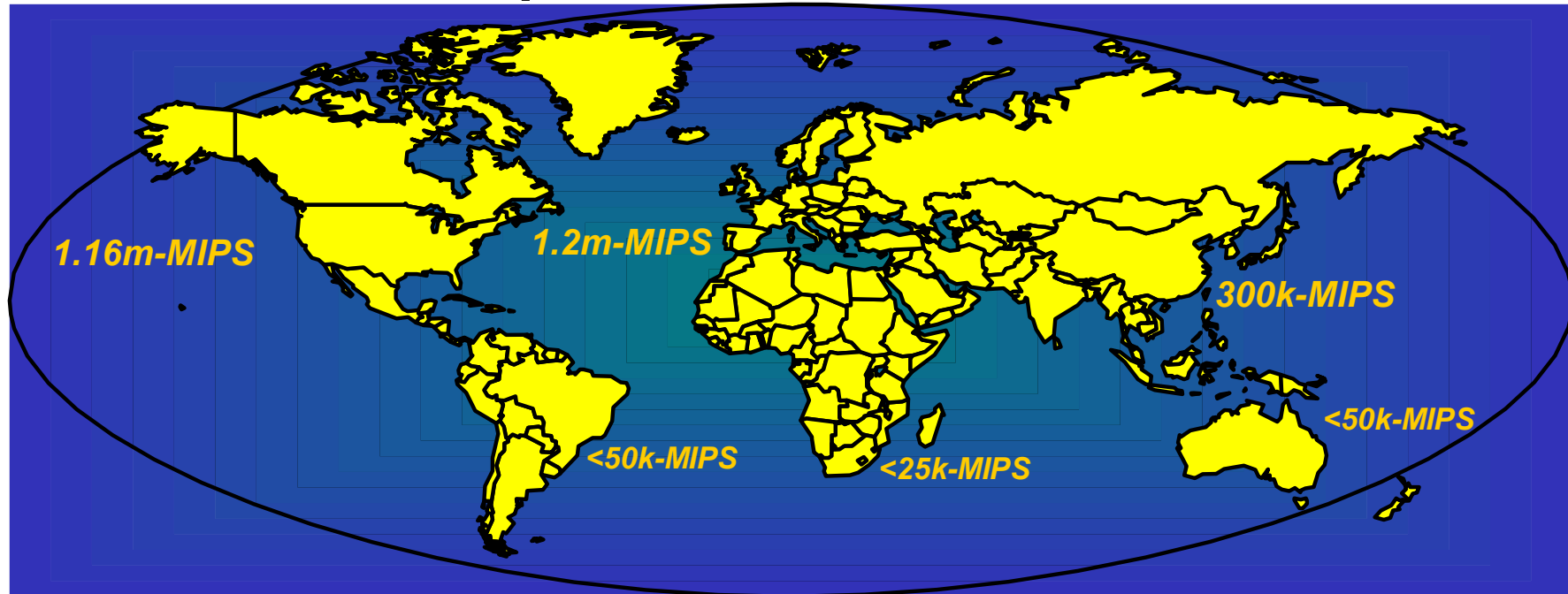
- Customer Investment in IMS
 - Applications continue to expand
 - Databases growing in size and number
 - Transaction volumes rise
 - New applications in the form of integration
 - Increase in present volumes



Don't remove traditional TPMs from the picture: Their quality of services is still unmatched.

Gartner Group, June 2004

IMS: The World Depends on it!



***Over 2.6 million MIPS
running IMS !!!***

IMS Growth

- ***IMS MIPS Growth***
- ***Version to version upgrades V7 V8***
- ***New license growth***

China Construction Bank

■ Challenges

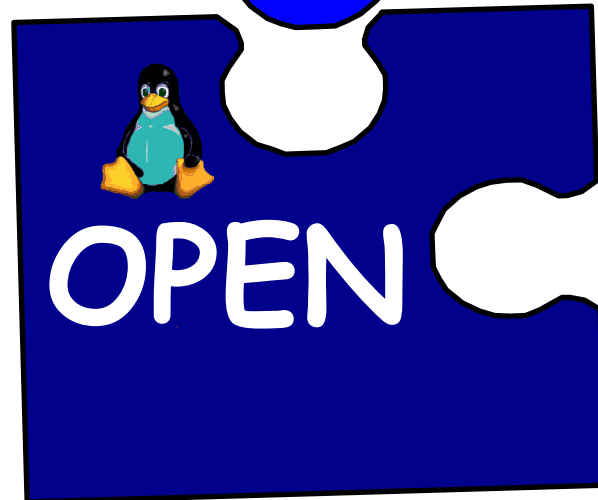
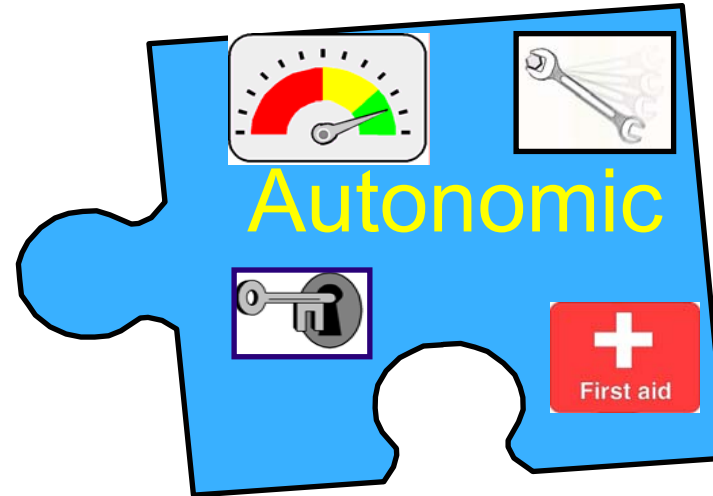
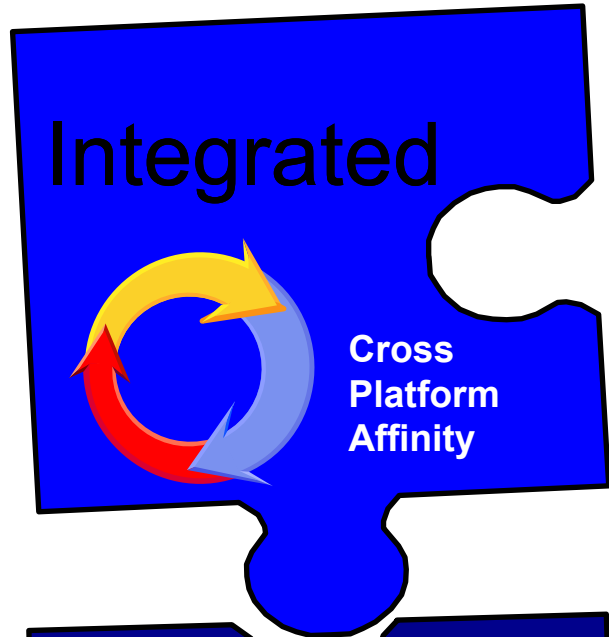
- ▶ **Data center consolidation**
 - from mostly non-IBM environment
 - from distributed environment
- ▶ **Thousands of stations (sessions)**
- ▶ **300+ million accounts**
- ▶ **Production throughout 2003/2004**
 - Drastic increases in amount of data
 - Exponential increases in transaction volume
- ▶ **"High availability essential"**

■ Solution

- ▶ **IBM Parallel Sysplex**
 - 2 way initial data sharing implementation going to 4 way soon
- ▶ **IMS Data Base**
 - HALDB for large DB's requiring multiple secondary indexes
 - Fast Path DEDB's for both large DB and efficiency
 - Fast Data Base Recovery function for high availability
- ▶ **PPRC/GDPS planned for remote site backup**



IBM On Demand Strategy – Four Components



Data Redistribution

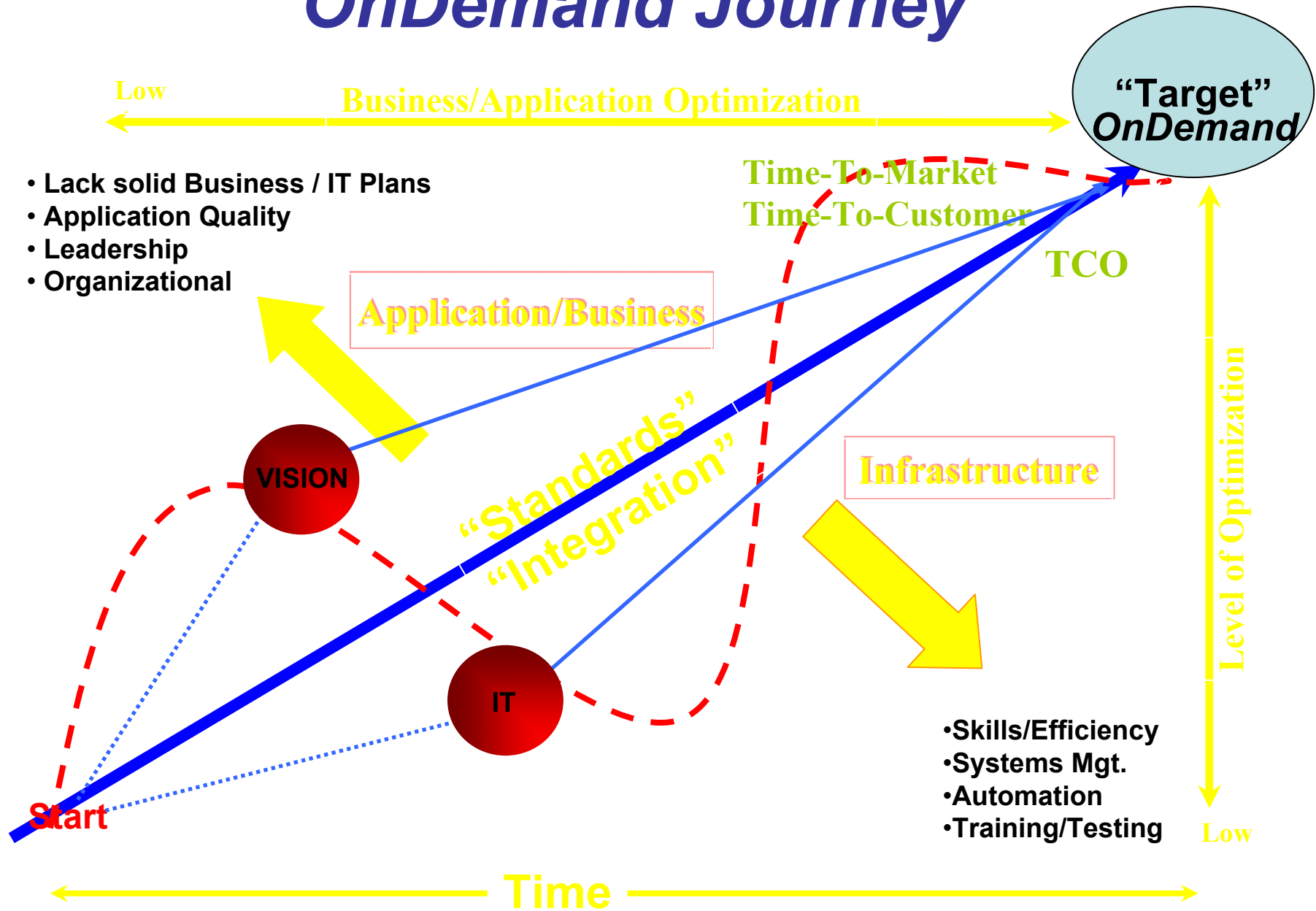
Dynamic Parameters

VIRTUALIZED



Virtual Data Sources

OnDemand Journey



Open Integrated *e*-business Application Development/Connectivity

■ Application programmer productivity

- Java access to IMS input/output message queues
- JDBC to access IMS data
- Uses Visual tools for development
- Supported by IBM's "Eclipse Based" J2EE Tools

JDBC = Interoperability for Application Developers



■ Environments

- The ability to enhance zSeries architecture
- Runs native, in an LPAR, or on z/VM
- Unmatched scalability
- Designed to support multiple, diverse workloads
- Simplified System Management
- Ability to run large numbers of Linux servers on a single zSeries



Integration ...

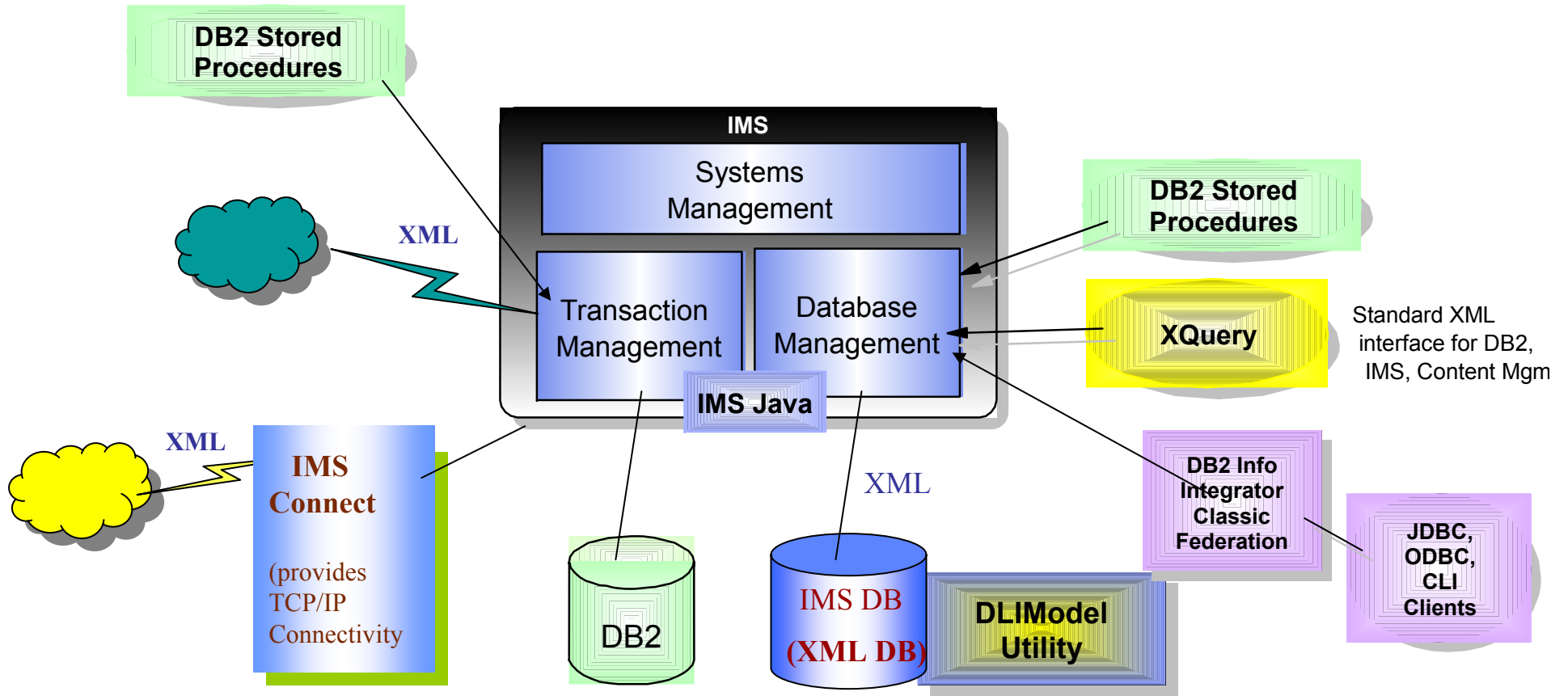
Established core business applications will not disappear. Application integration, Web enabling and Web services will prolong their useful lives...

Gartner Group, June 2004

... IMS users should remain confident about the viability of these products, including as platforms for new developments. However, when pursuing a mainframe-centric strategy, ... IMS users should also look at Java as a way to address the skills shortage issue and gradually adopt WAS and WBI SF zOS to complement traditional TPMs.

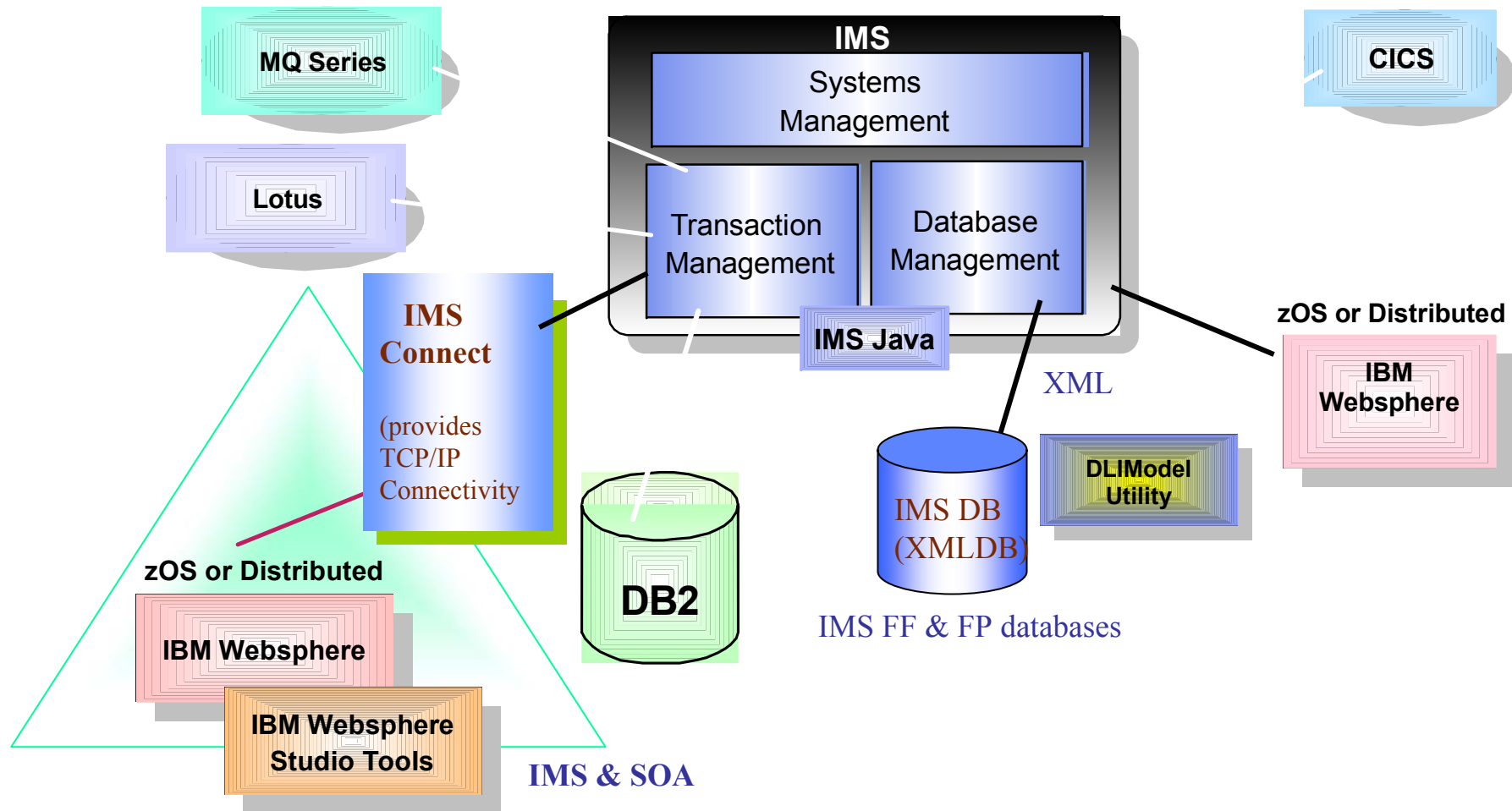
Gartner Group, June 2004

IMS Integration with IBM Products

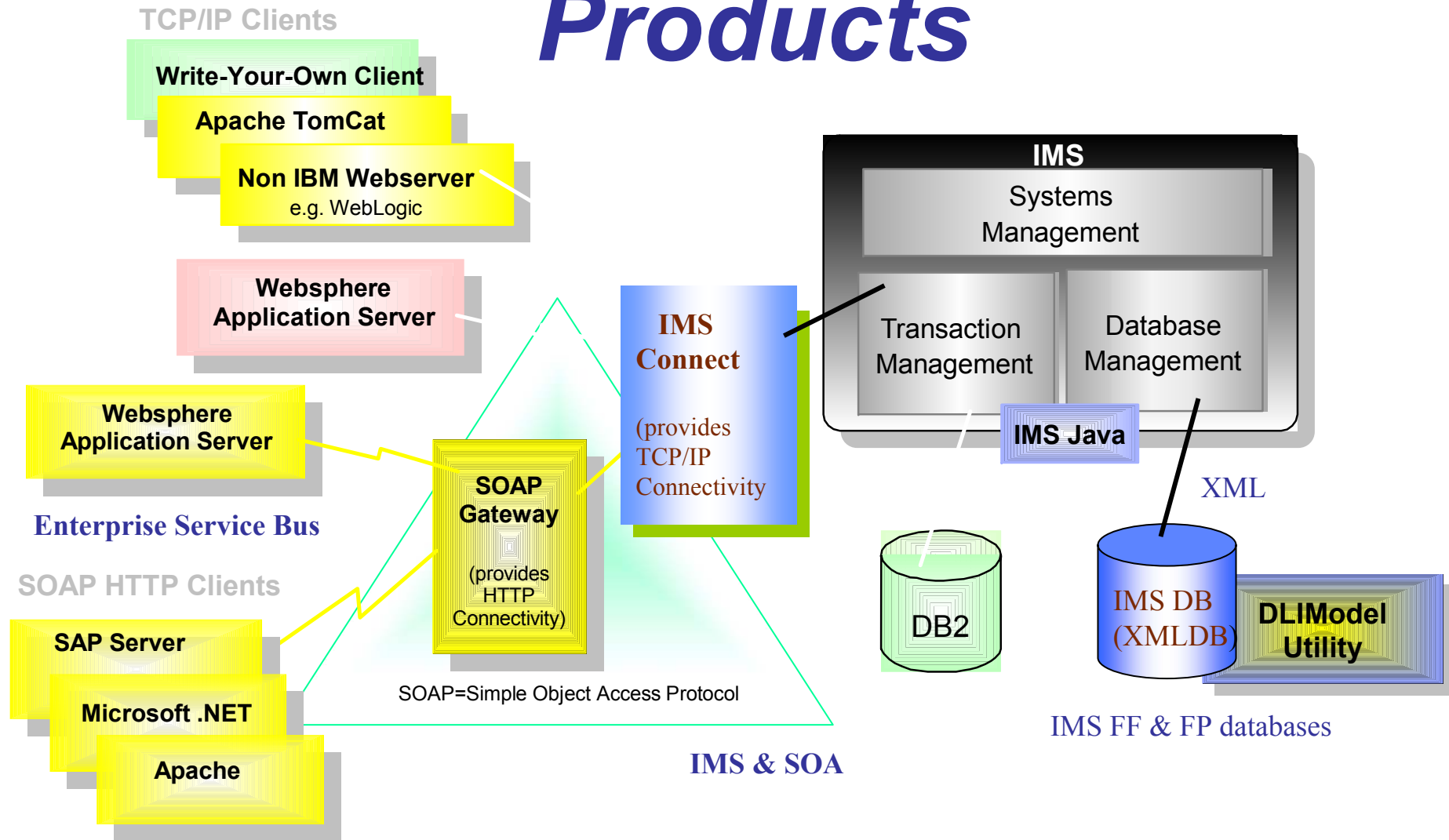


IMS FF & FP databases

IMS Integration with IBM Products ...



IMS Integration with non-IBM Products



Virtualized ... **“What is it ?”**

**Z990 offers a broad range of
scalability and performance**

Up to 512 Channels



Up to 30 LPARS



11,000 Secure Sockets Layer

9000+ MIPS



Virtualized ...

“Within IMS”

HALDB

FastPath

Sysplex / Data Sharing

IMS Connect

IMS JAVA





Autonomic

Configuring

Self Healing/Protecting

Self-Optomizing

Syntax Checker
 Coordinated On-Line
 -Change
 IMS Control Center
 Packaging
 SMP / IVP
 IMS Information Center

Configuring

Coord Disaster Recovery
 ImageCopy 2 Enh
 Sysplex Terminal Mgmt
 OTMA security Enh
 Batch Resource Recovery
 DB Recovery Control
 KBLA

Healing / Protecting

Single Image Ops Mgr
 Single Point of Control
 SysplexWide Resource Mgmt
 Dynamic LE Runtime Parm
 APPC Programming Enh
 MNPS Enhancements

Optomizing

Autonomic

Integration of Autonomic Capabilities :

- Database
- Transaction Manager
- Systems Manager
- E-Business
- 390 Features/Functions

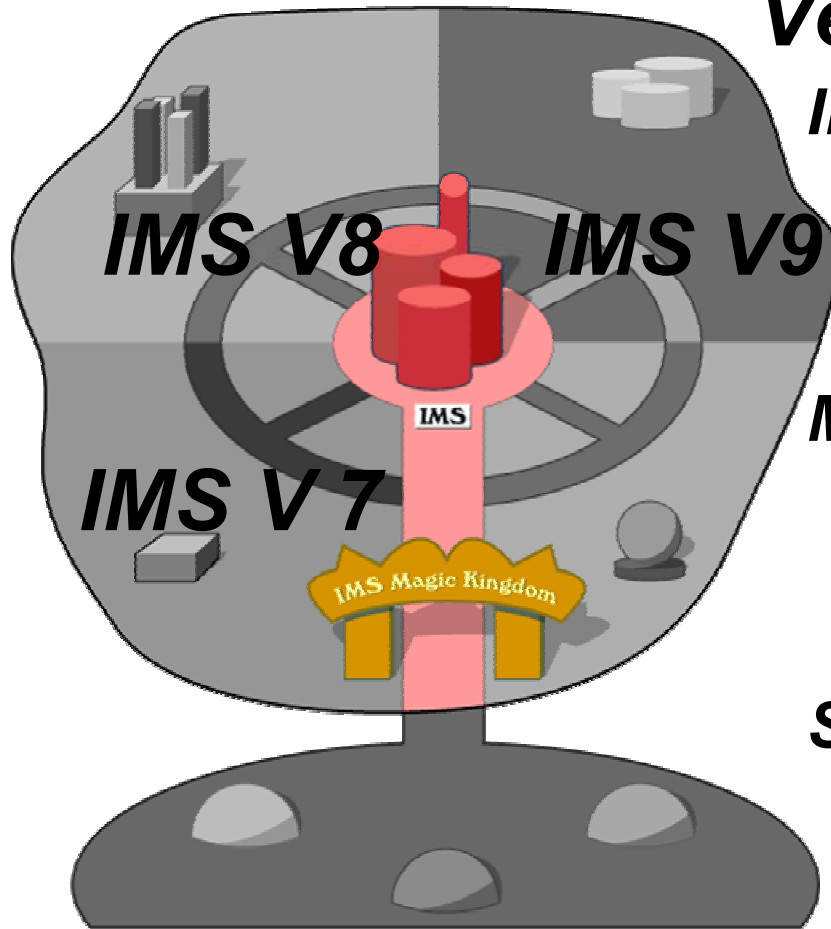
Simplify / Additional Control for the users

Base for future Dynamic Operations

Iterative Process

IMS Magic Kingdom

Version X



Integration

Enhanced Connectivity

XML / XQuery enh

SOAP Gateway enh

Manageability

“Dynamic Resource Definition”

Syntax Checker Enh

Simplified install

Scalability

FastPath /HALDB Perf

MSC Bandwidth

DBRC, Log, Utility Enh



OnDemand is a continuous Journey