InfoSphere: Powering Information Integration & Governance

Information On Demand **2010**

The Premier Forum for Information & Analytics

Gain Insight. Optimize Results.

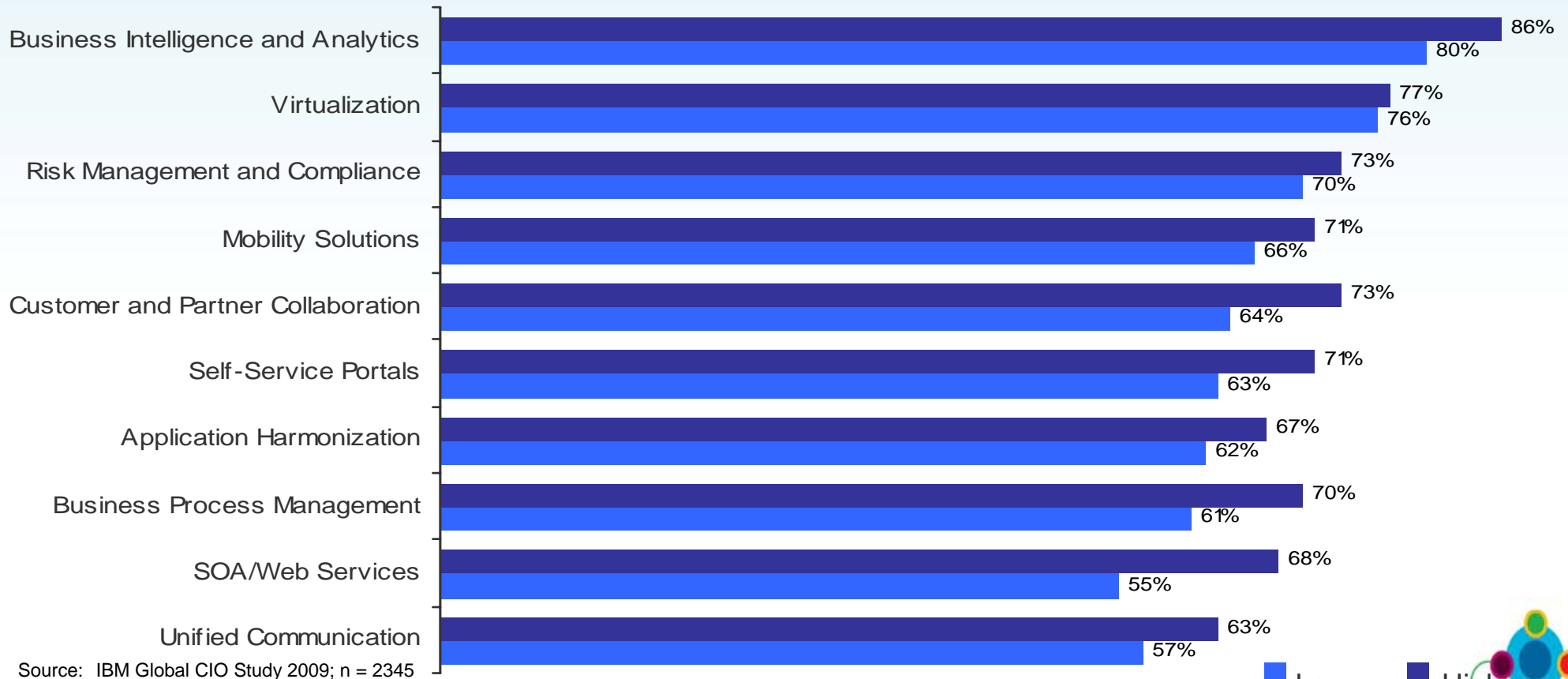# 3.3 Exabytes of Digital Information will Be Created Every Day this Year

(1 exabyte = 10^{18} bytes)

Innovation is not limited to IT solutions: Business-oriented plans rank high among CIOs' visions of enhancing competitiveness

Ten most important visionary plan elements
Interviewed CIOs could select as many as they wanted

Plan Element	High	Low
Business Intelligence and Analytics	86%	80%
Virtualization	77%	76%
Risk Management and Compliance	73%	70%
Mobility Solutions	71%	66%
Customer and Partner Collaboration	73%	64%
Self-Service Portals	71%	63%
Application Harmonization	67%	62%
Business Process Management	70%	61%
SOA/Web Services	68%	55%
Unified Communication	63%	57%

Source: IBM Global CIO Study 2009; n = 2345

Low growt

High gro

Information Trailblazers Are the Catalyst for Creating
a Smarter Enterprise

In healthcare

In financial services

Utilities…

In retail …

Business Analytics
Companies are asking tough questions

Who?

- Are my most/least profitable customers?

What?

- Is the age profile of my customers?
- Do my customers buy?
- New trends are emerging?

Where?

- Are product lines contributing to income & profit?
- Are my most profitable lines of business?

How?

- Successful are my marketing campaigns?
- Will clients react to my new product branding?

When?

- Is the best time to reduce price?

. . . And are finding answers by turning data to insight.

How Are Companies Gaining Knowledge From Their Data?

They recognize that information, when treated as an asset, has the potential to transform their business.

Information Integration & Governance

They understand the business value of creating and maintaining a single view of key data domains such as customers, products and assets.

Master Data Management

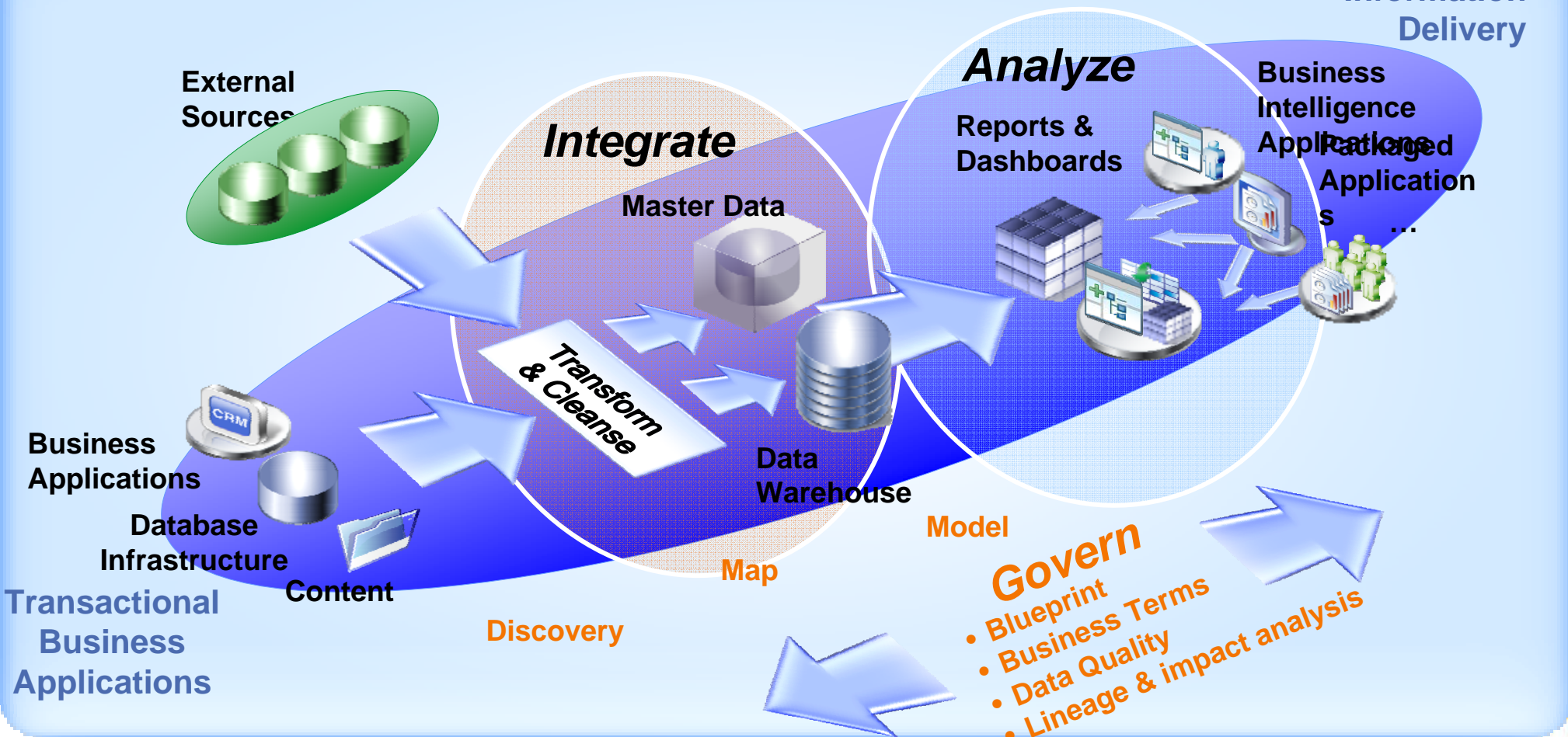They focus on providing consumable, actionable information to the right people at the right time.

Business Analytics

Delivering business insight requires mastering your information
Going beyond simply managing… to Optimizing Business Results

Clients' Information Supply Chain

External Sources

Integrate

Analyze

Information Delivery

Master Data

Reports & Dashboards

Business Intelligence Applications

Packaged Applications

…

Transform & Cleanse

Data Warehouse

Business Applications

Database Infrastructure

Content

Transactional Business Applications

Model

Map

Discovery

Govern
- Blueprint
- Business Terms
- Data Quality
- Lineage & impact analysis

The InfoSphere Portfolio delivers unique synergistic value that accelerates and improves business results and reduces cost and risk

Accelerated value through:

- Deep integration across components

- Shared Understanding of existing assets

- Collaborative tools to align IT and business

- Shared model-driven design tools

- Pre-built accelerators to speed deployment

InfoSphere

Accurate — Complete — Timely — Insightful

Data Integration

Master Data Management

Shared Metadata & Models

Data Warehousing

Information Governance
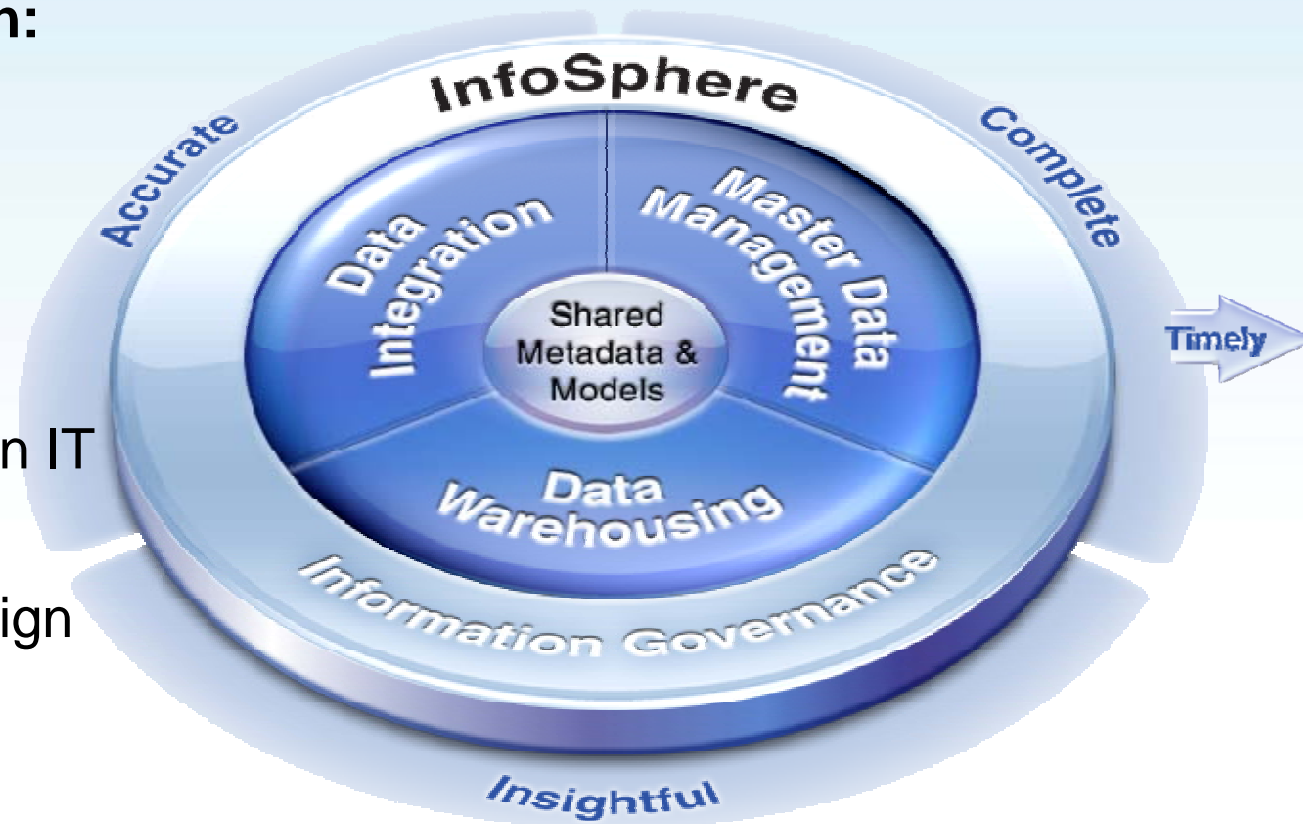
Information Integration & Governance

Information Trailblazers know how to harness the power of their information assets

Understand

Discover data, design optimal data structures, and govern data over time.
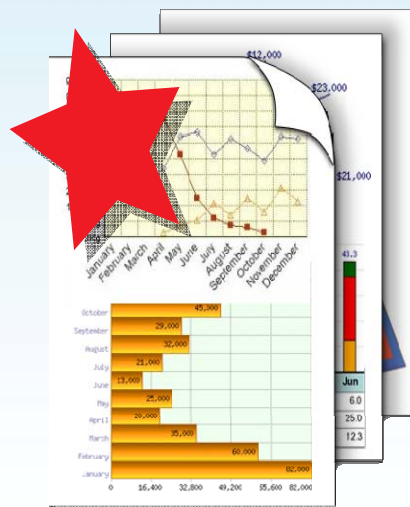
Cleanse

Use data quality capabilities to ensure reliable, accurate information.
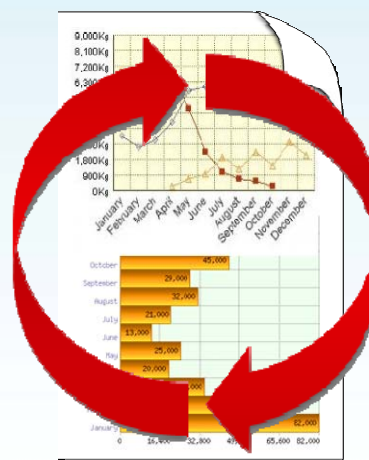
Transform

Transform data from multiple sources for use with multiple targets.
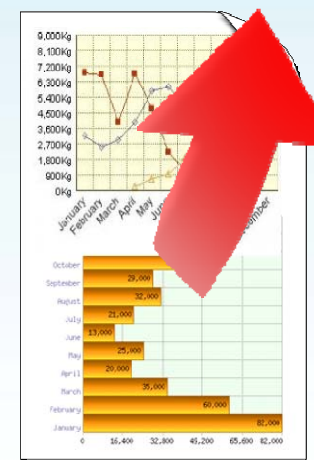
Deliver

Deliver heterogeneous data to those who need it, when they need it.

Information Integration & Governance

IBM InfoSphere Information Server 8.5
– Market-leading data integration platform enabling Information Governance.

- Drive innovation through top down collaboration between business and IT

- Define the standard for enterprise-class information integration

- Extend leadership in integration automation and unified metadata

- Introduce best-in-class XML handling and SOA

New!

InfoSphere Information Server

Understand · Cleanse · Deliver · Transform

Common Metadata

Connectivity services · Parallel processing services · Metadata services · Administration services · Deployment services

Breaking News: 123% Six-year, Risk-Adjusted ROI for InfoSphere Information Server

- Forrester Consulting*

Information Integration & Governance

InfoSphere Blueprint Director – a game changer to align business & IT

A unique new paradigm for integration projects, allowing teams to define & manage the end-to-end flow of information.
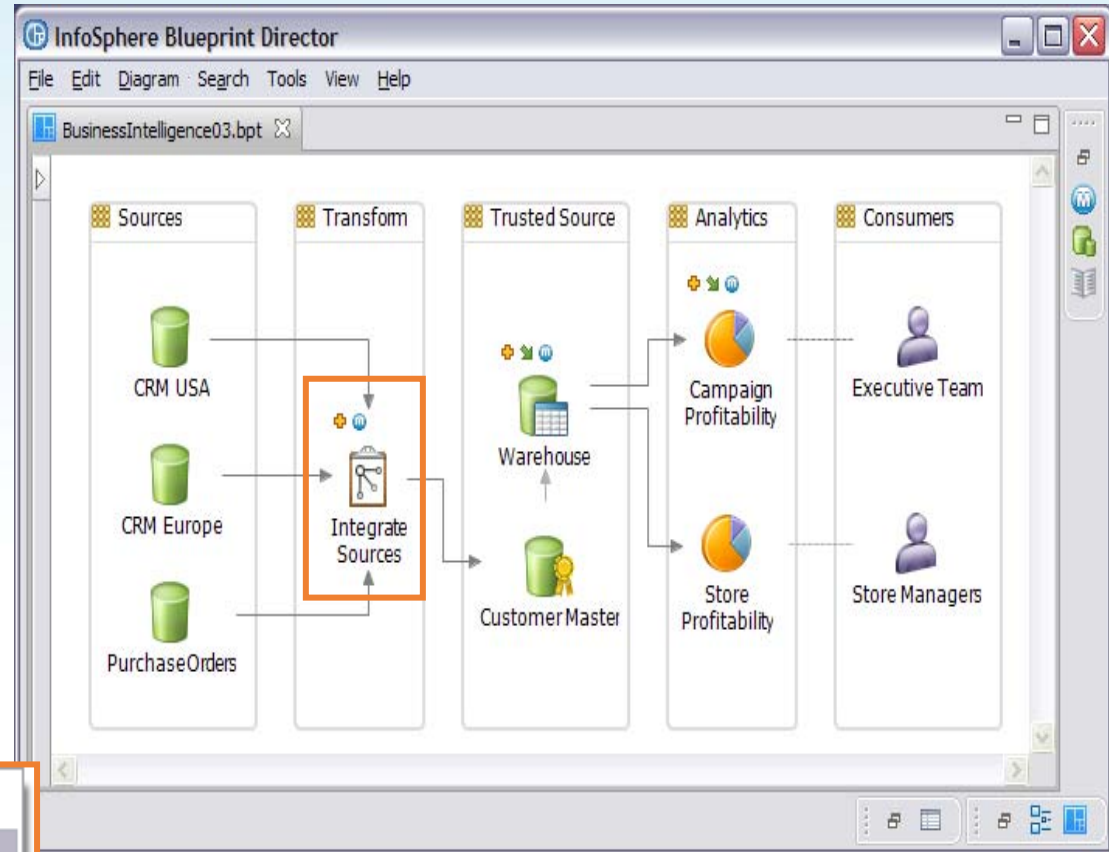
Linked method

Linked artifacts

InfoSphere Business Glossary – What's new in 8.5?

Empower the business user in data quality assessment programs

- Expose quality rules to business users

- Allow LOB to review & validate the quality of data relative to key business elements (e.g. product)

- Meet acceptable compliance levels and data hygiene requirements

Features:

- – View business rules associated with

- – View the percentage of data that meets the business rule acceptance level

- – View valid values, value ranges (min/max), and summary of data domain contents

Valid Values, Ranges, Compliance Levels

Business Rule Sets

InfoSphere Business Glossary Brow

Search | Category Tree | Browse ▾ | W

Term Details   Print Feedba

cat1 »

term1

Short Description: ADD SH
Assigned to Terms: Yearly Rep
Status: Candidate

▹ General Information

▽ Assigned Assets

1. MK Set of Rules 1
2. MK Set of Rules 1   (
3. MK Metric (Pr
4. MK global logical varia
5. MK data rule 1
6. MK data rule 1 (

CREDIT_RATING
Short Description: Undefined
Long Description: Undefined
Assigned to Terms: Credit Score

▹ General Information
▹ More Details
▽ Valid Values & Analysis

Range Validation —
- Minimum Value — 600
- Maximum Value — 700
- Compliance — 44%

Require Unique Values — false
Total Number of Rows — 221
Number of Complete Values — 221
Number of Valid Values — 98
Number of Empty Values — 0
Number of Null Values — 0
Number of Distinct Values — 221
Number of Distinct Patterns — 0
Number of Distinct Formats — 1
Inferred Data Type — INT16
Inferred Format — 999
Domain Type —
Inferred Length — 3
Inferred Scale — 0
Inferred Precision — 3

InfoSphere Metadata Workbench – What's new in 8.5?
Gain visibility to a more complete view of information assets

- Get a complete picture and understanding of technical data elements with insights into their
  - Domain values
  - Relationships to other sources
  - Associated business rules

Features:

  - View data relationships and insights discovered by InfoSphere Discovery
    - Database tables and columns
    - Database analysis and inferred database key information
  - View data rule descriptions, policies, stewards, and rule expressions defined in InfoSphere Information Analyzer

InfoSphere Information Analyzer –What's new in v8.5?
Continuously manage & monitor data quality

- Enhance collaboration between business and IT for data validation
  - Quickly associate or lookup terminology for data or rules
  - Identify valid values with terms

- Leverage analytical results in broader business context
  - CLI and REST API for publishing results to external files or building custom dashboards, applications, or reports

- Expanded native data source support
  - Added native Oracle connectivity
  - Enhanced ODBC, DB2, and Teradata connectivity

- Exception Management capabilities for managing source to target transformations
  - Review exceptions and recommend remediation

InfoSphere FastTrack – What's new in 8.5?
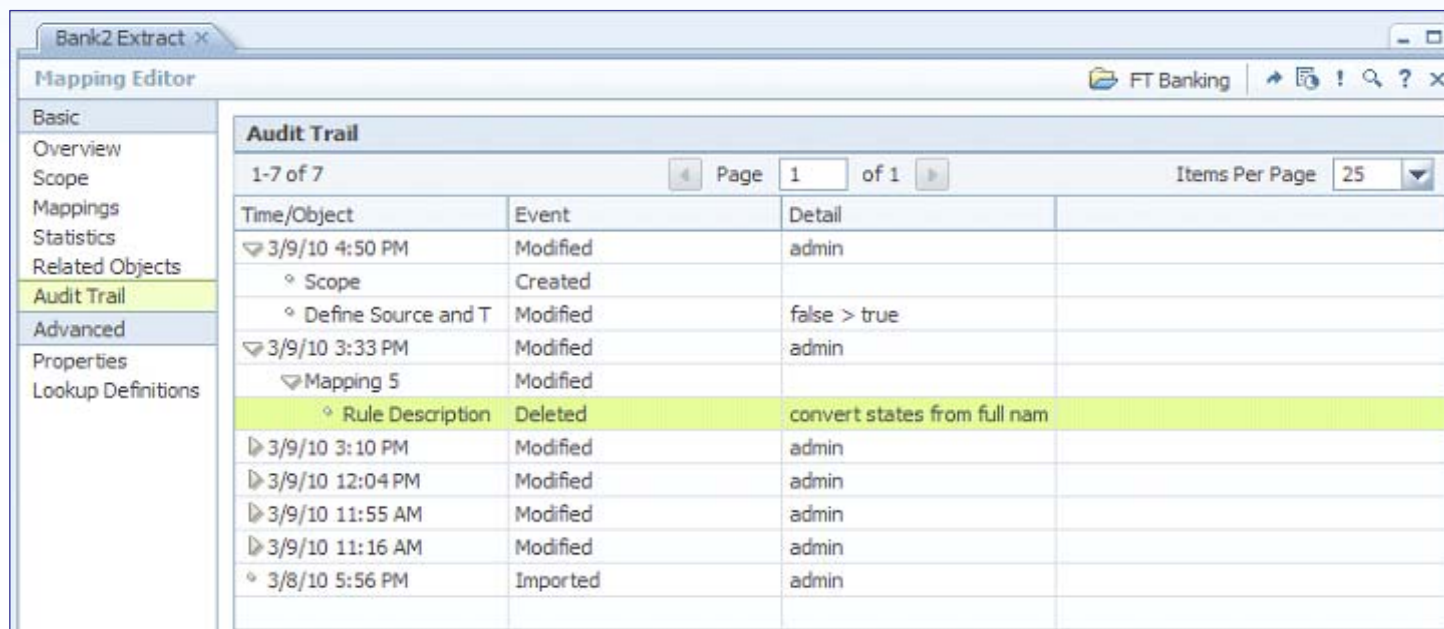## *Business-driven data integration & automation*

- Leverage prior knowledge to achieve consistency
  - Re-engineer ETL job designs to jump-start specifications
  - Reuse discovered and established rules for consistent application
  - Create specifications from existing InfoSphere DataStage jobs
- Ensure compliance to organization standards
  - Establish template parameters for mapping specifications within project
  - Review specifications through configurable reporting
  - Track changes to mapping specifications through audit history
- Enhanced import of .CSV files
  - Map multiple columns to reduce effort
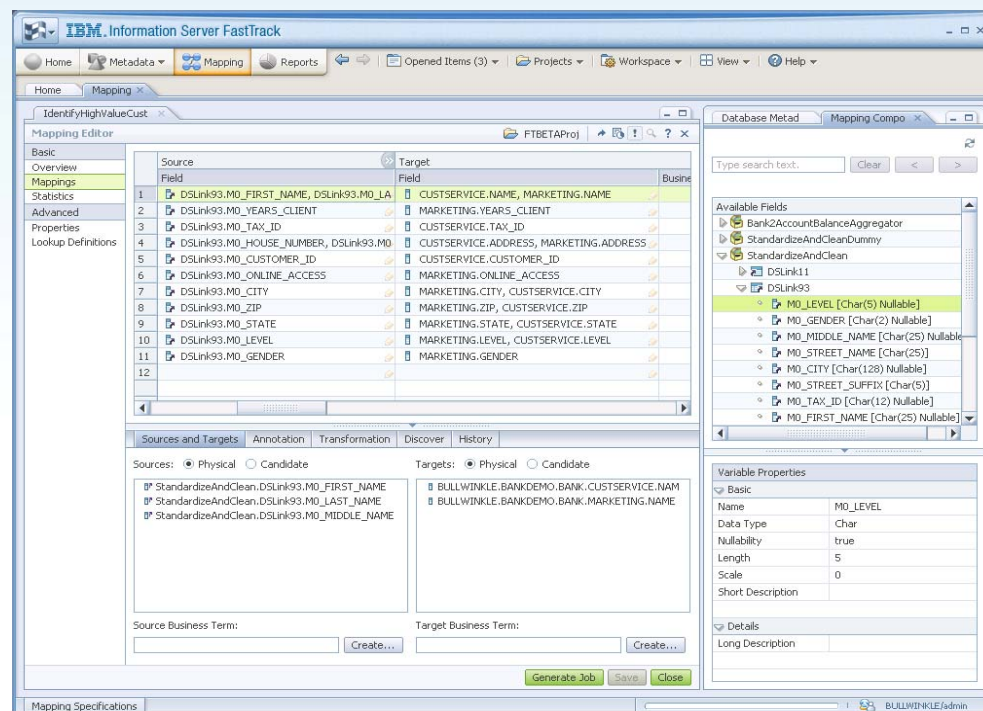
InfoSphere FastTrack – What's new in 8.5?
Auditing of mapping specifications

- Provides audit history and traceability by tracking changes over time: who + when + what + why was it changed

- At project level or mapping specification level

- Option to enable audit history

InfoSphere DataStage & InfoSphere QualityStage – What's new in 8.5
Overview of enhancements

- Increased Availability
  - Improved support and levels of HA
- SCCS integration
  - Integration with Enterprise Source Control providers via Eclipse Team Plugin
- Performance (Design and Runtime)
  - Improved Use Experience and runtime performance
- Balanced Optimization
  - Deliver seamless integration with DataStage GUI and improved metadata lineage
- Transformer Enhancements
  - Looping, improved NULL handling
- Vertical Pivot
  - Extend current Horizontal Parallel pivot
- z/OS File Stage
  - Deliver improved native MVS File processing support on Linux for System Z
- XML PACK (post vNext)
  - Deliver new features and improved performance / volume support
- Standardization and Match Specification reports
- Match Designer Enhancements
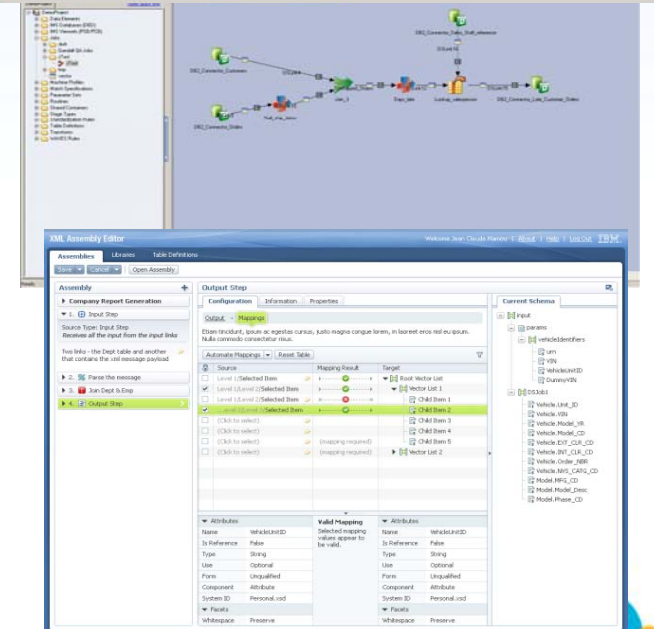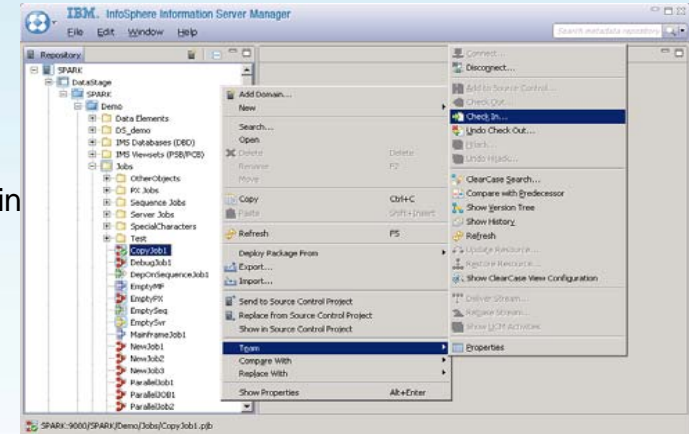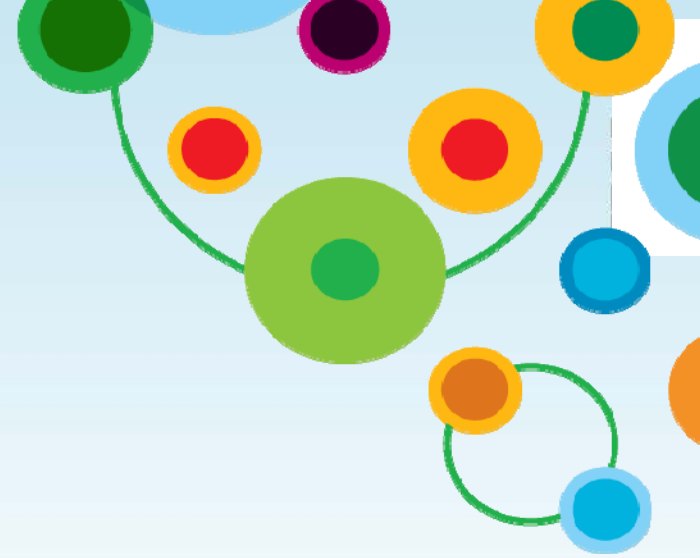
Futures

Information Integration Roadmap

Strengthen Core

InfoSphere Synergies
- Common rules model for the tools
- Data-centric Analysis for Data Privacy, decommissioning/Archiving, Modeling, Classification
- Information Server Module for IBM Smart Analytics System

Automation and Accessibility
- SOA access to Business Glossary
- Job Migration Test Assistant
- Balanced Optimization evolution
- XML evolution

Enterprise Readiness
- Increased availability
- Improved connectivity
- Continues focus on performance
- Enhanced automation in the install and migration process

Productivity and Enterprise Optimization

IBM SWG Synergies
- Collaboration enhancements for Information related projects
- Data Rules Accelerators and Stewardship for Industry Models and MDM
- Extended CDC Integration
- IA Rules integration with DS/QS
- Common Optim Data Privacy Rules

Automation and Optimization
- Entry level data Integration offering
- SOA access to Metadata Analysis
- Data Quality Knowledge Console
- Performance Optimizations
- Productivity and reusability enhancements
- New & enhanced transformation componentry

Operational Governance
- Production Monitoring & Control
- Workload Management

Automation and Logical design paradigm

IBM SWG Synergies
- Leverage Information Management, Tivoli, Rational portfolio
- Collaboration & Linkage of Data Integration related assets outside of Information Server

Business Centric Design
- Logical design paradigm linking conceptual information flows to concrete implementation to support varying degrees of developer skills
- Enhanced profiling, cleansing, transformation support for semi-structured and other complex source systems
- Evolution of model integration to increase automation and linkages

Smarter Integration
- Autonomic Design optimization based on historical runs and operational metadata.
- Discovery driven Integration

Business Analytics
IBM's Warehousing Portfolio offers Scale, Speed and Depth

A comprehensive portfolio:

New!

New!

InfoSphere Warehouse

IBM Smart
Analytics Systems

Warehouse Packs

Optim Performance Manager

1050, 2050, 5600, 7700, 9600

Pack for Customer Insight

Mashup Center

Pack for Market / Campaign Insigh

Pack for Supply Chain Insight

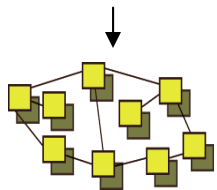# Business Analytics
InfoSphere Warehouse Model Packs

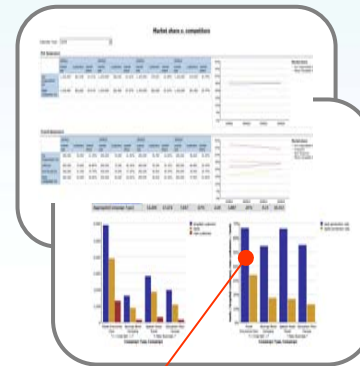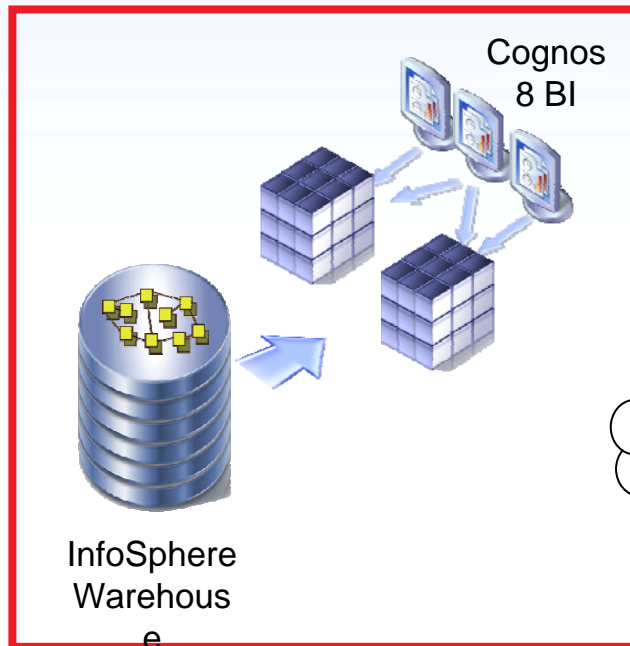A set of pre-built, consolidated data structures and supporting components in areas of:

- Customer Insight
- Market and Campaign Insight
- Supply Chain Insight

Ready to load
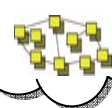
CUSTOMER = XYZ
SALES = 123

Pre-built
Physical Data
Models

Cognos
8 BI

InfoSphere
Warehous
e

Pre-built Reports
illustrate
IMMEDIATE
representation of
your information

CUSTOMER = XYZ
SALES = 123

Pre-built Data Models promotes data
integrity from loading through
reporting

Thank You

IBM Software Group
InfoSphere Product Management
www.ibm.com/software/data/infosphere