

#### **IBM Software Group**

**Enabling Information as a Service** 

Unleashing the Power of your Data

Peurto Rico March 7, 2006

#### **Tom Inman**

VP, Strategy and Marketing Information Management Solutions



ON DEMAND BUSINESS" = Make it happen now



# The Information Challenge

Information is in Silos... Trusted Information is Not Available

Today's business challenges mandate a fresh approach to managing information.

Become a

Managing information in silos has become obsolete.

Multiple Versions of the Truth

Inaccurate, Untimely

Inconsistent

Incomplete, Inaccessible

Out of Context...

Information Must Risk & Compliance,

Strategic Asset Eroding Customer Loyalty,

Supply Chain Complexity,

Globalization, M&As

Industry Transformations,

Cost Cutting...

5X More Value creation by organizations effective at using Information as an Asset

60%+ of CEOs: Need to do a better job leveraging information

**70%** of people's time can be spent searching for relevant information

Sources: IBM Attributes & Capabilities Study, 2005; Client Interviews 2004; IBM CFO Study, 2006



# Today's Business Challenges Information Availability is the Top Priority

The most anticipated impact of business investing in IT has become information availability

Business Challenges Top Tiers by Importance	Capabilities Top Tier by External Spending	Business Impact Area
<ul> <li>Streamline/improve efficiency of business processes</li> </ul>	<ul> <li>Introduce new apps and systems into existing IT infrastructure</li> <li>Standardize, automate and integrate business processes, apps</li> <li>Align business models, processes and apps to business goals</li> </ul>	<ul><li>Information Availability</li></ul>
<ul> <li>Better understand and meet customer expectations</li> </ul>	<ul> <li>Analyze and use information to make better business decisions</li> </ul>	<ul><li>Information Availability</li></ul>
<ul><li>Increase employee productivity</li></ul>	<ul> <li>Enhance employees' skills and expertise continuously</li> <li>Empower employees with tools and info for decision-making</li> </ul>	<ul><li>Information Availability</li></ul>

Source: IBM Attributes & Capabilities Study, 2005



# Information as a Strategic Asset

Early Adopters are Establishing a Competitive Advantage

Point Projects

Crime Statistics & Reporting

Information as a Strategic Asset

Information at the Scene **Transforms Crime Fighting** 

A 360° View of the Client Transforms Customer Care

A Single Version of the Truth

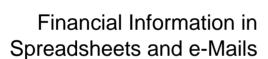
Transforms Compliance

Information Analysis Speeds and Transforms Health Care

Free Flowing Supply Chain Information

Transforms Retail & Manufacturing

Customer Treated as Multiple Accounts





Excess Inventory, Lost Sales Out of Stock Warehouses, Added Cost

The capability now exists.

Integrated Software Platform
Business Know How

Experience with over 500 Clients



# The Information Challenge

Information is in Silos... Trusted Information is Not Available

- A Lack of Trusted Information Remains a Bottleneck to:
  - Optimized Business Processes
  - Improved Customer Care
  - Increased Employee Productivity

**60%+** of CEOs: Need to do a better job capturing and understanding information in order to make swift business decisions

**70%** of people's time can be spent searching for relevant information

**48** disparate financial systems and nearly 3 ERP systems in the average large company...

Sources: IBM Attributes & Capabilities Study, 2006; Client Interviews and Industry Analysis, 2005

# Volkswagen



"Today, 70% of the time of our people is spent in searching for information and only 30% in making intelligent decisions. We want to flip the ratio 70/30, by providing 70% of intelligent and analytical time decision making and only 30% of administrative work."

— Dr. Martin Hofmann Exec. Director, Group Supply Strategy Volkswagen AG

Result: Procurement productivity increased by 20%



#### Information is the Critical Business Issue

Globalization Integration Innovation

Organizations highly effective at using information as an asset across the enterprise were **5 times** more likely to drive value creation than those who were poor at it...

IBM Global CFO Survey, 2006

Structural complexity and a lack of integrated information are critical drivers of key business performance gaps...

IBM Global CFO survey, 2006

"We need data, not anecdotes – process data that reflects the contribution of a process to the business results rather than just how well run the process is."

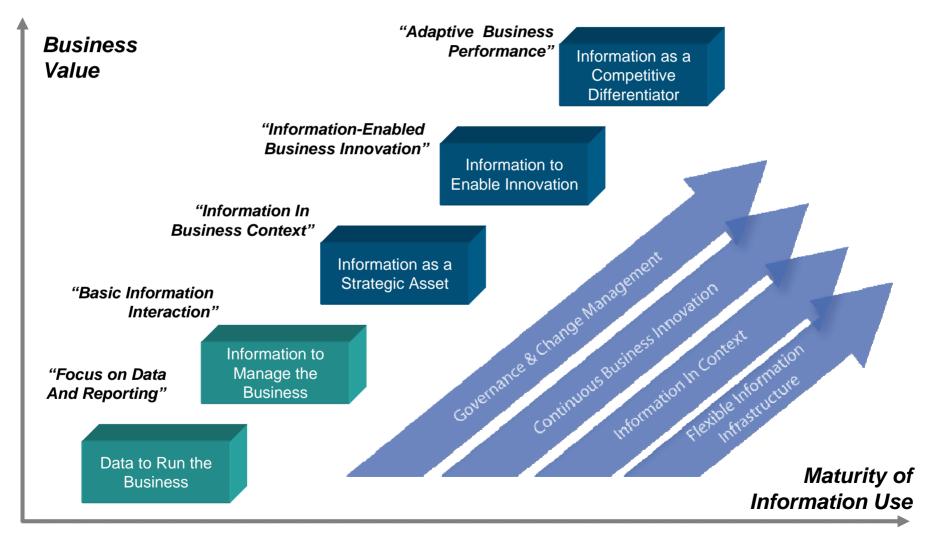
Telecommunications Company, North America IBM Chief Human Resources Officers Study, 2005





# Changing the Game with Information

Maturity Model Provides a Roadmap for Defining New Value





# Achieving Business Flexibility and Agility

Separating Information & Process Enables Enterprise-wide Re-use



- Business required an integrated view of customer information across multiple business units within the bank after merger
- Customer information stored across disparate environments IBM ImagePlus, FileNet Image Services, Mobius....

#### **Key to Success**

Good Business Design - Separation of Information & Process

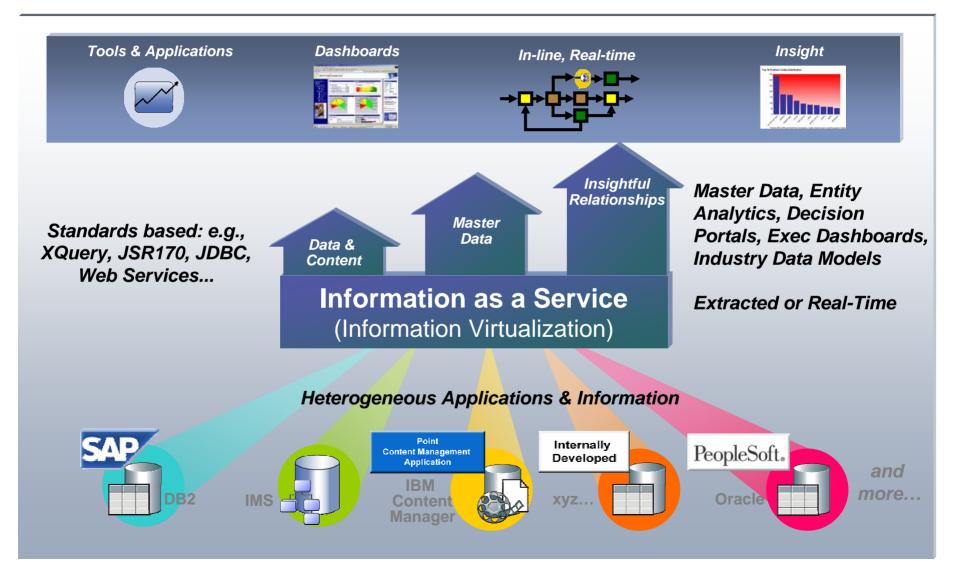
#### Result

- 50X increase in requests for content shows customers are being served better
- \$2.3 million savings in 2 years; 64% ROI
- \$1M savings for each new business unit needing a common view of the client



#### Information as a Service

Moving From a Project-Based to a Flexible Architecture (SOA)



## Information Intense Problem Domains

Information Availability is the Top Priority

Manage Risk & Streamline Compliance

Gain Insight through Information Analysis

Drive Business Transformation Through Optimized Processes

Gain Control over Master Data

Manage Information Complexity

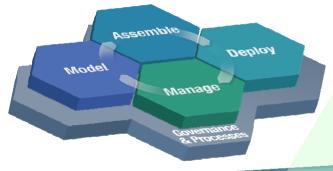
Lower cost through Optimized Infrastructure

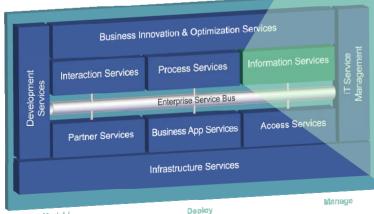


# IBM Information Management software

Unmatched breadth and depth of capabilities

# Information Delivered On Demand Based on Services Oriented Architecture





#### Data Services

Data Servers, Warehouses, Tools...

#### Content & Discovery Services

- Content Mgmt Svcs
- Discovery Services

#### Information Integration Services

- Quality Services
- Transformation Services
- Federation Services
- Metadata Services

#### Business Information Accelerators

- Master Data Management
- Entity Analytics
- Information Warehousing
- Industry Models

Assemble



# Information Services

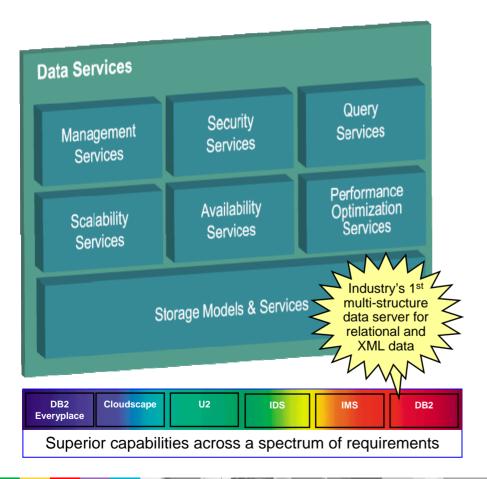
# Data Services





### **Data Services**

Secure and efficient management of structured information powering a wide range of innovative business solutions.



#### Required by every business application

- No business solution works without data
- Essential elements of an application platform
- Data service requirements span a broad spectrum

#### Protect most valuable business assets

- e.g., Client, employee, product and financial data
- Data availability and performance impacts results
- Secure and private access affects brand value

#### A fundamental control point

- Not a commodity in most use cases
- Unique advantages for solution developers
- Cross platform integration = competitive advantage

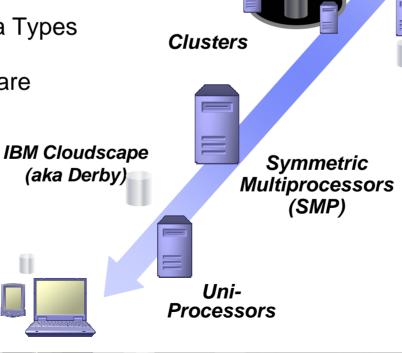


# Data Servers - The Foundation

- Continued Focus on Performance, Scale, Availability, with leading benchmark records
- Accelerate Time-to-value
- Support for New Data Types

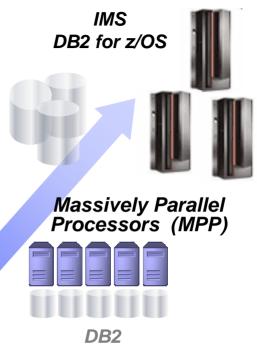
DB2 Everyplace

Deep Cross Middleware Integration



DB<sub>2</sub>

**IDS** 



Cross Platform

AIX, Solaris, HP/UX,
Linux & Windows
System z, iSeries,
VSE and VM,
Embedded



# Addressing the spectrum of data serving needs

DB2 Everyplace	Cloudscape	U2	IDS	IMS	DB2
OLTP	OLTP	OLTP	OLTP	OLTP	OLTP & BI
Relational structure	Relational structure	Multi-value structure	Relational structure	Hierarchical structure	Relational & XML structure
Mobile Embedded	Intra-App / Single-App	Intra-App / Single-App	Intra-App / Single-App	Single / Multi-App	Single / Multi-App
Linux PalmOS Symbian	Java	AIX, etc. Linux Windows	AIX, etc. Linux Windows	z/OS	z/OS i5/OS AIX, etc. Linux Windows

Superior capabilities across a spectrum of requirements

## **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

2005: Reduce your TCO

2004 Autonomic Computing and End to End Monitoring

2001-2002 Product replacements

2003: Integration of products, new capabilities, better performance

2000: Reduce your TCO



## Alitalia SERVIZI

improves IT services while reducing costs



#### Challenge

- Alitalia SERVIZI relies on an IBM IMS database to store enormous amounts of critical data, and to serve as a transaction manager. More than 2,500MB of data are defined by the database, and a high number of IMS transactions access the IMS data each day.
- When Alitalia SERVIZI increased its computing power by adding more central processing units (CPUs), existing tool vendor required that the company pay more for the database management tools. They wanted a new database management solution that would offer similar functionality but at a lower cost.

#### Solution

By replacing its current database management tools with IMS tools from IBM, Alitalia will save money through cost reduction.

#### **Business Benefits**

The solution from IBM aligns with customer's goal to improve IT services while reducing costs.

#### **Technology Benefits:**

Improved data availability, guaranteed data coherency and facilitated data management. IMS tools speed IMS database reorganization through faster database unload, load and imagecopy processes.



# Just a few of our partners supporting System z as the enterprise data server





























# Optimized for SAP

#### System z provides

- Continuous availability with data sharing
- True scalability with performance
- Storage cost savings with hardware compression
- Central server for SAP (MCOD)
- Customized infrastructure with zIIP

#### DB2 for z/OS delivers for SAP

- Largest SAP implementation runs on DB2
- 50+ SAP requested features delivered in DB2 V8
  - SAP NetWeaver BI improvements
- 30+ more coming in DB2 V9
- Ease of use and manageability
  - Self healing, self optimization
  - Utilities DBA productivity
  - SAP toolkits for DB2











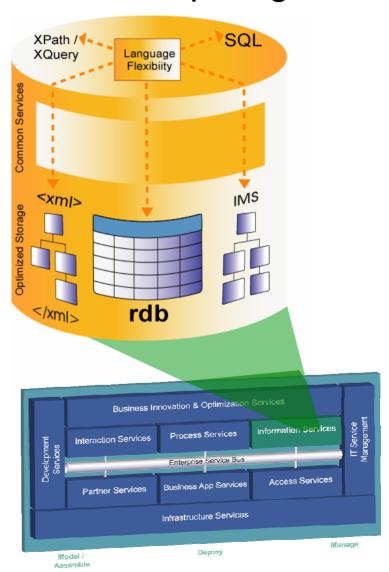
# Ready for a new class of applications requiring XML

# Deep XML Integration Simplifies& Unifies the Infrastructure

- Unifies Data and Content
- Extends Asset Utilization
- Leverages Existing Skills

#### Native XML Document Storage in DB2

- Ensures fidelity of XML document
- Optimizes Performance
- Provides Flexibility
- Leverages Mature DB2 Services





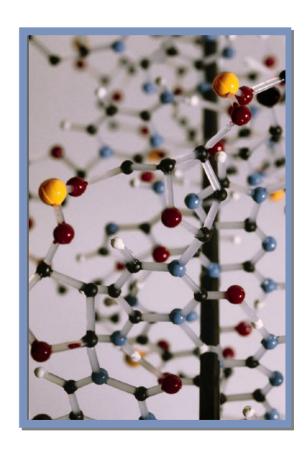
# Information Services Content Services





# IBM Content Management & Discovery Services

- The ability to capture, integrate, manage, deliver all forms of digital content in-context based on specific user needs across an entire company to create real business value.
  - Leverage Data for Business Transformation
  - Manage information across repositories
  - Declare, classify records across business solutions
  - Open standards/Java Content Repository support
  - Manage Risk & Streamline Compliance
  - Automate records management
  - industry-specific CM compliance solutions
  - Gain Insight through Analysis and Discovery
  - Scalable search capabilities
  - Extract knowledge and meaning for greater relevance and insight





## IBM Content Management & Discovery Essentials

With Key Offerings To Address Specific Customer Needs

Leverage Information For Business Transformation **Gain Insight Through** Manage Risk & Analysis & Discovery **Streamline Compliance Federate & Manage Information Complexity** Secure **Personalized** Access **Delivery** XMI Media E-mail Web Content Storage Integration **Transactions Documents** Reports Search Workflow **Navigation** Risk Collaboration Management

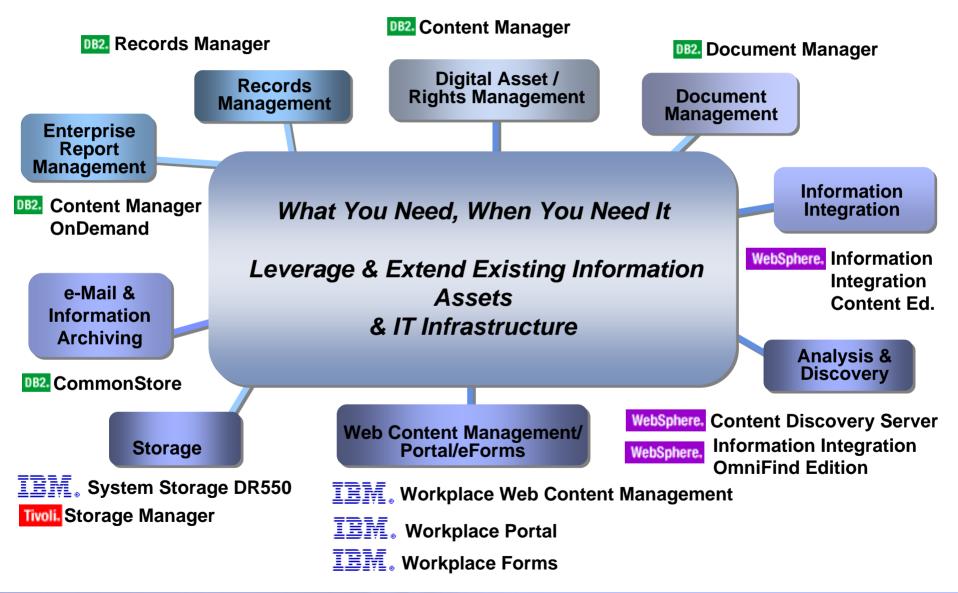
Open, Integrated Infrastructure

Access To Multiple Repositories

Manage All Content Types



# IBM Content Management & Discovery Portfolio

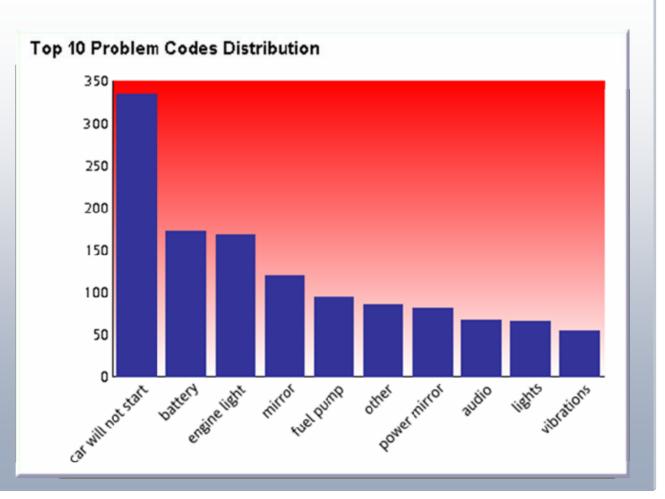




# **Content and Discovery Services**

Improving the Automotive Quality Process

Report on actual problem codes



# **Content and Discovery Services**

# Improving the Automotive Quality Process

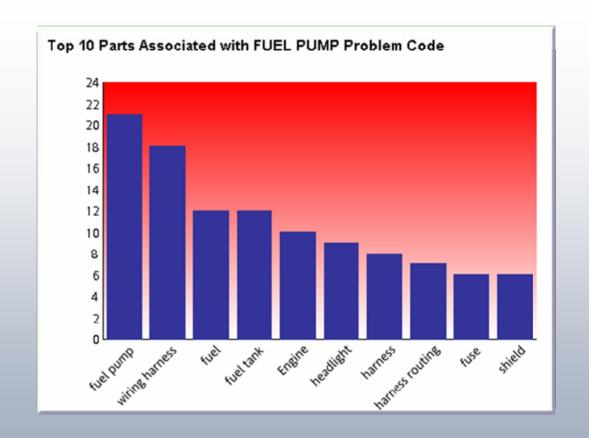
Add insight from mechanics reports and analysis of written comments

	Customer's Complaints and Techn	ician's Comments for 'FUEL	PUMP' Reported Claims	
Repair Date	Customer complaint	Technician	Comment	
7/28/04	CUST SMELLED BURNING UNDER THE HOOD	RUSTY CONNECTION TO FUEL PUMP RELAY. WIRING HARNESS CORRODED		
7/27/04	CUSTOMER STATES GET GAS ODOR INSIDE VEHICLE AFTER EVERY FILL UP:	VERIFIED CONCERN PERFORM FUEL SYSTEM LEAK TEST FOUND FUEL TANK LEAKING REPLACE FUEL TANK ASSEMBLY:		
7/22/04	CAR JUST STALLED AND WOULD NOT START	FOUND SHORT IN HEADLIGHT \	Omnifind Warrant	y Claims Search
7/19/04	CAR WILL NOT STARTAFTER DRIVING IN THE SNOW. CUST. BRINGING IN CAR FOR SECOND TIME	NEED TO CHANGE HARNESS RO	Search : (Part:fuel pump) & wiring harness  Total Results : 7  Ouery Time : 47 ms	
7/19/04	CUST REPORTS HEADLIGHTS FAIL	REPLACED FJEL PUMP AND FJ WIRING HARNESS FOUND WHE HARNESS COVER. RECOMMEN HARNESS BUT WE DO NOT HAY SHOULD RESCHEDULE	Score Results	<b>098.txt</b>
7/17/04	C S THAT THE VEHICLE WOULD NOT	REPAIRED FAULTY HARNESS	All-01098	txt. REPLACED FUEL PUMP AND WIRING
			All-01139 FR OM WI HARNESS	139.txt file:///C:/QEWClaims/All-01139.txt txt. REPLACED FUEL PUMP AND FUEL FILE RING HARNESS FOUND WHEN I REMOVED COVER. RECOMMEND REPLACING WIRING HAVE ACCESS TO PART. SHOULD RESCHEE
			85.15% 3. All-01	102.txt file:///C:/QEWClaims/All-01102.txt
			All-01102	txt. REPLACED FUEL PUMP AND FUEL FIL

# **Content and Discovery Services**

# Improving the Automotive Quality Process

Relate problems to actual parts





# Information Services Information Integration Services





# The Information Integration Opportunity

Companies who effectively use information consistently outperform competitors, create innovation, and build shareholder value.



"...earnings improvements of \$1B over two years..."





"...savings of \$8 million..."

"...saved over \$15 million within the first 12 months..."



# Information Integration Business Drivers Where Business and IT Initiatives Meet

Initiative
Insight from
Information
Analysis

**Example Projects** 

**Proof Points** 

**Client Value** 

Demand-driven Supply



Enterprise warehouse around SAP BW **reduced inventory by 30%**. Order fill rate improving to 98%.

Master Data Integration Product Information Management



Consolidated inventory across branches in 9 months..2.5% inventory reduction...£18 million savings.

Infrastructure Rationalization M&As, Consolidations



Consolidated disparate systems from merger...£1M per week savings. Reduced time to deliver by 45%.

Risk and Compliance

Basel II Compliance



Basel II compliance without disruption across 23 systems, 2,500 branches.

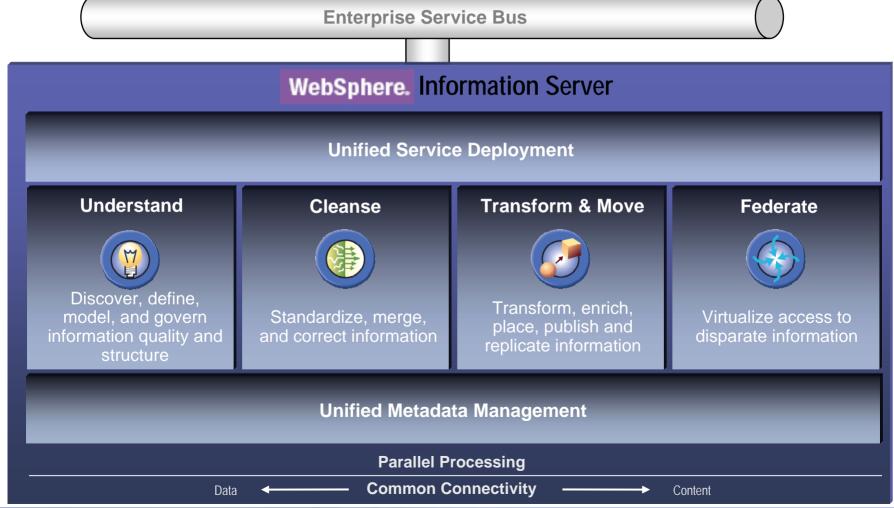
Business Transformation Customer Service Innovation



Consistent global metrics of 30,000+ stores **enables one-on-one CRM to 47M daily customers.** 

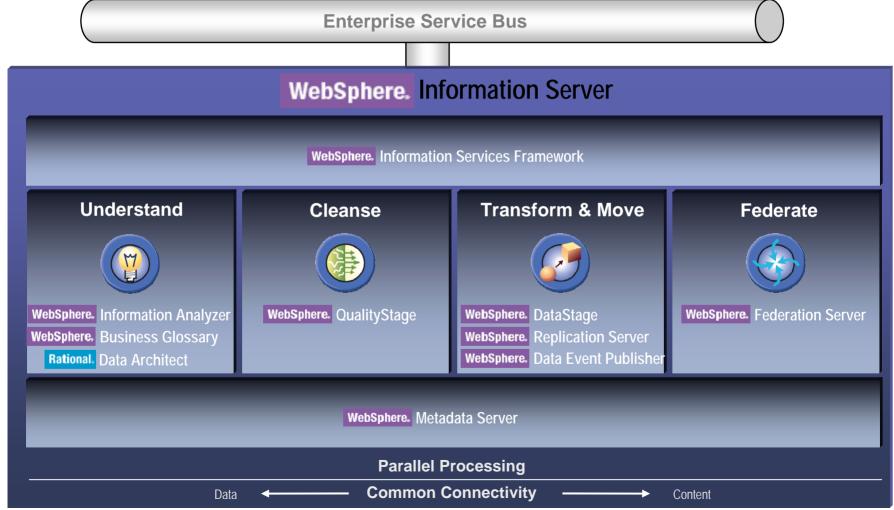


# IBM WebSphere Information Server Delivering information you can trust





# IBM WebSphere Information Server Delivering information you can trust





# Business Flexibility and Agility

Rapid Integration of content



Consolidate mission critical information from the host ecommerce site with distributed data to provide a daily update of sales.

Provide a view of sales from over 8000 dealers. This includes outdoor power products (generators, lawn mower engines) and power sports products (motorcycles, ATV's, etc.).

#### Solution

WebSphere Information Integrator Classic Federation for z/OS (formerly CrossAccess XDI) provides the ability to join IMS and other mainframe data sources with their central database.

#### Result

Cost effective, flexible and high performance solution Reduced requirements for ETL resources High level of operational reliability



# **Business Flexibility and Agility**

Rapid Integration of content





"We have Saved one full year of development time using WebSphere Information Integrator Classic Federation for z/OS to provide up-to-the-minute information into our supply chain warehouse."

Victor Martinez, manager of data administration and information access services, Kawasaki Motors Corporation



# Information Services

# **Business Information Accelerators**





### Information Intense Problem Domains

Information Availability is the Top Priority

Manage Risk & Streamline Compliance

Gain Insight through Information Analysis

Drive Business Transformation Through Optimized Processes

Gain Control over Master Data

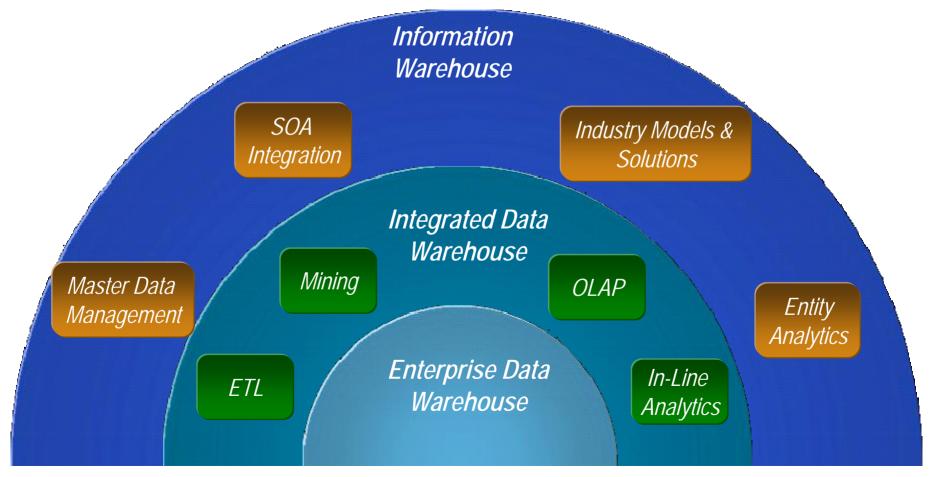
Manage Information Complexity

Lower cost through Optimized Infrastructure



## From Data Warehousing to Information Warehousing

The core of the information warehouse is an enterprise data warehouse providing a single version of the truth, implemented as a single scalable database.



### **Entity Analytics Solutions**

Who is Who?

### Establish Unique Identity

- Same, Similar, Different
- Full Attribution
- Self-correcting
- Never reload
- On Demand Context
- Enterprise Discovery

Who Knows Who?

#### Relationship Awareness

- Relationship Awareness
- Obvious and Non-Obvious
- Links People and Groups
- Degrees of Separation
- Instant Alerts

Who Knows Who Anonymously

#### Privacyenhancing

- Analytics on Anonymized Data
- Lowers Risk of Unintended Disclosure
- Discovery Without Disclosure



Entity #14465



Identity Resolution Relationship Resolution

Anonymous Resolution

**IBM Entity Analytics Technology** 

#### ADDRESSES

4737 Cimarron Dr. Easton, MA 02334

1 Bourne St. Bolton, MA 01512

P.O. Box 12743

#### **NAMES**

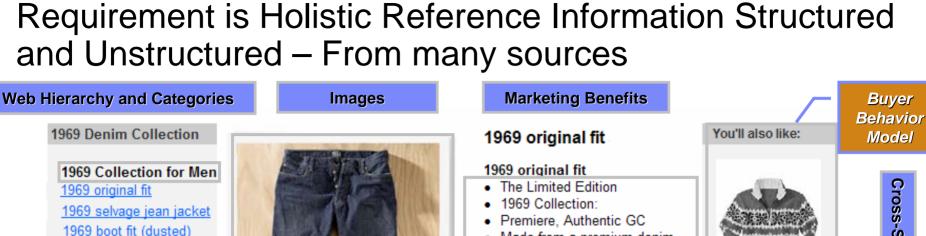
Katherine D. Green Kate Mills-Green Katie Green Kate Mills Kate Green Kate M. Green

#### **ADDITIONAL**

DOB: 12/13/71 Phone: (508)278-6019

(978)365-6631 (501)661-8044

Work: Zycast Int. Silverback Kinear



1969 range fit (infused) 1969 boot fit (indigo

arctic) 1969 boot fit (black

crunch)

*Marketing Database* 

1969 explorer shirt (tinted black)

1969 western shirt jacket

1969 boot fit (panhandle)

1969 western shirt (dark indigo) sale

> Supplier Content Repository

Supplier Database



**Finance** Shown in: rusted view larger imag System

Available colors:



Colors

Mfg. System grinding. · Sits just below waist. Low rise. Slim, straight leg.

Made from a premium denim

fabric in a dark shade of indigo with very subtle whiskering and

· Five-pocket styling, button fly.

100% cotton. Machine wash. Made in USA

SI7F: 30w x 32I - 36w x 32I

price:

now \$39.99

vitem: #191458

Promo. Price color:

select one

size: select one

30w x 32l 32w x 32l

33w x 32l 34w x 32l

**Sizes** 

size charts

hand-knit zip sweater \$98.00 \$59.99

hand-knit half zip sweater

\$98.00 \$59.99

Supplier Database

ON DEMAND BUSINESS = Make it happen now



© 2005 IBM Corporation



Master Data Management

Solving the Problem: The Closed-Loop Nature

of the Information Lifecycle

#### Decouple master information

Master Data Management is a set of disciplines, technologies,

maintain consistent, complete,

and solutions used to create and

contextual and accurate

business data for all stakeholders (users, and

applications) across and beyond

the enterprise

Transactional Systems

Master Data

Historical / Analytical Systems

Master Data

#### For All Types of Master Data

...products, organizations, locations, trading partners, employees, customers, consumers, citizens, assets, accounts, policies...

warehouse



### Carrefour



#### **Business need**

- Implement Global Data Synchronization and Trading Partner Portal for Carrefour's 30,000 suppliers
- Integrate between Carrefour's legacy systems for a single source of product information management
- Focus on implementation roll-outs in France, Spain and Belgium

#### Master Data Management System: IBM WebSphere Product Center

- Global product information management system
- Improve product information consistency through a central repository
- Improve the organizational handling of product information through workflow





# Financial Services Giant Achieves Extreme Scalability and Performance Using WebSphere Customer Center & DB2 for z/OS

#### Challenge

 High performance, highly scalable solution to drive improvements to customer relationship management

#### Solution

- WebSphere Customer Center
- WebSphere Application Server & Messaging
- DB2 Universal Database

#### **Benefits**

- Near-linear scalability of solution
- Increased performance & throughput



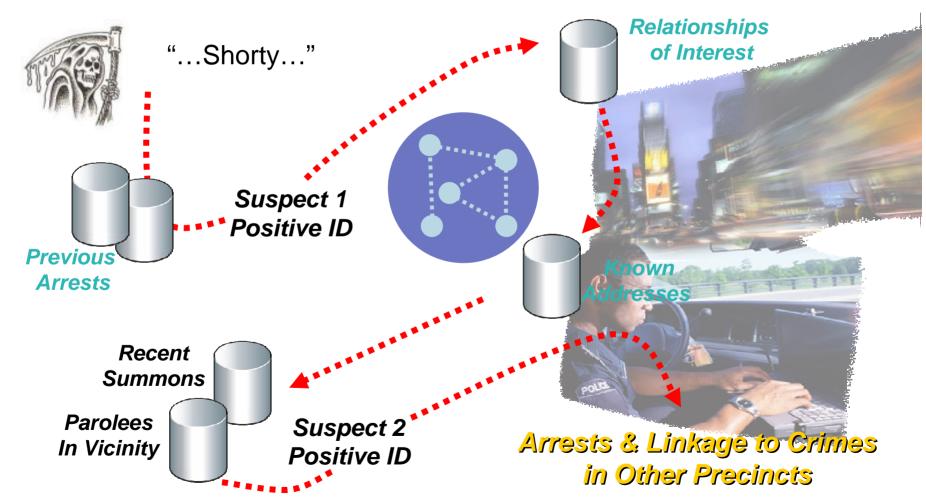
### **Implications**

- Compelling Master Data
   Management solution for demanding, high performance environments
- Service Oriented Architecture key to scalable applications for customer data integration



"...Comprehensive, highly relevant, instantaneous information... transforming the way we solve crimes..."

In context, in the hands of detectives, at the scene...





### Information Becomes a Strategic Asset Timely & Accurate Information Fights Crime



- Need for on-scene insight from billions of records across multiple police databases
- Correlate arrests, complaints, summonses, homicides, shootings, locations, 911 calls...

#### **Key to Success**

Timely Delivery of Structured and Unstructured Information

#### Result

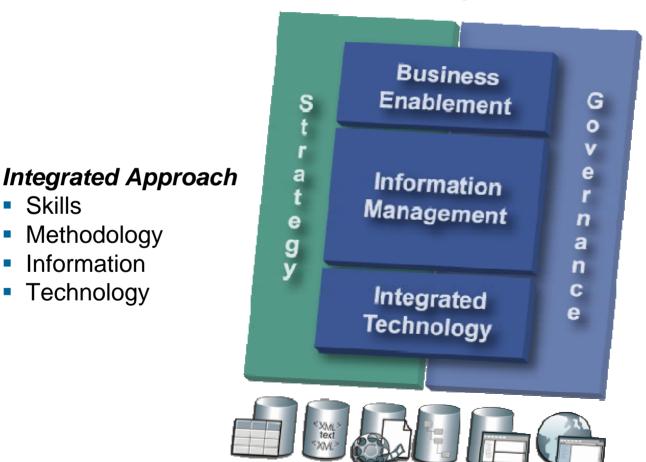
- Timeliness means the difference between life & death
  - Information reaches detectives within minutes, instead of days or weeks
- Rapid trend analysis improves resource deployment
- Rapid repeat offender identification



### Delivering the Business Value of Information

A Holistic Offering Framework for Cross IBM Solutions

Globalization Integration Innovation



#### Experience-based

- Clients
- **IBM Research**
- **IBM** Internal

Skills

Methodology

Information

Technology



### IBM Provides a Complete Portfolio of Offerings

Based on Client & Internal Experiences



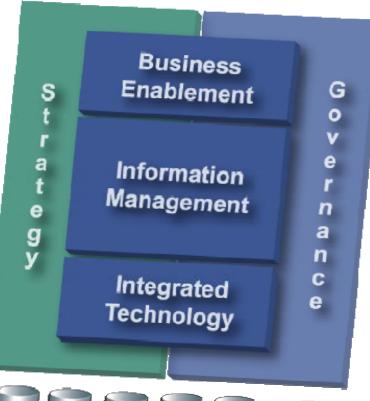
65% more practitioners...adding to a base of 15,000 practitioners with relevant skills

Process Innovation Solutions

Risk & Compliance Solutions

Master Data Management Solutions

New & Expanded Solution Portfolios



SAM SHEET COMMENTS

Business Performance and Process Mgmt. Solutions

Business Analysis and Discovery Solutions

Work Force Productivity Solutions

### **Industry Information Accelerators**

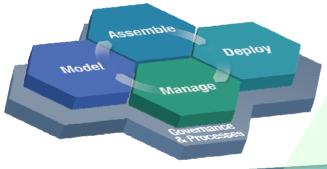
Finance  • Account Opening • Credit Card Risk Mgmt. • Anti-money Laundering	Insurance  No-touch Claims Processing	Retail  New Product Introduction  New Customer Introduction  Vendor Fraud Analysis  RFID	<ul> <li>Manufacturing</li> <li>RFID</li> <li>Integrated Supply Chain</li> <li>Product &amp; Parts Management</li> <li>Dealer Collaboration</li> <li>Early Warning Systems</li> </ul>	<ul> <li>Government</li> <li>Police Force Effectiveness</li> <li>Intelligence Gathering</li> <li>Anti-Terrorism</li> <li>Integrated Case Management</li> </ul>	Healthcare  Patient Safety Disease Management Predictive Medicine
Cross SellingCustomer ServicePriority Service  Human Resources  Relationship AnalysisInformation PrivacySkills Discovery					
Industry  Risk & ComplianceBusiness Performance ManagementePayments					
Information as a Service					

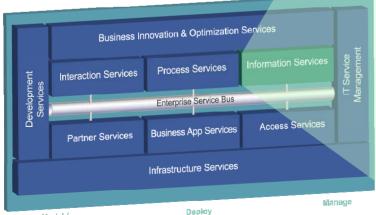


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Unmatched breadth and depth of capabilities

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#1, #2 in Share 450,000+ Clients

#### Data Services

Data Servers, Warehouses, Tools...

#### Content & Discovery Services

Content Mgmt Svcs

Discovery Services

#1 in Share 13,000+ Clients

#### Information Integration Services

- Quality Services
- Transformation Services
- Federation Services
- Metadata Services

#1 in Share 5,000+ Clients

#### Business Information Accelerators

- Master Data Management
- Entity Analytics
- Information Warehousing
- Industry Models

Leading Space 1,000+ Clients

Assemble



### Call to Action

- Understand the vision
- Assess where you are on the journey to Information On Demand
- Select a high profile, high reward project to focus
- Engage with IBM in a System z Infrastructure Architecture Workshop (zIAW)

