MetaMatrix Enterprise Data Services Platform

MetaMatrix Overview

Agenda

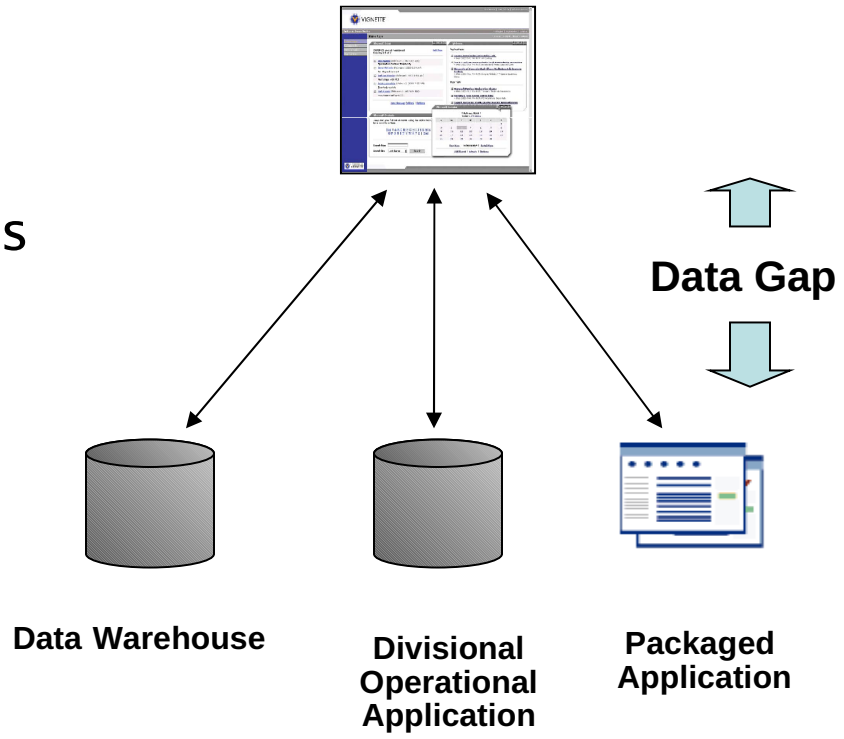
- Background
- What it does
- Where it fits
- How it works
- Demo
- Q/A

Product Review: Problem – Data Challenges

Difficult to implement new applications
Developer must code data access & transformation

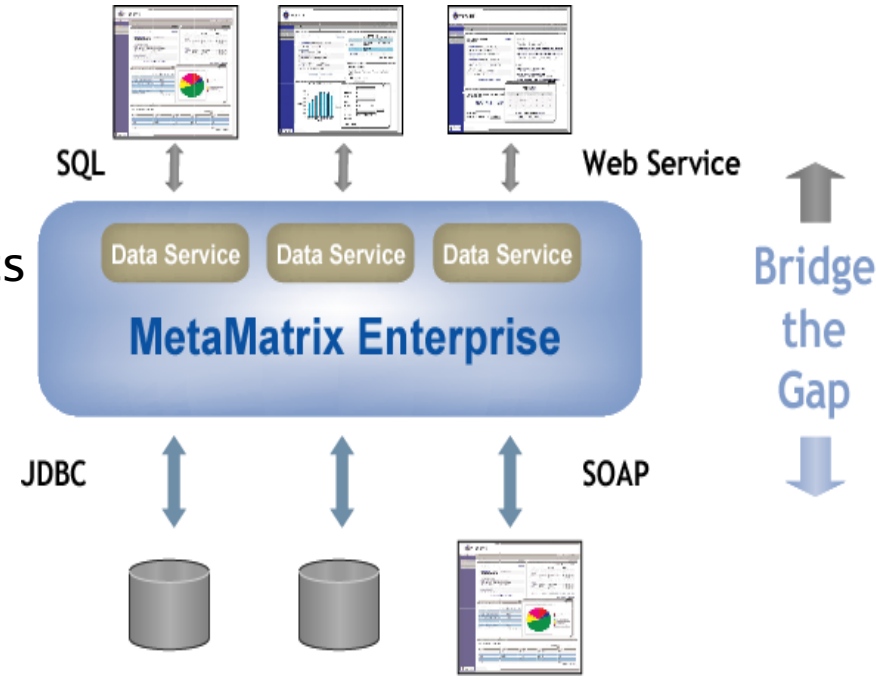
Challenges

- Different physical structure
- Different semantics – vocabularies
- Different interfaces
- May need to federate/integrate
- "Locked in" to database
- Ensure performance
- Security

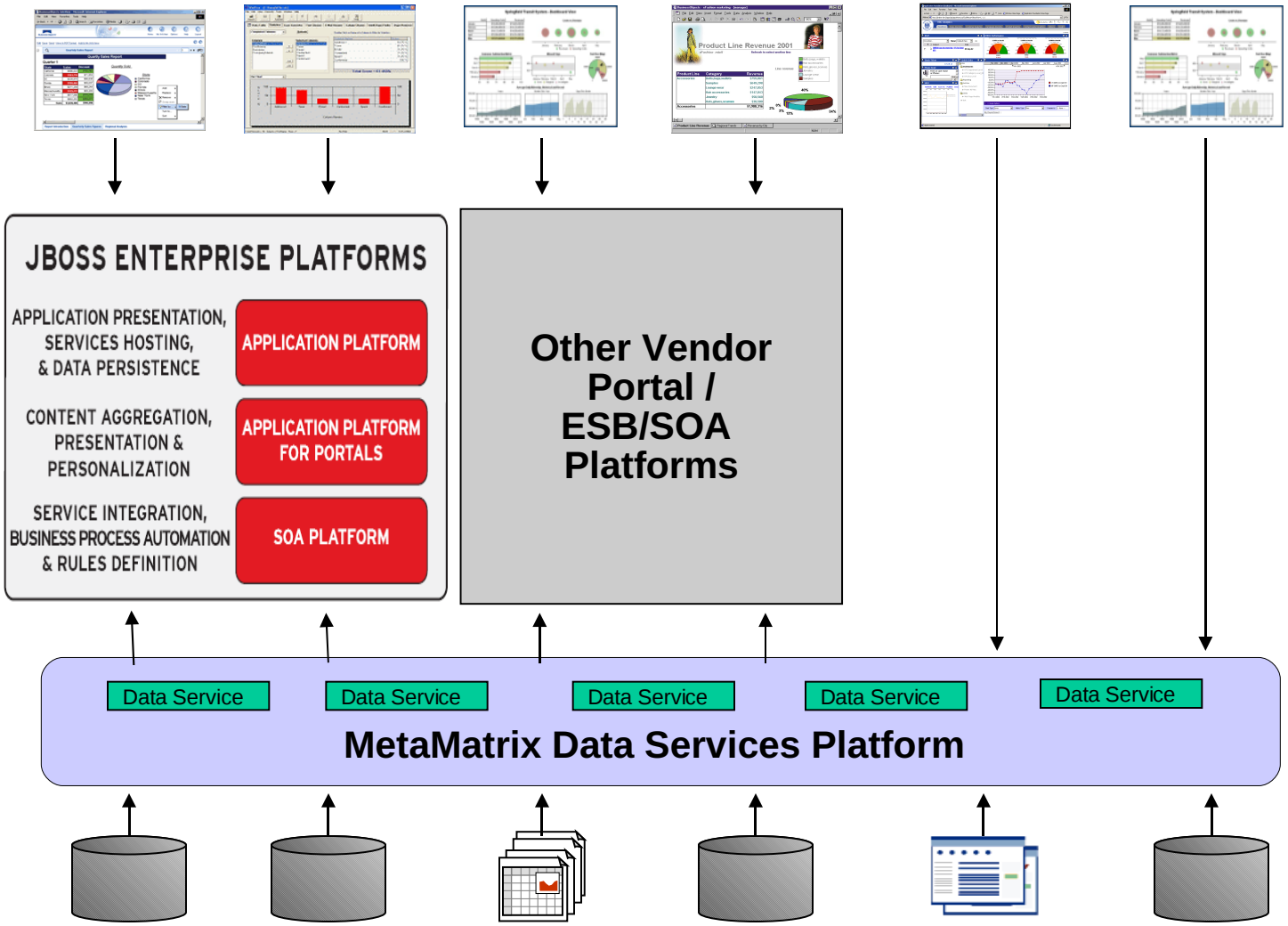


MetaMatrix Enterprise Data Services Platform

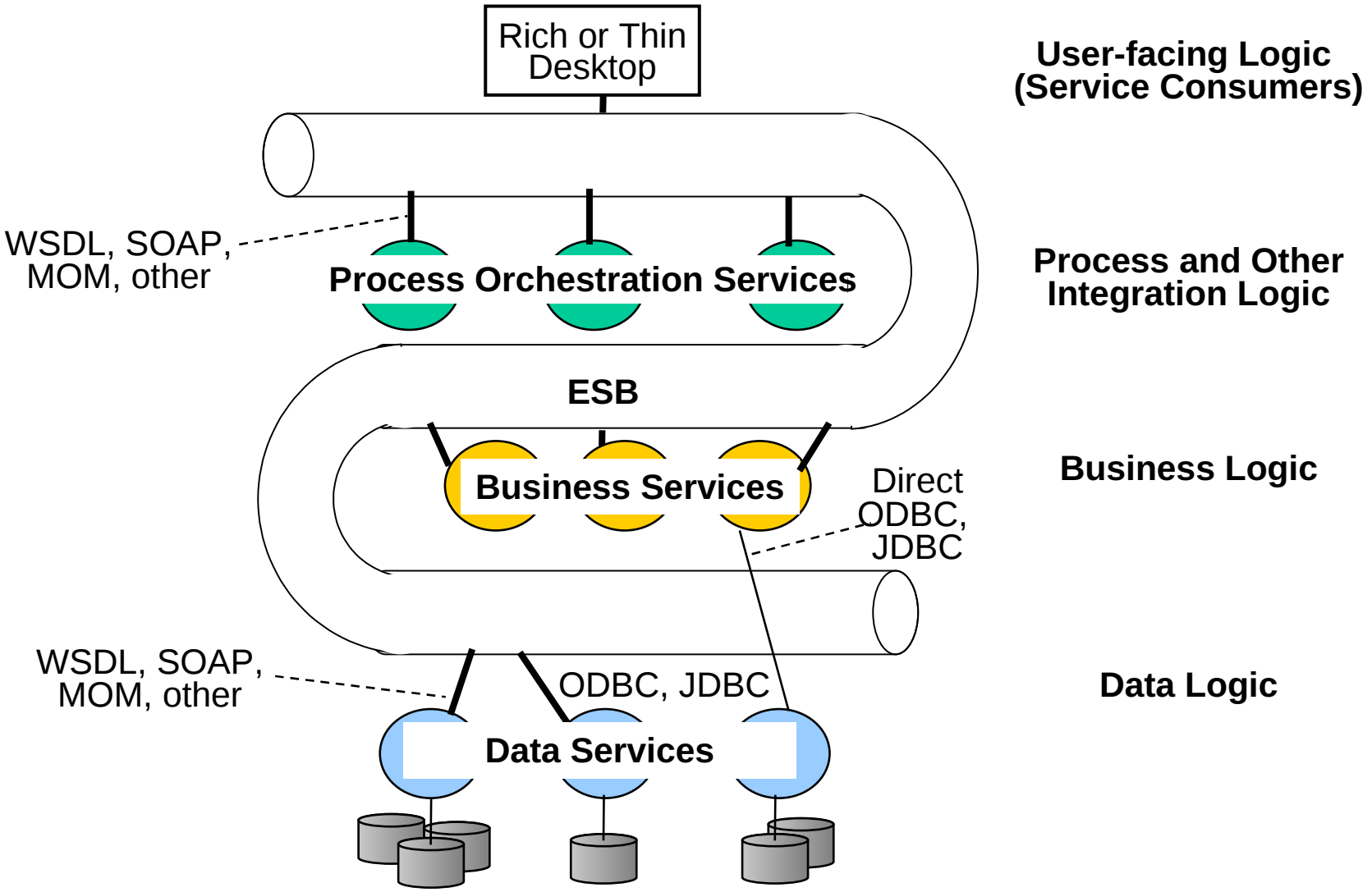
- **Standards-based read/write access to distributed, heterogeneous enterprise data stores. Service-enable data to meet SOA demands.**
- Speeds application development by simplifying access to distributed data
- Transforms data structure and semantics
  - Vocabulary difference
  - Schema compliance
- Consolidates data into a "single view" without the need to move data
- Centralized access control, auditing through robust security infrastructure
- Enterprise-proven – flexible, scalable, high-performance



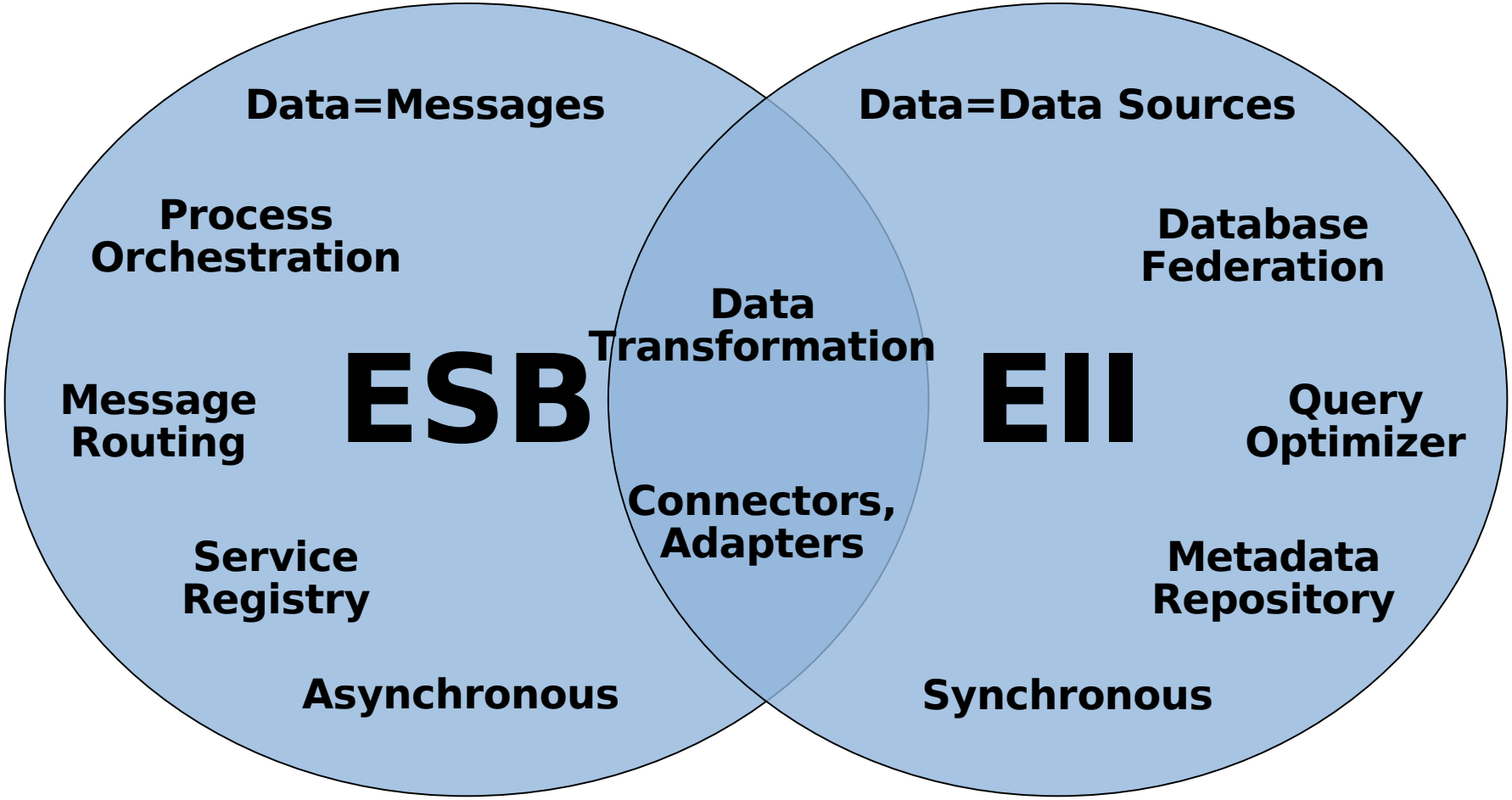
MetaMatrix: Where it Fits



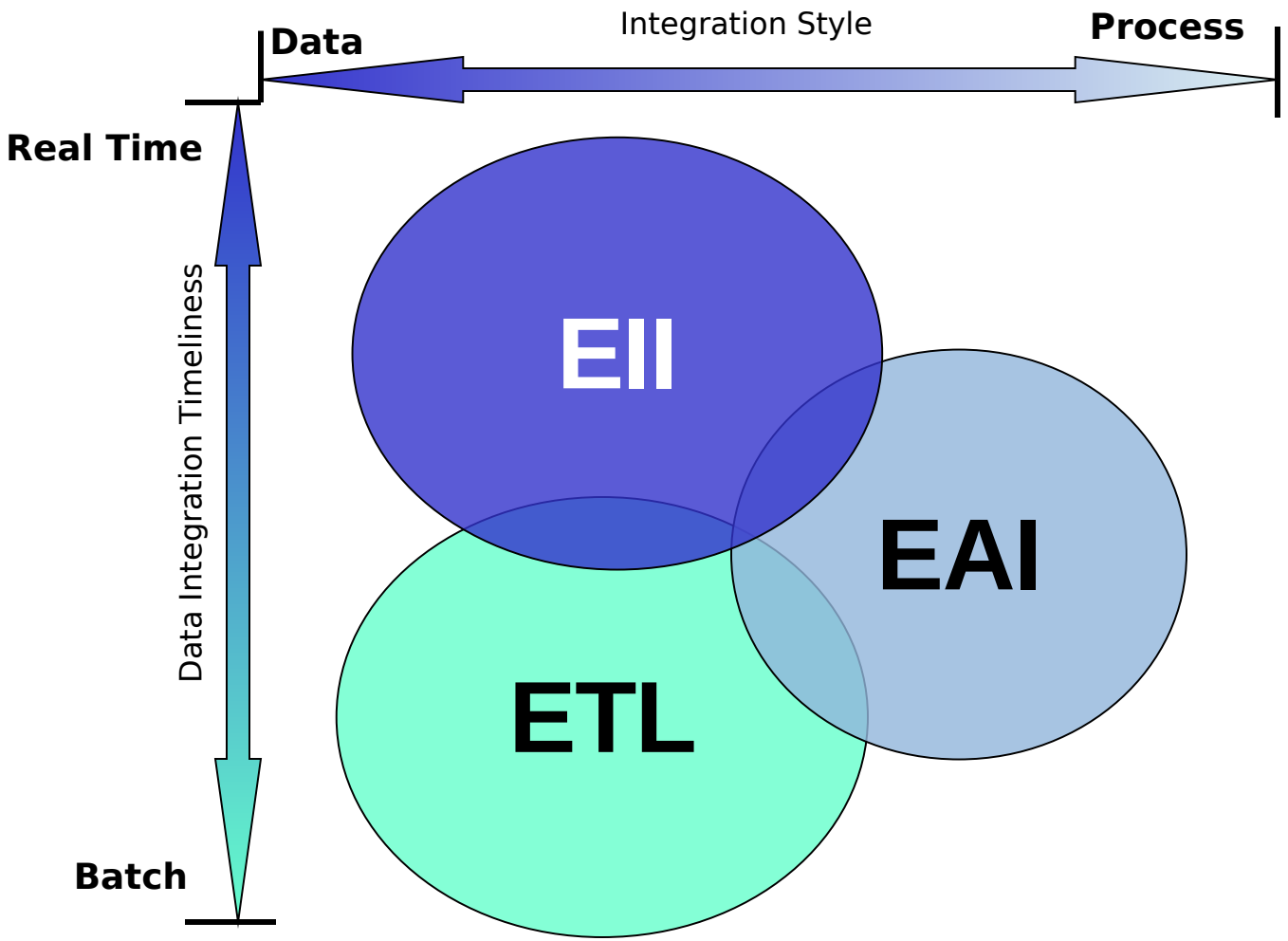
Data Services and ESB



ESB-EII (Data Services) Comparison



Integration Technologies



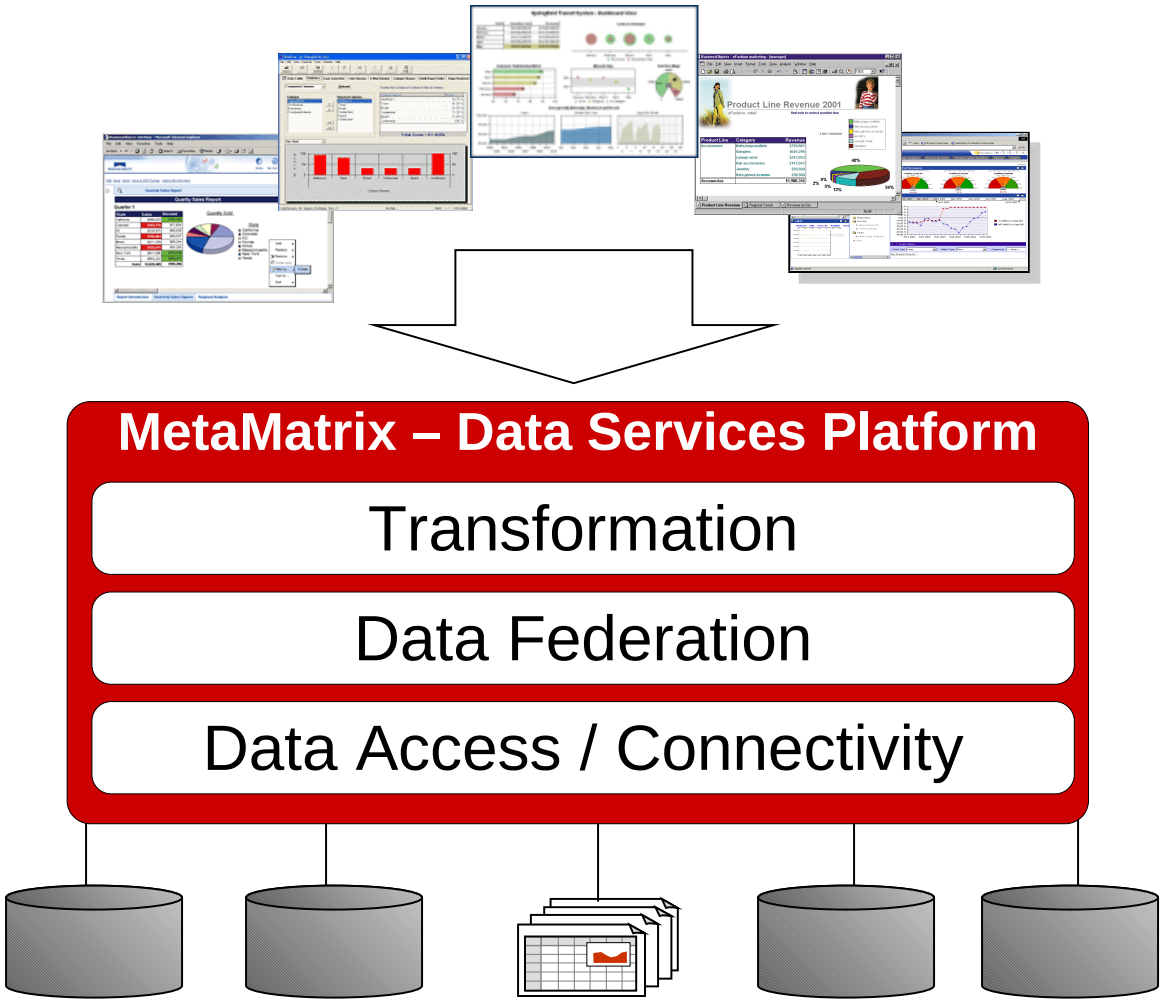
MetaMatrix Use Cases

- **Reports, Business Intelligence, Portal**
  - Consolidated financial reports/dashboards
  - Consolidated sales reports
- **Master Data Management**
  - Single View of Customer - CRM
  - Single View of Supplier – supply chain
  - Single View of Employee – HR consolidation
- **Regulatory Compliance**
  - Provide common security and control for data
  - VISA PCI, Basel II, Sarbanes Oxley, Patriot Act
- **SOA**
  - Make data available to SOA environment

MetaMatrix Value Proposition

- **On-demand access to distributed information**
  - Real time data integration of diverse data sources
  - Avoid unnecessary data replication; data owners retain control
- **Faster time to market reduces application lifecycle costs**
  - Metadata-driven means integrated information in days, weeks
  - Model-driven approach eases initial development and future maintenance
- **Improved agility for enterprise data assets**
  - Abstraction of physical data sources enables database migrations
  - Better management visibility of data assets across the enterprise
- **Enabling SOA in an evolving world**
  - Consume and produce Web services
  - And still provide full support for ODBC, JDBC, and legacy

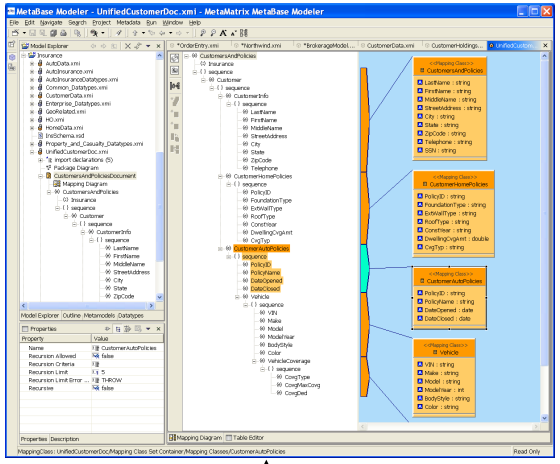
MetaMatrix: How it Works

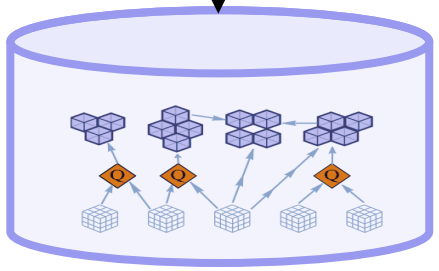


- Information virtualization
- Federation
- Abstraction -- shield apps from DB/source
- Transformation
- Semantic mediation (vocabulary, meaning)
- Service enablement
- Unified access -- SQL or Web Services
- Metadata/model-driven

MetaMatrix: How it Works

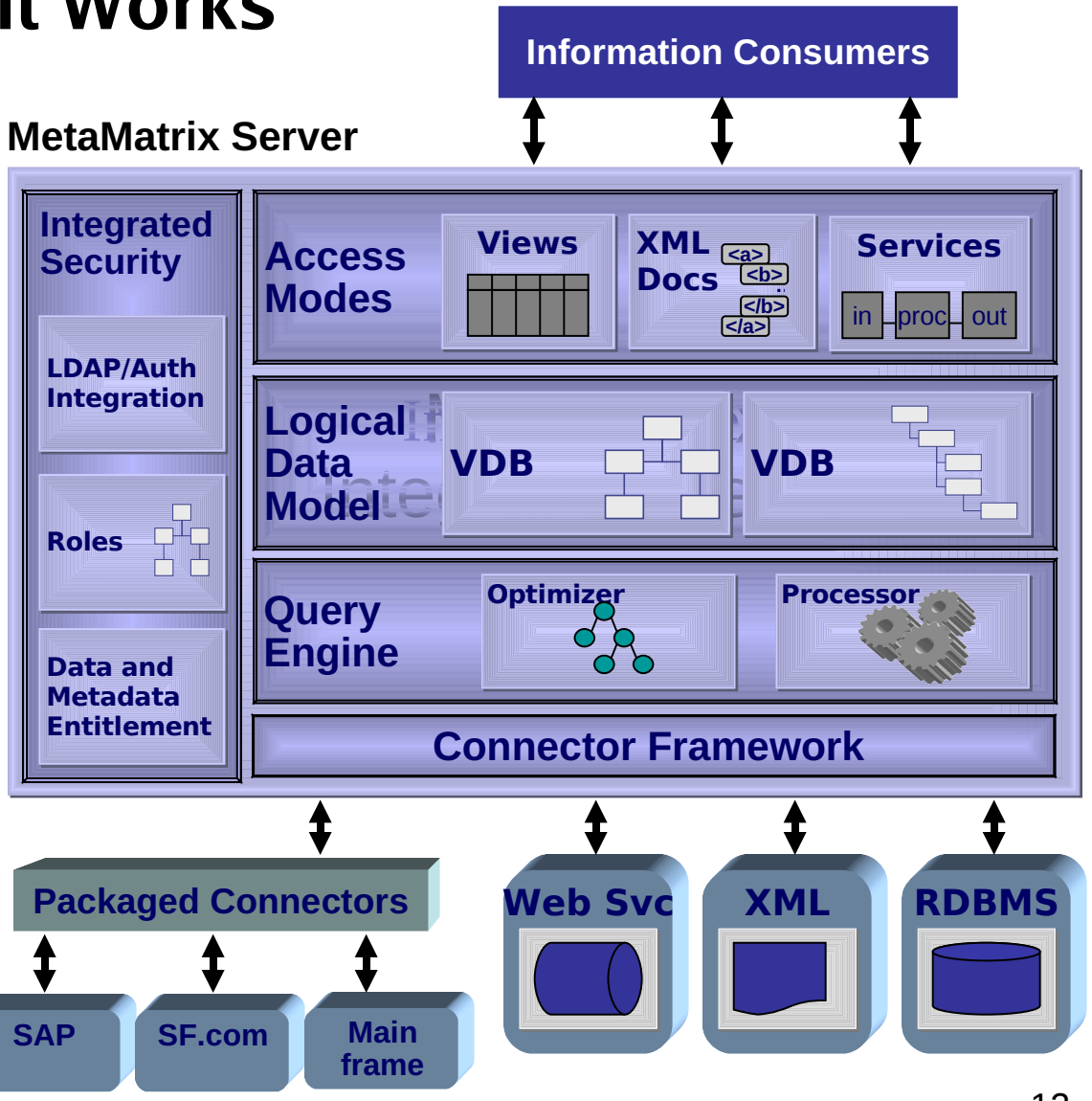
MetaMatrix Designer





Metadata Repository

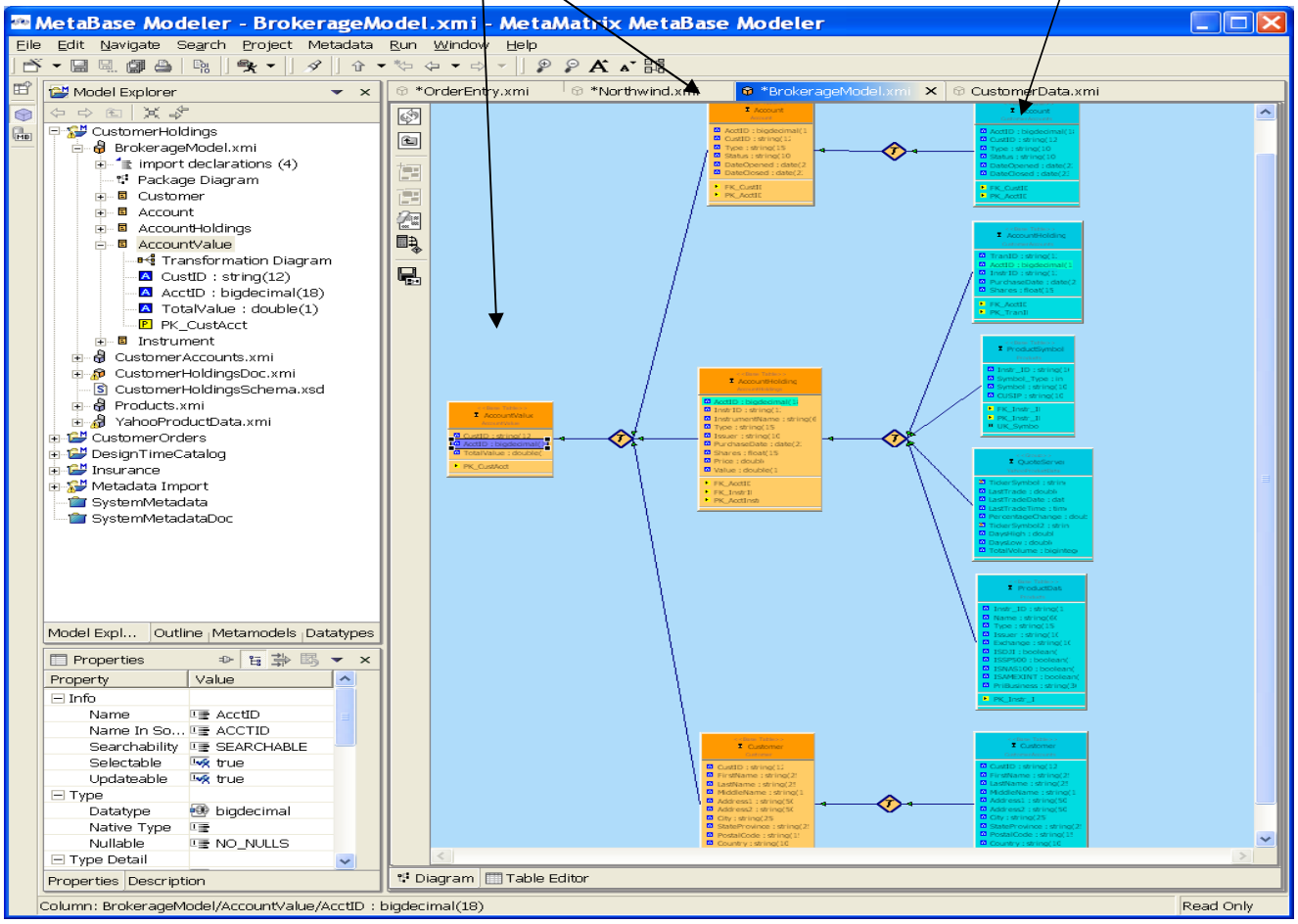
MetaMatrix Server



MetaMatrix Designer

Logical Models

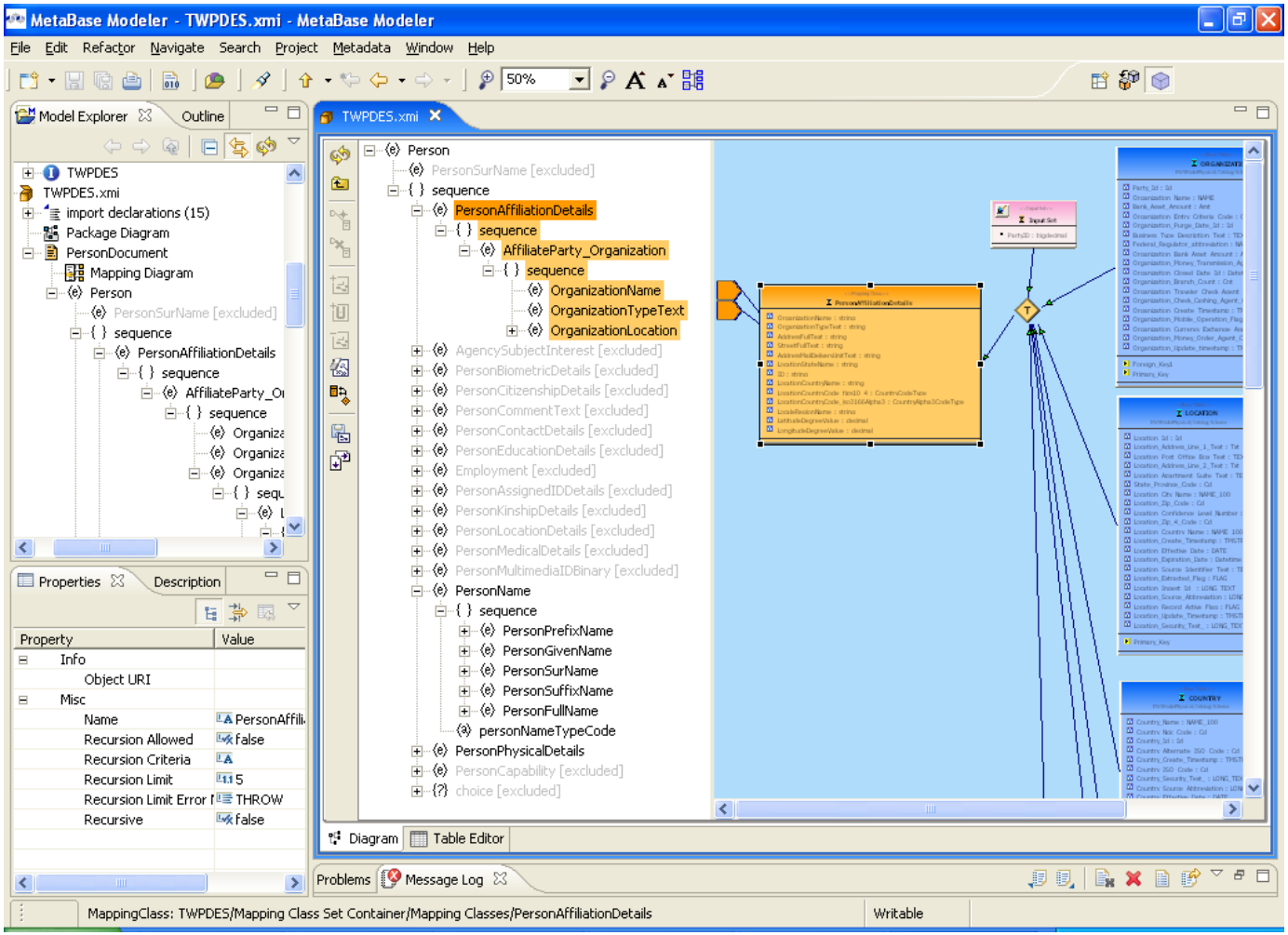
Physical Models representing actual data sources



- **Shows structural transformations**
- **Defined by models not code**
- **Transformations:**
  - **Select**
  - **Join/Union**
  - **Filter**
  - **Text/String**
  - **Criteria**
  - **Functions**
  - **Unions**
  - **User Defined**

Map Data Sources to XML

MetaMatrix Designer – for XML-centric Data Services



- Model XML Docs, Schemas
- Build XML Doc. models from XML Schemas
- Map XML Doc. models to other data models
- Enable data access via XML

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Query Performance & Optimization

- Minimal overhead for simple requests
- Control
  - enforce mandatory criteria with certain requests
  - enforce time and size limitations on requests
- Rule-based optimization
  - use criteria to avoid unnecessary fields and records
  - removal of unnecessary joins across data sources
  - merge all transformation logic for a single source
- Cost-based optimization
  - join algorithms (nested loop, merge, dependent, hash)
  - cost profile of each data source
- Data caching
- Leverage data source strengths
- Manage data flow (batching, buffering)

JBoss Enterprise Middleware

JBoss Developer Studio

- Eclipse IDE
- Integrated Tooling
- Runtime Platform

Fully Integrated Developer Environment

MetaMatrix Designer

Portal Platform

- JBoss Portal
- Application Platform

Content Aggregation, Presentation and Personalization

Application Platform

- JBoss Seam
- JBoss Hibernate
- JBoss Application Server
  Embedded Tomact, Clustering, Cache, Messaging, Transactions

Application Presentation, Services Hosting, and Data Persistence

SOA Platform

- JBoss jBPM
- JBoss Rules
- JBoss ESB
  Transformation, Routing, Registry, Repository
- Application Platform

Service Integration & Orchestration, Business Process Automation, Rules Definition, & Event Management

MetaMatrix Data Services Platform

- MetaMatrix Enterprise Server

Data Integration, Data Service Federation, Data Abstraction & Management

JBoss Operations Network

Administration, Management, and Monitoring

Enterprise Platforms	Integrated distribution with a single patch & update cycle	Enterprise Frameworks	Modular productivity tools that also work on other vendors application servers	Component	major component or set of integrated components

MetaMatrix Enterprise Data Services Platform

Demo

MetaMatrix Enterprise Data Services Platform

Thank you

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