

Information on Demand – Leveraging Your Information Assets to Maximize your Business results

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Agenda

- IOD strategy update
- IMS
- **DB2**
- Data Warehouse
- Information Server
- Master Data Management
- Data Base Tools
- Enterprise Content Management
- Summary



The Information Challenge

Business Challenges

Globalization M&As Supply chain Risk & compliance Customer loyalty Operational costs Business velocity

. . .

INFORMATION IS A STRATEGIC ASSET

Information Challenges

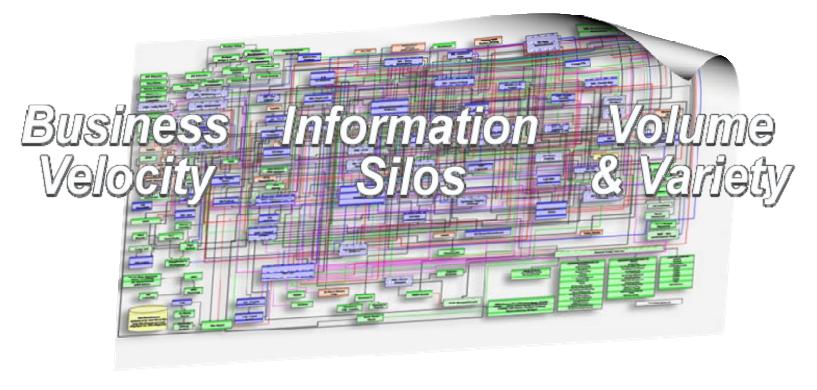
Accuracy Timeliness Relevance Accessibility Security

. . .

5X more value creation by 60%+ of CEOs: Need to do Organizations Using a better job leveraging information effectively information

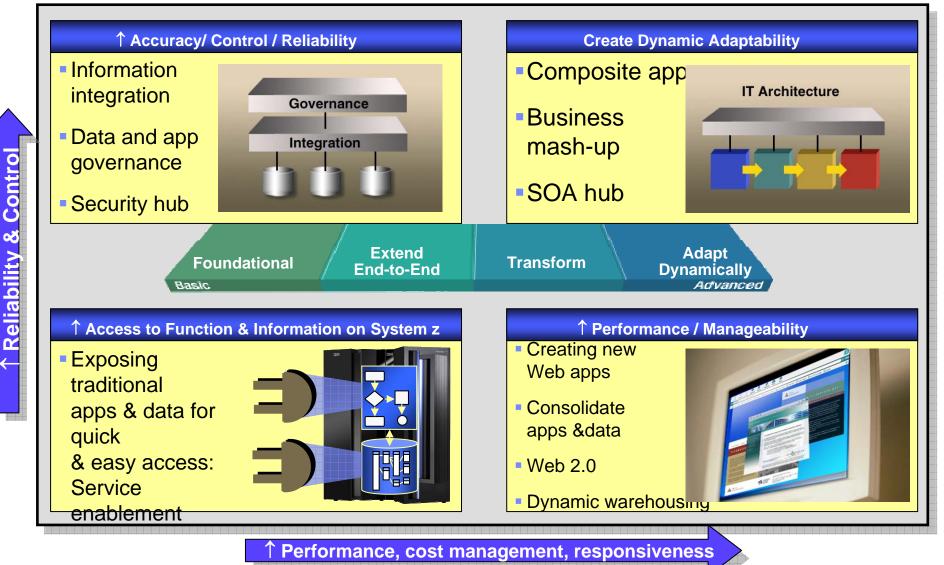


Why is it Challenging to Leverage Information?



LostReducedIncreasedLosttimeservicecostsrevenue

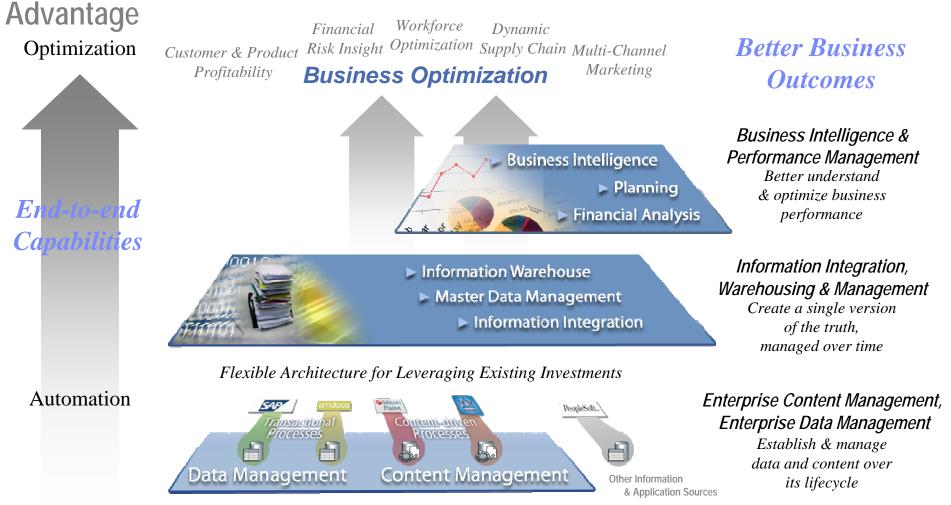
Incremental Benefit Paths for System z Workloads



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System z and Information On Demand Unlocking the Business Value of Information for Competitive





Information On Demand and SOA

Two sides of the same coin...

SOA provides business flexibility

IOD provides the trusted information needed by your services



"You will waste your investment in SOA unless you have enterprise information that SOA can exploit."

- Gartner Research

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New Information On Demand Software for System z

Better business decisions, faster and with a lower overall TCO

Cognos 8 Business Intelligence for System z

Coming! Single solution for reporting, analysis, dashboards and scorecards Delivers a competitive advantage for organizations with operational information on System z Accepting participants for a beta program on Cognos 8 for Linux on System z.

DB2 for z/OS Value Unit Edition

4*vailable* New one-time-charge offering that simplifies the deployment of new application workloads Strengthens the role of System z as a cornerstone for key business initiatives such as SOA, DW, BI & SAP Delivers pureXML which optimizes information availability in the New Enterprise Data Center

Data Warehousing on System z

More than 50 new features in the last two releases of DB2 for z/OS supporting warehousing Information Server for System z - brings new scalability, information consistency and performance to System z customers

InfoSphere Master Data Management Server for System z

More effectively manage high-value operational information

Customers, suppliers, partners, product materials and employees Addresses and solves the root cause of master data complexity

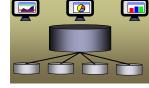
Information on Demand Software Stack in now on System z











Coming!

Now



IM z product enablement in 2007/8

- December 2007 Information Server for z series GA
- December 2007 CM on z/OS V8.4 GA
- February 2008 Cognos for z series announce
- February 2008 DB2 VUE announce and GA (DB2 V9)
- March 2008 DB2 VUE GA (DB2 V8)
- March 2008 MDM server for z series Announce
- April 2008 Cognos on z Linux Beta
- May 2008 Cognos on z Linux GA
- May
 2008
 MDM server on z Linux eGA
- 4Q 2008 Cognos on z/OS Beta
- 4Q 2008 Filenet CE and PE on DB2 z/OS

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IMS Roadmap Most new releases every 2-3 years

- IMS 9 GA October 2004, IMS 8 GA October 2002
- IMS 10 QPP started Jan 2007
- IMS 10 GA October 2007
- IMS 10+1 development/test well underway
- IMS 10+2 in design phase

Two current supported field releases

 N-2 release out of service 1 year after current release GA

Key focus areas for new versions

- Scalability, performance, throughput, RAS
- Ease of use, automation, lessen skill requirement
- SOA application integration, standards, compliance



IMS 10

Reduce management cost and accelerate use of data

Accelerate Integration in a Service Oriented Architecture

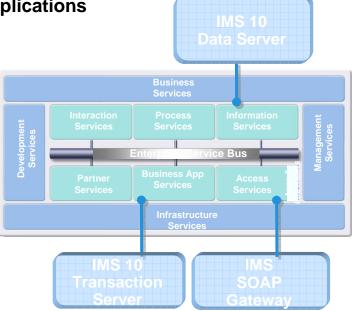
- Enable IMS as client and server to participate in SOA environments
- XQuery support and broader XML and Java Tools
- Reusable IMS services for SOA business flexibility
- Easier to expose IMS transactions as web services
- Application Connectivity Reduced time/cost to integrate applications

Reduce operational costs

- Simplified development reduces time to value
- Enhanced commands ease operations management
- IMS tools suite enhanced and ready for IMS 10

Improve Reliability, Performance, and Security

- New Database Recovery Control reduces recovery time
- Greater Multiple Systems Coupling bandwidth improves performance
- Fast Path and Utilities enhancements



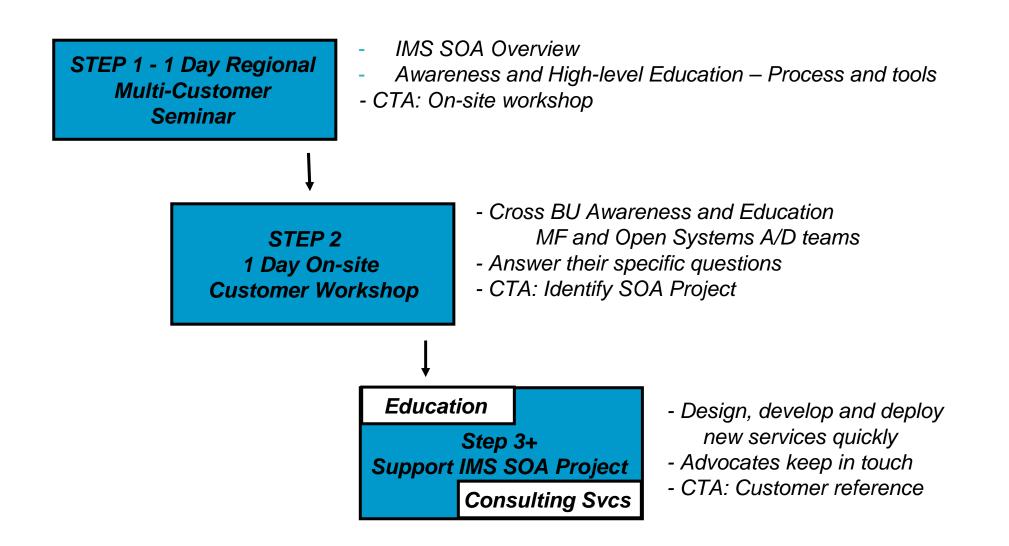


What our customers are saying about IMS

| Verizon George Sharp, Manager IMS Support group for Verizon Telecom, Business and Wireless entities | "Verizon processes in excess of 4 billion IMS transactions each month. IMS continues to provide both the performance benefits and data integrity guarantee that our business customers demand!" |
|--|--|
| Bank Financial Group Wang Chen, Manager, Database Technical Services | "Over the years, upgrading to new versions of IMS has gone smoothly and without any application impact. Now, with IMS 10, we expect to further simplify our development environment which will help us reduce time-to-market for new services" |
| EXTERPILLAR® Steven Clanton, Senior Technology Specialist, Caterpillar | "The IMS SOAP gateway allows us to expose IMS transactions as web services and provides access from any client capable of submitting SOAP requests, without additional software requirements." |

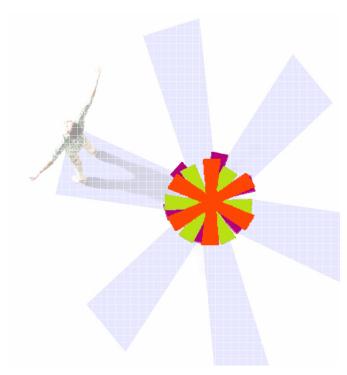


IMS SOA Program – 3 Steps





DB2 for z/OS v8 Field Update:



- More than 50% of WW MIPS &
 Customers on V8
 - More than 95% of the top 200 Customers
 - Fewer Sev 1 APARs with quicker turnaround
 - Fewer multisystem outages
 - Lower overall PMR volume
 - Lower PE rate



DB2 for z/OS with the z10 and z/OS

Supporting System z innovation, raising the IT bar and taking System z to the next level of...

... scalability and performance

- z10 CPUs, memory, I/O and network bandwidth means:
 - Significantly improved SQL performance
 - Improved connectivity for remote apps, especially batch inserts for large queries
- New machine instructions
- Reduced allocation and catalog overhead
- Infiniband CF links
- HiperDispatch
- More efficient disk usage minimizes disk constraints
- More efficient XML parsing
 - Up to 30% performance improvement
 - Up to 100% XML parsing on zIIP / zAAP
- Hash DSAB Searches brings faster startup/restart
- Basic HyperSwap
- zIIP assisted XRC





DB2 & IBM zIIP add value to database work

Portions of the following DB2 for z/OS V8 workloads may benefit from P, CRM, Business Intelligence or other enterprise applications

 Via DRDA over a TCP/IP connection (enclave SRBs, not stored procedures or UDFs)





New Specialty Engine

- 2 Data warehousing applications*
 - Requests that use parallel queries, including star schema
- 3 DB2 Utilities LOAD, REORG & REBUILD*
 - DB2 utility functions used to maintain index structures
- 4 DB2 9 for z/OS Remote native SQL procedures

* ZIIP allows a program working with 2/OS to have all or a portion of its enclave Service Request Block (SRB) work Chirection IP. Above types of DB2 work are those running in enclave SRBs, of which portions can be sent to zIIP.

DB2 9 for z/OS Addressing Corporate Data Goals

| SOA Enablement | pureXML Optimistic locking for WebSphere LOB performance, usability |
|--------------------------------|---|
| Dynamic Warehousing | Many SQL improvements Dynamic index ANDing Histogram statistics New built-in OLAP expressions Optimization Service Center |
| Simplification, Reduced TCO | Index compression Partition By Growth tables Cloned tables Volume based backup / recovery |
| Workload Consolidation | More online schema changes Online REBUILD INDEX Trusted context and ROLEs Parallel Sysplex clustering improvements |







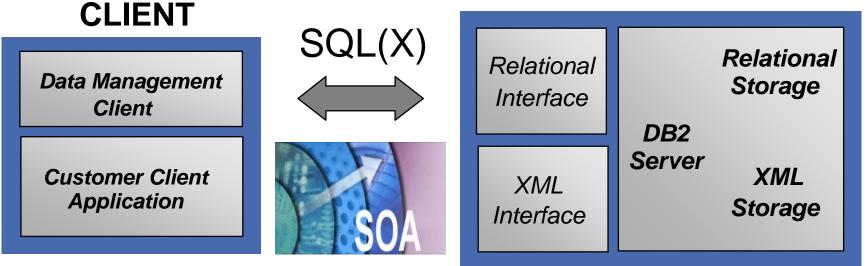




XML Capabilities Inside the Engine pureXMLtm

Performance, Performance, Performance

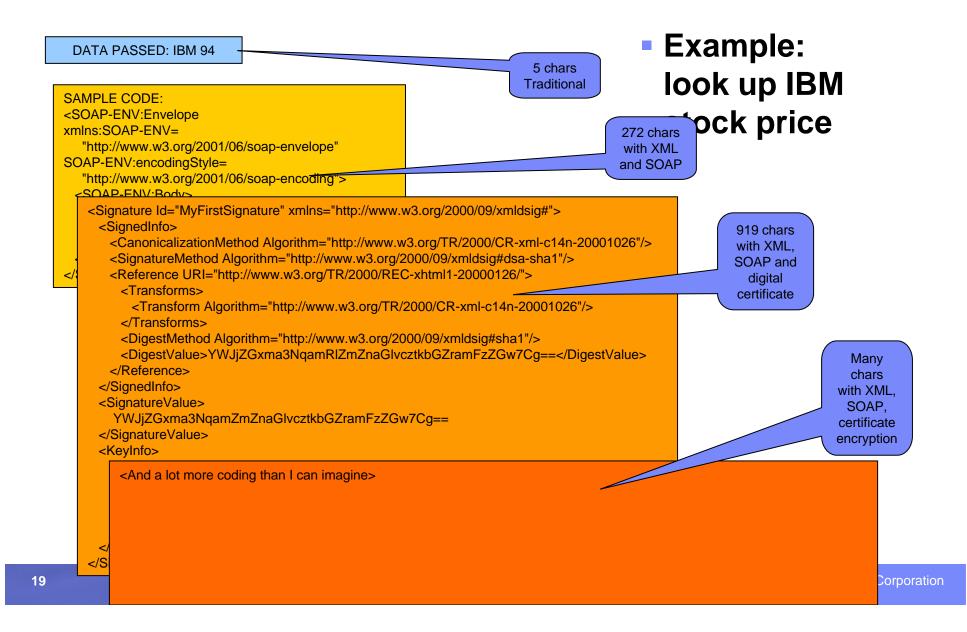
SERVER



Native storage Schema Index Functions Utilities

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XML – a powerful but costly language



DB2 pureXML Industry Bundles

- Demonstrations and samples using industry standard XML formats with DB2 pureXML
 - Quick start for customers and partners based on popular industry standard XML:
 - ACORD for Insurance (enabled for DB2 for z/OS)
 - CDISC for Clinical Data
 - FIXML (enabled for DB2 for z/OS) for Banking
 - FpML and MISMO for Financial Services
 - Data Model with registered XML schemas and XML documents stored in DB2 pureXML database.
 CDISC
 - Sample XML queries
 - Example services:
 - Create, Replace, Update, Delete and Query
 - Atom feeds
 - XForms

20

Learn more from alphaworks at:

http://www.alphaworks.ibm.com/tech/purexml







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DB2 XML partners

AgencyPort

AgencyPort is the leading provider of web-based new business, endorsement and renewal solutions designed specifically for property and casualty insurers.

Altova - XML development tools

Altova is the provider of the world's leading XML development tools, including XMLspy the industry standard XML development environment. Coral8 - Complex Event Processing

Coral8

The Coral8 Engine enables you to build and deploy powerful Complex Event Processing (CEP) applications for any enterprise business function that can benefit from real-time awareness.

Exegenix - Document Conversion to XML

Exegenix technology converts content into XML guickly, accurately, and cost-effectively, with no re-keying, and no dependency on consistently-formatted input.

JustSystems - Rapid XML Application Development

The combination of xfy from JustSystem and DB2 9 allows users to quickly assemble XML applications to access and manage a wide range data.

Napersoft - Customer Communications Management

Napersoft provides Customer Communications Management solutions with its family of WebDemand360 Correspondence Manager for WebSphere offerings and DB2 9.

Nextance - Contract Performance Management

Nextance offers Contract Performance Management solutions that take full advantage of DB2 9 XML capabilities.

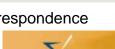


AgencyPort

ALTOVA®

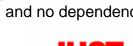


Napersoft



NEXTANCE





exegenix®

DB2 9 and pureXML



ADP Nederland BV uses Extensible Markup Language (XML) as its main interface language between IT components. They moved to DB2 9 for z/OS to improve efficiency and flexibility in managing XML documents along with their existing relational data management infrastructure.

Benefit

The ability to store and retrieve XML and relational objects directly in one database will drive a **20% improvement in operating efficiency** over their existing Windows XML implementation. Lower Development Costs

Reduced code and development complexity

Greater Business Agility

- Easily accommodate changes to data and schemas
- Update applications rapidly and reduce maintenance costs

Improved Business Insight

 Access to unexploited "Not a bolt-on or band-aid approach, this is XML without compromise" – Univar USA



DB2 9 for z/OS Performance Improvements

- Performance / Scalability Enhancements
 - Especially Insert, Update & Delete
- Query / Access Path Performance Enhancements
- Significant CPU time reduction in most utilities
- Other Performance Enhancements
 - Native SQL procedure, index compression
 - LOBs, Varchar
- Synergy with new hardware: zIIP, MIDAW, DS8000, ...
- Improved virtual storage usage Below 2GB DBM1



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DB2 9 for z/OS Value Unit Edition (VUE) New Workload Offering available OTC

Designed for <u>New Workload</u> in new and existing DB2 for z/OS customers by

- Offering customers DB2 9 as OTC for qualified net new workloads on z/OS
- Net new workloads limited to commercial (packaged) applications, data warehouses, and WebSphere. Applications running on a measurable standalone machine or LPAR.
- Customers can now add new applications and workload to System z without affecting their MLC cost.
- Strengthens System z role as a cornerstone for new applications and projects such as SOA, data warehousing, operational BI, ERP, and more



Data Serving Solutions:

IBM Rapid Deployment of z/OS and DB2

This solution offers new customers the ability to deploy a new z/OS & DB2 foot print within hours. This targets customers new to System z, particularly in emerging markets.

Announce: November 13, 2007

Availability: November 30, 2007

- Solution Value Proposition:
- This solution assists new customers with the installation and implementation of z/OS and DB2 data sharing environment. IBM STG Lab Services delivers a new mainframe system that is optimized for use as a data server within hours. The data serving environment is defined using IBM best practices and is configured for high availability and high scalability.
- Provides a centralized data server, avoiding fragmented silo's of data that inhibit growth, integration, and business efficiency.
- Eliminates lack of installation skills as inhibitor to new customers for z/OS-DB2 environments.

Target Audience (inc. Core, Invest and/or Acquire):

- This new service is intended for customers new to z/OS who want a high availability (DB2 data sharing, parallel sysplex) environment deployed quickly.
- <u>Invest and Acquire:</u> new SMB accounts and white space customers who do not have System z installed.
- ²⁵ In very unique situations, aligned and Integrated Accounts with specific needs (i.e., within divisions, distribution centers, POCs,



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A Single View of the Enterprise Drives the requirement for Data Warehousing



- Data volumes rise
- Amount of historical Information grows
- Number of users grows
- Questions are more numerous and sophisticated
- Schema complexity grows
- Workload mixture changes
- Development time

shrinks

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TBM

Factors that Influence Data Warehouse on System z Platform Selection

- Existing infrastructure
- Platform preferences and skills in-house
- Budget/Cost
- Server Consolidation
- Market trends in warehousing solutions and vendors
- ✓ Complexity
- Competitive influences
- Mergers and acquisitions or consolidations
- Data or application sources
- Business processes required and business drivers
- Reliability, Extremely High Availability, Security

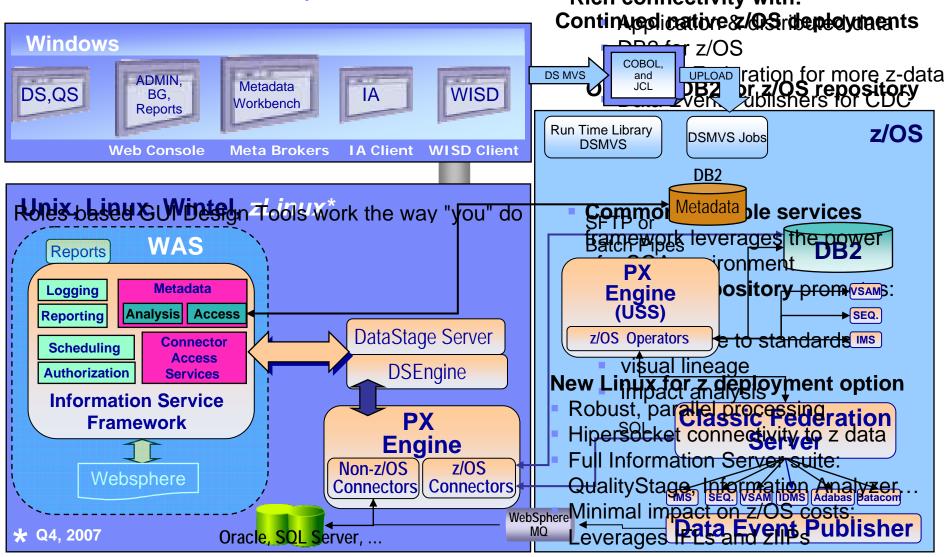




IBM Information Server for System z Benefits of this architecture

- Greater Efficiency Leveraging System z
 - z/OS MIPs consumption dramatically reduced vs. USS or MVS approaches
 - Minimizes impact on other z/OS software costs
 - All Job Processing is on zLinux (except the z/OS data access)
 - DB2 workload on z/OS can qualify for offload to ZIIP specialty engines
- High performance z data connectivity
 - Batch Pipes for DB2 load, DRDA to DB2 over hipersockets
 - SQL to Classic over hipersockets
 - Integration with MQ and therefore with the Data Event Publishers
- Seamless integration with other IBM Information Server platforms
 - Same operational architecture and metadata Repository
 - Eliminates deployment issues
 - Maintains value of DataStage for z/OS investments

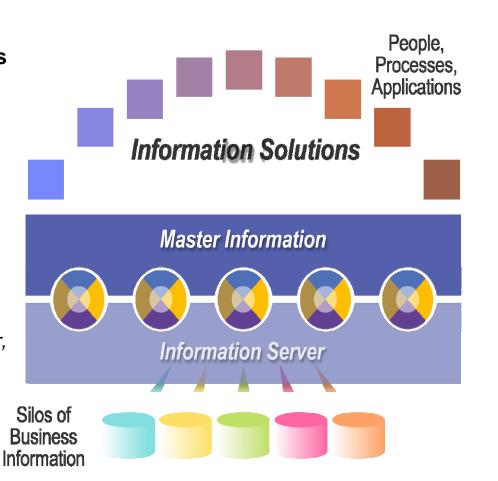






Information Solutions **Delivers Business Innovation**

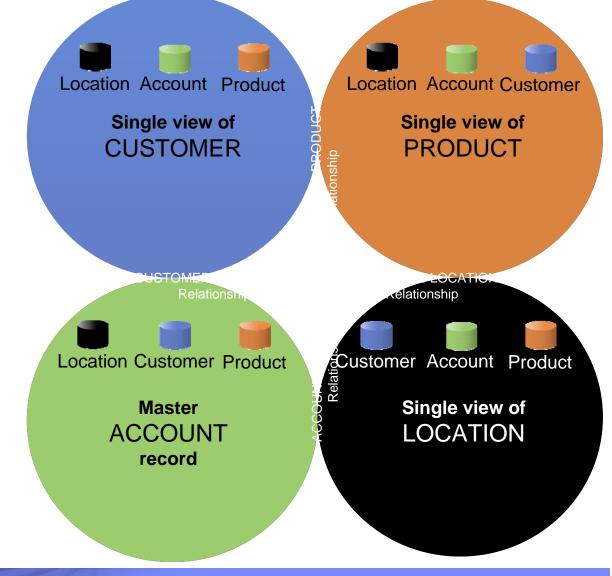
- Configure solutions to address our clients toughest Information Intensive Business Challenges, such as:
 - Customer-centricity
 - Product and service optimization
 - Risk & compliance
 - Threat & fraud intelligence
- Built from an integrated system for Multiform Master Data Management
 - Multi Domain (Partner, Product, Customer, Account, Location
 - Multi Style (Collaborative, Operational , Analytical
- Based on IBM Information Server



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The Evolution of the Master Data Management Market Clients demand MDM now

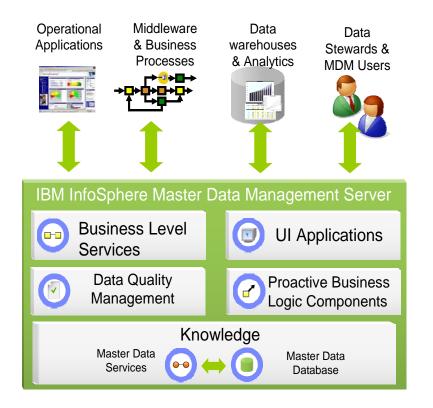
- Organizations recognize the commonality among MDM projects
- The market requires a common MDM strategy and application
- Clients continue to identify a starting point, often a single domain, and plan to grow over time





IBM InfoSphere MDM Server Value Proposition

- The first multi-domain, multifunction MDM product in the market
- Packaged to address all types of MDM implementations
 - From small entry-level projects through to strategic transactionhub deployments
 - Allows clients to grow as required by implementing existing functionality
 - Significantly lowers client risk and time/cost to implement
- SOA Library 800 pre-packaged business services
 - Significant out of the box product functionality
 - Reduces total cost of ownership
- High Performance & scalability

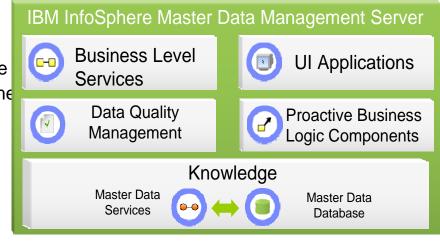




IBM InfoSphere MDM Server – Key Features

Extensive Party (Customer) Domain capabilities

- Market-leading CDI functionality
- New in this release
 - Know-Your-Client Compliance
 - Know-Your-Client Questionnaire
 - Data Stewardship UI Enhanceme
- New Account Domain
 - Managed Accounts account bundles & relationships
 - Allows organizations to service
 "bundles" and "value packages"
- New Operational Product Domain
 - Products, categories, hierarchies, and terms and conditions
- Integration with Information Server v8 data quality, data integration
- Integration with Content Management & FileNET
- Natural Upgrade Path for WCC Customers
 - Builds on WCC and WCC technology
 - Fully backward compatible with WCC v7
 - Same as normal WCC Upgrade



DB2 and IMS Tools

Reducing TCO is our first focus

- ✓ Provide autonomic features to add capability and simplify operations
- Avoid tedious tasks and reduce errors
- ✓ Preserve your investment in z/OS applications and databases

2000: Reduce your TCO

2001-2002 Product

replacements

2007: Reduce your TCO **Increase your value**

2004 Autonomic Computing and End to End Monitoring

2003: Integration of products, new capabilities, better performance

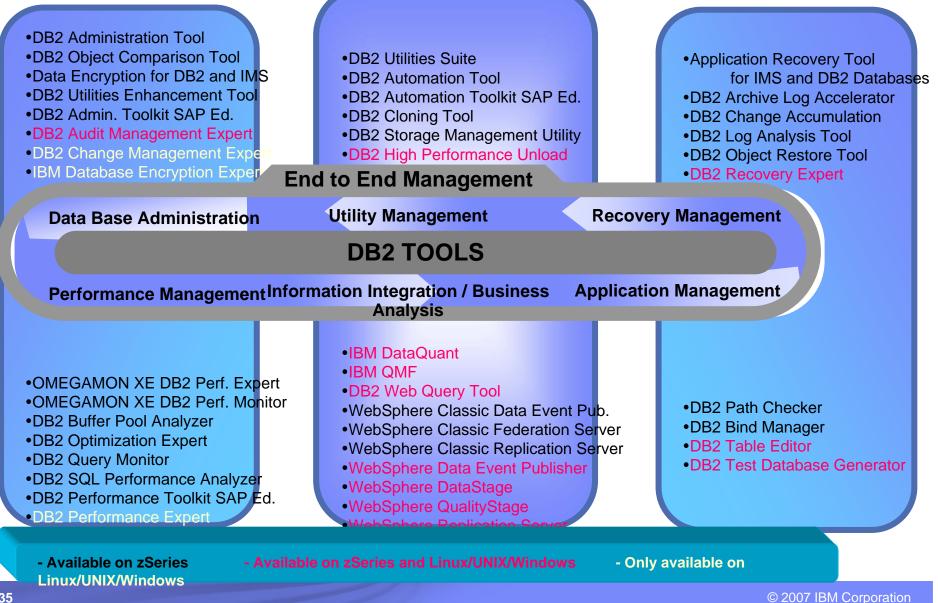
2003-**Day 1 Support**







DB2 Tools Solution Portfolio



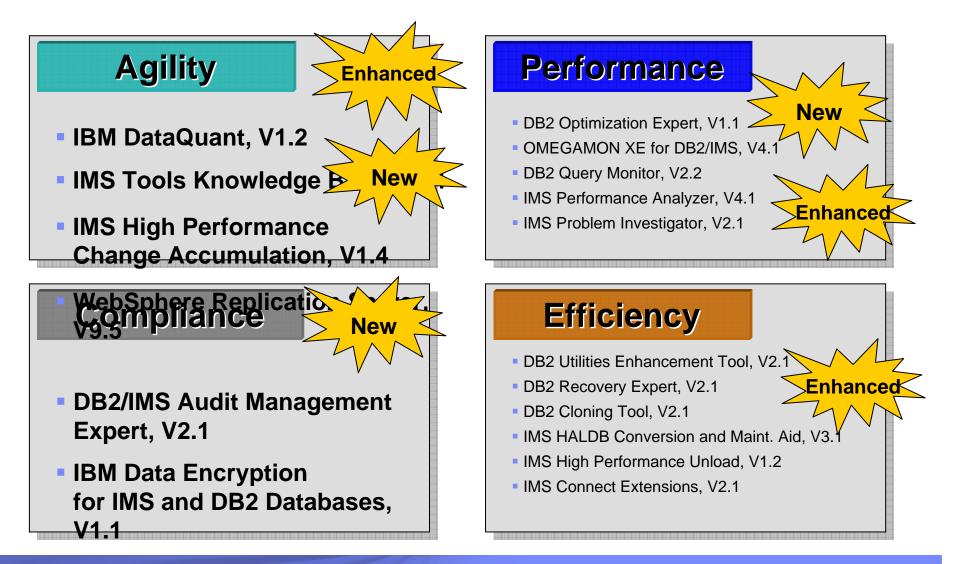


IMS Tools Solution Portfolio

| Data Encryption for IMS and DB2 DBs IMS Database Repair Facility IMS HALDB Conversion and Maint. Ai IMS HD Compression-Extended IMS Library Integrity Utilities IMS Online Reorganization Facility IMS Parameter Manager IMS Sequential Randomizer Generato IMS Sysplex Manager IMS Tools Knowledge Base | IMS High Performance Pointer Checker IMS High Performance Prefix Resolution IMS High Performance Unload IMS Index Builder IMS Parallel Reorganization IMS Database Control Suite | IMS Application Recovery Tool for IMS and DB2 Databases IMS Database Recovery Facility IMS DEDB Fast Recovery IMS High Perf Image Copy IMS High Perf Change Accumulation |
|---|---|--|
| Data Base Administration | Utility Management | Recovery Management |
| | IMS TOOLS | |
| Performance Management | TM Management | Application Management |
| IMS Buffer Pool Analyzer IMS Network Compression Facility IMS Performance Analyzer IMS Problem Investigator Tivoli OMEGAMON XE for IMS | IMS Command Control Facility IMS ETO Support IMS HP Sysgen Tools IMS Queue Control Facility | IMS Batch Terminal Simulator IMS Batch Backout Manager IMS Connect Extensions IMS MFS Reversal Utilities IMS Program Restart Facility |



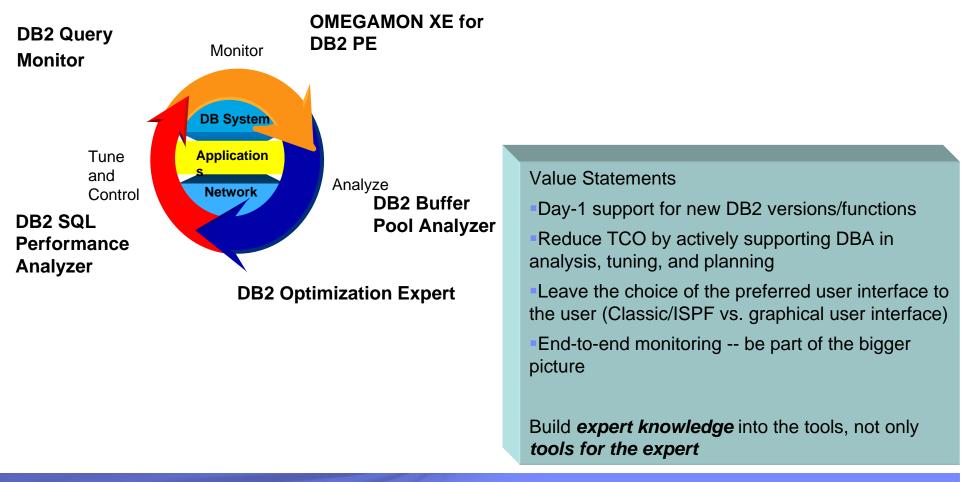
The Latest News on Tools Reduced Cost of Database Administration





DB2 Performance Management Tools

Provide tools to monitor and tune DB2 systems and applications to obtain optimal performance and lowest cost



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Optimization Service Center and Optimization Expert

Index Advisor

- Analyzes a workload and recommends indexes
 - Enabling you to select the best index to optimize query and application performance
- These recommendations can be implemented immediately
- Future: recommends MQTs and partitioning

Key value areas:

- Lowers Total Cost of Ownership by optimal exploitation of DB2 for z/OS
- Increases Quality of Service by proactively solving problems before they occur
- Decreases reliance on zSeries specific skills through autonomics and open tools

Optimization Service Center (OSC)

- Visual Explain
- Stats Advisor
- Service SQL
- **35** Visual Plan Hint *

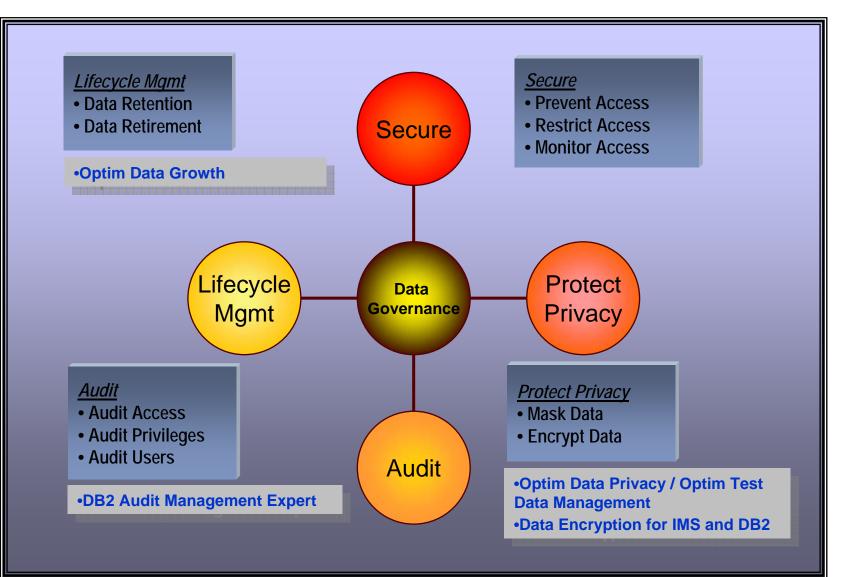
Optimization Expert (OE)

- Index Advisor
- Query Advisor
- MQT Advisor *
- * scheduled for future release

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IBM Data Governance Software



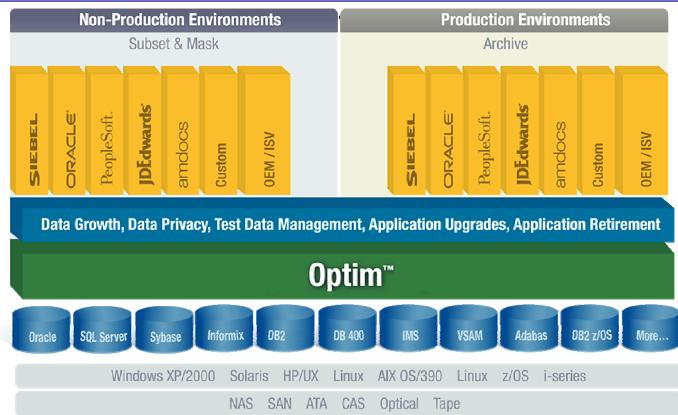
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IBM Optim[™] Innovation to manage the lifecycle of data Scalable solution provides a central point to deploy

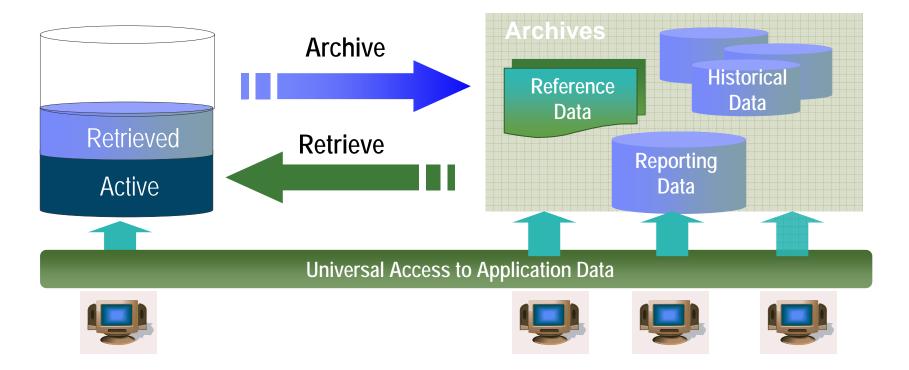
policies

and to extract, store, port, and protect application



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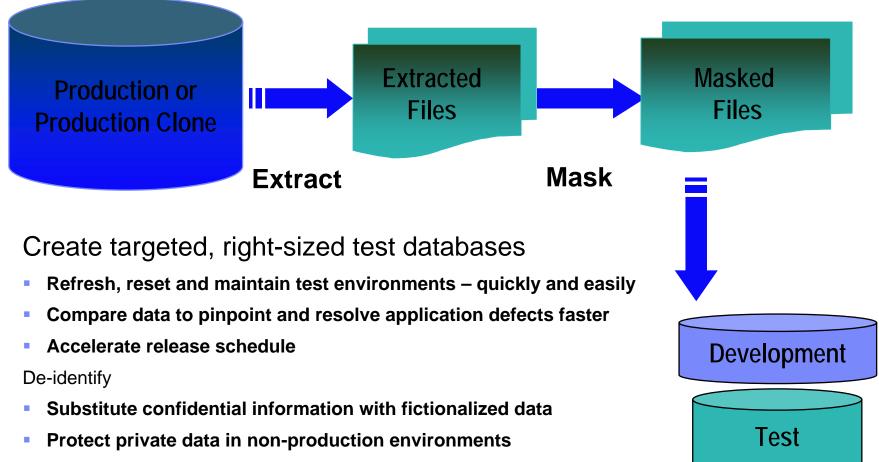
Optim Data Growth Solution



- Addresses data growth, application retirement, data retention compliance
- Complete Business Object provides historical reference snapshot of business activity
- Storage device independence enables ILM



Optim Test Data Management and Data Privacy Solutions

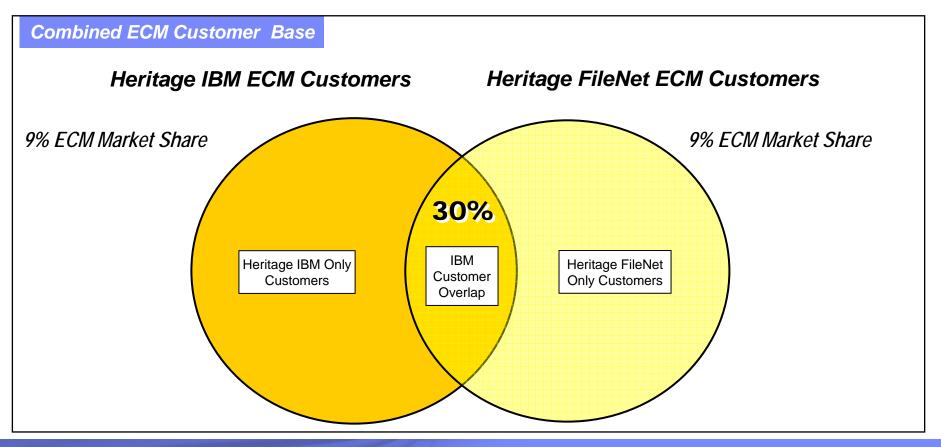


Provide contextual, application-aware, persistent data masking



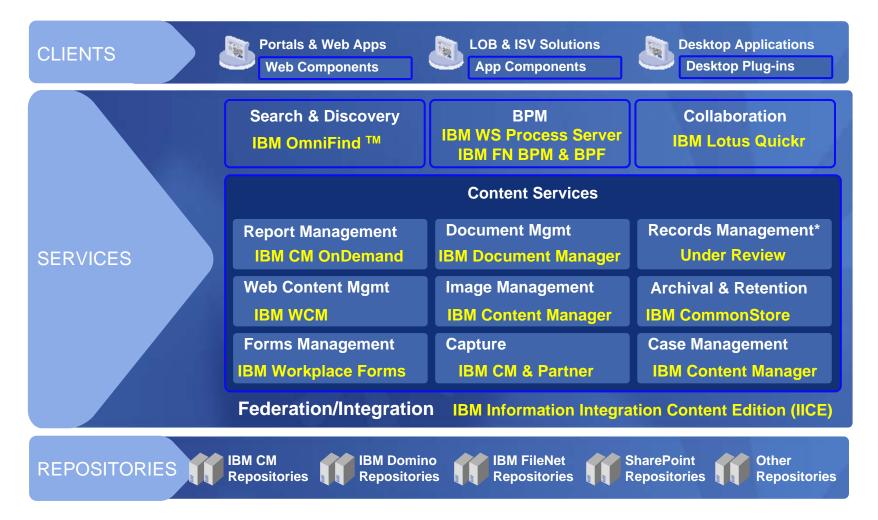
Our ECM Strategy supports our Installed Customer Base

- Significant Installed Customer Base that have both CM v8 and P8
- Significant Customer Investments across CM v8 and P8
- Existing Customers are critical to IBM ECM's success
- Extend Customer Investments by introducing new integrated capability





IBM Content Management Portfolio capabilities



*Detailed Product Direction and Product Roadmap will be available in May 2007



ECM System z Positioning

- System z continues to provide the industry's premier platform for high reliability, performance, and scale
- Content Manager, Content Manager/OnDemand, and ImagePlus are utilized on System z by many of our largest customers, as their mission critical ECM platform
- IBM will continue to provide and enhance Content Manager and Content Manager/OnDemand on zOS
- IBM will continue to support and maintain ImagePlus
- IBM has introducing Content Manager and Content Manager/OnDemand on zLinux
- IBM has not announced plans for porting of the Filenet product family to zOS or zLinux, but we plan to support DB2 zOS with Filenet P8 by y/e 2008.

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Content Manager V8.4 zOS Highlights

- z/OS v1.7 v1.9
- DB2 zOS V8.1 or DB2 zOS V9.1
 - DB2 V9 compatibility and new function mode
 - DB2 V8 new function mode
 - DB2 v7 will no longer be supported
- WAS z/OS v6.1 / JDK 5.0
 - Support for Java APIs under CICS pending CICS update to support JDK 5.0
- Windows 2003, XP, Vista (Including Sys Admin Client)
 - Windows 2000 will no longer be supported
- Internet Explorer 6 & 7

Content Manager V8.4 Highlights (continued)

- XML API and Web Services
- Logging of "retrieve object" events
- IPv6 dual-stack support
- WAS z/OS v6.1 / JDK 5.0
 - eClient, Resource Manager, Web Services
 - eClient v5 data sources/connection pooling
- e-Client ad-hoc query cancel
- ISPF Install front-end (z/OS)
- All documentation integrated
 - reduced use of readme files

DB2 Performance Expert for Content Manager

- Optimize & tune DB2 environment
- Monitor for performance issues
 - Database tuning
 - Memory usage & tuning
 - Disk usage
 - Applications
- Generate alerts when events occur
- Record baseline activity
 - Chart current against past
 - Plan future requirements
- Separately priced feature of CM



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Summary

- IOD complementary to SOA
- Information in motion for business value
- Sustained and growing investment in z software
- Deep synergy with System z and z/OS for industry leading TCO
- Tools that exploit our data bases as soon as they are available
- Total commitment to your success with z



IBM Information On Demand 2008 ibm.com/events/InformationOnDemand

Mandalay Bay October 26 - 31, 2008 Las Vegas, Nevada

- The premier information management event for business and IT executives, managers, professionals, DBA's and developers.
- Select from over 600 sessions: a 2-1/2 day business leadership track with 125 sessions and a 5 day technical track with 500 sessions.
- Latest strategy and product announcements
- Huge Expo Solution Center
- Hands on labs
- One-on-ones with executives and specialists
- Birds of a Feather roundtables





OPTIMIZE YOUR BUSINESS

PERFORM TO WIN.

Tech

Technical Skill Building