Enabling Information as a Service
Unleashing the Power of your Data

St. Petersburg February 20, 2006

Jeanette Horan
VP, WW Information Management Development

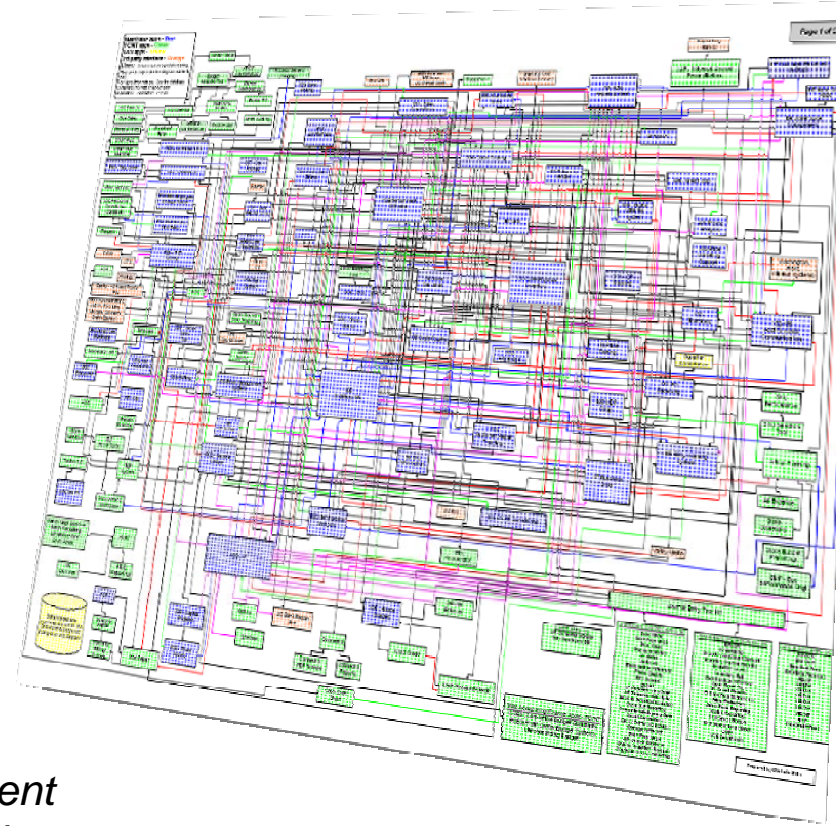ON DEMAND BUSINESS™ = Make it happen now

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

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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%

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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…
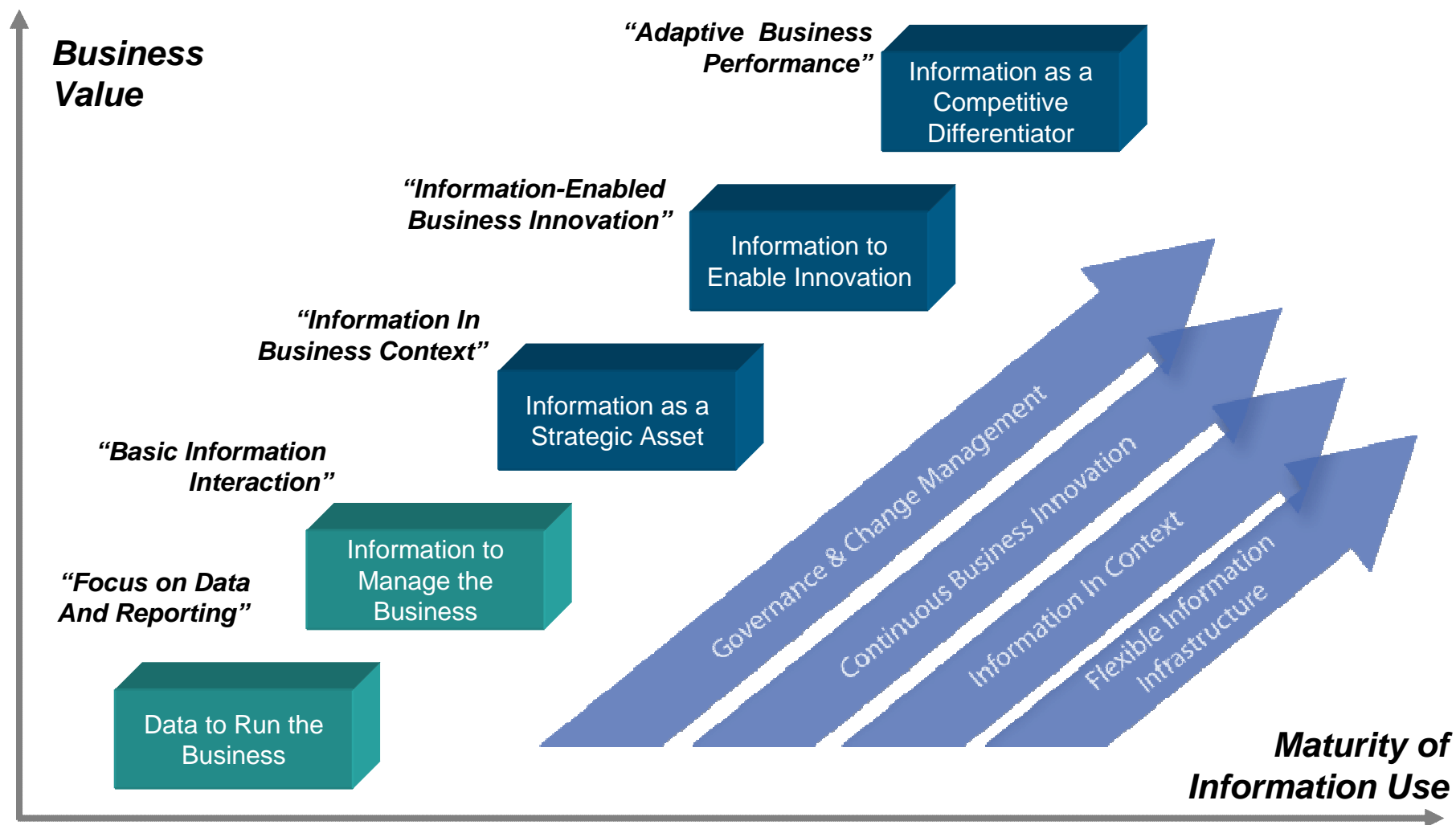
IBM Global CFO survey, 2006

"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

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Changing the Game with Information
Maturity Model Provides a Roadmap for Defining New Value

Business Value

"Adaptive Business Performance" — Information as a Competitive Differentiator

"Information-Enabled Business Innovation" — Information to Enable Innovation

"Information In Business Context" — Information as a Strategic Asset

"Basic Information Interaction" — Information to Manage the Business

"Focus on Data And Reporting" — Data to Run the Business

Governance & Change Management

Continuous Business Innovation

Information In Context

Flexible Information Infrastructure

Maturity of Information Use

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Achieving Business Flexibility and Agility
Separating Information & Process Enables Enterprise-wide Re-use

WACHOVIA

▶ *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….*
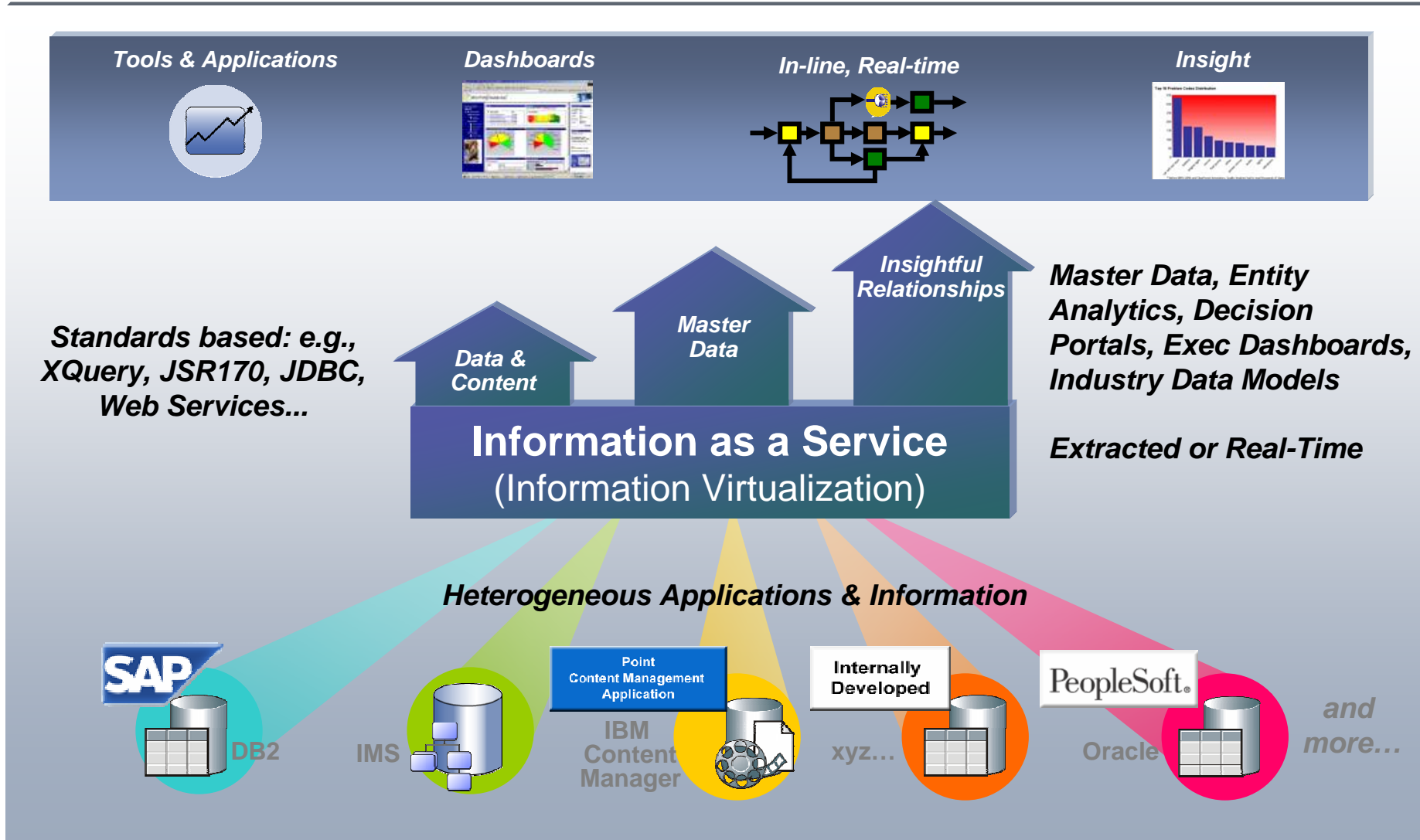
Key to Success

- 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)

Tools & Applications

Dashboards

In-line, Real-time

Insight

Insightful Relationships

Master Data

Data & Content

Standards based: e.g., XQuery, JSR170, JDBC, Web Services...

Information as a Service
(Information Virtualization)

Master Data, Entity Analytics, Decision Portals, Exec Dashboards, Industry Data Models

Extracted or Real-Time

Heterogeneous Applications & Information

SAP

DB2

IMS

Point Content Management Application

IBM Content Manager

Internally Developed

xyz…

PeopleSoft.

Oracle

and more…

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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

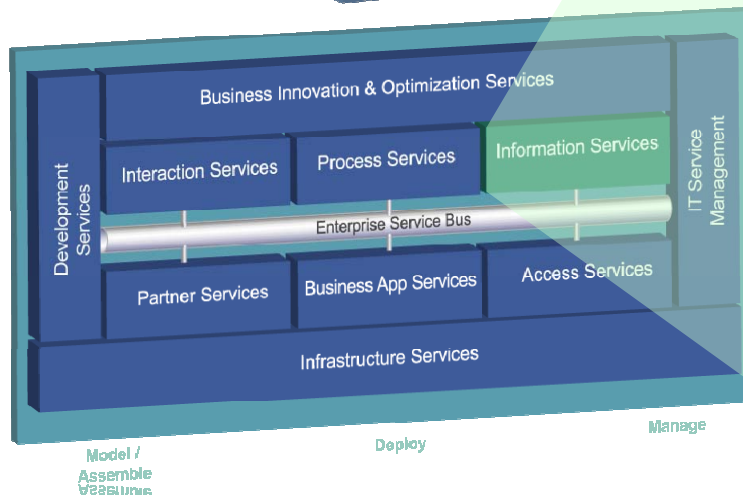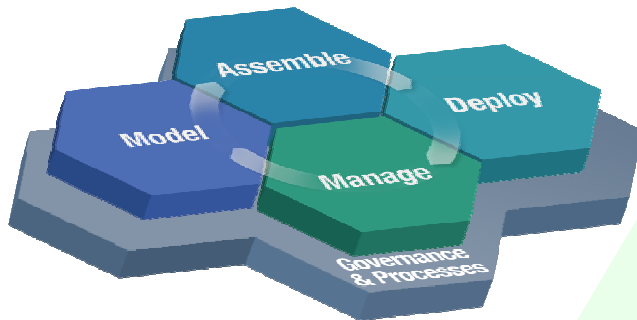**Gain Control over Master Data**

Manage Information Complexity

Lower cost through Optimized Infrastructure

ON **DEMAND BUSINESS** = make it happen now

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
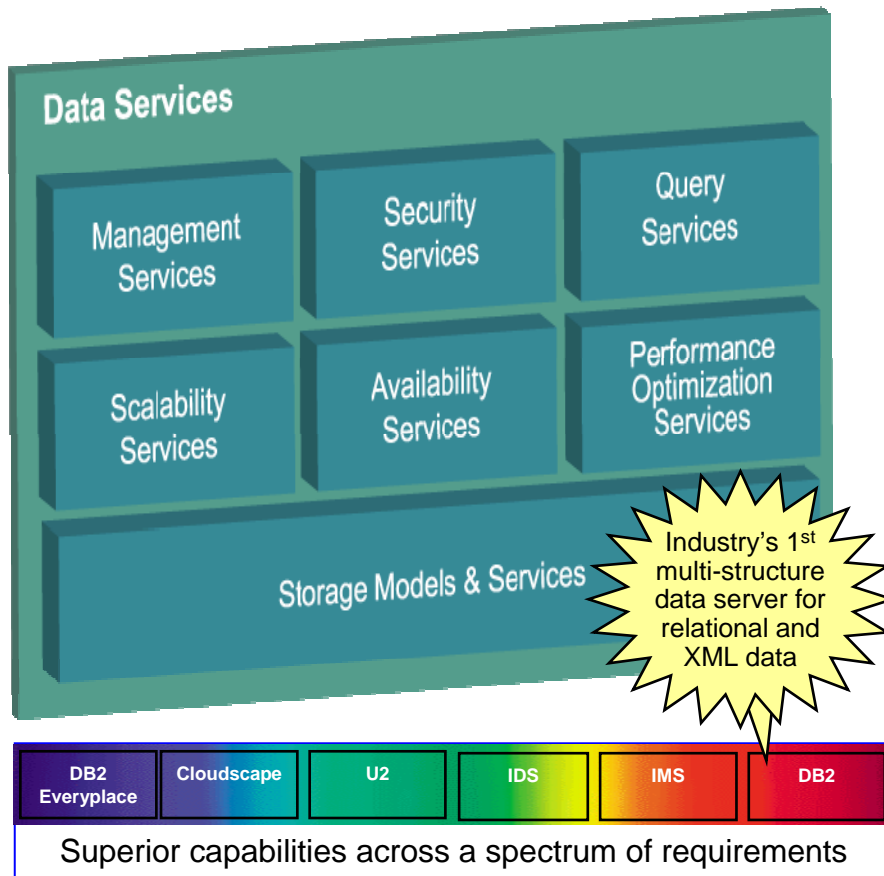 - Information Warehousing
  - Industry Models

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Information Services

Data Services

Data Services

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

Data Services

Management Services | Security Services | Query Services

Scalability Services | Availability Services | Performance Optimization Services

Storage Models & Services

Industry's 1st multi-structure data server for relational and XML data

| DB2 Everyplace | Cloudscape | U2 | IDS | IMS | DB2 |

Superior capabilities across a spectrum of requirements

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

- Deep Cross Middleware Integration

IMS
DB2 for z/OS

DB2
IDS

Massively Parallel Processors (MPP)

DB2

Clusters

IBM Cloudscape (aka Derby)

Symmetric Multiprocessors (SMP)

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

Uni-Processors
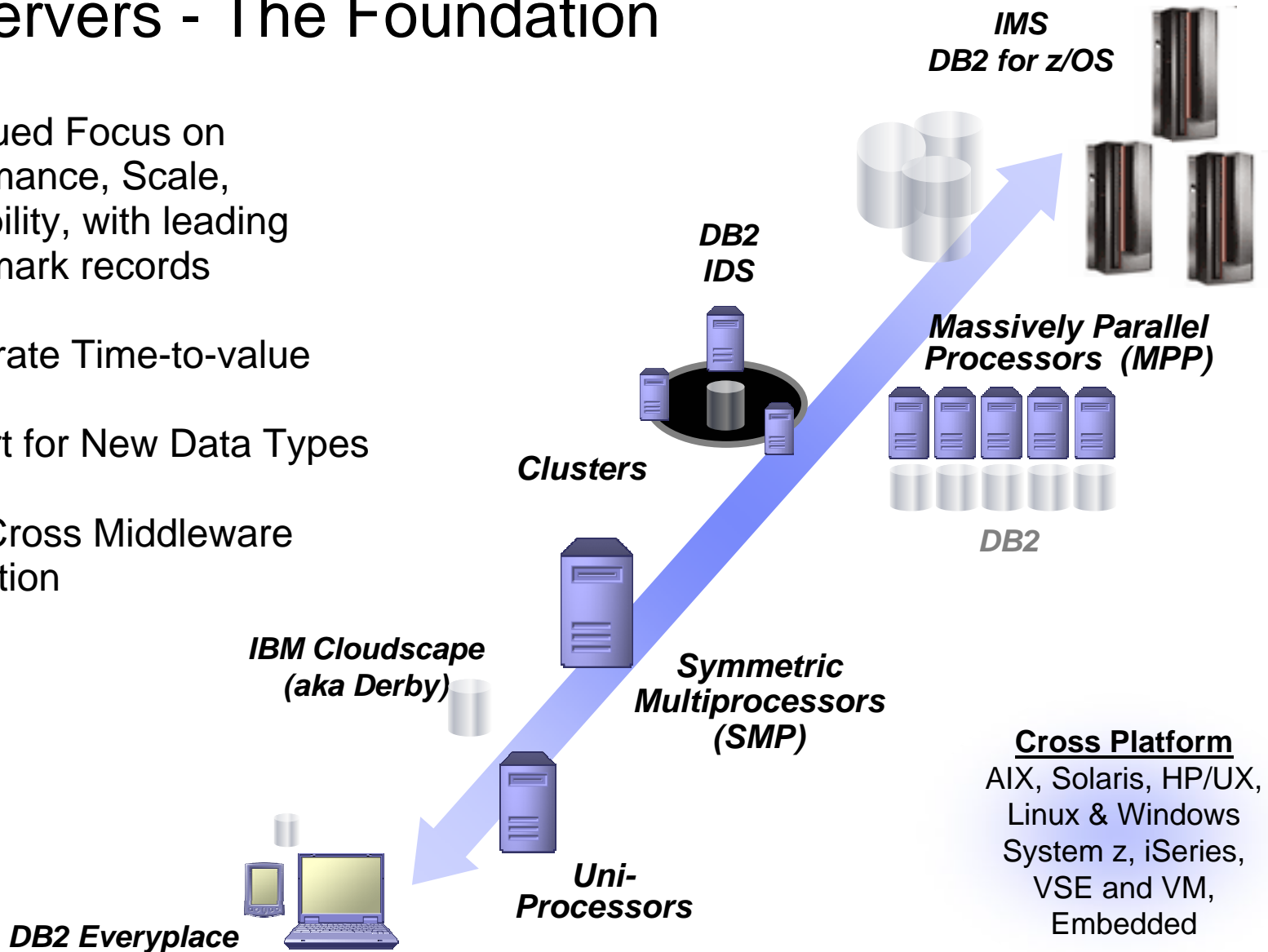
DB2 Everyplace

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

13

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

2003: Integration of products, new capabilities, better performance

2001-2002 Product replacements

2000: Reduce your TCO

IBM

Alitalia SERVIZI
improves IT services while reducing costs

Alitalia servizi

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 image-copy processes.

IBM

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 and System z Unique

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
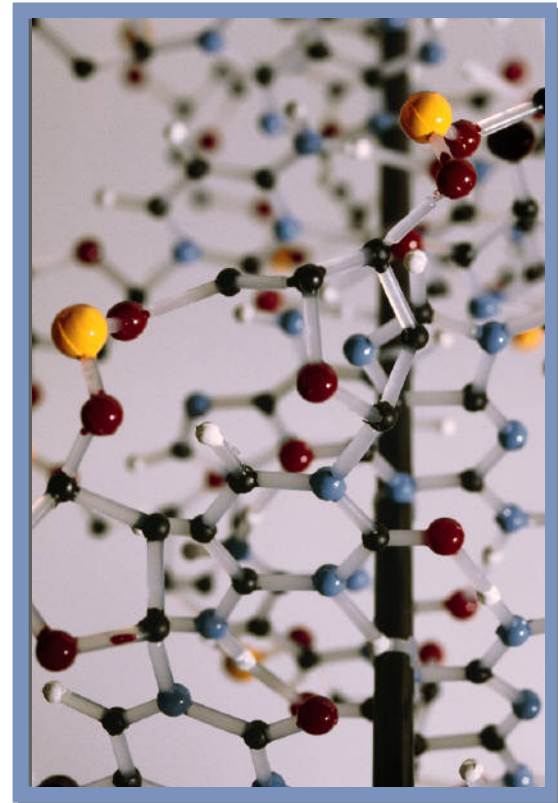 - ▸ Provides Flexibility
  - ▸ Leverages Mature DB2 Services
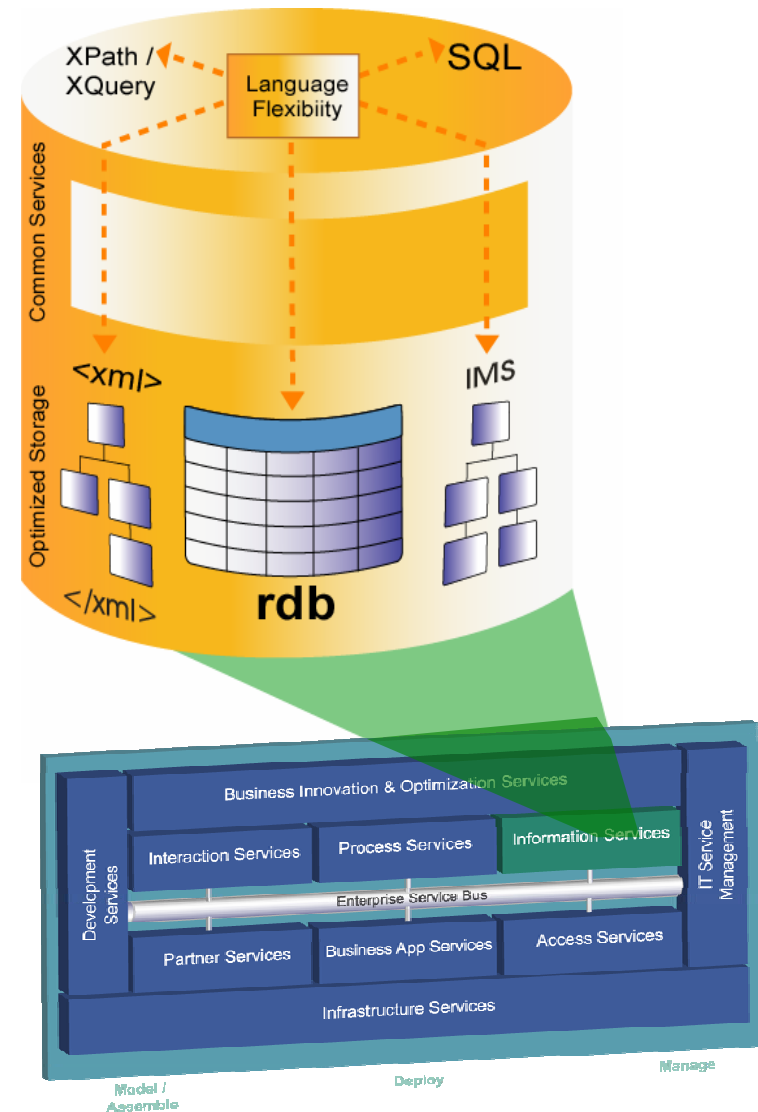
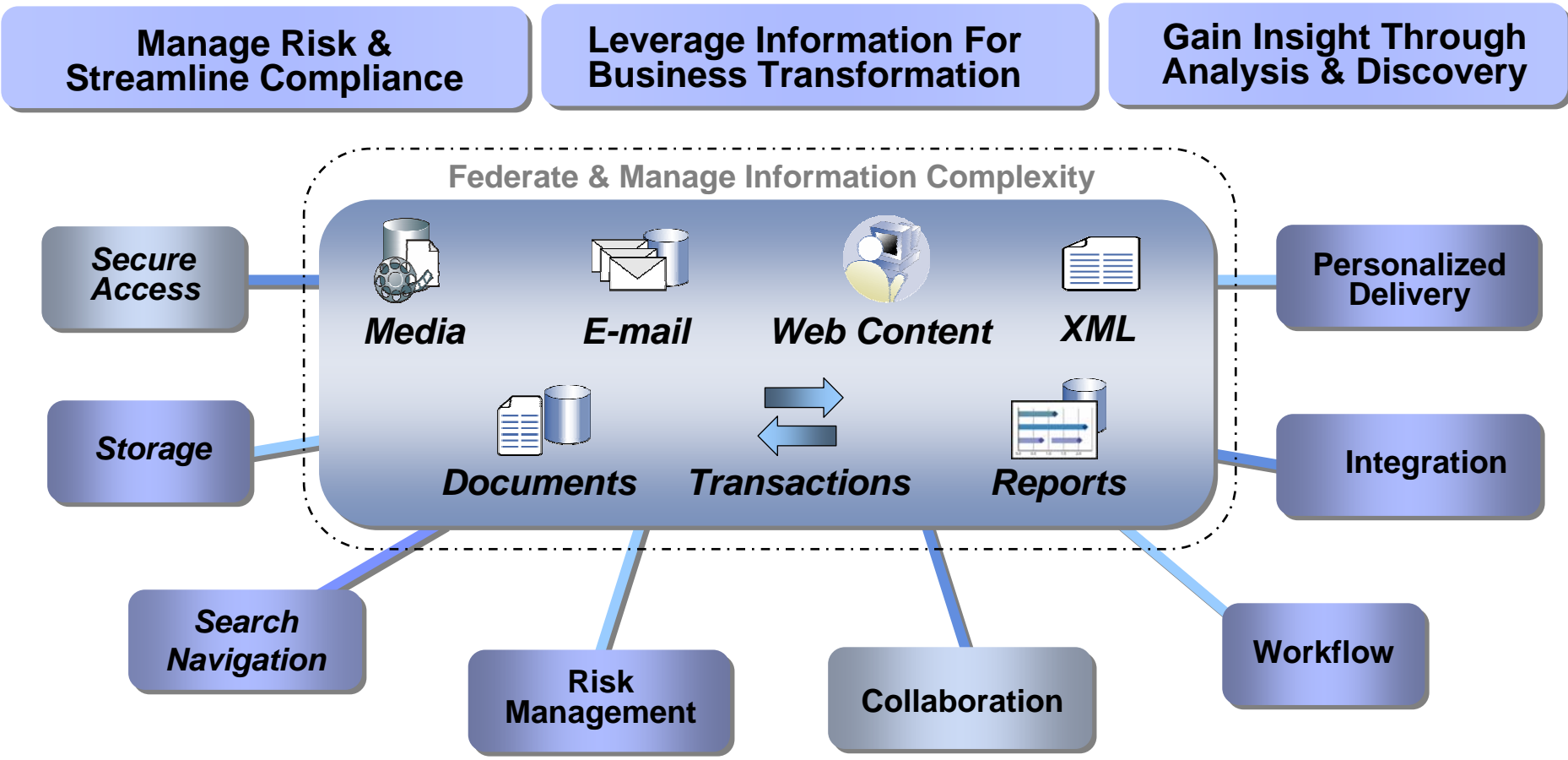# *Information Services*

Content Services

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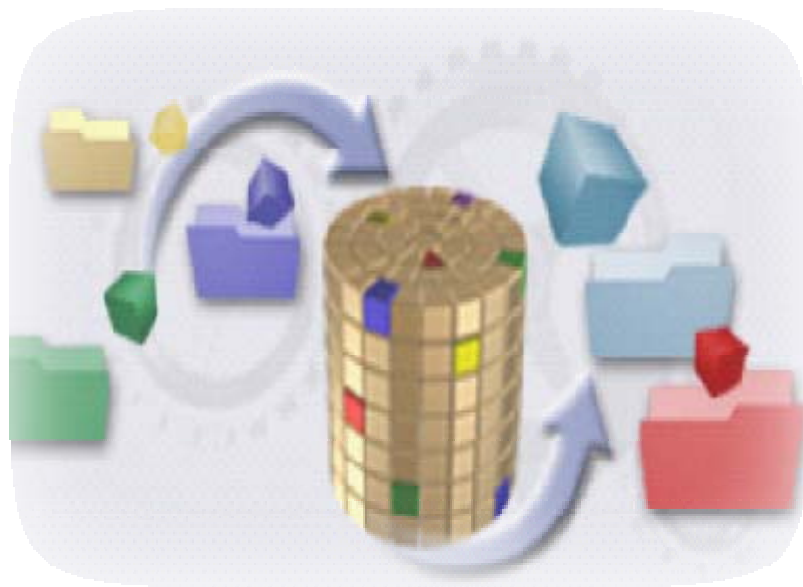
IBM Content Management & Discovery Services

- 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

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IBM Content Management & Discovery Essentials
With Key Offerings To Address Specific Customer Needs

Manage Risk & Streamline Compliance

Leverage Information For Business Transformation

Gain Insight Through Analysis & Discovery

Federate & Manage Information Complexity

Secure Access

Media

E-mail

Web Content

XML

Personalized Delivery

Storage

Documents

Transactions

Reports

Integration

Search Navigation

Risk Management

Collaboration

Workflow

Open, Integrated Infrastructure   *Access To Multiple Repositories*   *Manage All Content Types*

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IBM Content Management & Discovery Portfolio

DB2. Records Manager

DB2. Content Manager

DB2. Document Manager

Records Management

Digital Asset / Rights Management

Document Management

Enterprise Report Management

DB2. Content Manager OnDemand

What You Need, When You Need It

Leverage & Extend Existing Information Assets & IT Infrastructure

Information Integration

WebSphere. Information Integration Content Ed.

e-Mail & Information Archiving

DB2. CommonStore

Analysis & Discovery

Storage

Web Content Management/ Portal/eForms

WebSphere. Content Discovery Server
WebSphere. Information Integration OmniFind Edition

IBM. System Storage DR550
Tivoli. Storage Manager

IBM. Workplace Web Content Management

IBM. Workplace Portal

IBM. Workplace Forms

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Content and Discovery Services
Improving the Automotive Quality Process

1 Report on actual
problem codes

Top 10 Problem Codes Distribution
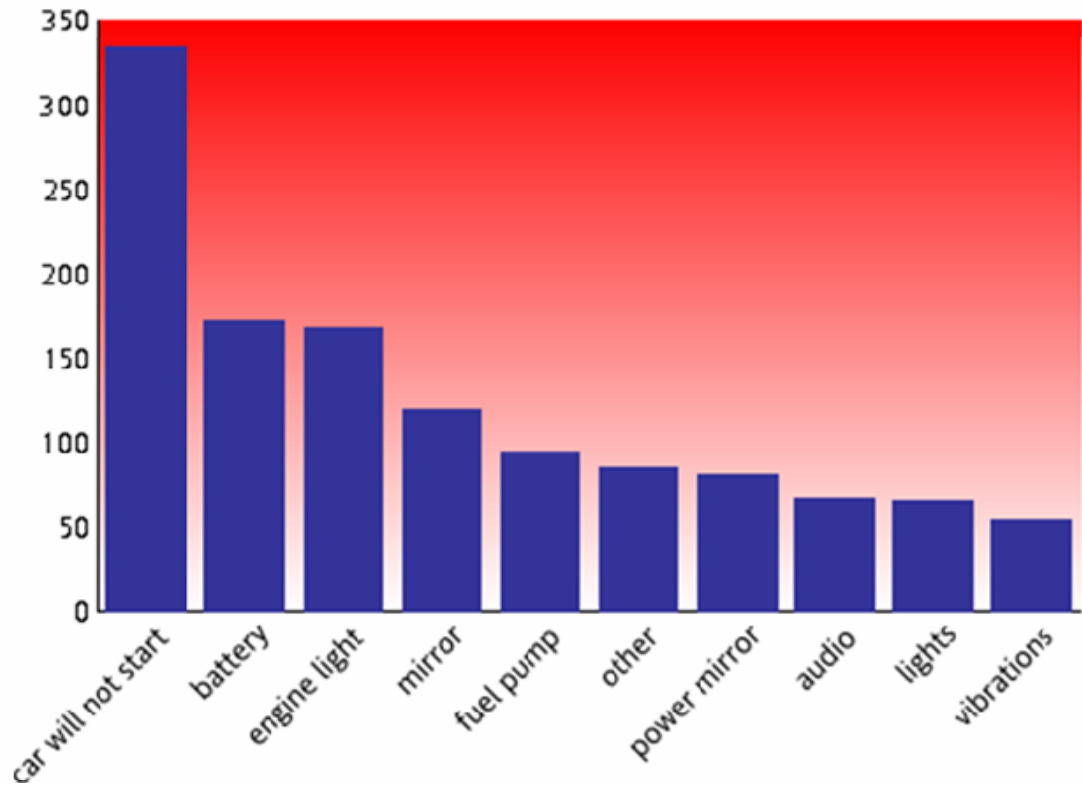
Content and Discovery Services
Improving the Automotive Quality Process

③ Relate problems to actual parts

Top 10 Parts Associated with FUEL PUMP Problem Code

② Add insight from mechanics reports and analysis of written comments

① Report on actual problem codes
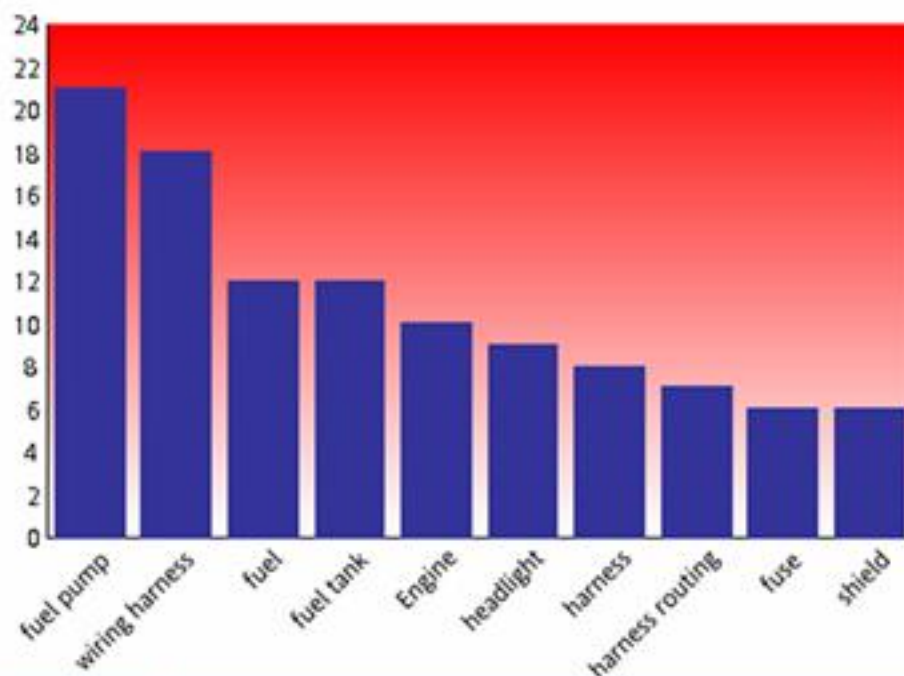
Information Services

Information Integration Services

ON DEMAND BUSINESS = Make it happen now

Information Integration Platform
Delivering information you can trust

Service-Oriented Architecture

Understand	**Cleanse**	**Transform**	**Federate**
Discover, define, model, and govern information quality and structure	Standardize, merge, and correct information	Transform and enrich information	Virtualize access to disparate information

Integrated Metadata Management

Parallel Processing

Data ←——————→ **Connect** ——————→ Content

Access, publish, and replicate information

ON DEMAND BUSINESS = make it happen now

Information Integration Platform
Delivering information you can trust

Service-Oriented Architecture

Understand

WebSphere. ProfileStage™
WebSphere. Information Analyzer

Cleanse

WebSphere. QualityStage™

Transform

WebSphere. DataStage®

Federate

WebSphere. Information Integrator Standard Edition

WebSphere. Classic Federation

Integrated Metadata Management

Parallel Processing

Data ← → Content

Connect

WebSphere. Information Integrator Event Publisher Edition

WebSphere. Information Integrator Classic Event Publisher

WebSphere. Information Integrator Replication Edition

Access, publish, and replicate information

ON DEMAND BUSINESS = Make it happen now

IBM

Business Flexibility and Agility
Rapid Integration of content

Kawasaki
Let the good times roll!

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

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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

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Information Services

Business Information Accelerators
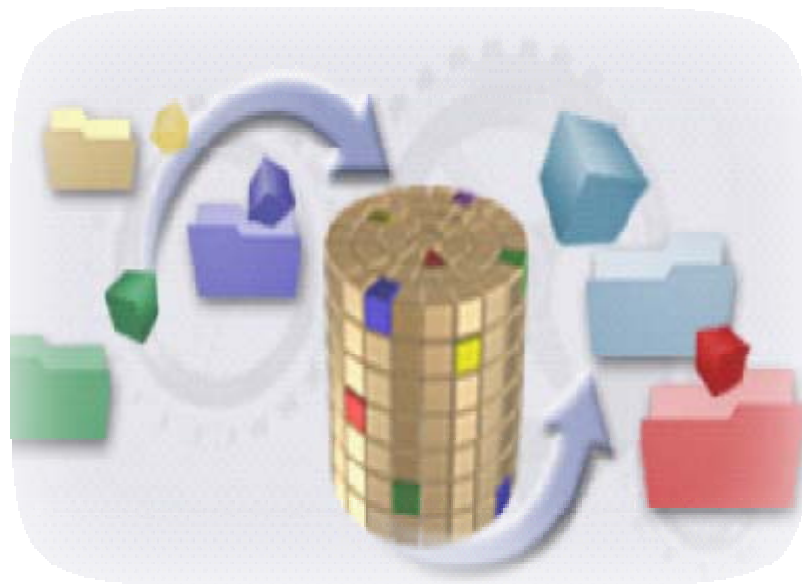
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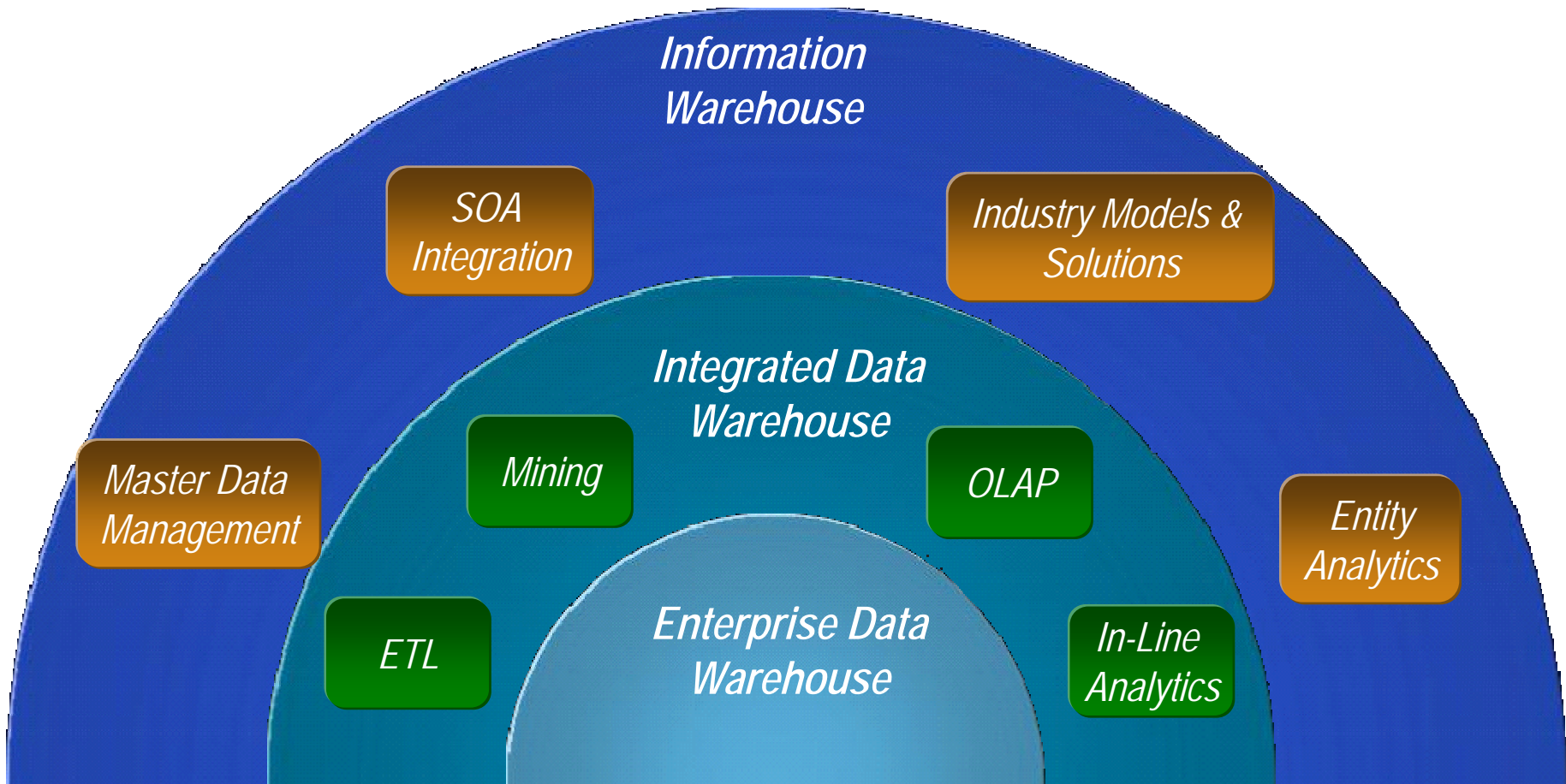
Gain Control over Master Data

Manage Information Complexity

Lower cost through Optimized Infrastructure

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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.

Information Warehouse

SOA Integration

Industry Models & Solutions

Integrated Data Warehouse

Master Data Management

Mining

OLAP

Entity Analytics

ETL

Enterprise Data Warehouse

In-Line Analytics

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Entity Analytics Solutions

Who is Who?	Who Knows Who?	Who Knows Who Anonymously
Establish Unique Identity	**Relationship Awareness**	**Privacy-enhancing**
• **Same, Similar, Different** • **Full Attribution** • **Self-correcting** • **Never reload** • **On Demand Context** • **Enterprise Discovery**	• **Relationship Awareness** • **Obvious and Non-Obvious** • **Links People and Groups** • **Degrees of Separation** • **Instant Alerts**	• **Analytics on Anonymized Data** • **Lowers Risk of Unintended Disclosure** • **Discovery Without Disclosure**
Identity Resolution	**Relationship Resolution**	**Anonymous Resolution**

IBM Entity Analytics Technology

Entity #14465

ADDRESSES
4737 Cimarron Dr.
Easton, MA 02334

1 Bourne St.
Bolton, MA 01512

P.O. Box 12743
Clinton, MA 01510

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

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Requirement is Holistic Reference Information Structured and Unstructured – From many sources

Web Hierarchy and Categories

Images

Marketing Benefits

Buyer Behavior Model

Cross-Sell & Up-sell

Marketing Database

1969 Denim Collection

1969 Collection for Men
1969 original fit
1969 selvage jean jacket
1969 boot fit (dusted)
1969 range fit (infused)
1969 boot fit (indigo arctic)
1969 boot fit (black crunch)
1969 explorer shirt (tinted black)
1969 western shirt jacket

1969 boot fit (panhandle)

1969 western shirt (dark indigo) sale

Shown in: rusted
view larger image

Available colors:
rusted   sagebrush

1969 original fit

1969 original fit
- The Limited Edition
- 1969 Collection:
- Premiere, Authentic GC
- Made from a premium denim fabric in a dark shade of indigo with very subtle whiskering and grinding.
- Sits just below waist. Low rise. Slim, straight leg.
- Five-pocket styling, button fly.
- 100% cotton. Machine wash. Made in USA.

SIZE: 30w x 32l - 36w x 32l

price: $98.00
           now $39.99

item: #191458

color:
select one

size:
select one
30w x 32l
32w x 32l
33w x 32l
34w x 32l

size charts

You'll also like:

hand-knit zip sweater
$98.00
$59.99

hand-knit half zip sweater
$98.00
$59.99

Supplier Content Repository

Finance System

Promo. Price

Supplier Database

Supplier Database

Colors

Mfg. System

Sizes

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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

Industry Solutions

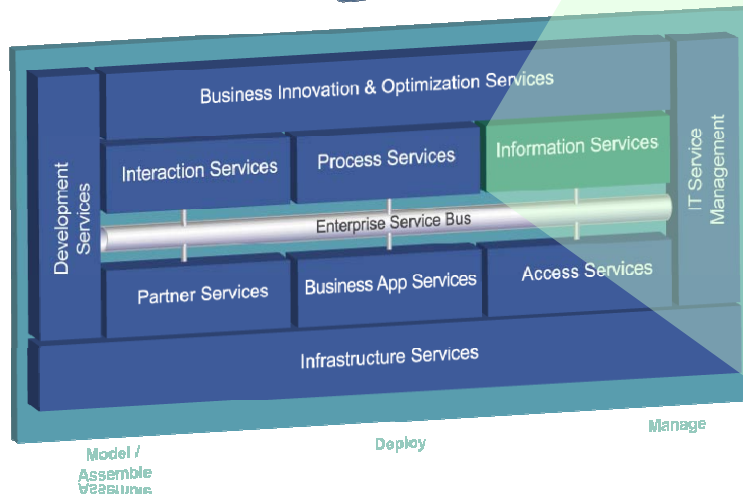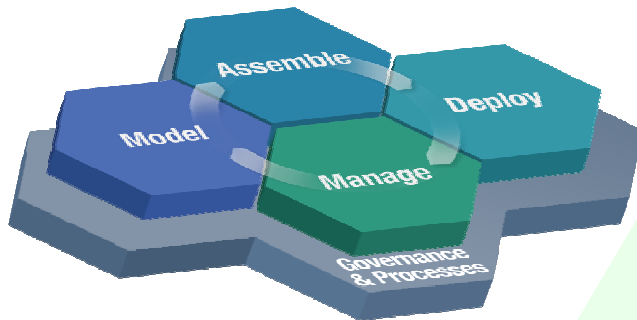| Finance	Insurance	Retail	Manufacturing	Government	Healthcare
▪ **Account Opening** ▪ **Credit Card Risk Mgmt.** ▪ **Anti-money Laundering**	▪ **No-touch Claims Processing**	▪ **New Product Introduction** ▪ **New Customer Introduction** ▪ **Vendor Fraud Analysis** ▪ **RFID**	▪ **RFID** ▪ **Integrated Supply Chain** ▪ **Product & Parts Management** ▪ **Dealer Collaboration** ▪ **Early Warning Systems**	▪ **Police Force Effectiveness** ▪ **Intelligence Gathering** ▪ **Anti-Terrorism** ▪ **Integrated Case Management**	▪ **Patient Safety** ▪ **Disease Management** ▪ **Predictive Medicine**

Cross Industry

Call Center Relationship Management
Cross Selling…Customer Service…Priority Service

Human Resources
Relationship Analysis…Information Privacy…Skills Discovery

Finance & Accounting
Risk & Compliance…Business Performance Management…ePayments

Procurement

Information as a Service

ON DEMAND BUSINESS = Make it happen now

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…

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

- **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
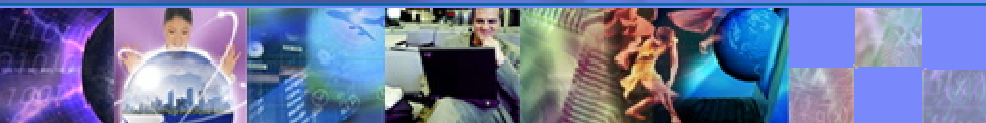 5,000+ Clients**

- **Business Information Accelerators**
  – Master Data Management
  – Entity Analytics
  – Information Warehousing
  – Industry Models

  **Leading Space
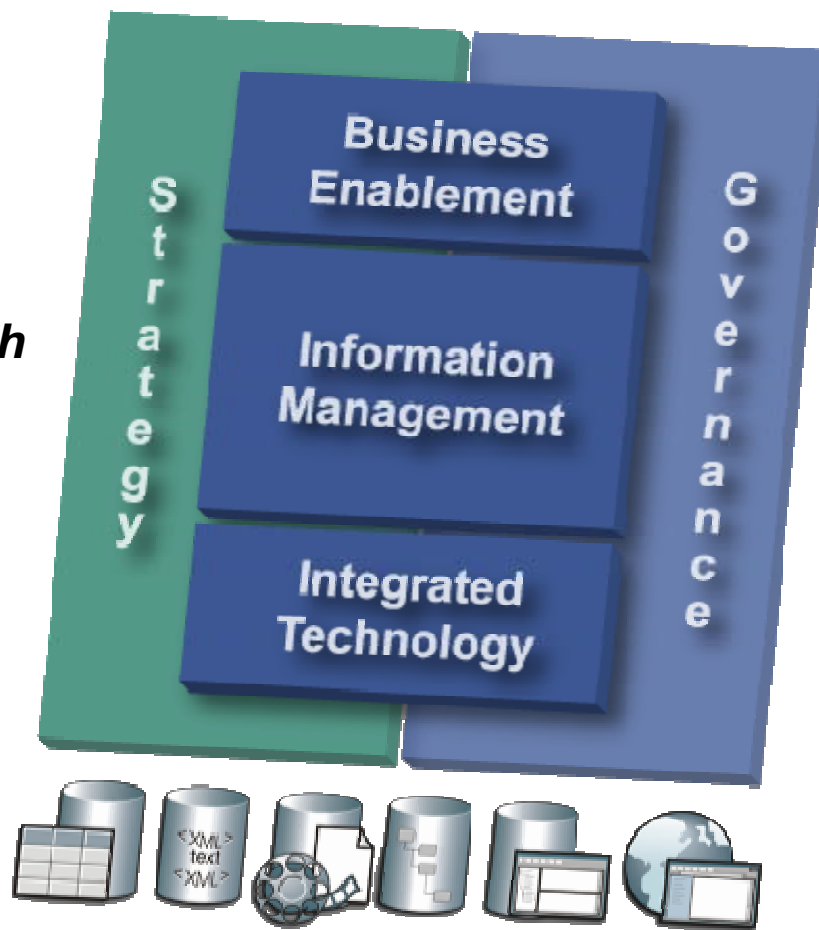 1,000+ Clients**

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Delivering the Business Value of Information
A Holistic Offering Framework for Cross IBM Solutions

Globalization   Integration   Innovation

Integrated Approach
- Skills
- Methodology
- Information
- Technology

Experience-based
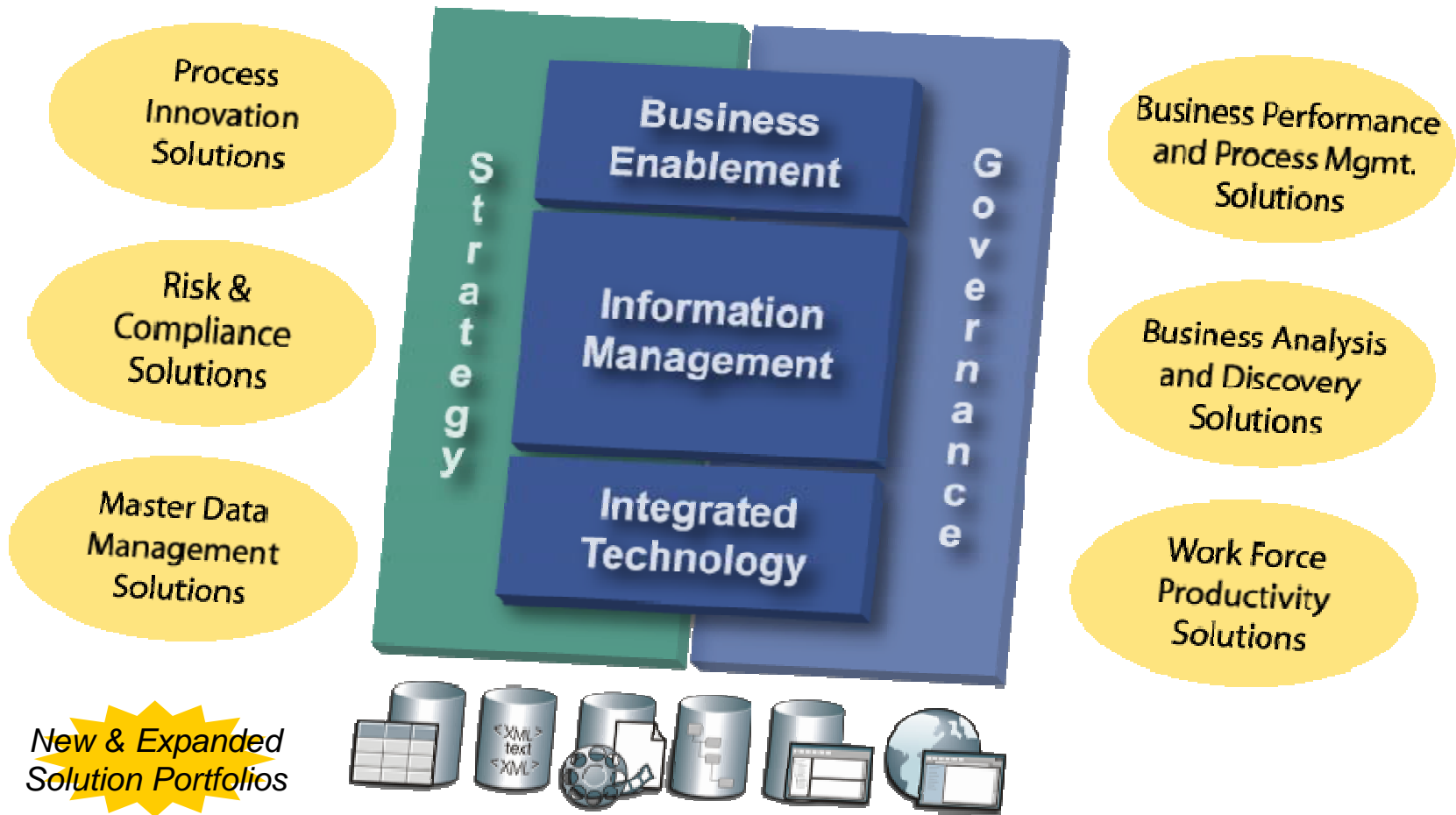- Clients
- IBM Research
- IBM Internal

IBM Provides a Complete Portfolio of Offerings
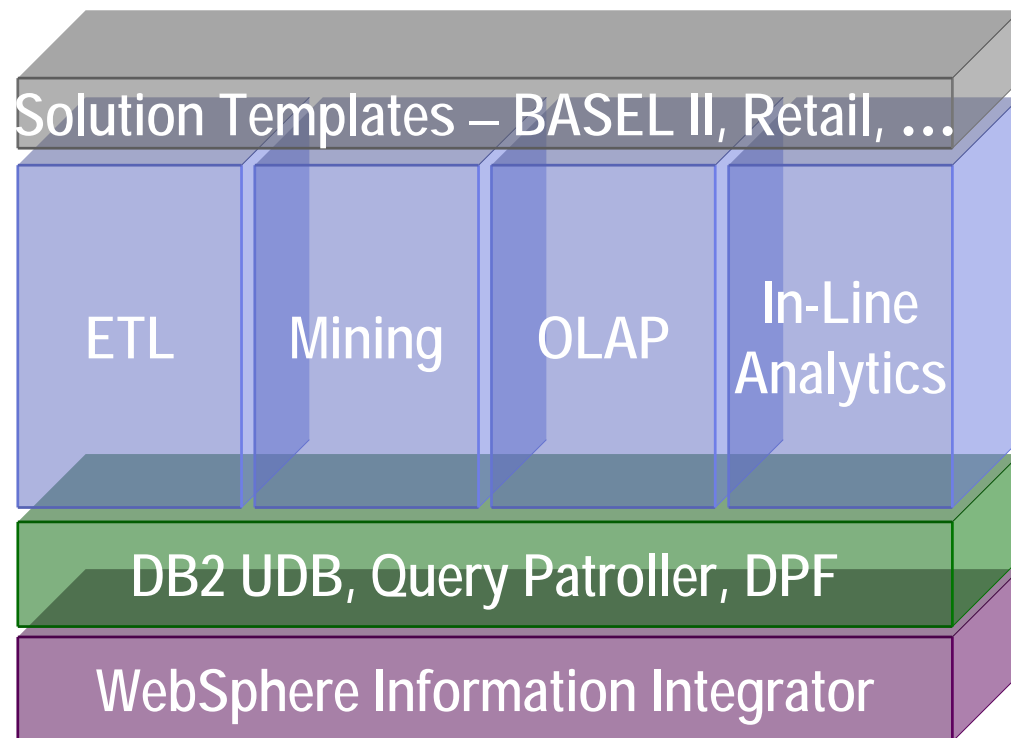## *Based on Client & Internal Experiences*

New Investment

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

Process Innovation Solutions

Risk & Compliance Solutions

Master Data Management Solutions

Strategy

Business Enablement

Information Management

Integrated Technology

Governance

Business Performance and Process Mgmt. Solutions

Business Analysis and Discovery Solutions

Work Force Productivity Solutions

New & Expanded Solution Portfolios

ON DEMAND BUSINESS = make it happen now

With Our Data Foundation in Place, Extend …

- Extend the Value of the Data Warehouse

- Deliver Solutions with our Partners To Maximize Growth for our Customers

- Move Real-time Business Intelligence Closer to the User

Solution Templates – BASEL II, Retail, …

| ETL | Mining | OLAP | In-Line Analytics |

DB2 UDB, Query Patroller, DPF

WebSphere Information Integrator

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What to Do Next

- **Understand the vision**

- **Assess where you are on the transition to Information On Demand**

- **Select a project to focus on**

- **Engage with IBM in a System z Infrastructure Architecture Workshop (zIAW)**

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EAS's Powerful Identity Recognition Solution
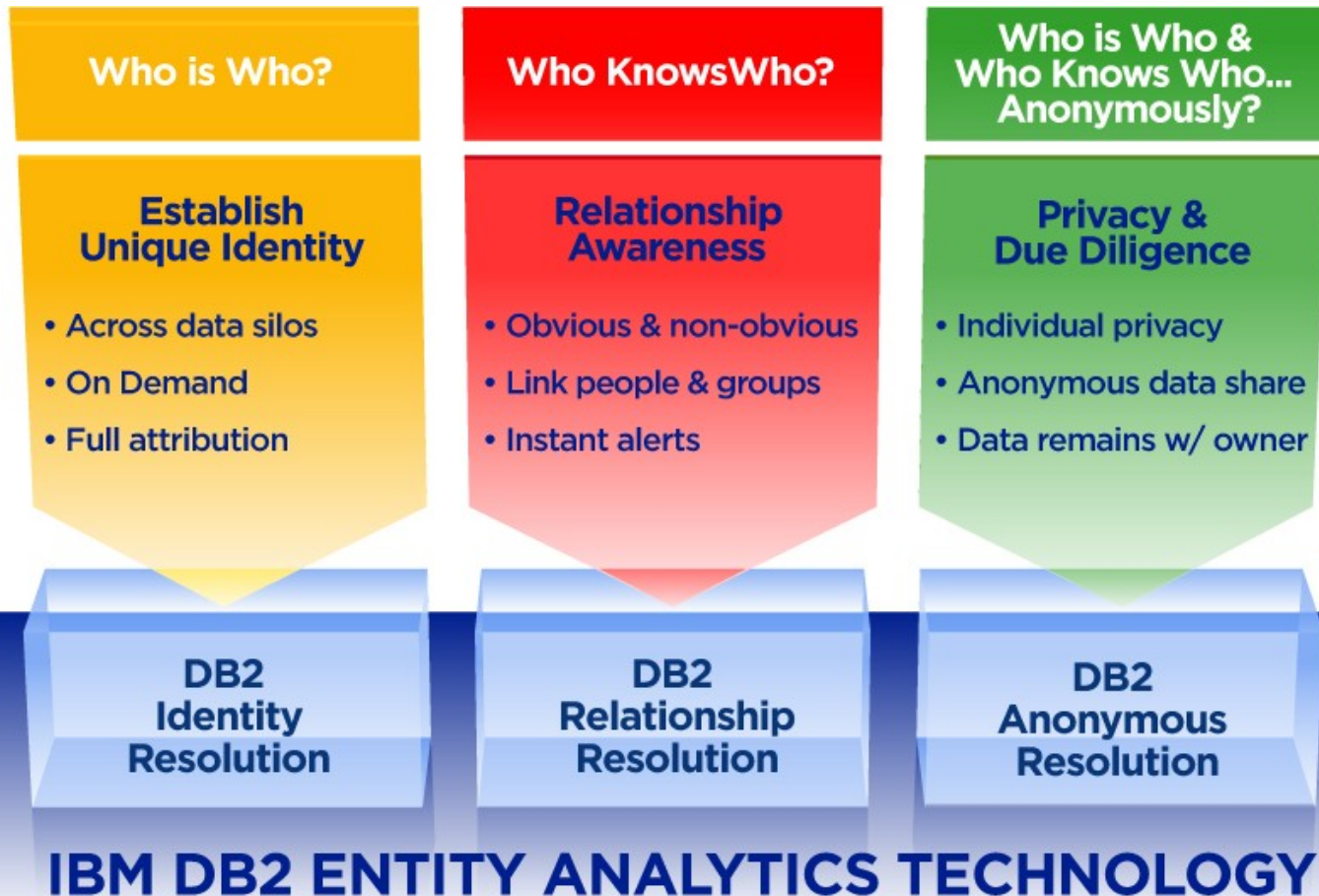
Inconsistent Master Information is a Major Hurdle
Impacts Revenue, Cost, Agility and Compliance

CH, AUT, DE, UK, FR, BEL, NL, IT :
Code : 21184

DE, FIN, SWE, NOR, ESP, POR,
Code : 21190

CAN
Code : 21204

BUL, YUG, CR, RO, SLOV
Code : 19616

CZ, LIT, EST, SLOV, RU
Code : 2001-M

USA
Code : 21192

BR, CR, MEX
Code : 21184

ISR
Code : 21204

Code : 2001229421942

Code : 21204

ARG
Code : 21184

JAP, THAI, INDO, PHI
Code : 21189

HK, TAI, SIN, MAL, S.KOR
Code : 21188

World Trade
Code : 19619, 19616

AUS
Code : 21190

Gaining control over product information results:

- 27% improvement in optimized promotions

- 23% improvement in maximizing product and brand management

- 27% reduction in the number of call center questions regarding basic item information

- 20% improvement in employee productivity

- **Industry Drivers:** RFID, Waste Electrical and Electronic Equipment Recycling, Product Information Exchange Standards, Return of Hazardous Substances, Global Data Synchronization, Sarbanes Oxley, etc.

ON DEMAND BUSINESS = Make it happen now