



IBM SOA Technology Summit

## Moving Ahead With SOA

Master Data Management Services :  
manage the lifecycle of your master data

Hubert Pouderoux, Architecte, Information Management, Software  
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*SOA on your terms and our expertise*



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# Agenda

- Introduction
- Information as a Service
- Master Data Management Architecture
- Master Data Integration Scenarios
- Conclusion

# Business Problems

- Trusted information is not available when & where needed
- Inflexibilities make the business slow to respond to changing requirements
- Cost of managing IT is too expensive
- The full value of information is not being leveraged



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# Domain, Compliance & Business Catalysts Drive The Need for Master Data Management

- **Gain control of core business entities:**
  - **Party:** Customer consolidation, consumer privacy, marketing optimization, relationship management
  - **Product:** Multi-channel commerce, new product introduction, global data synchronization, RFID
  - **Supplier:** Vendor consolidation, spend management, procurement optimization
- **Address compliance mandates, legislation and liability requirements**
  - Fraud detection, homeland security and hazardous materials
  - Sarbanes Oxley, HIPAA, PIES, ACORD, Patriot Act, Tread Act etc
- **Support dynamic business environments:** Outsourcing, mergers and acquisitions, ERP deployments, application consolidation and data warehousing / business intelligence initiatives

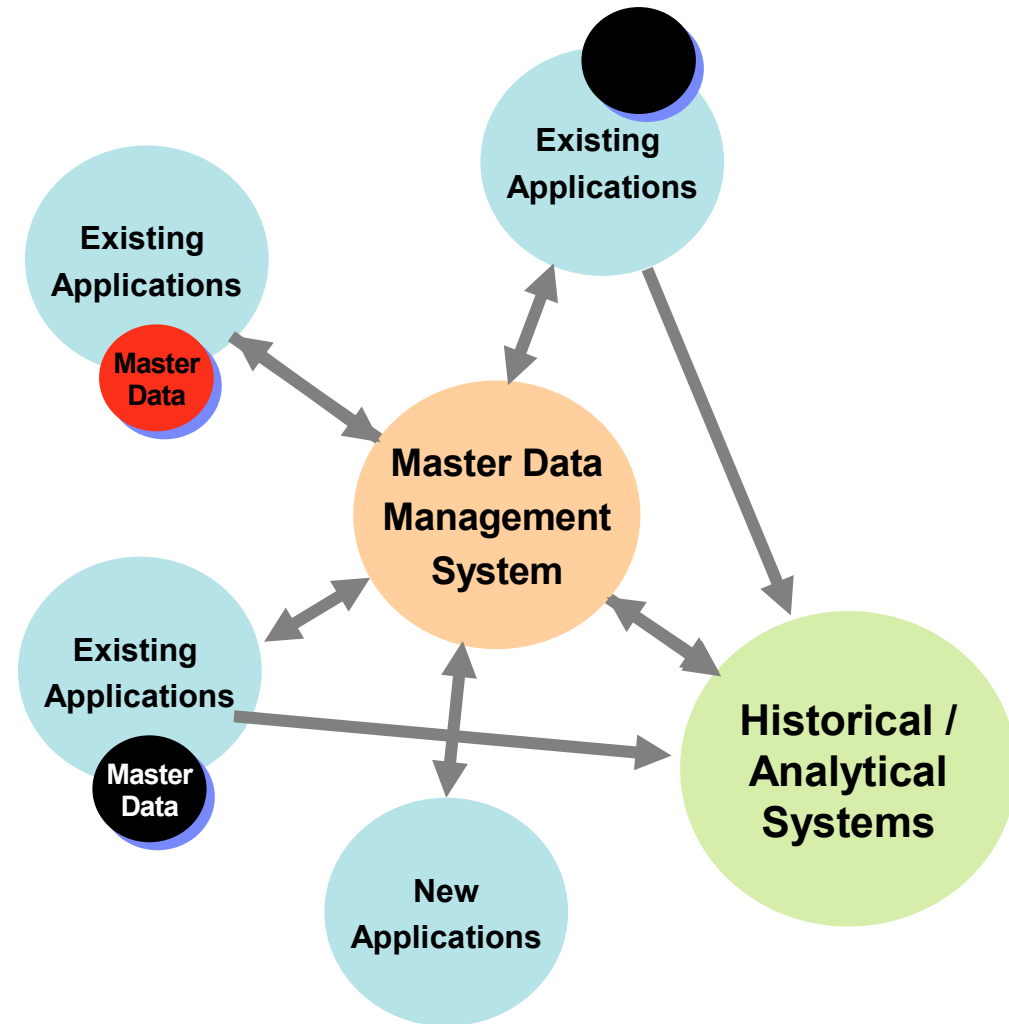
**Compelling business cases around cost reduction, revenue enhancement, customer satisfaction, compliance, time to market**

# What Is Master Data?

- The facts describing your core business entities: Customers, suppliers, partners, products, materials, bill of materials, chart of accounts, location and employees.
  - The *high value* information an organization uses *repeatedly* across *many* business processes.
- Master Data is critical because it provides the *business context* for a particular domain.
- Master Data will become the focal point in the SOA architecture “battle.”
  - Application Independent MDM solutions will provide richer context for SOA than Application specific approaches.

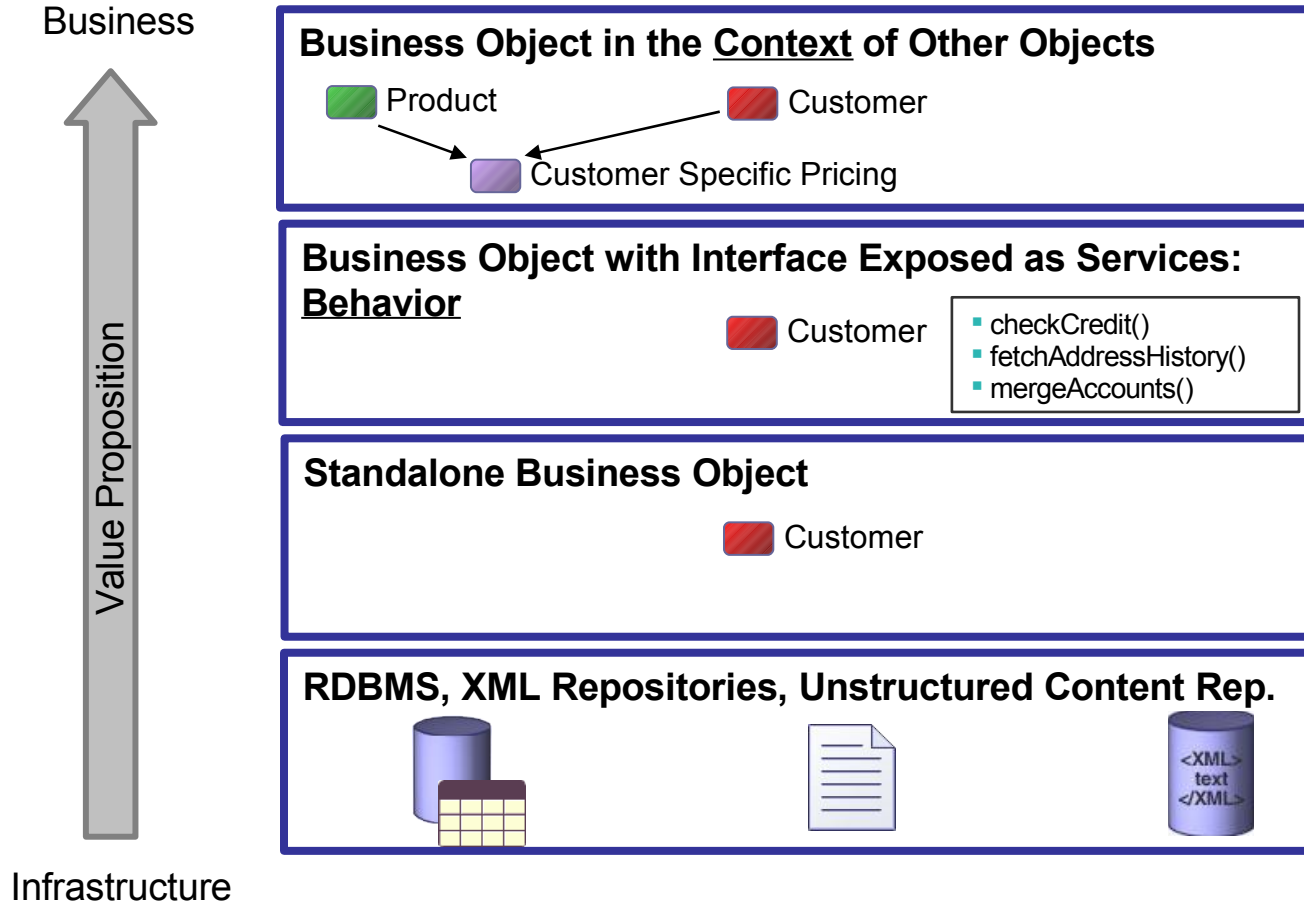
# What Is Master Data Management?

- Decouples master information from individual applications
- Becomes a central, application independent resource
- Simplifies ongoing integration tasks and new app development
- Ensure consistent master information across transactional and analytical systems
- Addresses key issues such as data quality and consistency proactively rather than “after the fact” in the data warehouse





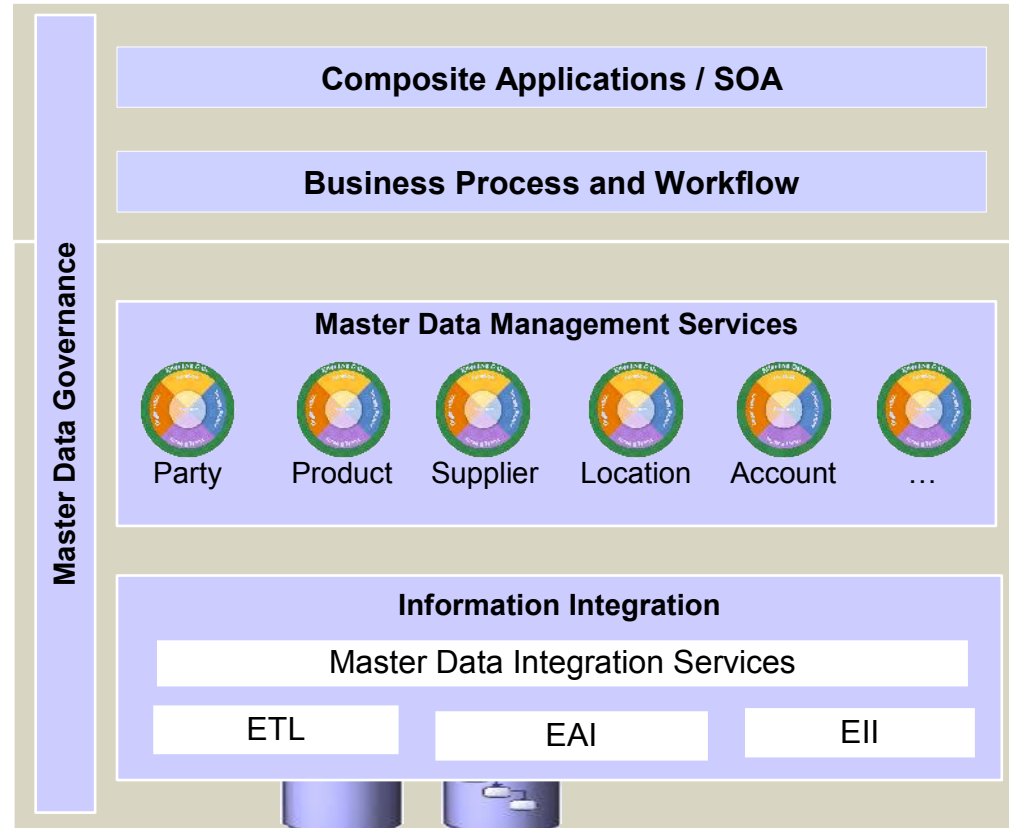
# MDM Builds On Infrastructure And Provides Context



# IBM Master Data Management

A Framework Describing the Broad Array of Business Needs

- Speed deployment and ROI with master data solutions, industry and content models
- Deep functionality for core master data domains
- Extensive authoring and syndication capabilities
- Leverage industry leading master data integration and entity analytics
- Strong partner ecosystem
- Foundational for SOA



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# What is .....?

## ... a service?

A **repeatable business task** – e.g., check customer credit; open new account

## ... service orientation?

A way of integrating your **business as linked services** and the outcomes that they bring

## ... service oriented architecture (SOA)?

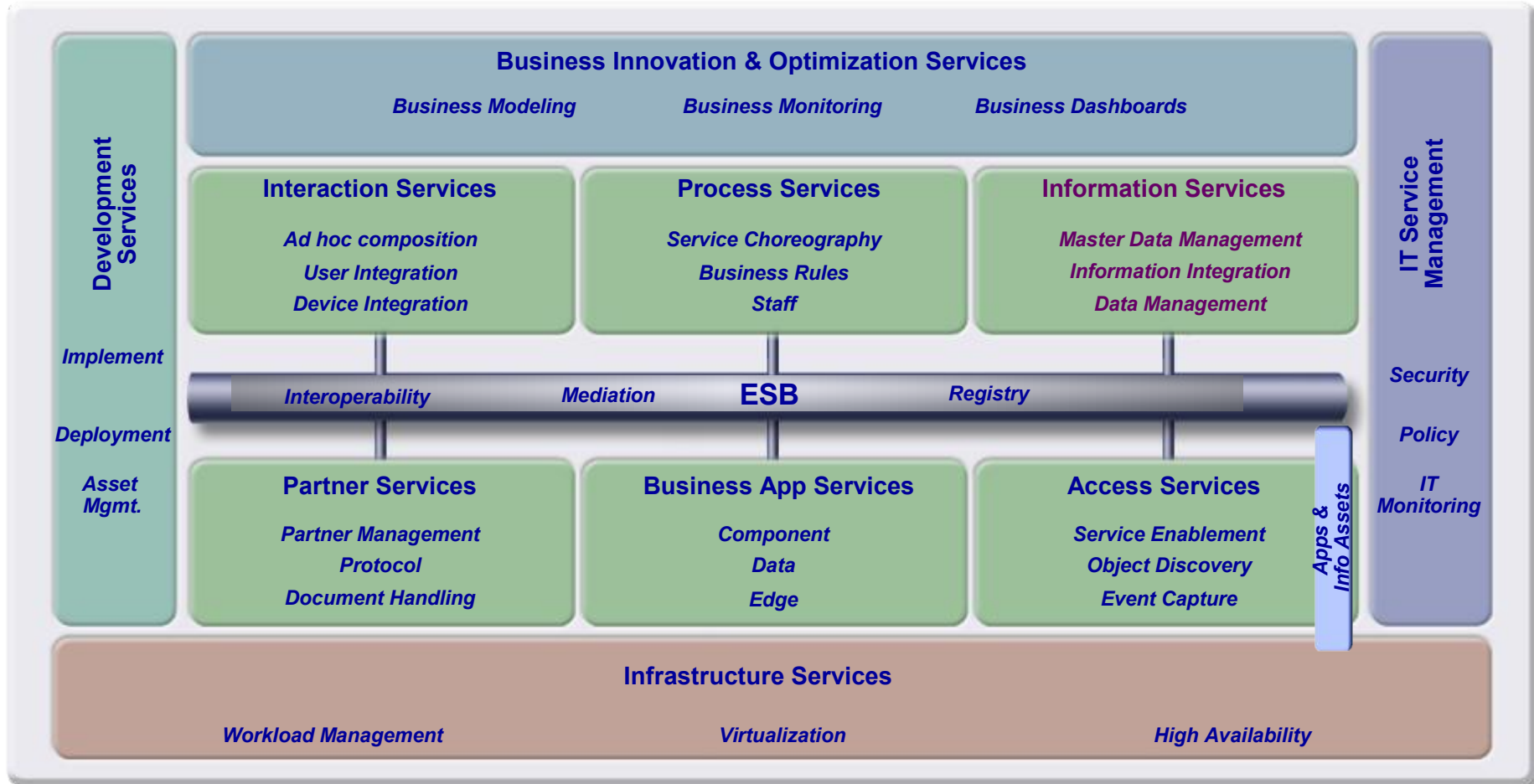
An IT **architectural style** that supports service orientation

## ... a composite application?

A set of **related & integrated** services that support a business process built on an SOA

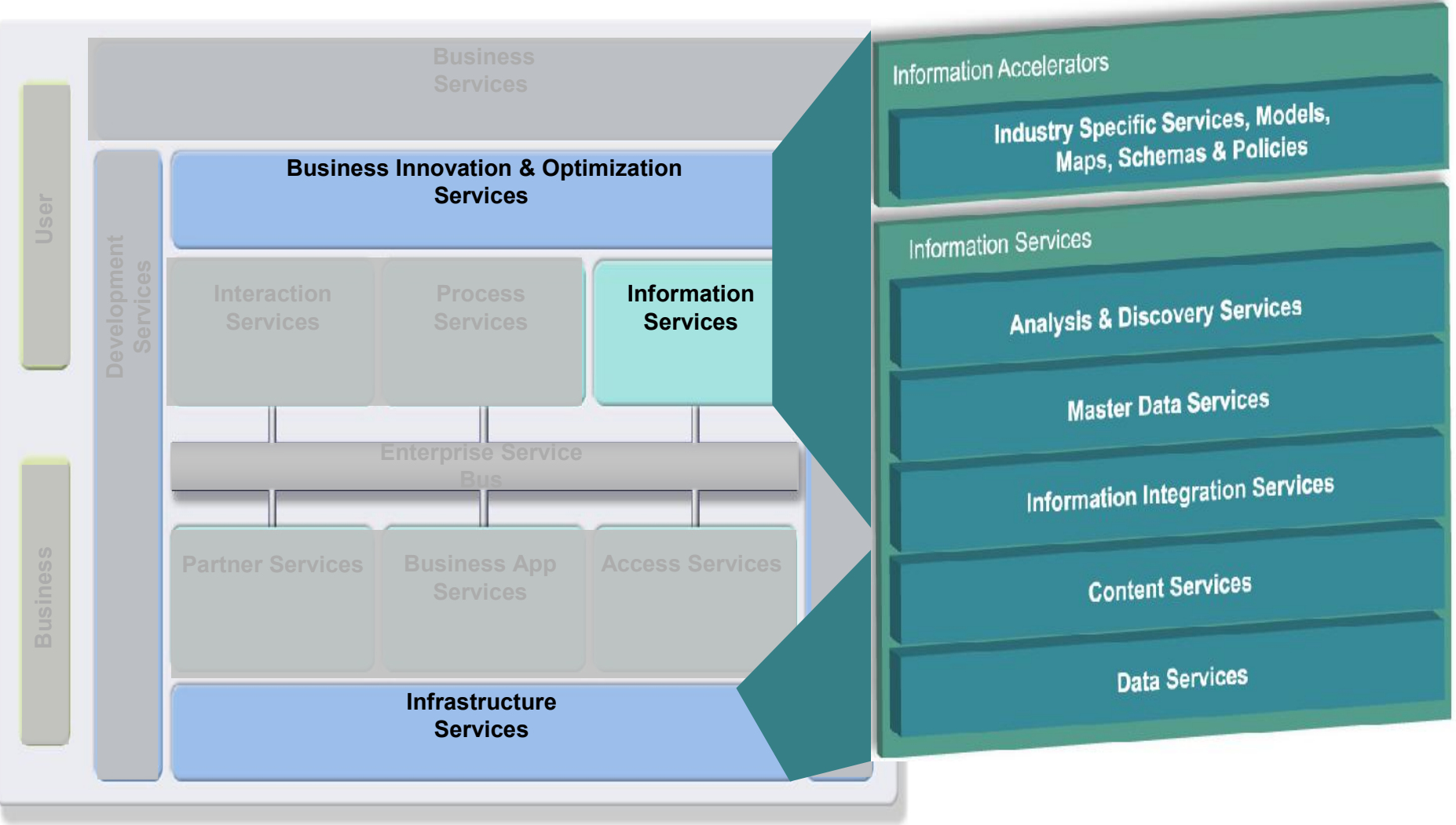


# IBM Master Data Management (MDM) Core To IBM SOA Reference Architecture



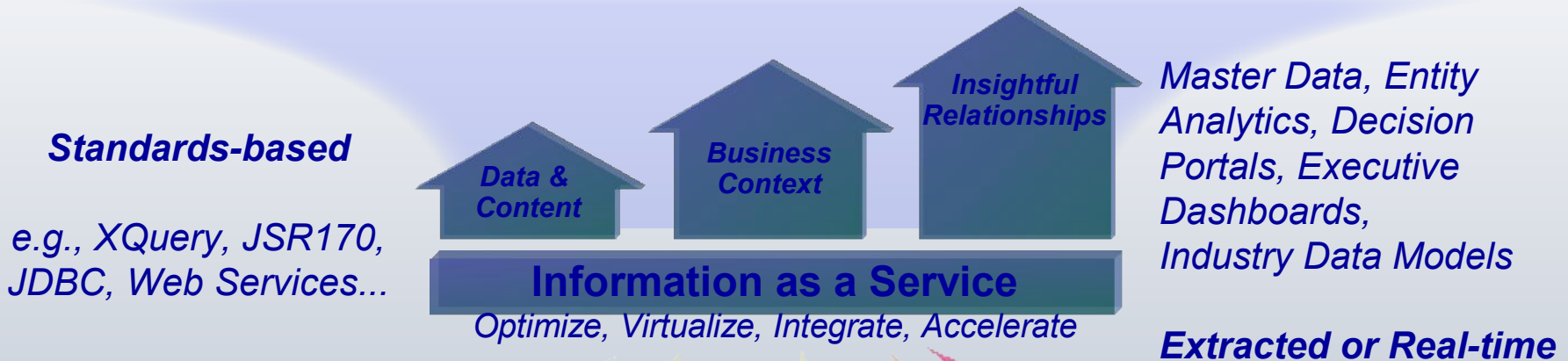
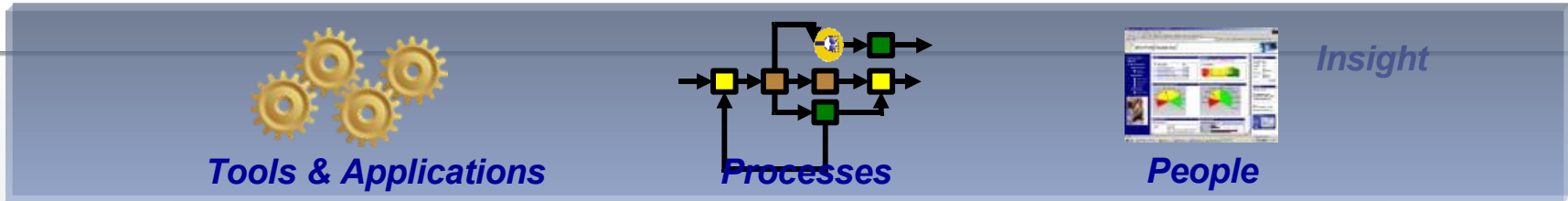
# SOA Reference Architecture

## Information Services



# Information as a Service

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

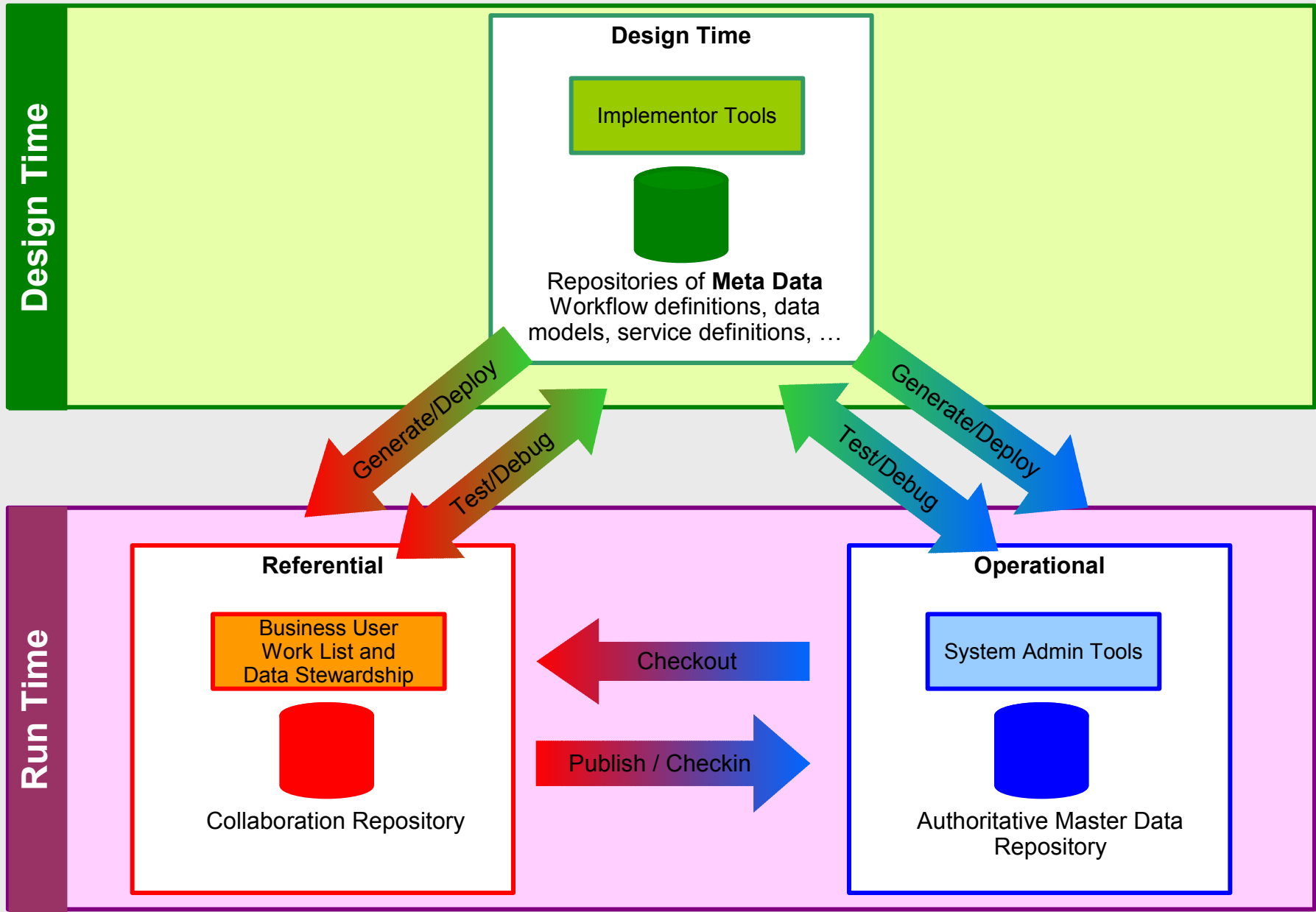


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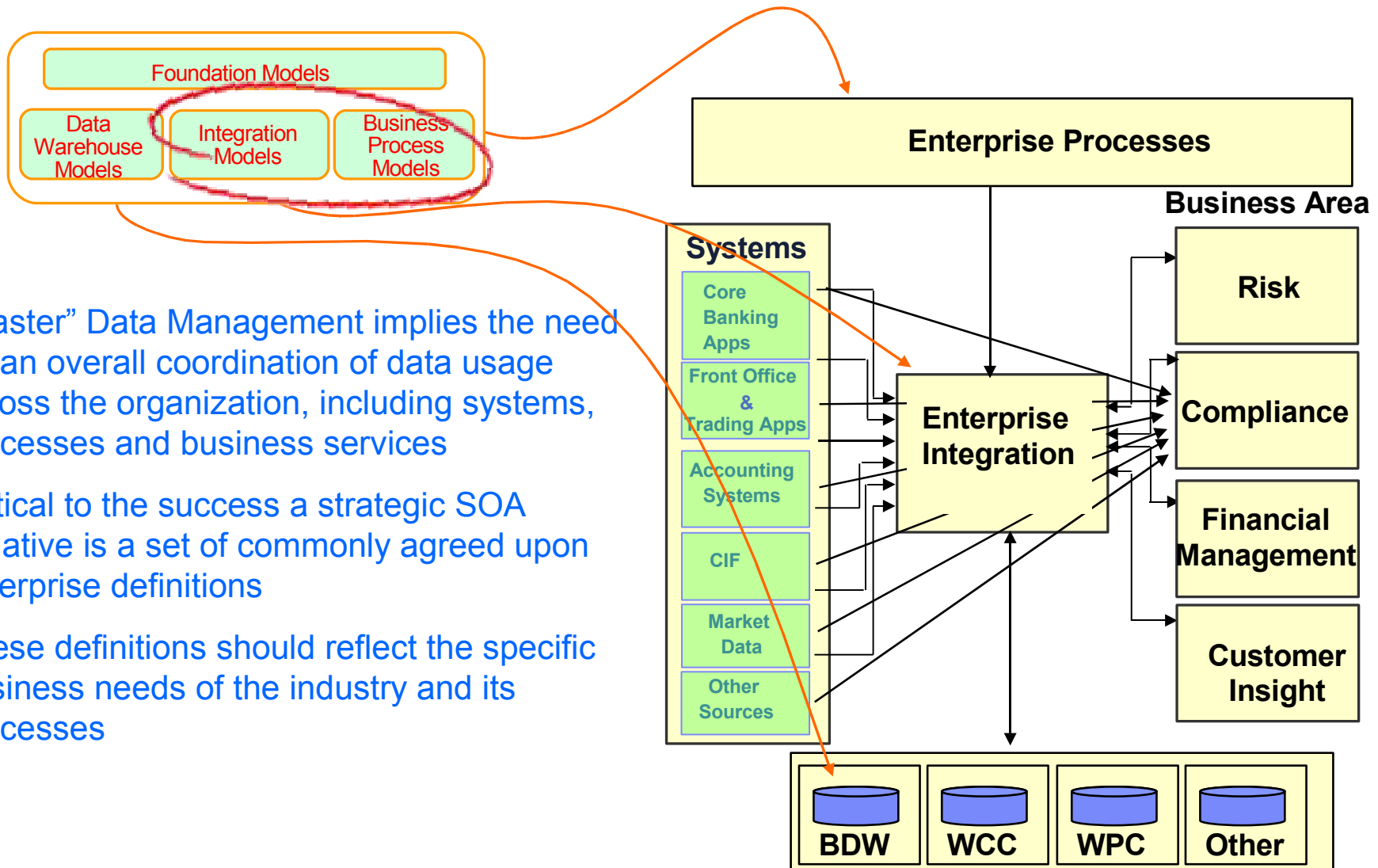
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# The Logical MDM System

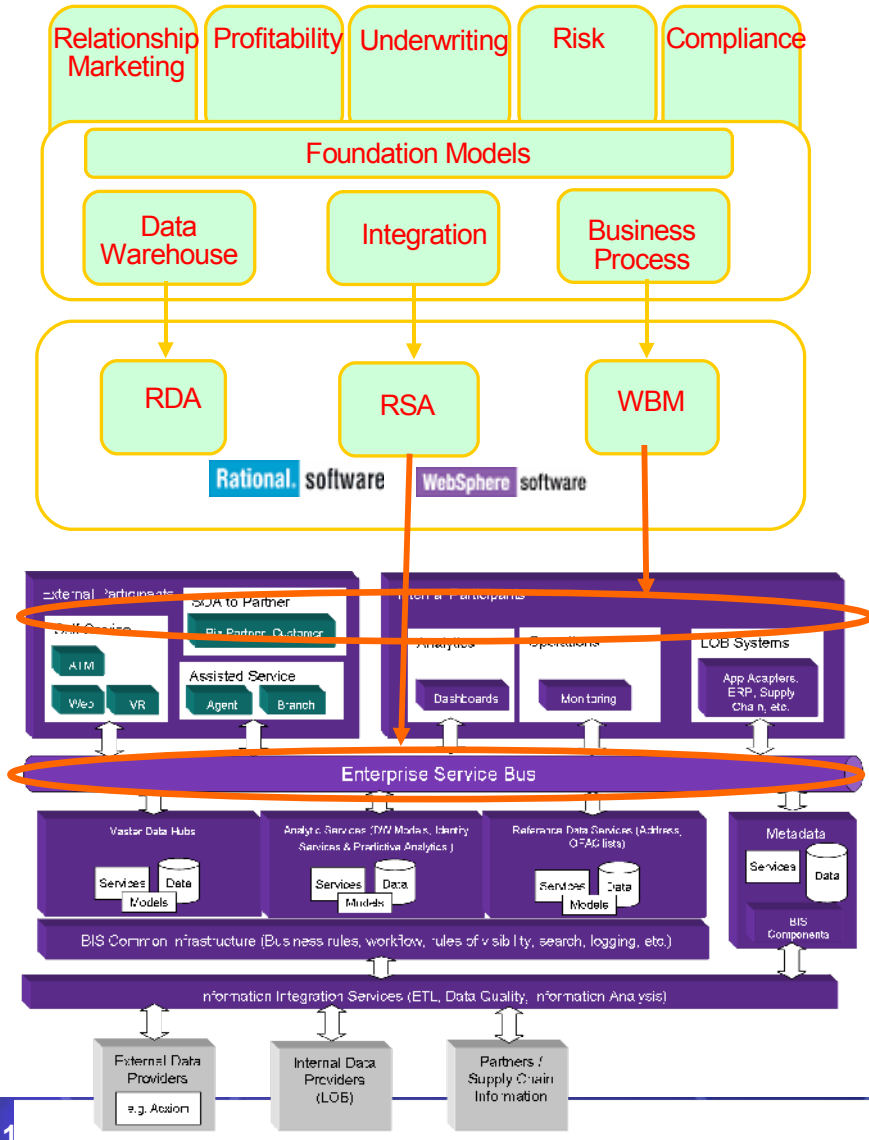


# An integrated cross-enterprise infrastructure needs a blueprint



- “Master” Data Management implies the need for an overall coordination of data usage across the organization, including systems, processes and business services
- Critical to the success a strategic SOA initiative is a set of commonly agreed upon enterprise definitions
- These definitions should reflect the specific business needs of the industry and its processes

# Industry Models and the MDM environment

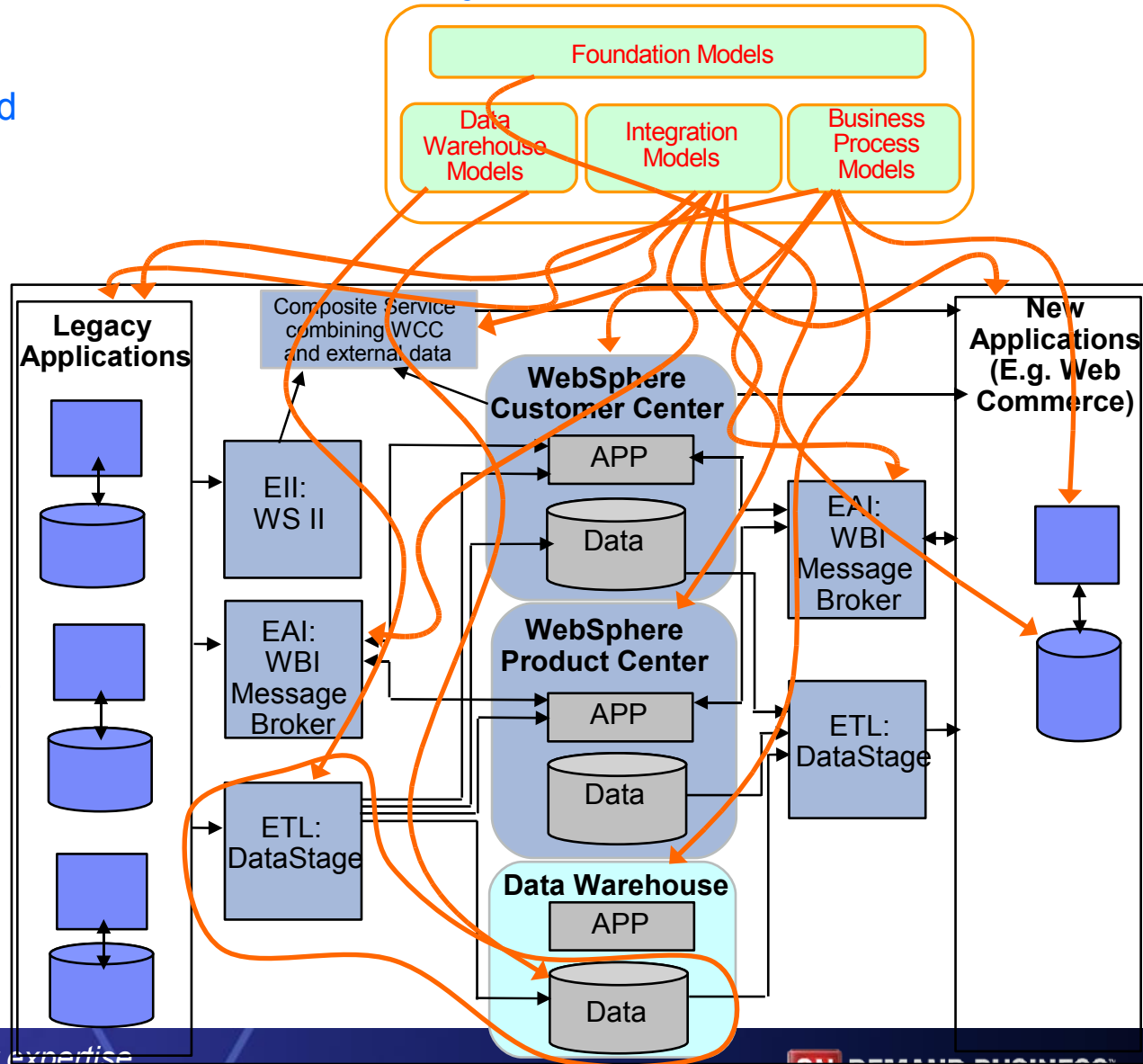


- Long Running Processes deployed via WBM
  - Enables deployment of long running processes such as Account Opening and Loan Origination
- Associated Services deployed via RSA
  - Enables the deployment of Business Services associated with Long Running Processes to be deployed in WSDL
  - Can also be used to kick start Java Component based Development

*Model-driven infrastructure SOA deployment combined with MDM Assets such as WCC and WPC*

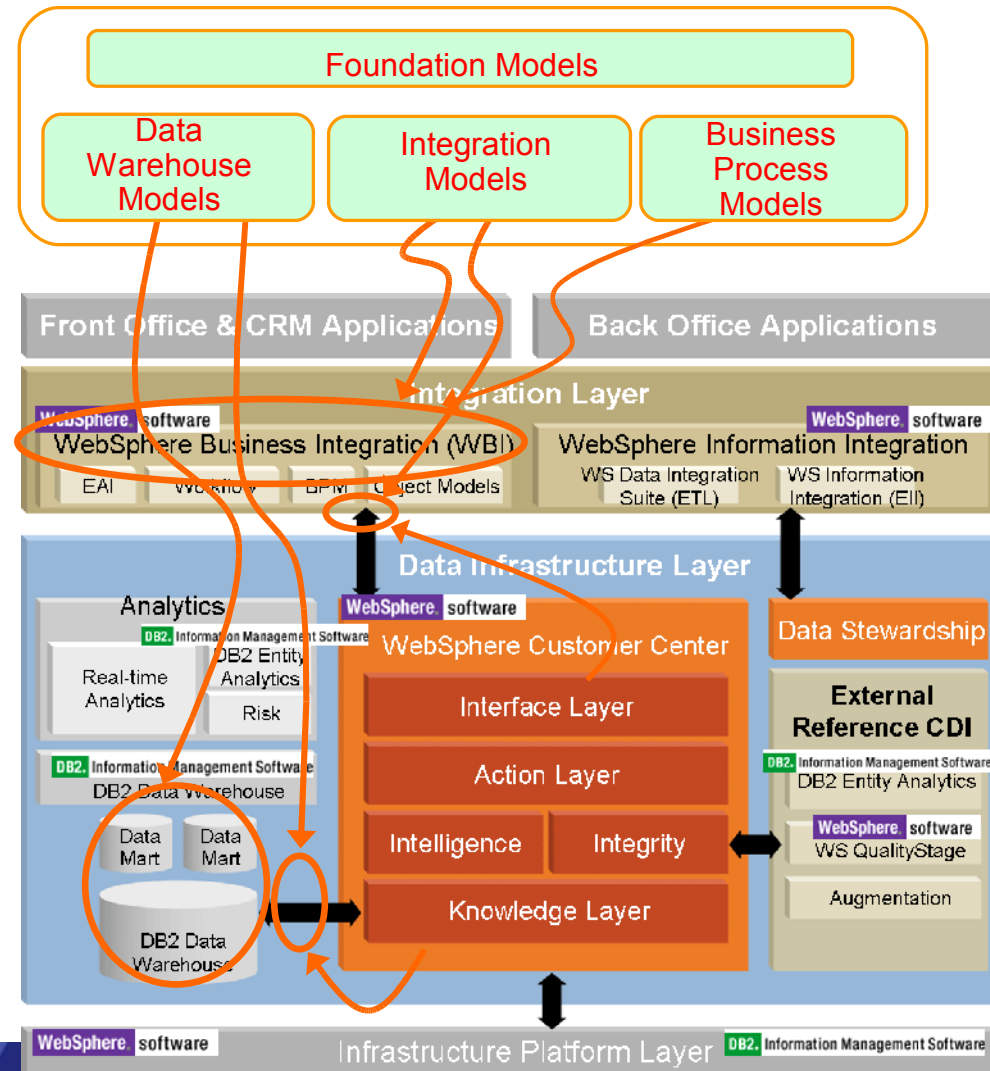
# How do Industry Models and MDM Systems fit into the Enterprise?

- Warehouses developed based on Data Models
- New App DBs created based on Data Models
- IIS can exploit linkages to Data Models
- Enterprise Business Processes defined by Business Process Models
- Enterprise Business Services for Legacy and New Apps defined by Integration Models
- EAI integration and Business Services defined by Integration Models



# IBM Industry Models and WebSphere Customer Center – IBM MDM linkage example

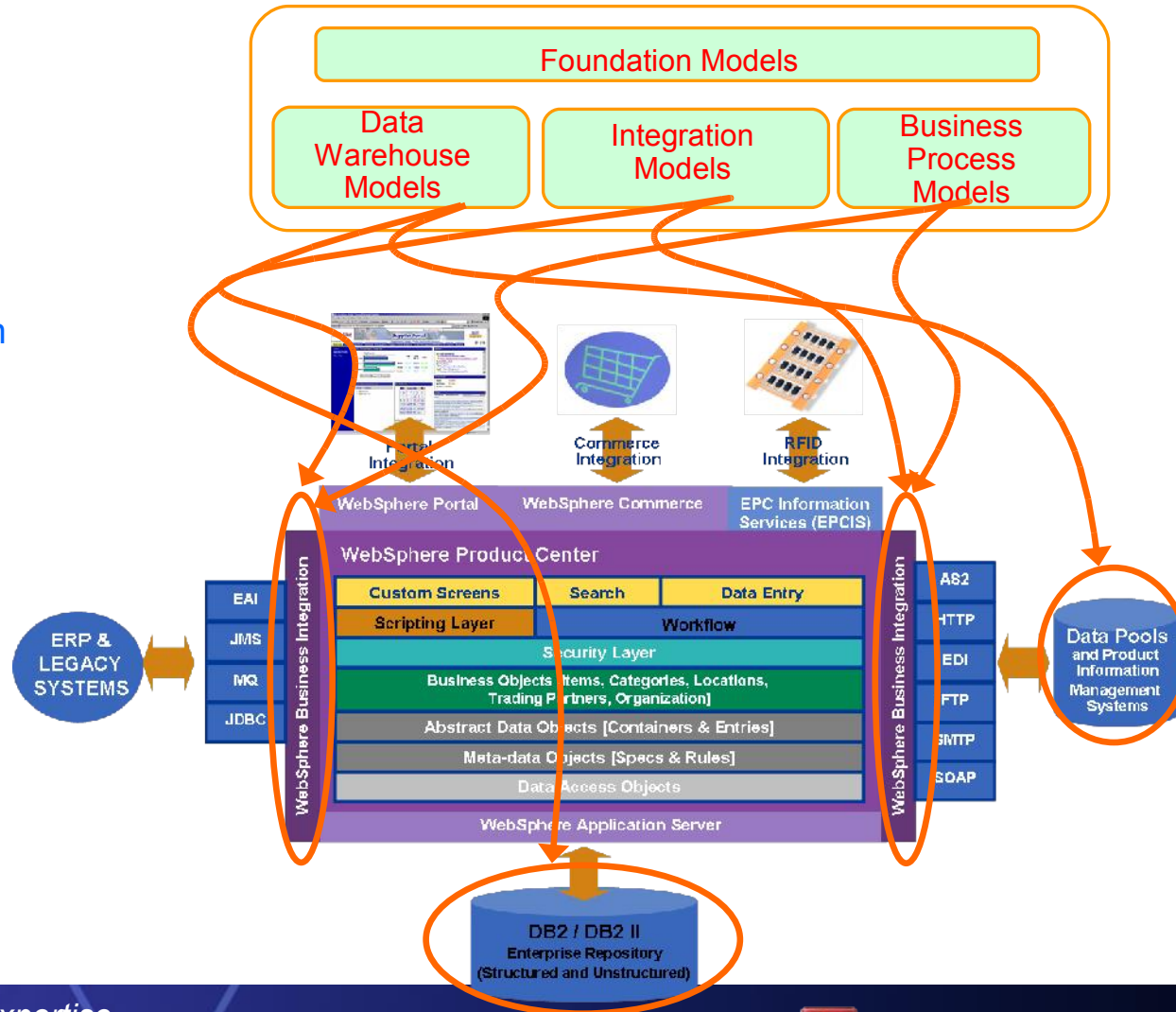
1. **Process and Integration Models** provide the wider **Services Orient Architecture** business context for **WCC**
2. Detailed mapping under development between **Industry Model** high level services and **WCC** services
3. **Industry Data Warehouse Models** provide the detailed design templates for accelerating **Data Warehouse** development
4. Detailed mapping underway between **Industry Data models** and **WCC Data Model** (completed for **Banking and Insurance**)





# IBM Industry Models and MDM Components – example of linkage with WPC

- Process and Integration Models provide the wider Services Oriented Architecture business context for WPC
- Detailed mapping planned between Industry Model high level services and WPC services
- Industry Data Warehouse Models provide the detailed design templates for accelerating Data Warehouse development
- Detailed mapping underway between Industry Data models and WPC Data Model (completed for Retail)



# IBM WebSphere Information Server

*Delivering information you can trust*

Enterprise Service Bus

## WebSphere Information Server

### Unified Service Deployment

#### Understand



Discover, model, and govern information quality and structure

#### Cleanse



Standardize, merge, and correct information

#### Transform & Move



Transform, enrich, place, and synchronize information

#### Federate



Virtualize access to disparate information

### Unified Metadata Management

Parallel Processing

Data



Common Connectivity



Content



# IBM WebSphere Information Server

*Delivering information you can trust*

Enterprise Service Bus

## WebSphere Information Server

### WebSphere Information Services Framework

Understand



WebSphere Information Analyzer  
WebSphere Business Glossary

Cleanse



WebSphere QualityStage

Transform & Move



WebSphere DataStage  
WebSphere Replication Server  
WebSphere Data Event Publisher

Federate



WebSphere Federation Server

### WebSphere Metadata Server

Parallel Processing

Data

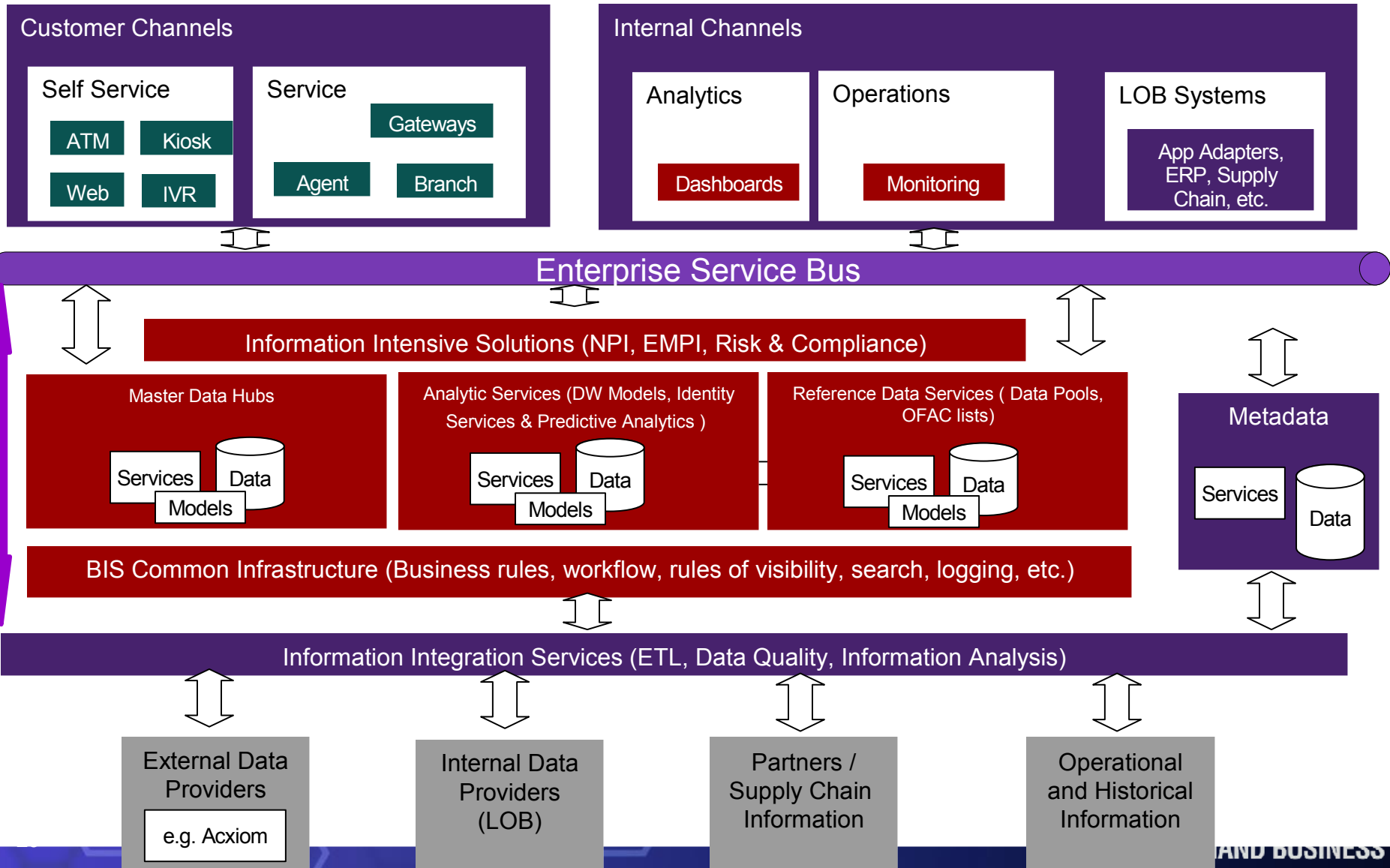


Common Connectivity



Content

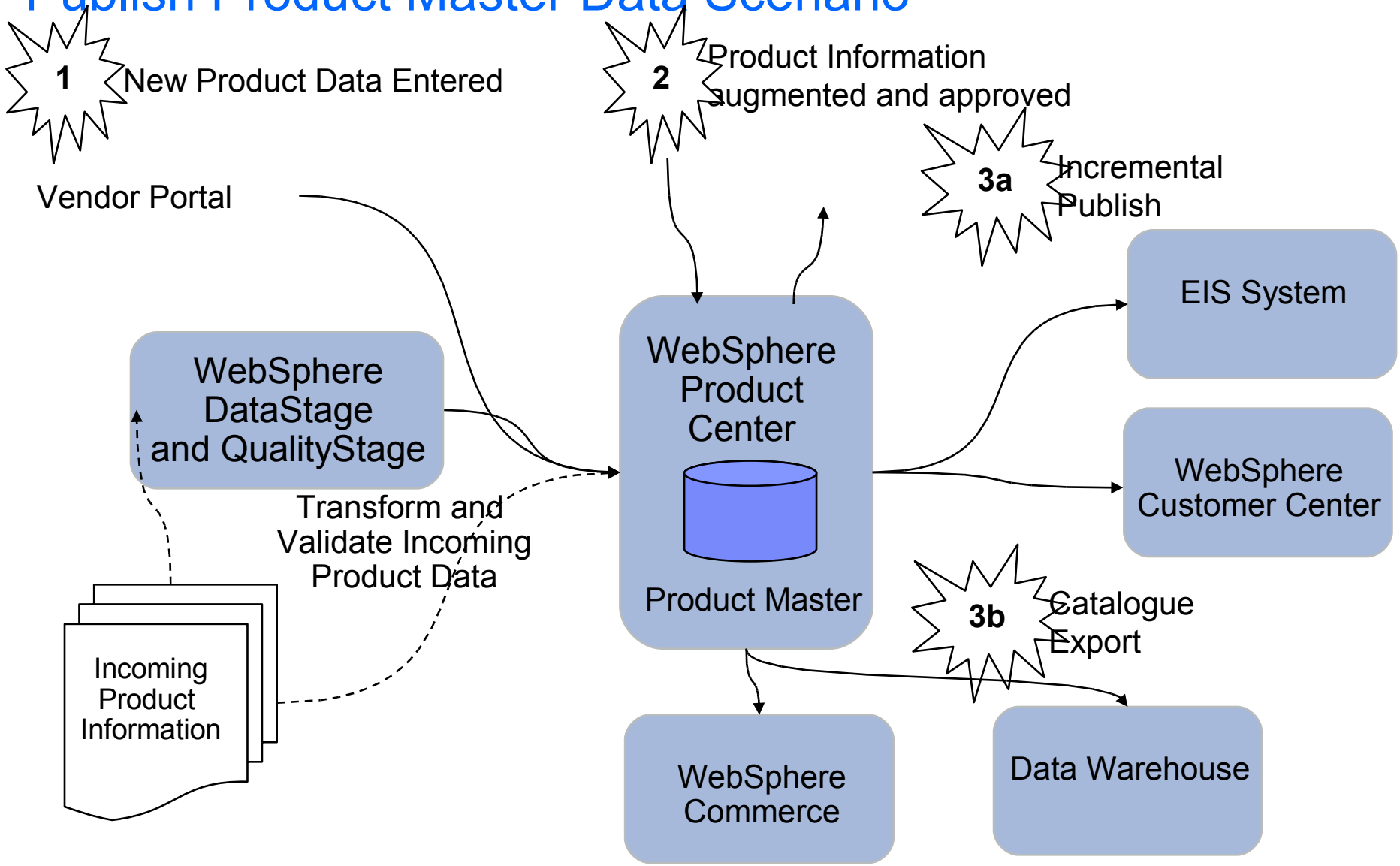
# Evolving IBM MDM Logical Architecture



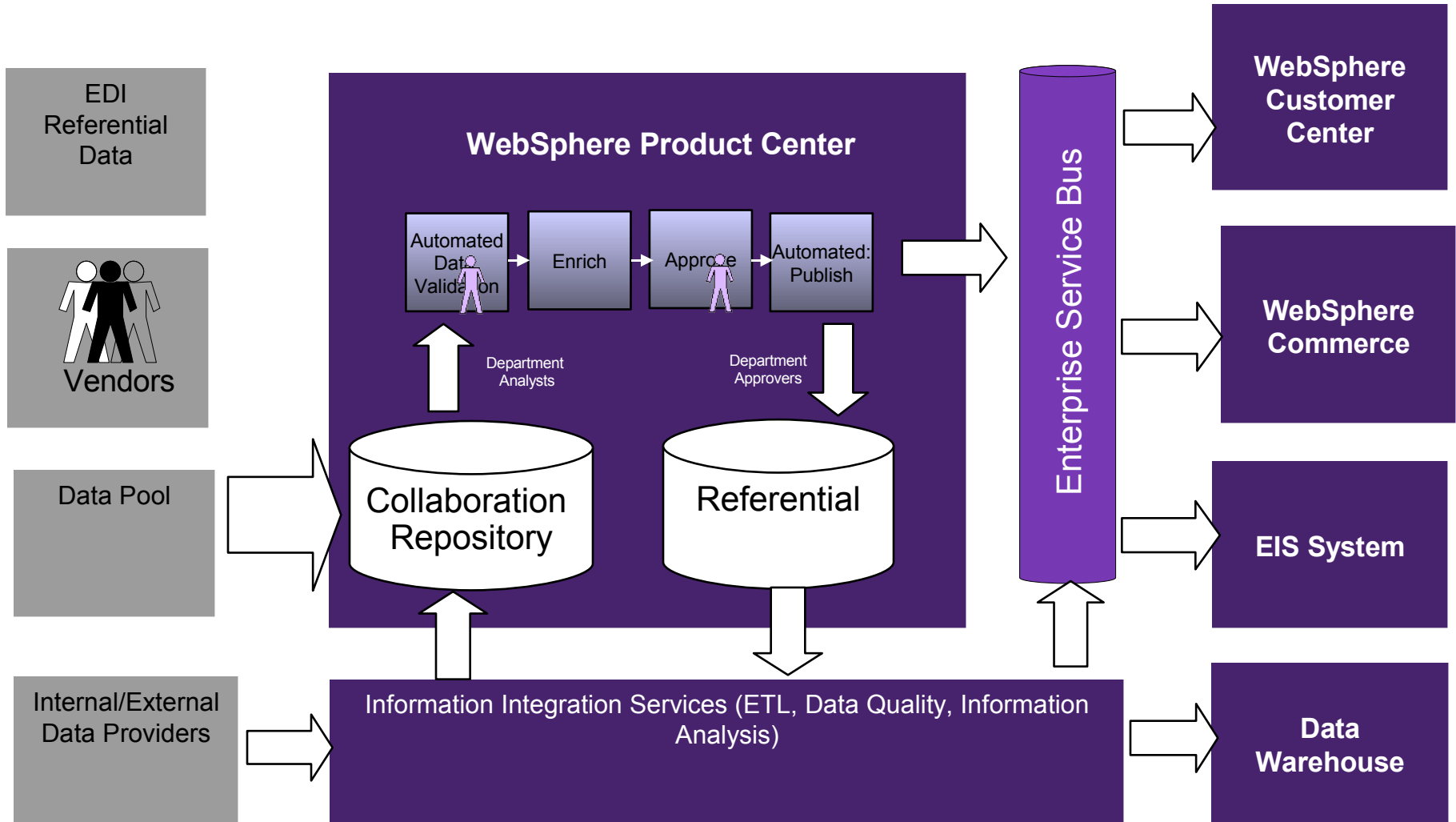
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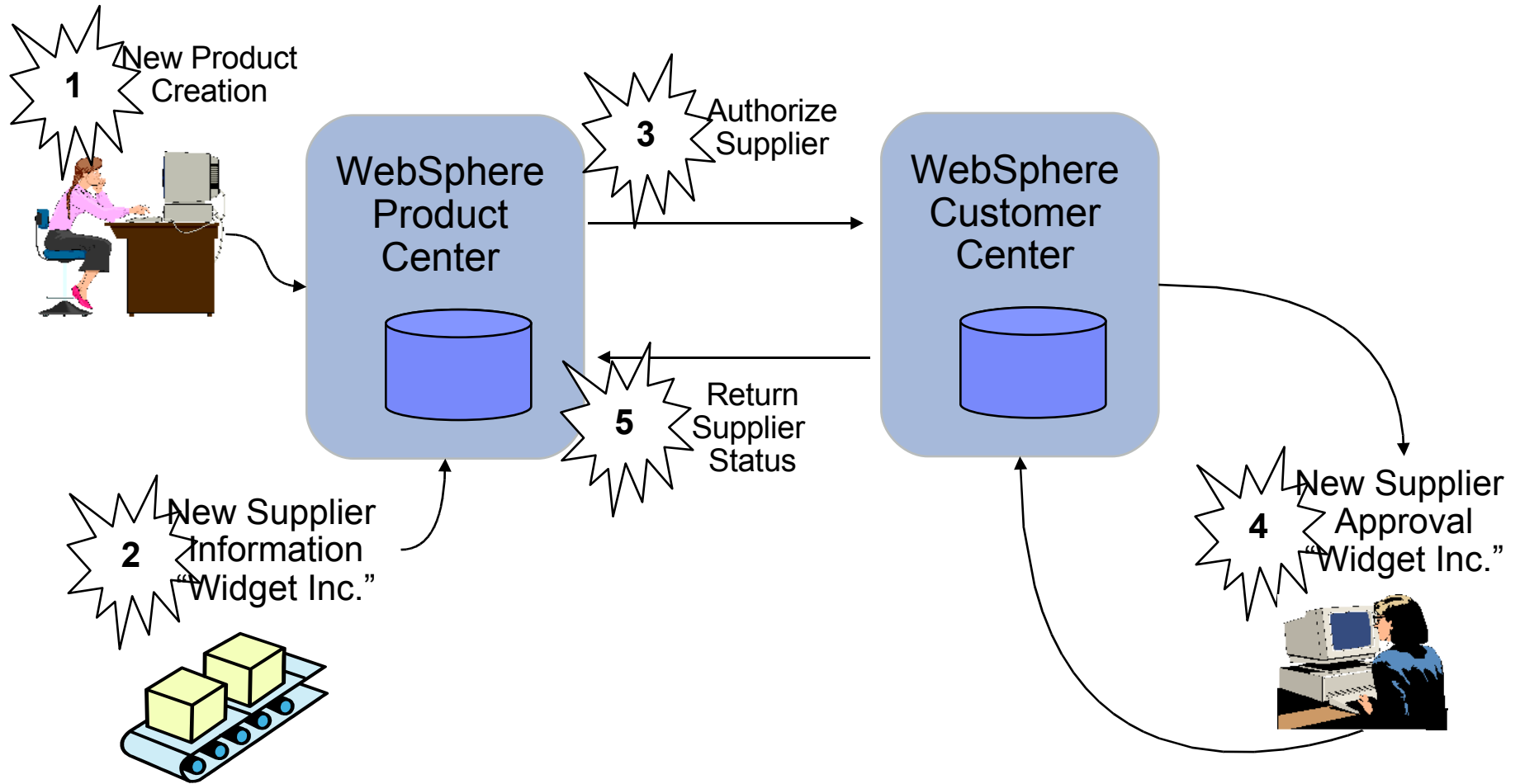
# Publish Product Master Data Scenario



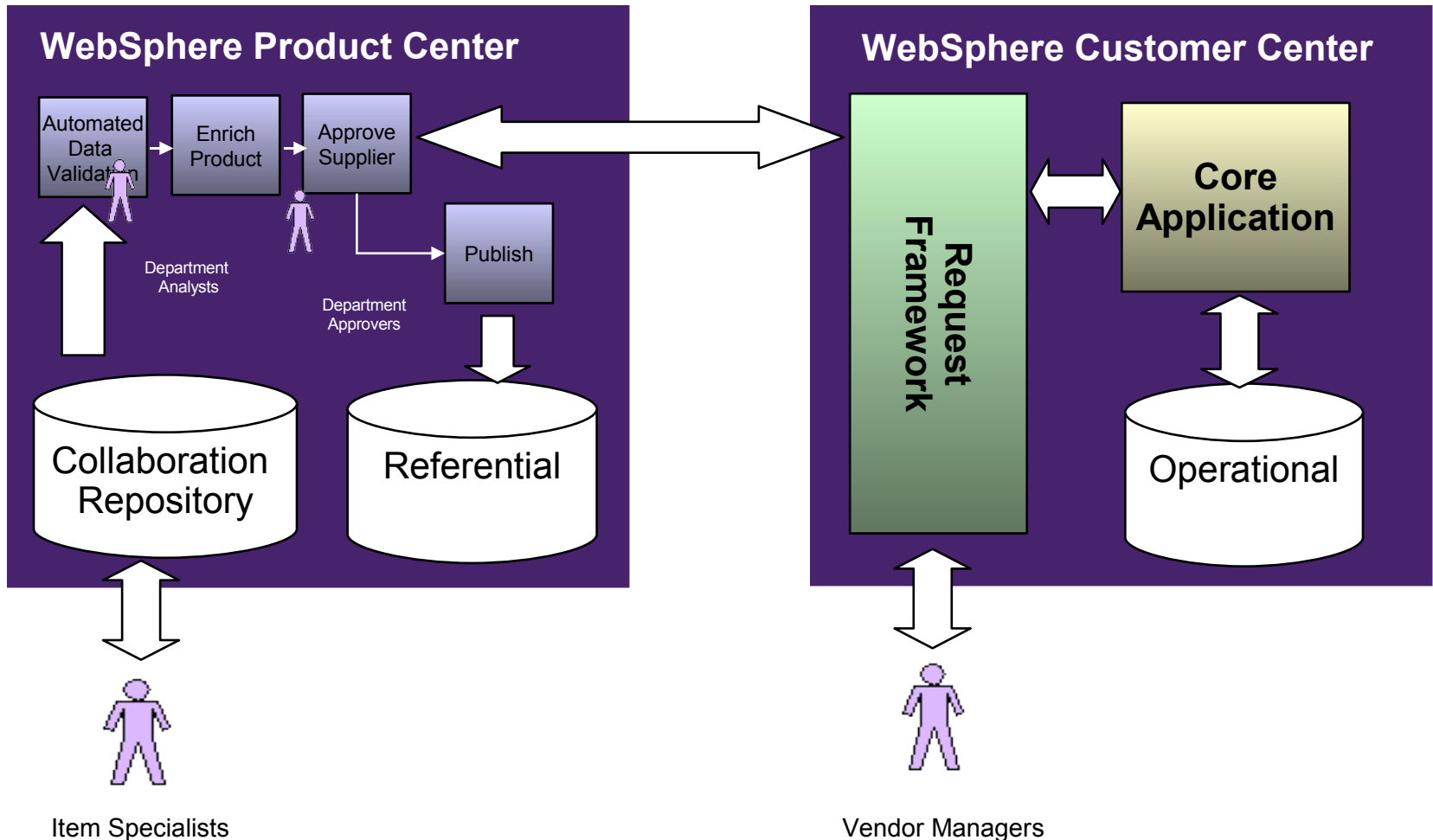
# Publish Product Master Data Logical Architecture



# Update Supplier Master Data



# Update Supplier Information Logical Architecture



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# Summary

- Master Data Management is key to:
  - Enhancing the business value of critical information
  - Achieving business agility by providing authoritative, managed information in a service-oriented framework
- We have the industry leading products today for
  - Product Information Management
  - Customer Data Integration
  - Information Integration Services
  - Industry Models
  - Service-Oriented Architectures
- We are extending our Master Data Management Portfolio even further to address evolving markets and to increase our business value
  - Extending our existing PIM and CDI capabilities
  - Integrating these capabilities together
  - Extending to additional Master Data Domains
  - Providing faster time to value through Solution Templates
  - Extending our Data Governance capabilities to meet the emerging business needs
- MDM is a cornerstone to achieving business flexibility through SOA

THANK  
YOU