



IBM Software Group

2004 WDI / WBIC Customer Conference

Global Business Transformation

WebSphere – Pieces of the Puzzle

Glen Bentley

B2B Product Manager, WebSphere Business Integration

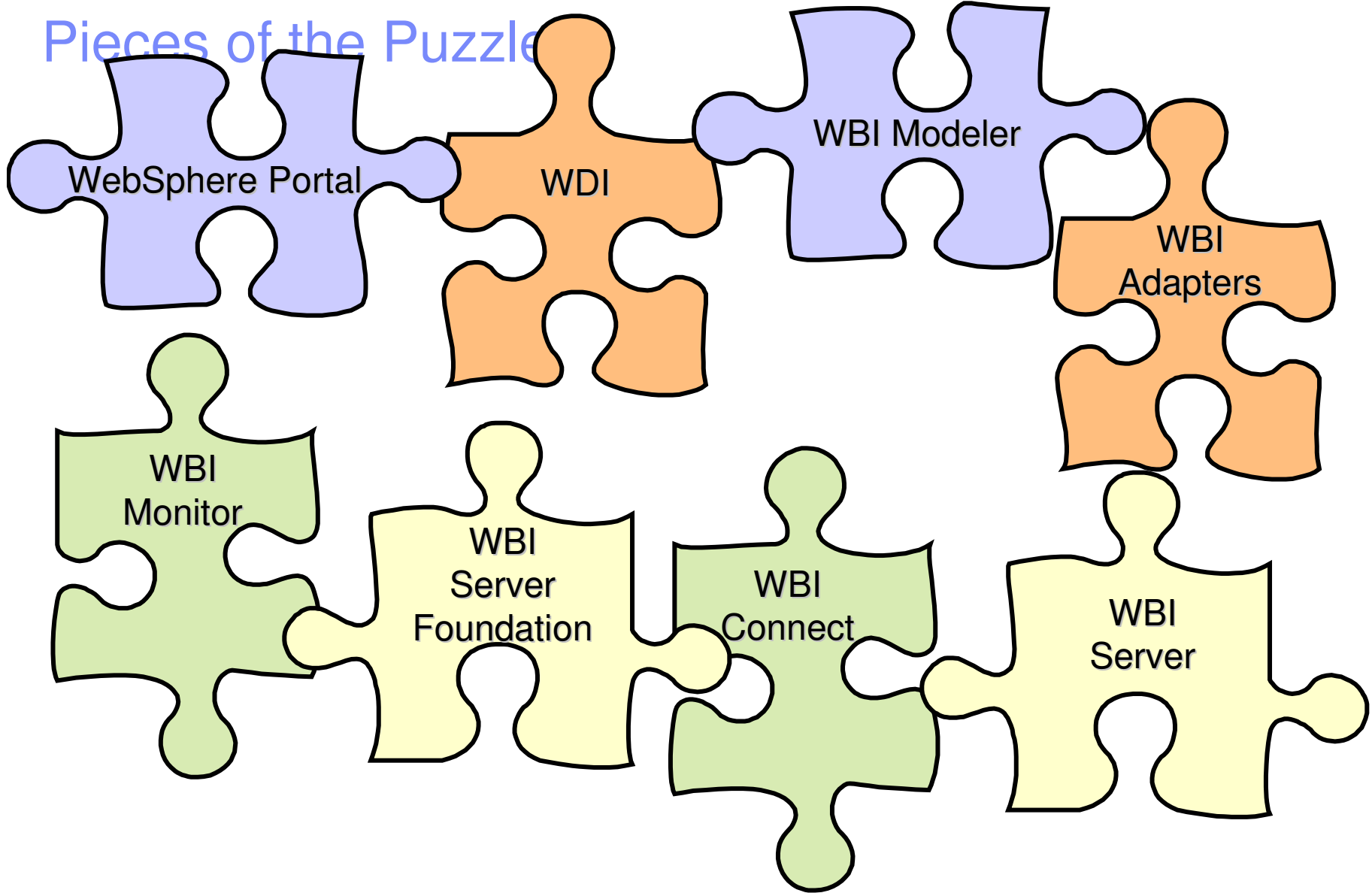
WebSphere. software



 e-business software

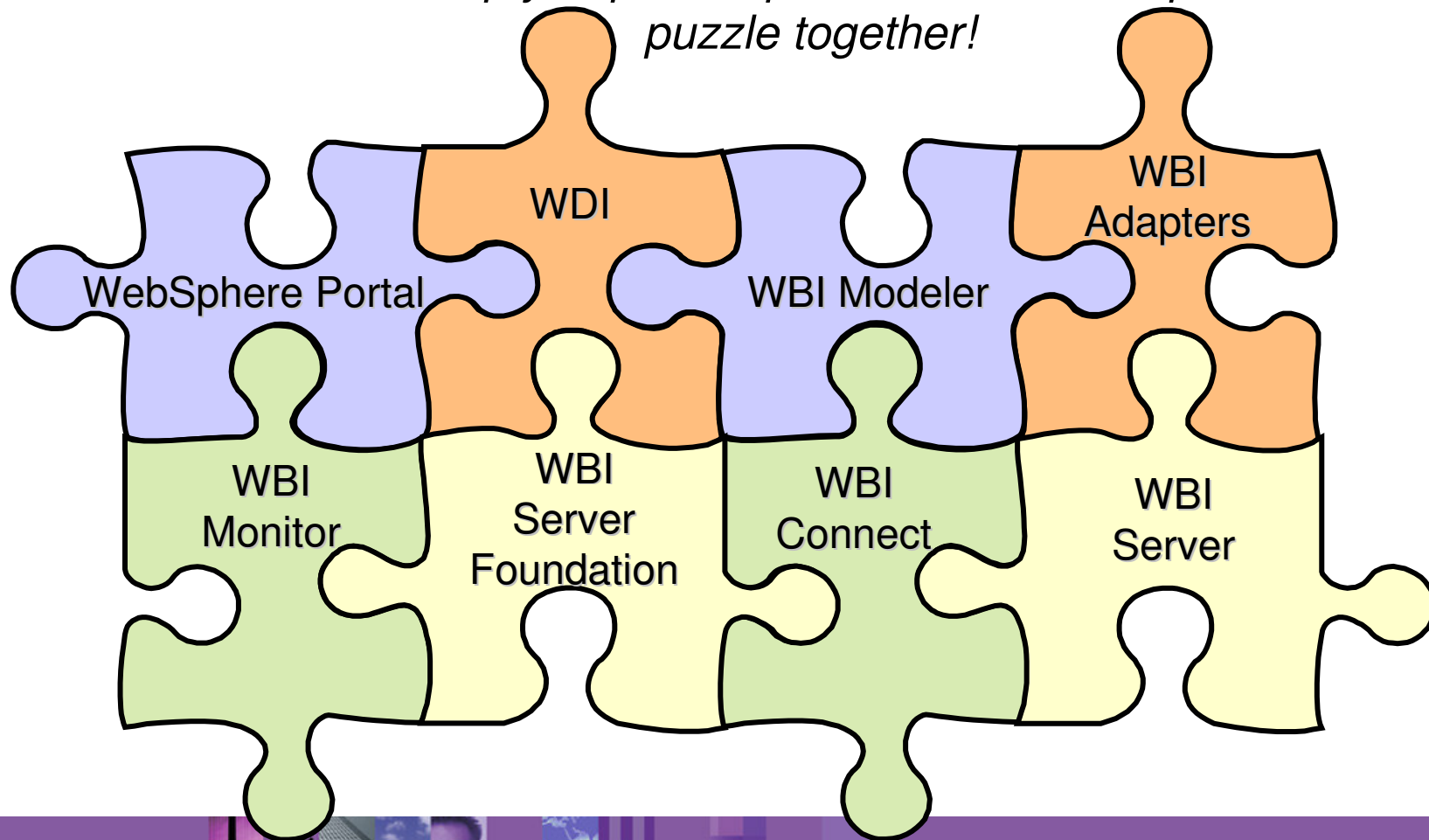
© 2004 IBM Corporation

Pieces of the Puzzle

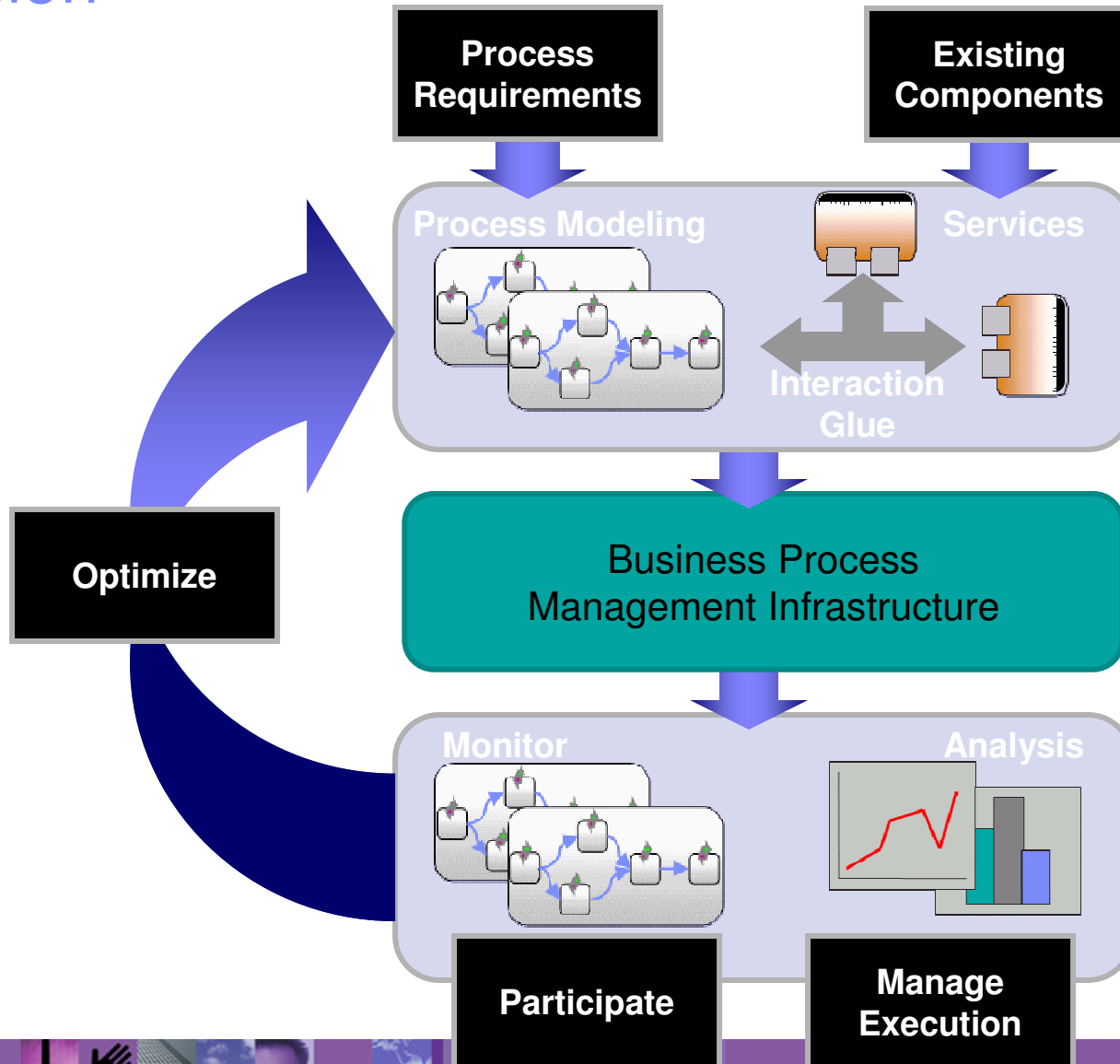


Pieces of the Puzzle

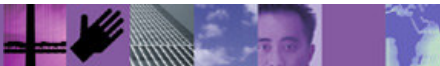
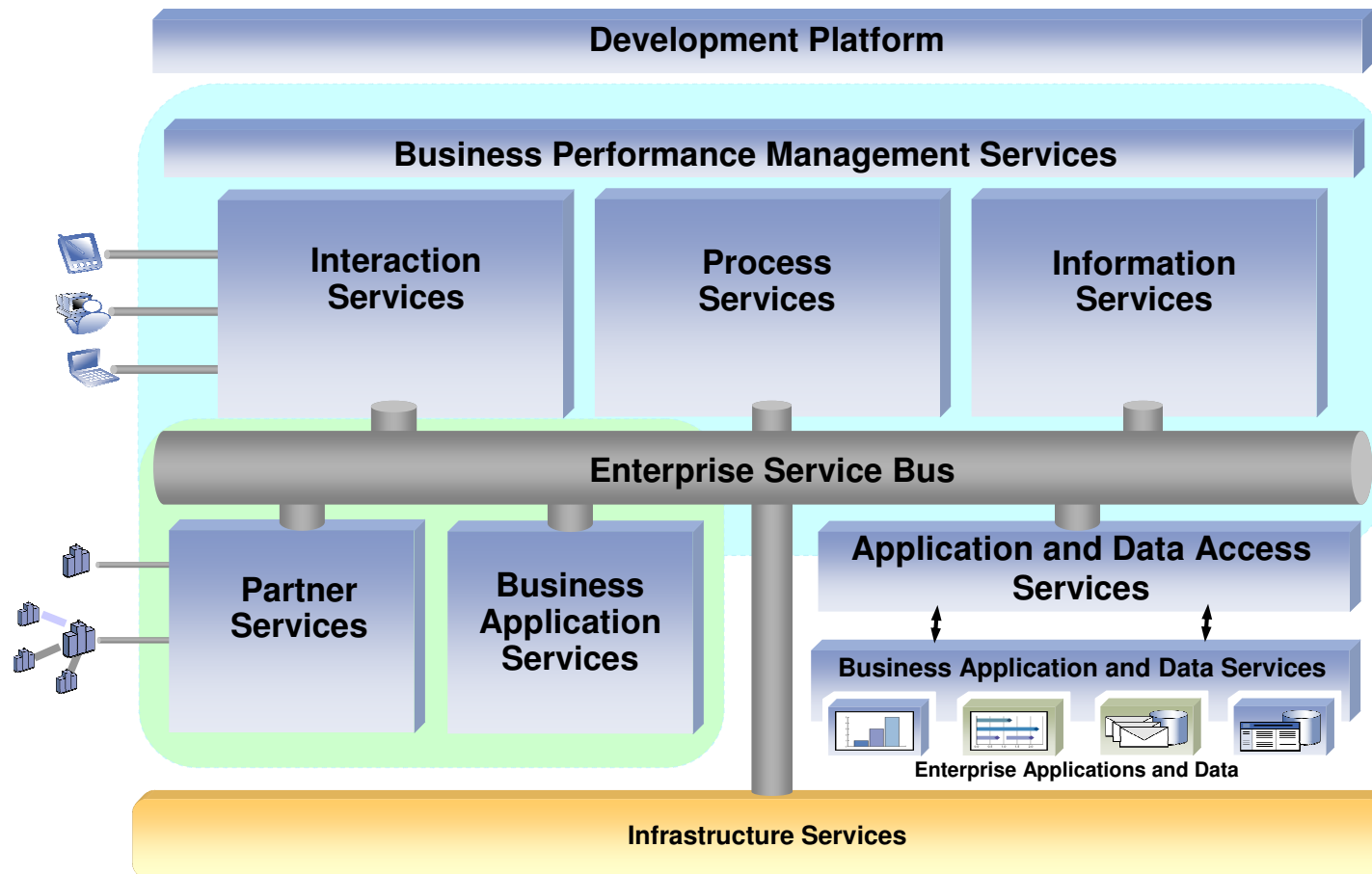
In this session, we will layout a reference architecture, and help you put the pieces of the WebSphere puzzle together!



The Vision

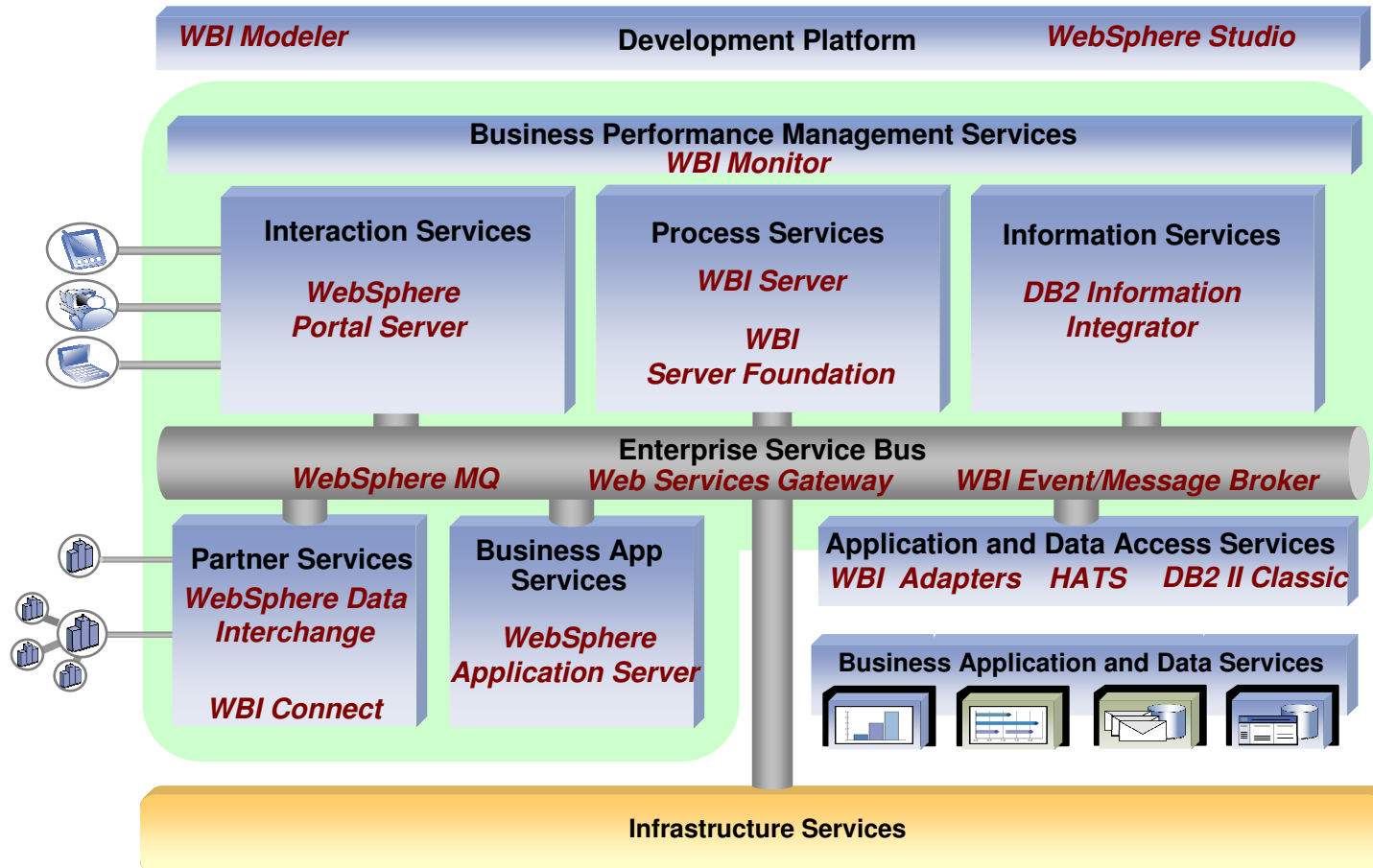


Business Integration Reference Architecture



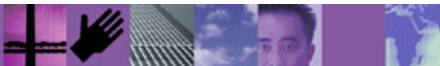
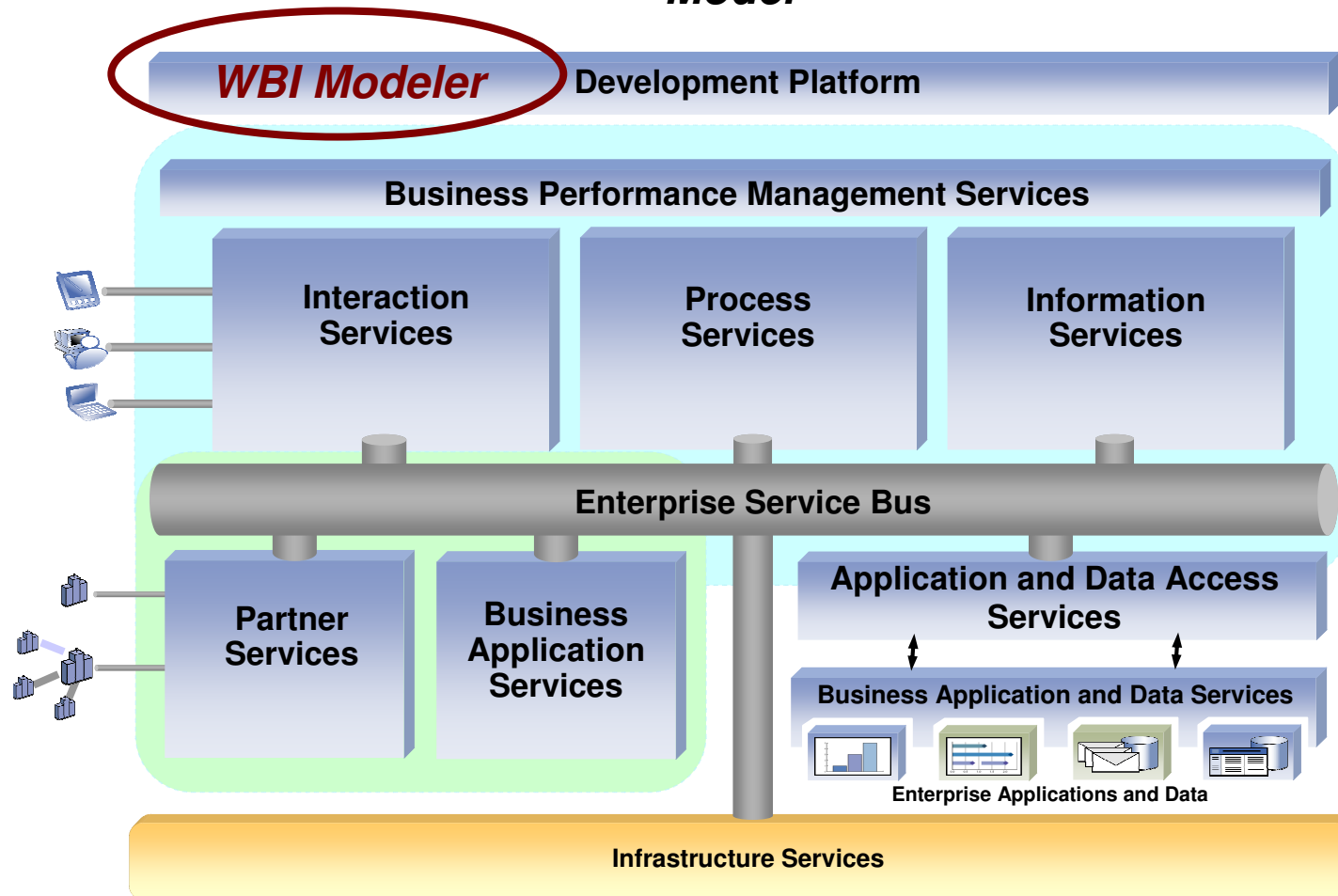
Business Integration Reference Architecture

IBM Software Offerings



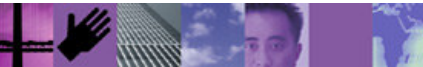
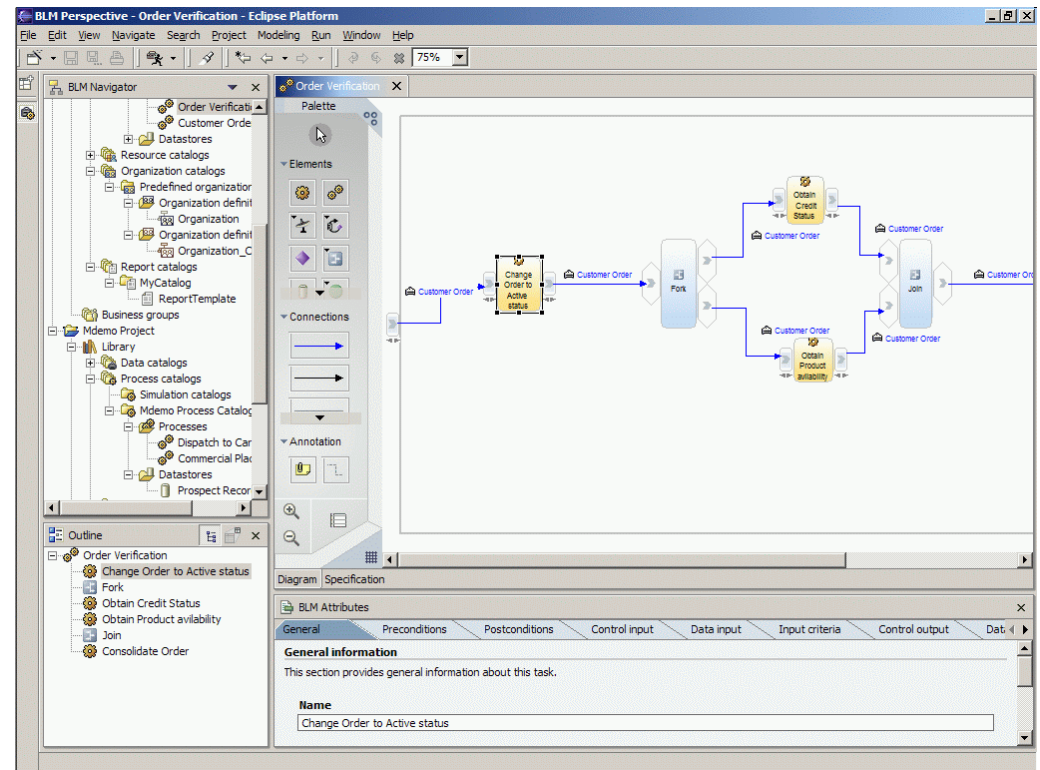
Business Integration Reference Architecture

Model

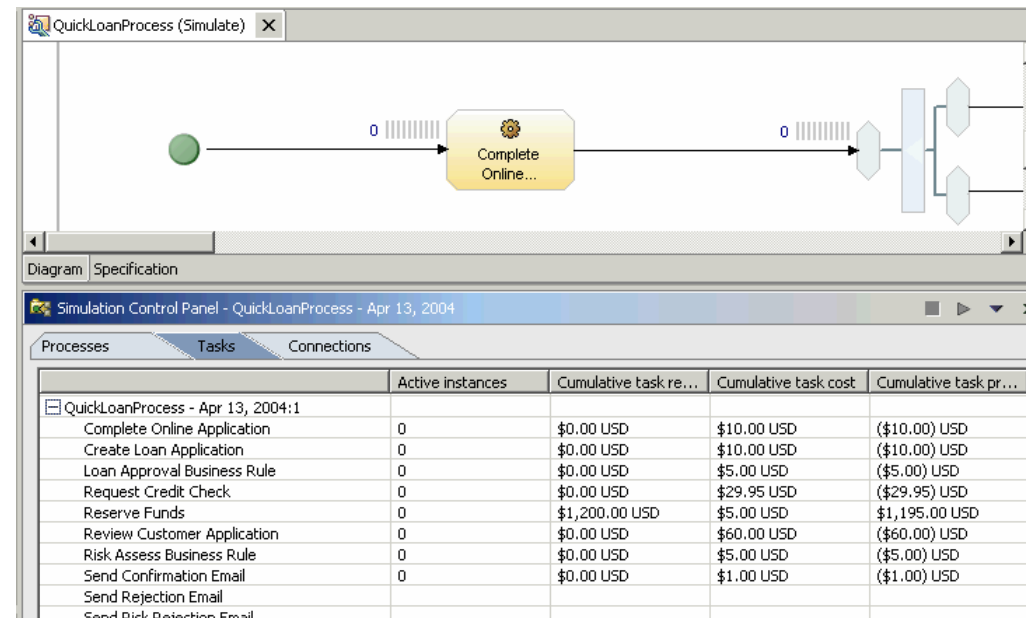


Designing Business Processes

- Business requirements are clearly defined and documented
- Design the way processes will work
 - Model current processes (as-is)
 - Plan future processes (to-be)
- Simulate and Analyze processes
- Identify ROI
- No programming required



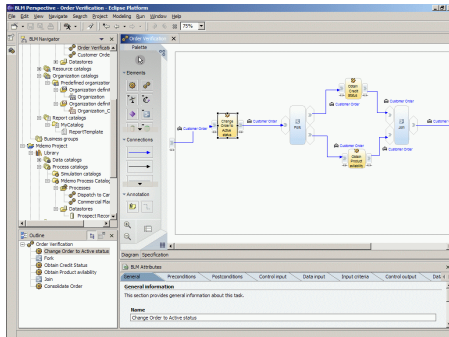
Simulating and Analyzing Business Processes



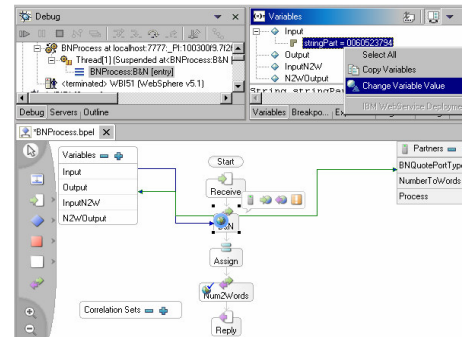
- Use the metrics supplied in capturing the business process
- Change these metrics in simulation mode for “What-If” analysis
- Run reports to analyze process behavior and compare one process against another
- Use results to justify moving from “As-Is” model to “To-Be” model



Fusing Business Transformation with IT



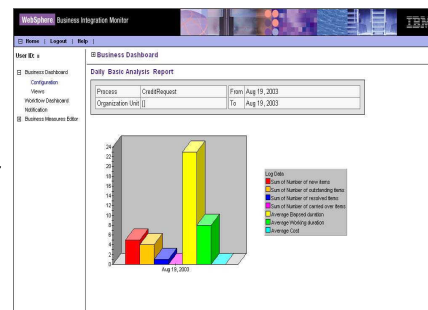
Model, Simulate, Analyze



Develop, Enhance, Test, Debug



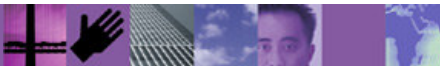
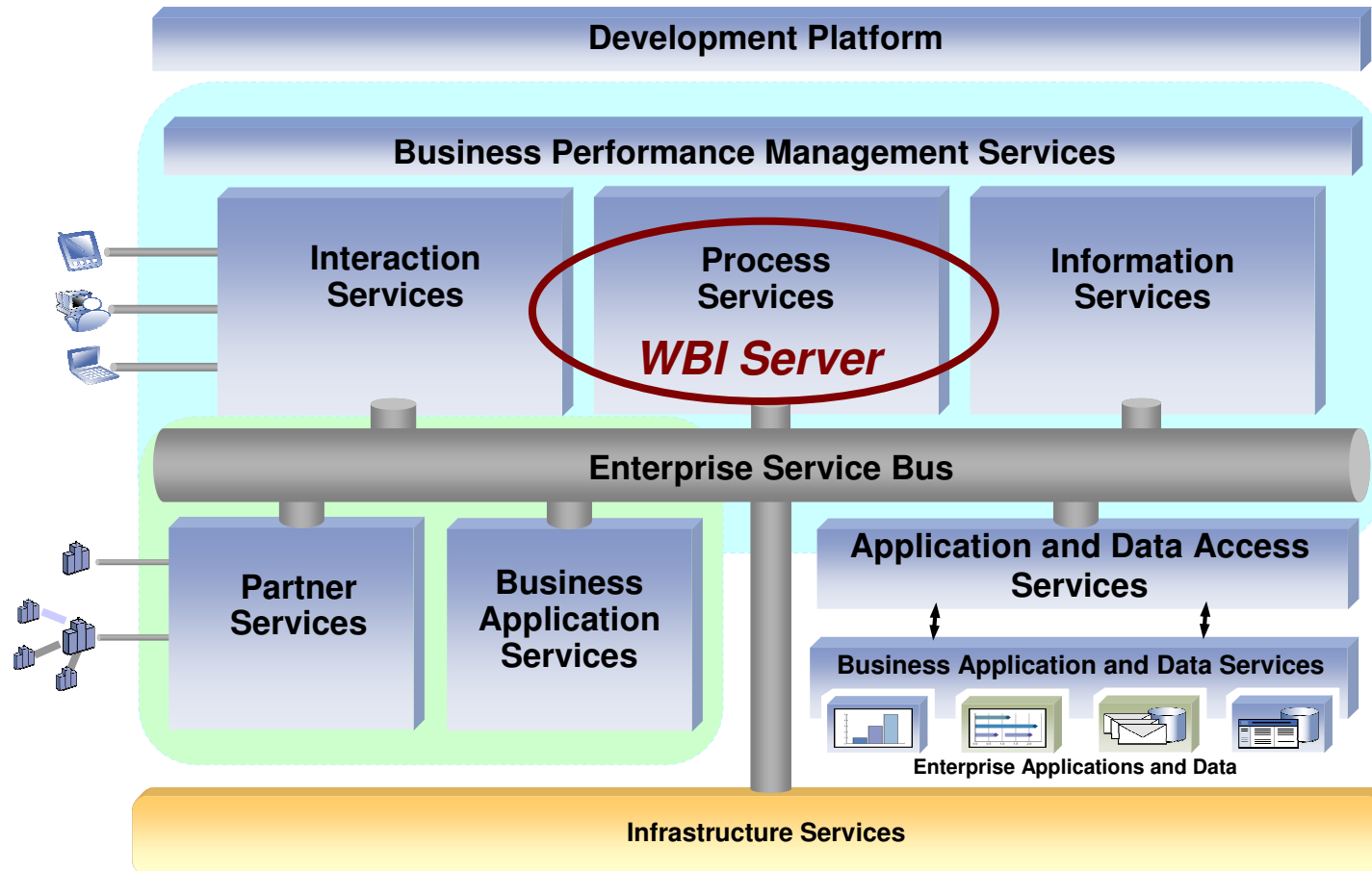
Deploy, Run



Monitor, Manage

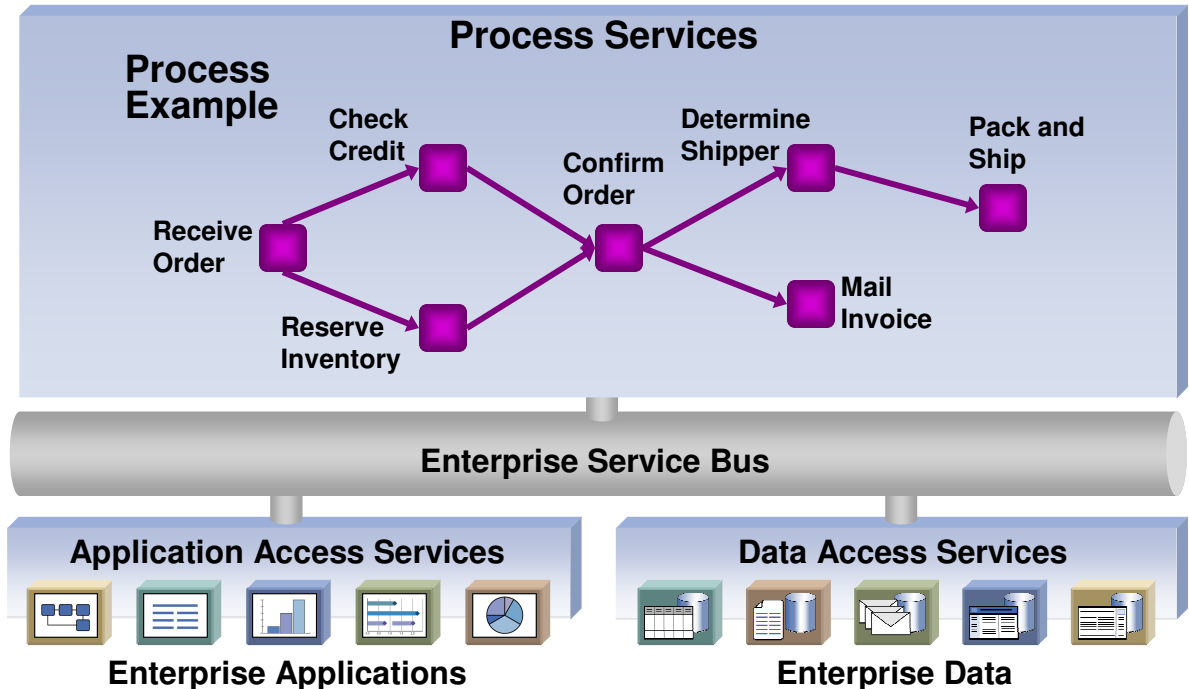
Business Integration Reference Architecture

Process Services



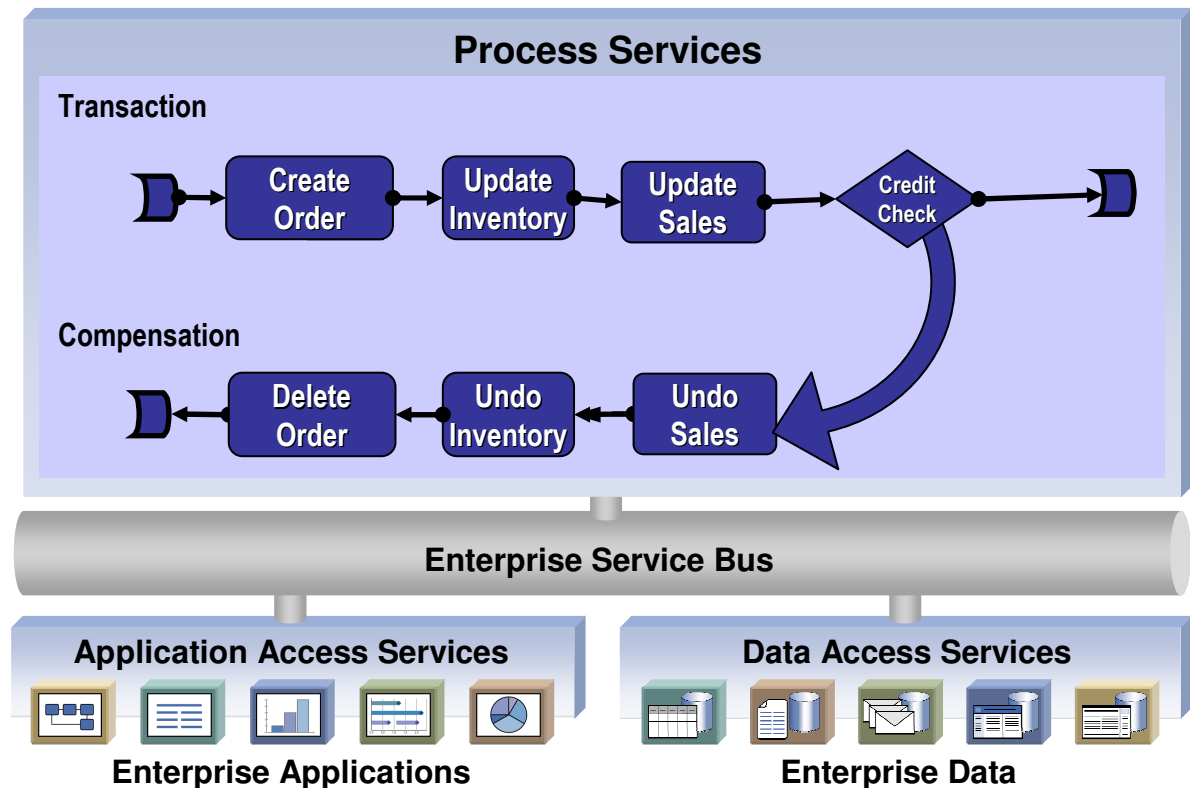
Process Services

- **Choreography Services**
 - Decisions can be determined by externalized business rules
 - Rules can be separately changed
- **Business Transaction Services**
 - Compensating transactions
- **Process State Services**
 - Long duration activities
- **Staff Services**
 - People assignments determined by business rules
 - Can also involve people to application

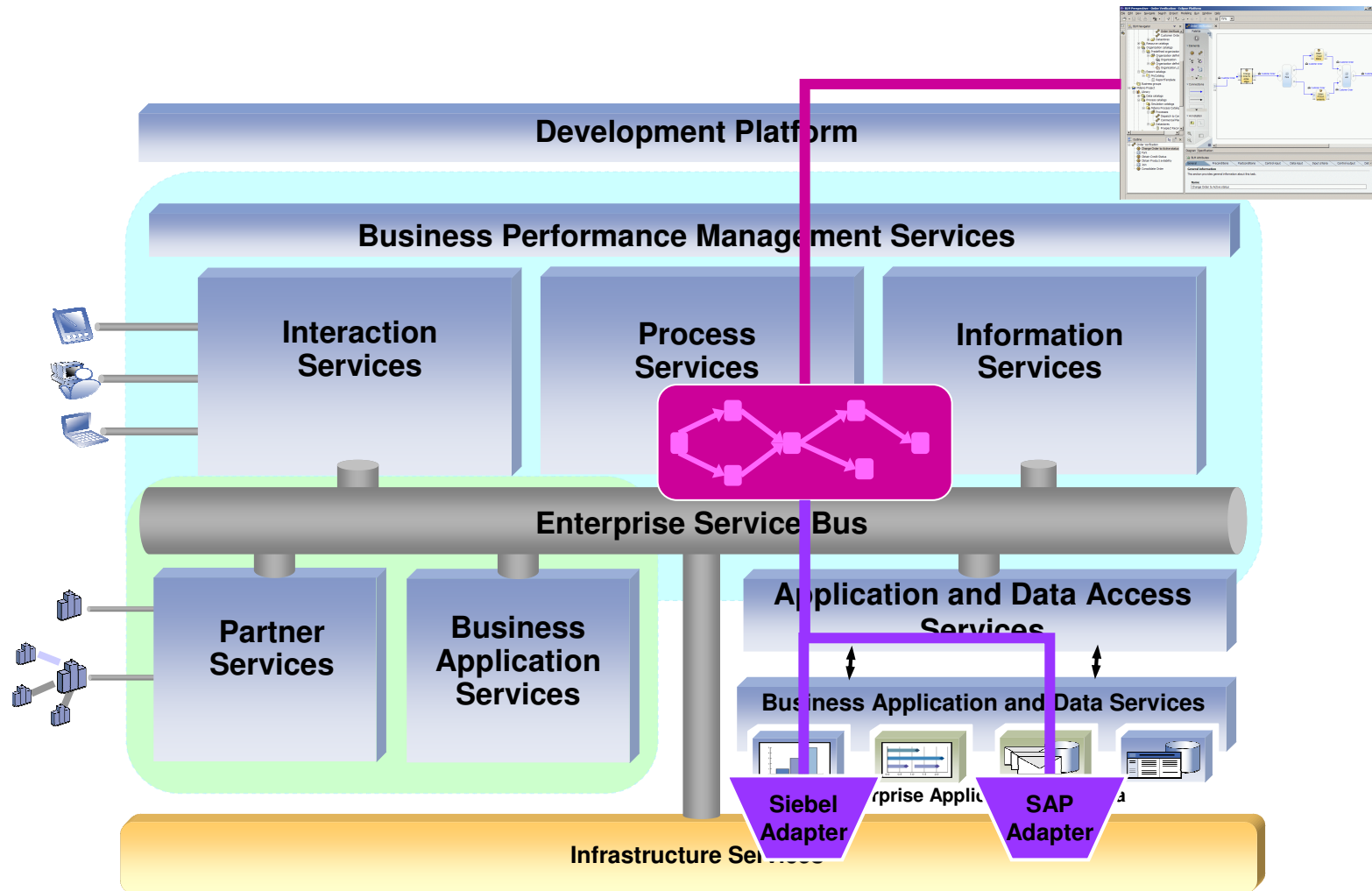


Transaction/Compensation Handling

- **Provides logical 2-phase commit where:**
 - An XA rollback is impractical or impossible
 - Manual recovery is not desired
- **If the process fails, a compensating process automatically activates**
 - Action can be defined for each resource
 - Actions can be tailored to each app, as required

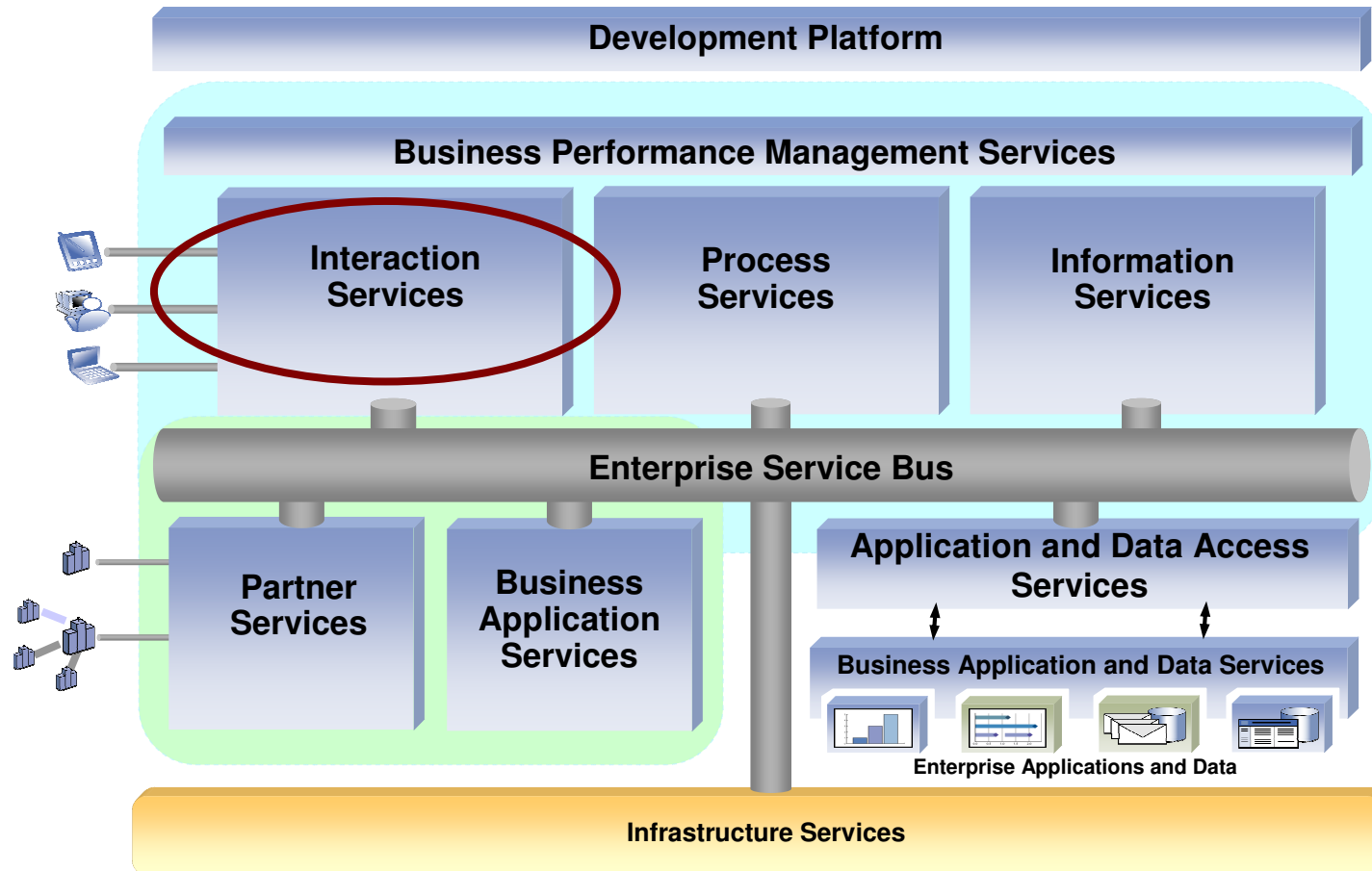


Business Integration Reference Architecture



Business Integration Reference Architecture

Interaction Services



Integrating People: Delivery, Experience, Resource Services

Delivery:

- Page Aggregation
- Markup Transcoding
- Language Translation
- Multi-device Support
- Internationalization



Experience:

- User-Centric Services
- User Object
- Self-Service – Customization, Registration, Profile
- Personalization
- Authentication
- Authorization
- Single Sign-On
- Collaboration

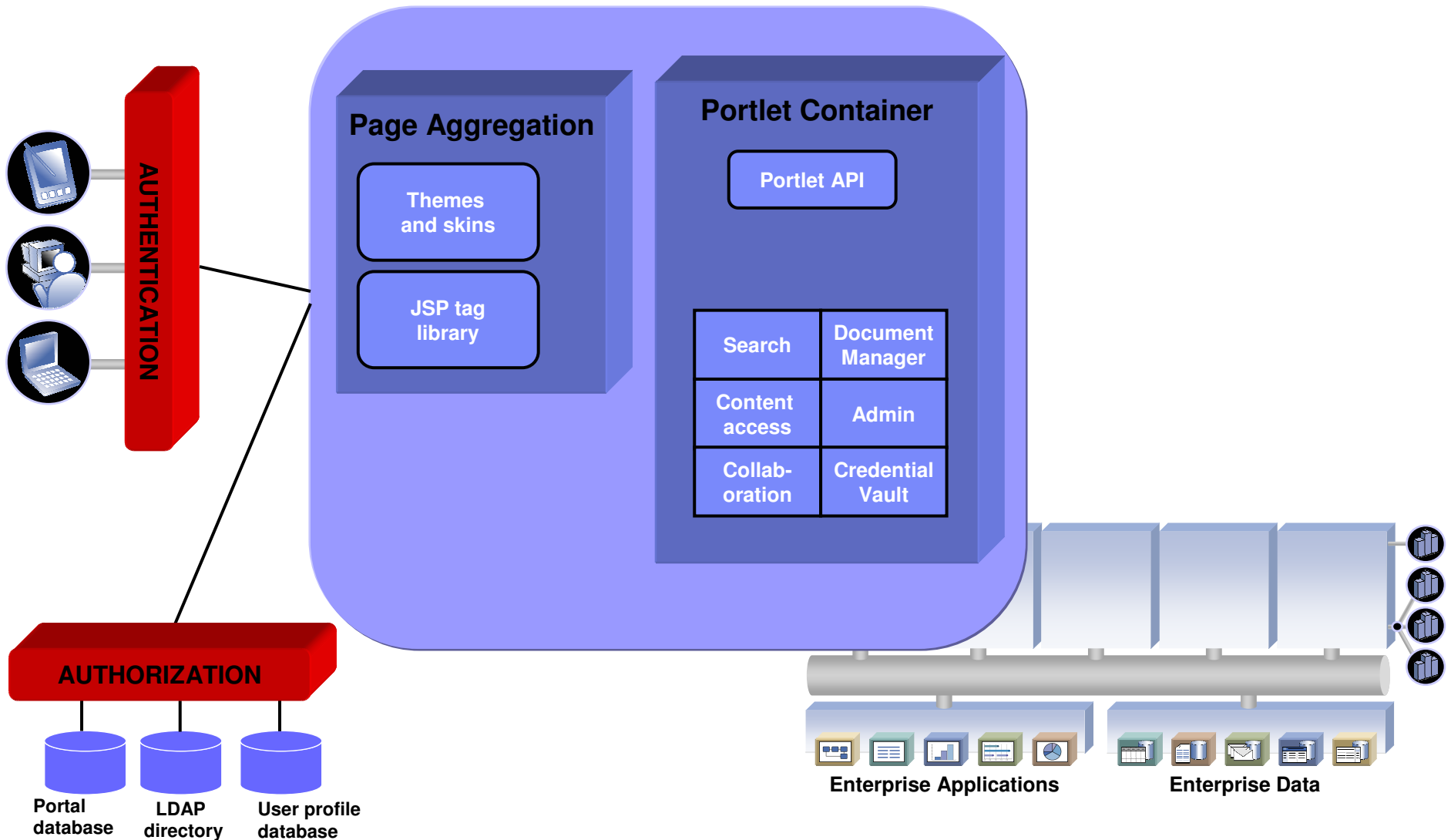


Resource Services:

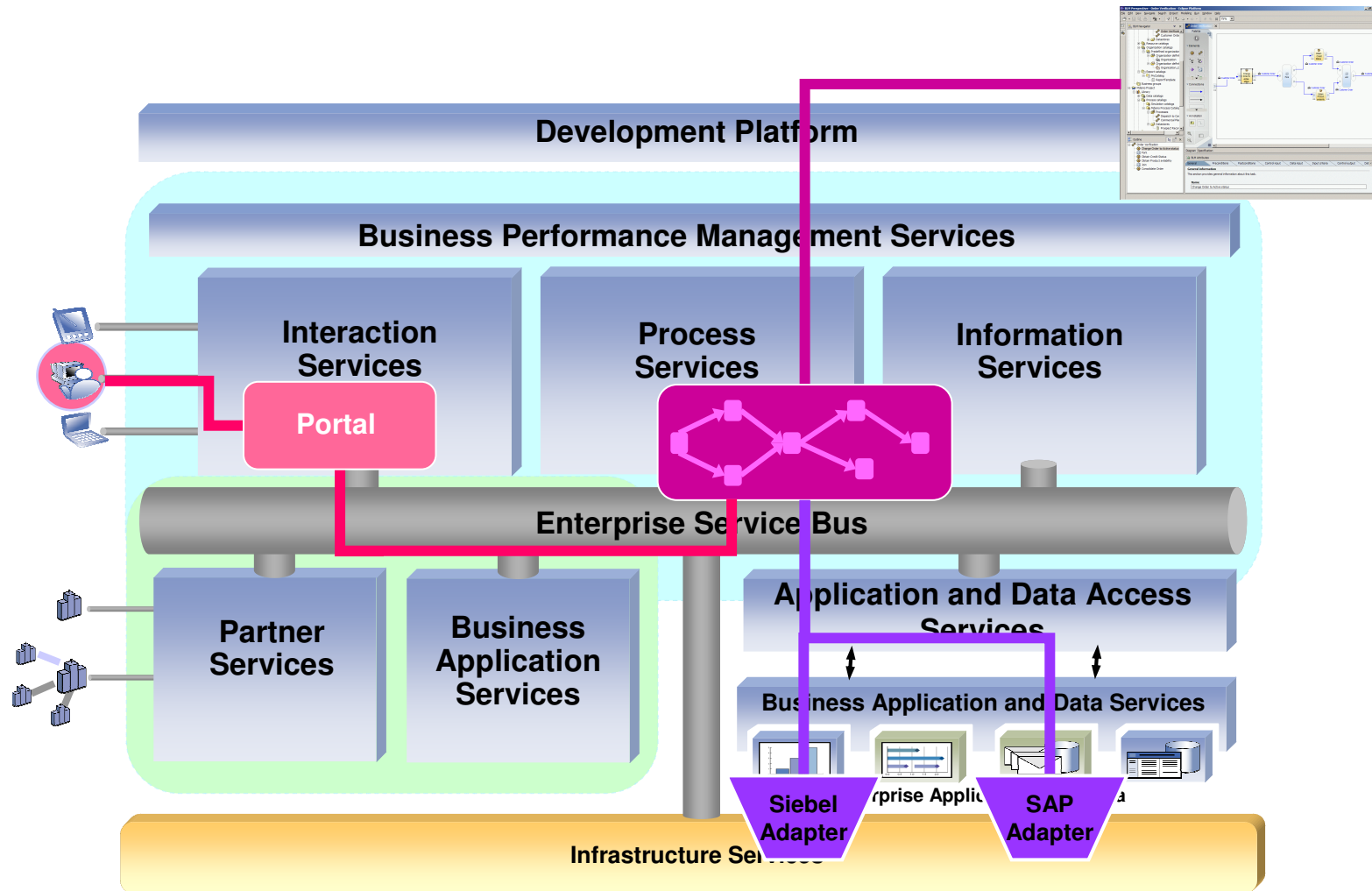
- Pages
- Themes & Skins
- Principles
- Entitlements
- Persistence
- Portlets



WebSphere Portal Architecture

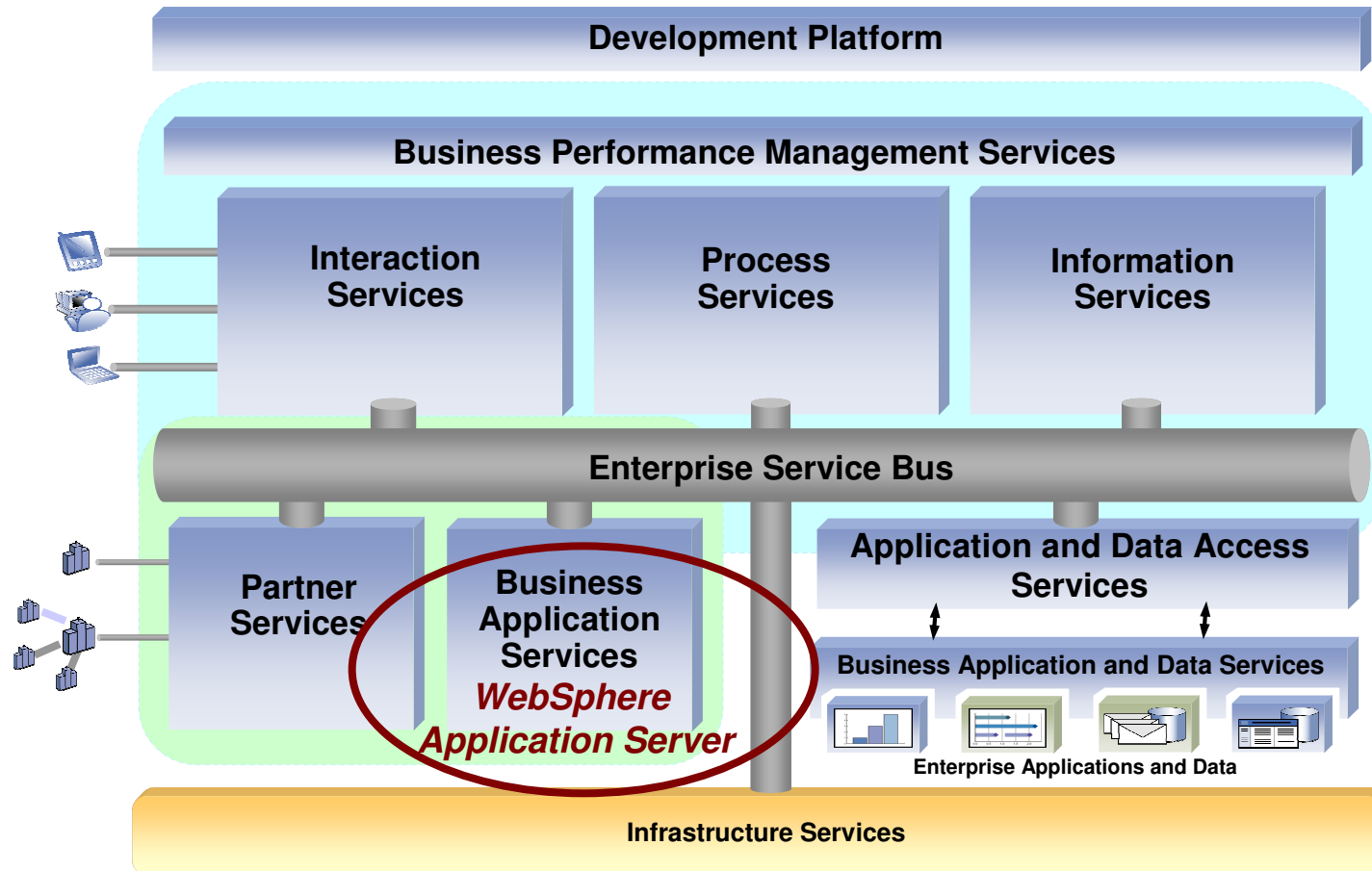


Business Integration Reference Architecture



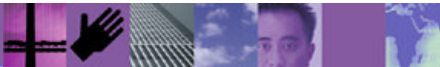
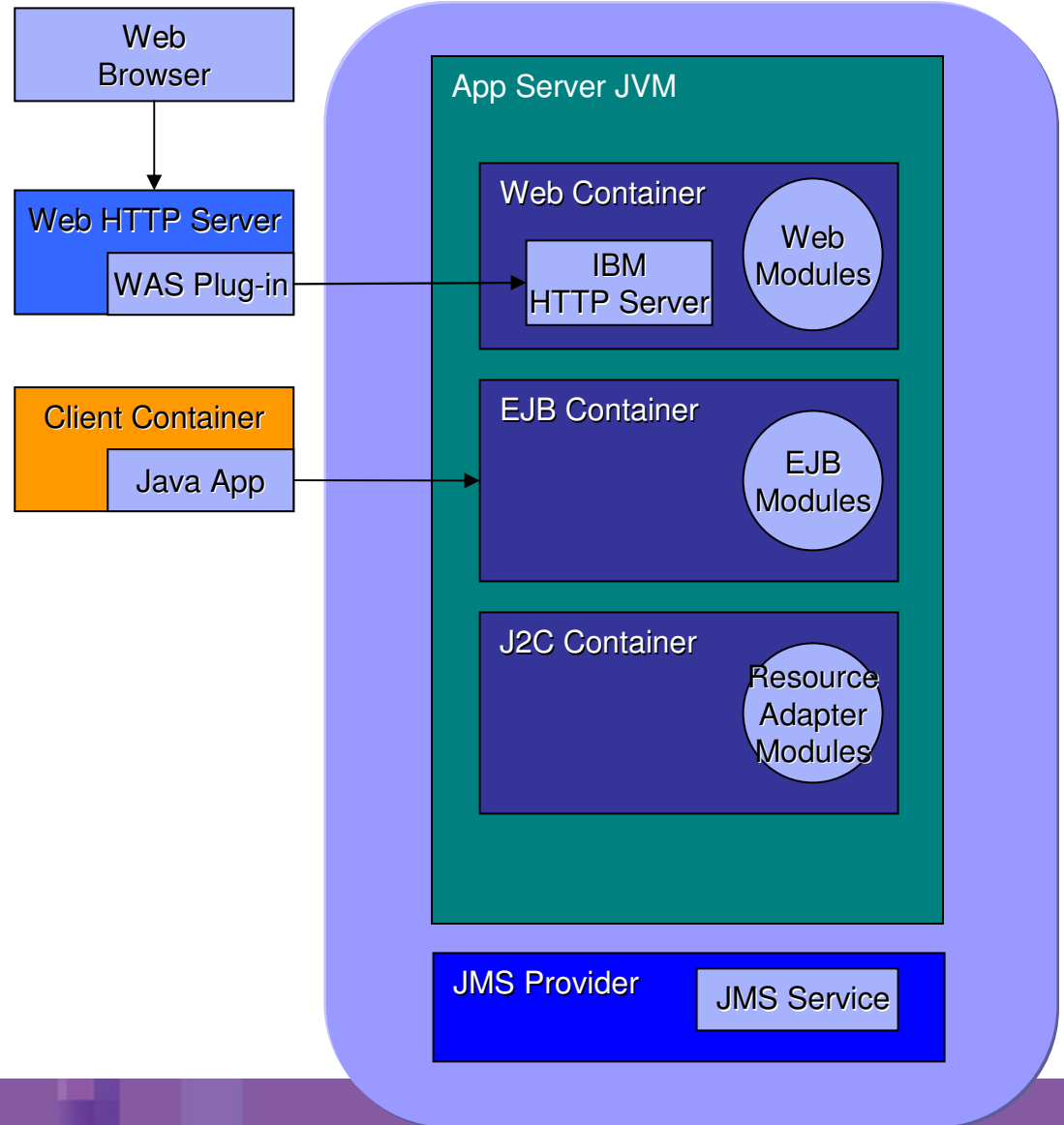
Business Integration Reference Architecture

Application Services

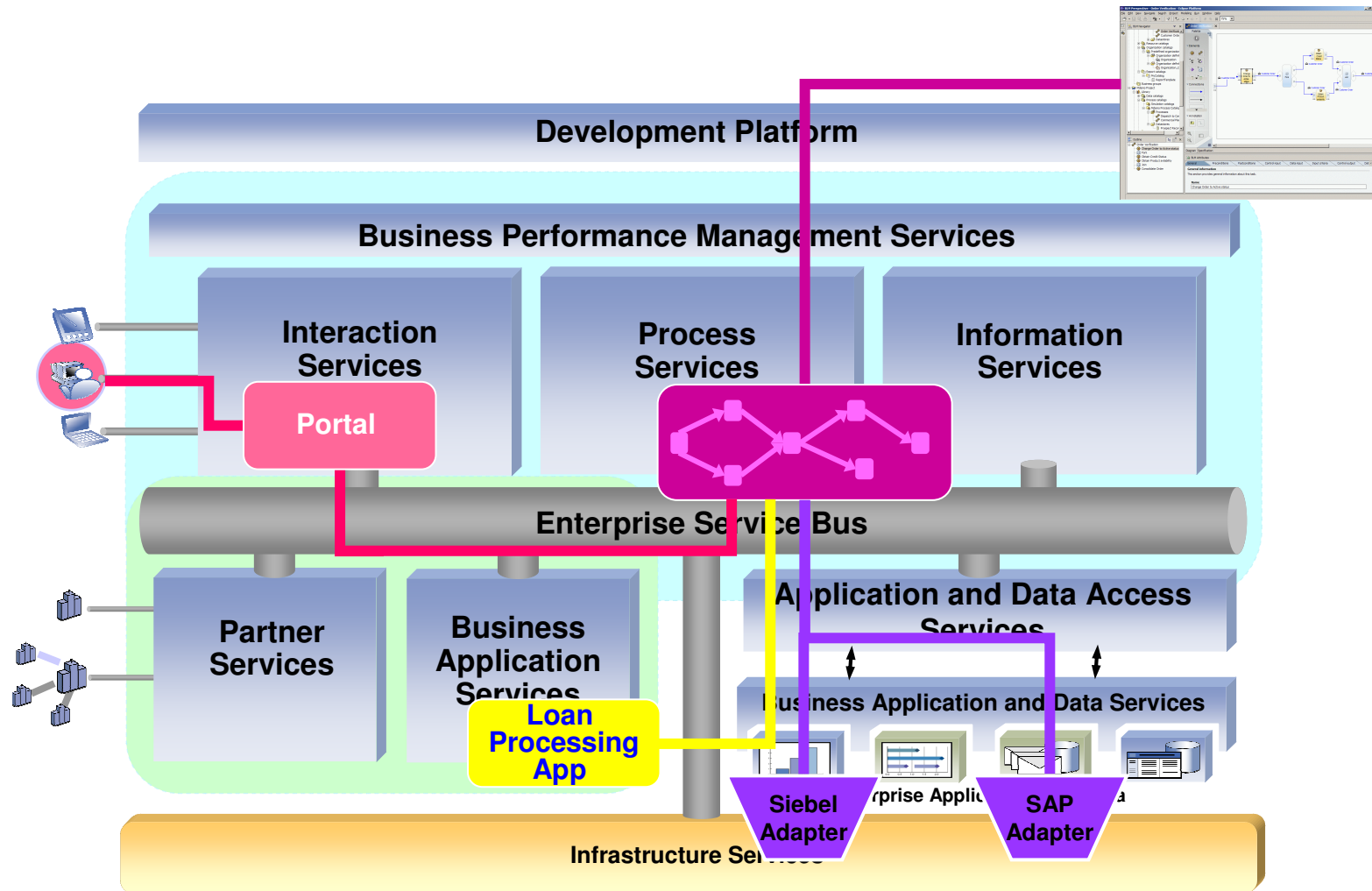


Application Services Architecture

- Support of J2EE, XML, Messaging and Web Services programming model
- Autonomic administration and management
- High transaction performance
- High availability and scale
- Advanced Service Oriented Architecture capabilities

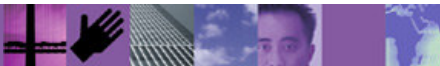
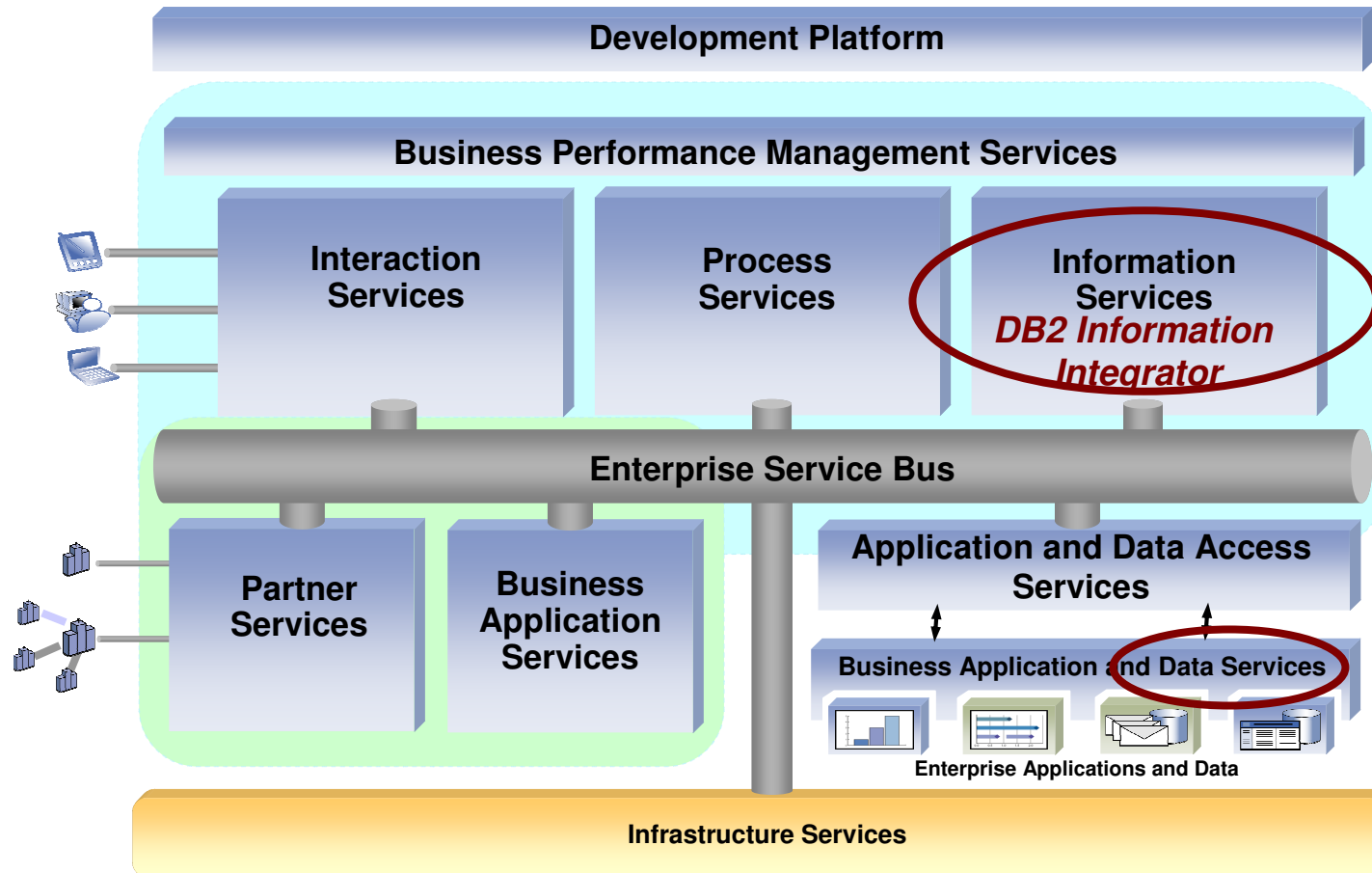


Business Integration Reference Architecture

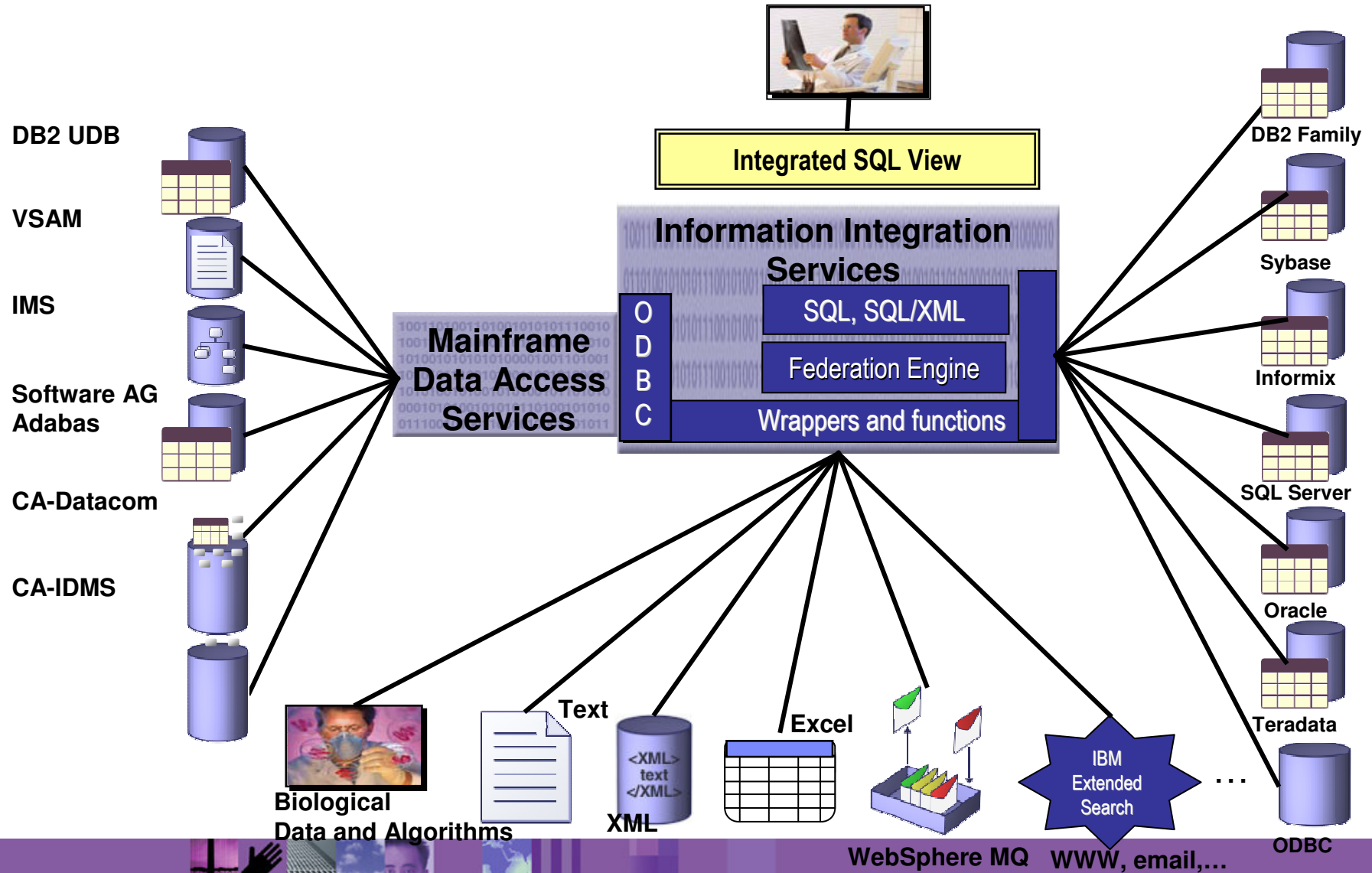


Business Integration Reference Architecture

Information Services



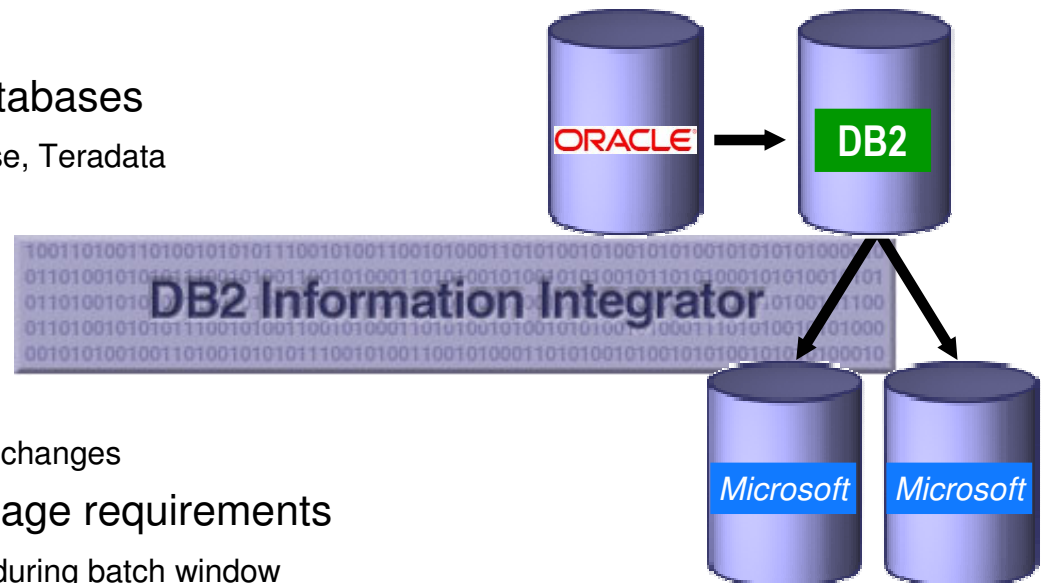
Information and Data Access Services



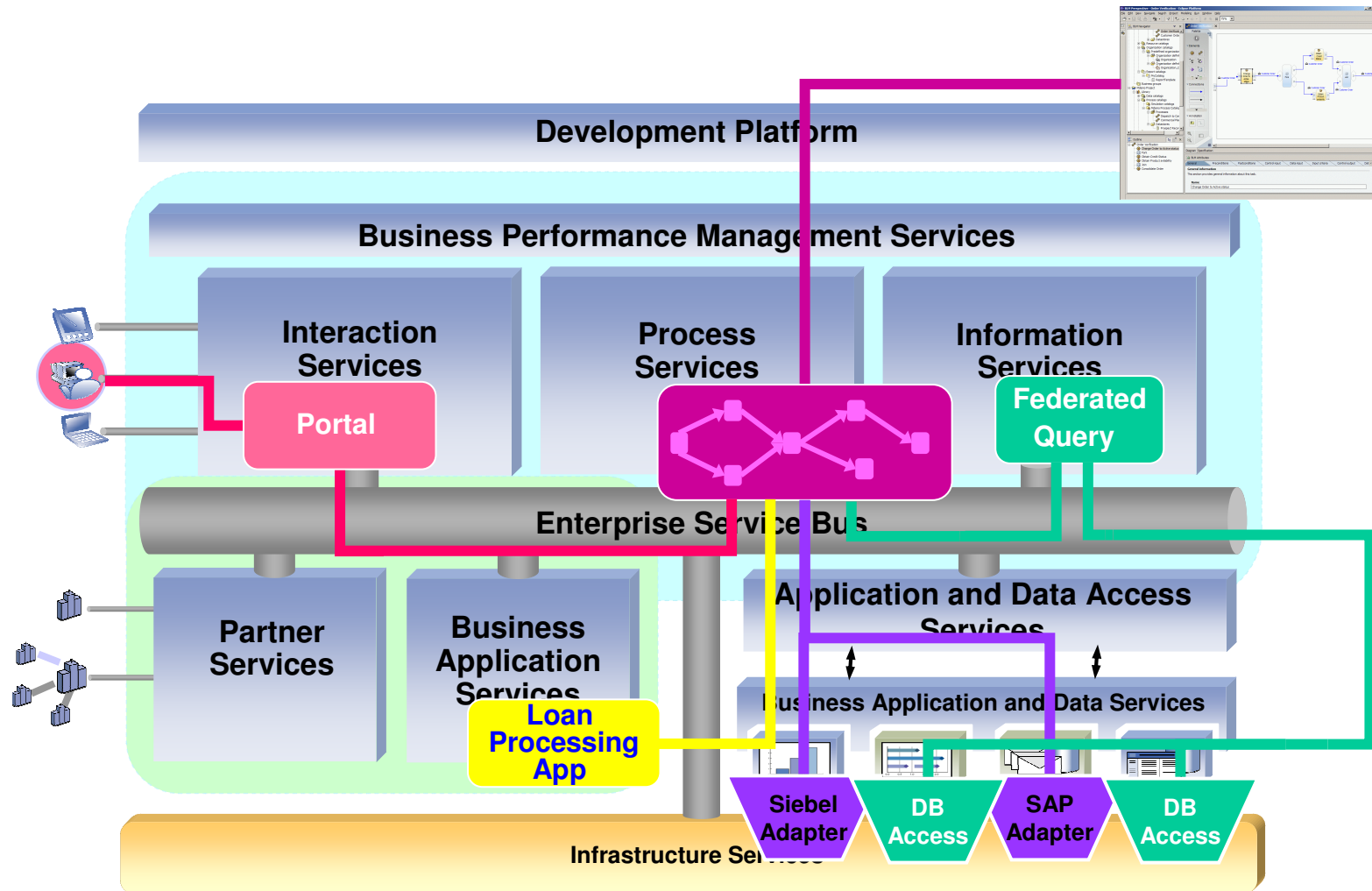
Replication

A Replication Server – Manage placement for performance and availability

- Distribute data among relational databases
 - DB2, Informix, Microsoft, Oracle, Sybase, Teradata
- Support flexible topologies
 - Distribution: One to many
 - Consolidation: Many to one
 - Column and row subsetting
 - Multiple flavors, e.g. history tables, key changes
- Match data movement modes to usage requirements
 - Table-at-a-time for warehouse loading during batch window
 - Transaction-consistent for online data
- Choose latency characteristics
 - Scheduled, interval-based, event-driven, continuous
- Apply transformations in-line
 - Standard SQL expressions or stored procedure execution.

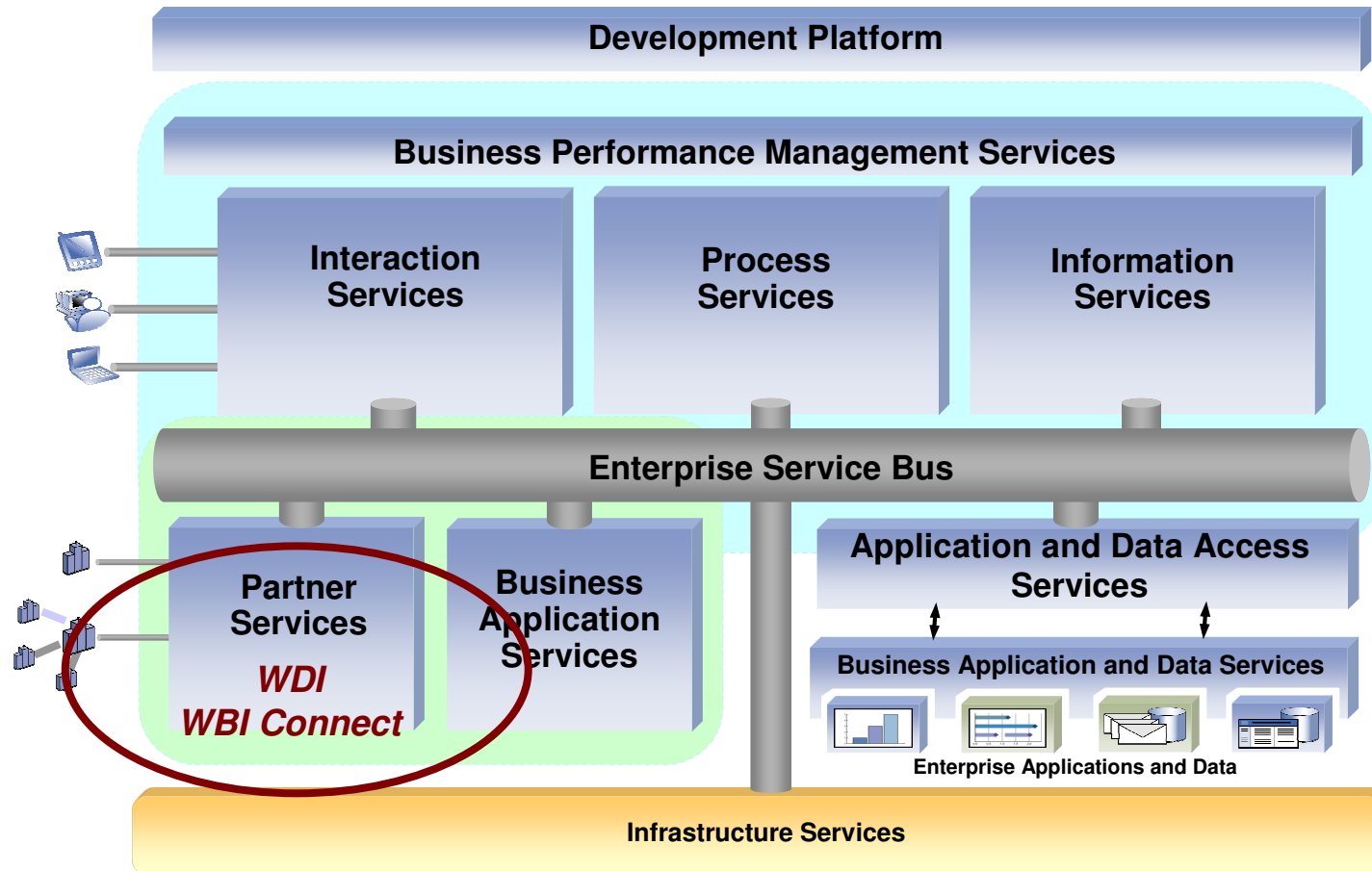


Business Integration Reference Architecture



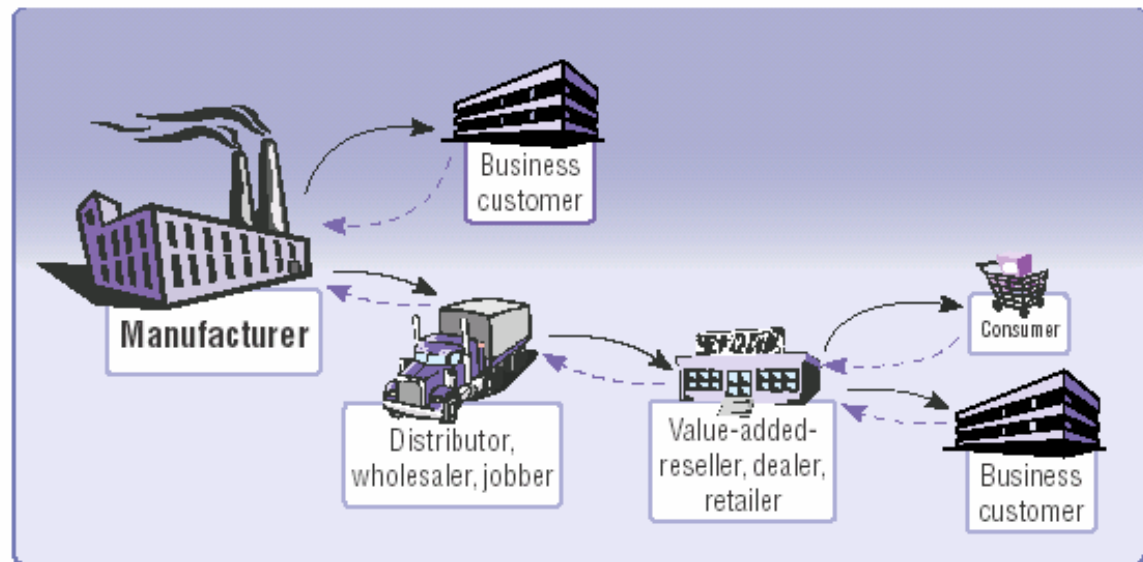
Business Integration Reference Architecture

Partner Services



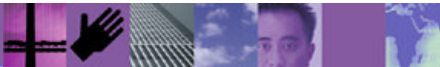
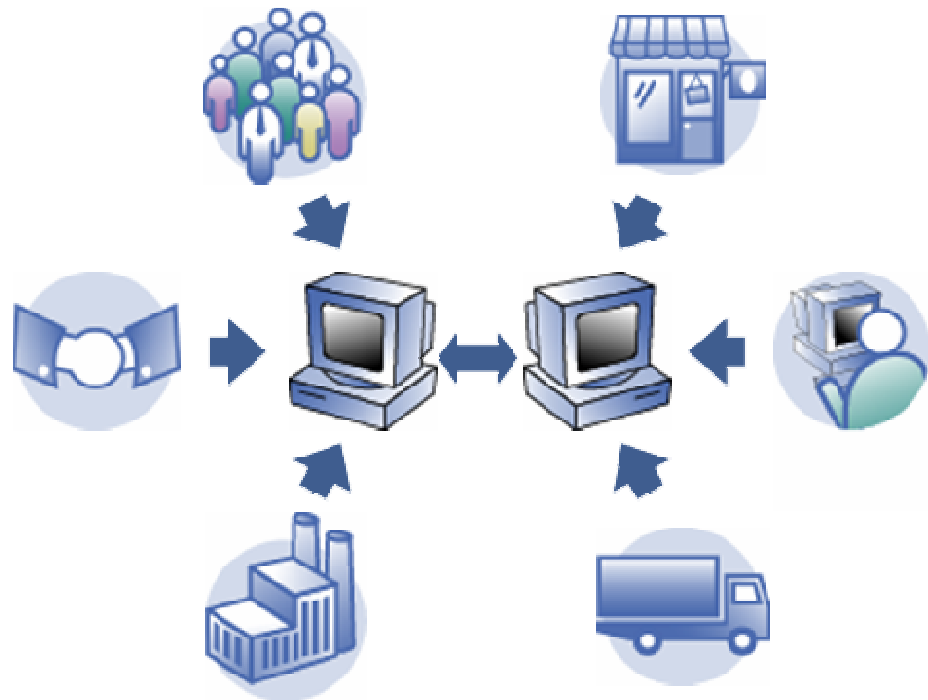
With Partner Services, companies enable integration of business processes spanning different systems across enterprise boundaries

- Business processes extended to include partners
- Visibility across the entire value-chain
- Improve and automate value-chain management
- Strengthen Partner Relationships through tighter business linkages
- Eases participation in and adoption of widely used market standards
- Standardized business processes behind and across the firewalls
- Quickly respond to changing value-chain requirements



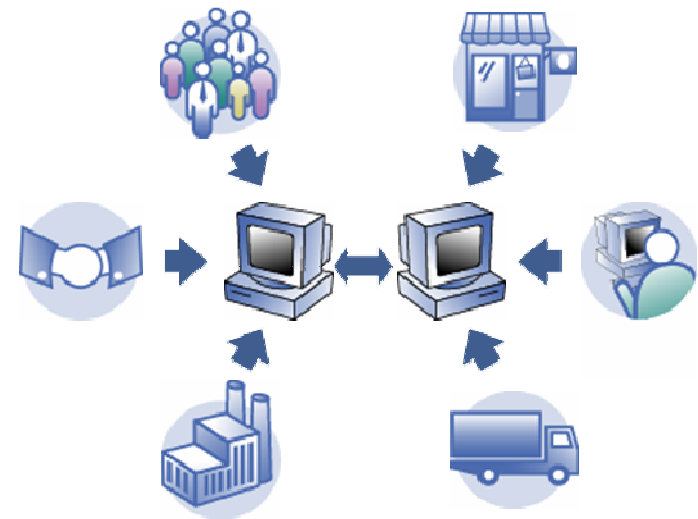
Extend Processes to Your Customers and Partners

- Connect to and integrate with communities of trading partners
- Enables integration beyond the enterprise into the extended value chain
- Support for a wide range of industry standard protocols including RosettaNet, AS2 and XML
- Support for trading partner interactions over transports such as HTTP(S), FTP and SMTP

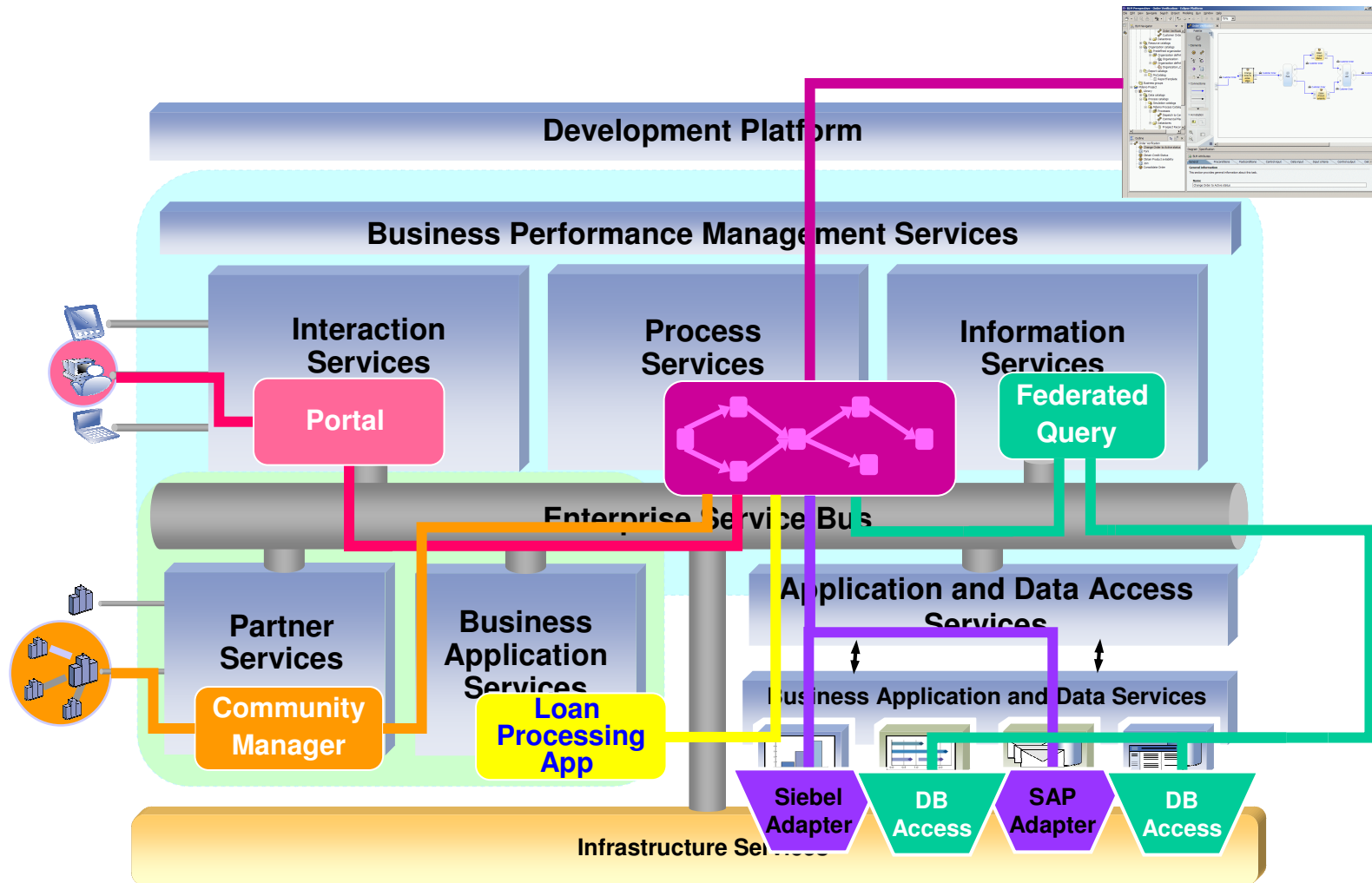


EDI standards are critical to many businesses

- EDI is a mission critical part of companies B2B strategies
- 95% of fortune 500 companies use EDI
- EDI continues to deliver significant return on investment
- EDI continues to evolve in response to new enterprise and industry requirements, and competitive pressures (e.g. HIPAA, AS1, AS2)
- 80% of business transactions are conducted via EDI Value Added Networks (VAN) today.

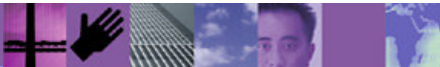
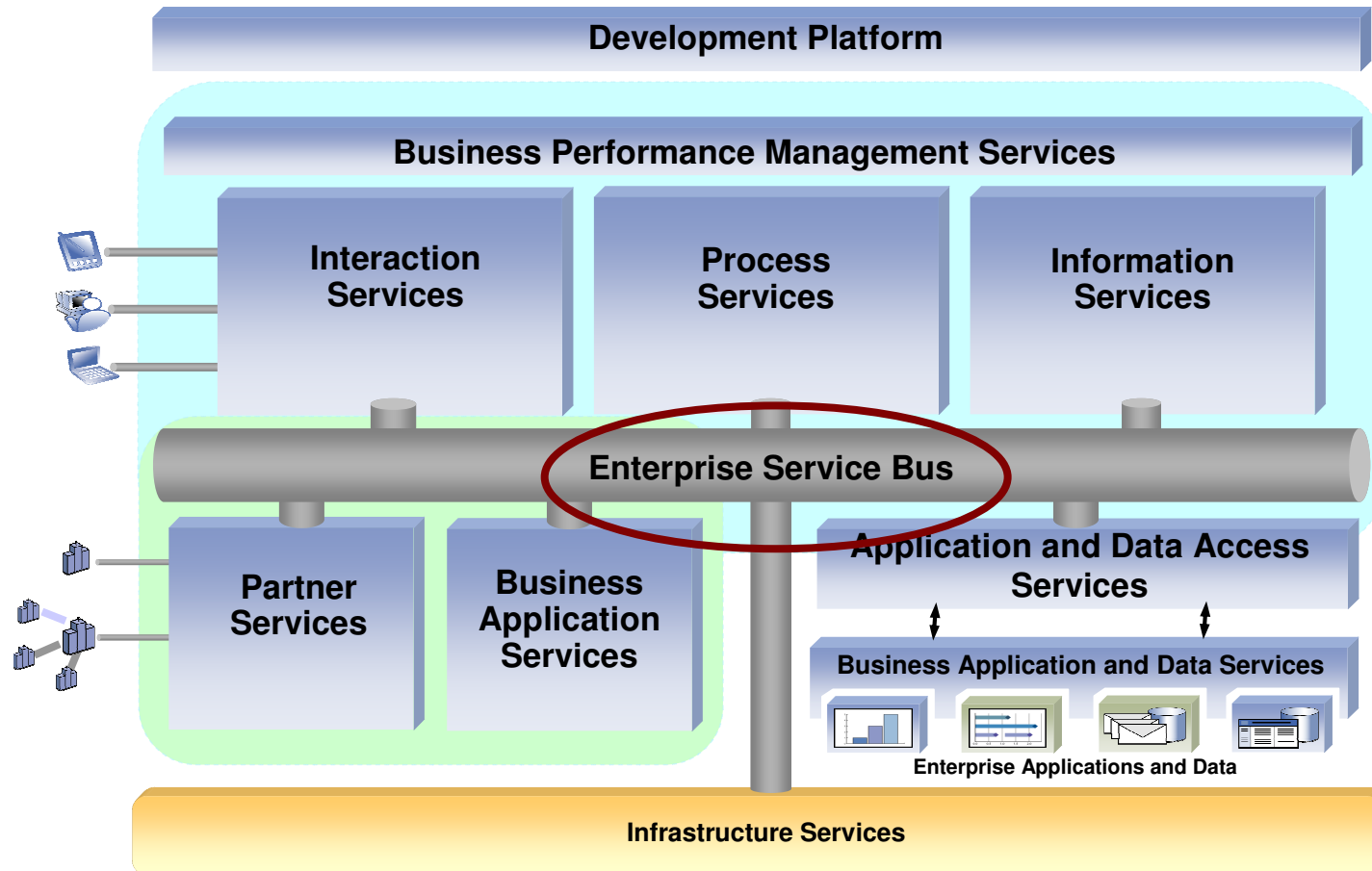


Business Integration Reference Architecture

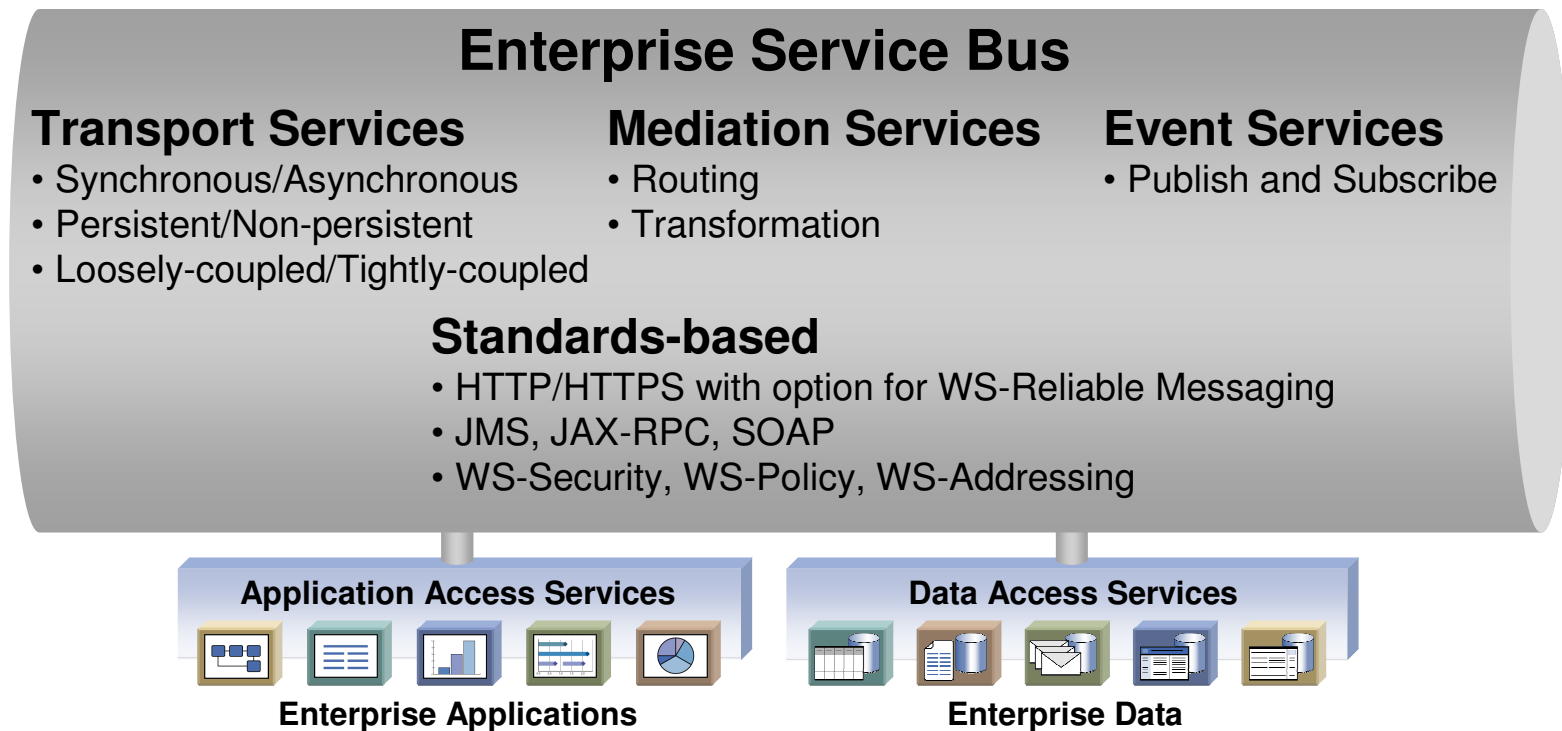


Business Integration Reference Architecture

Enterprise Service Bus



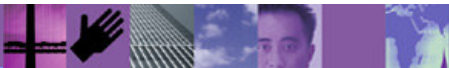
Enterprise Service Bus - An Architectural Best Practice



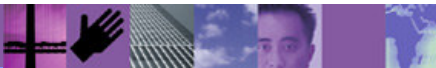
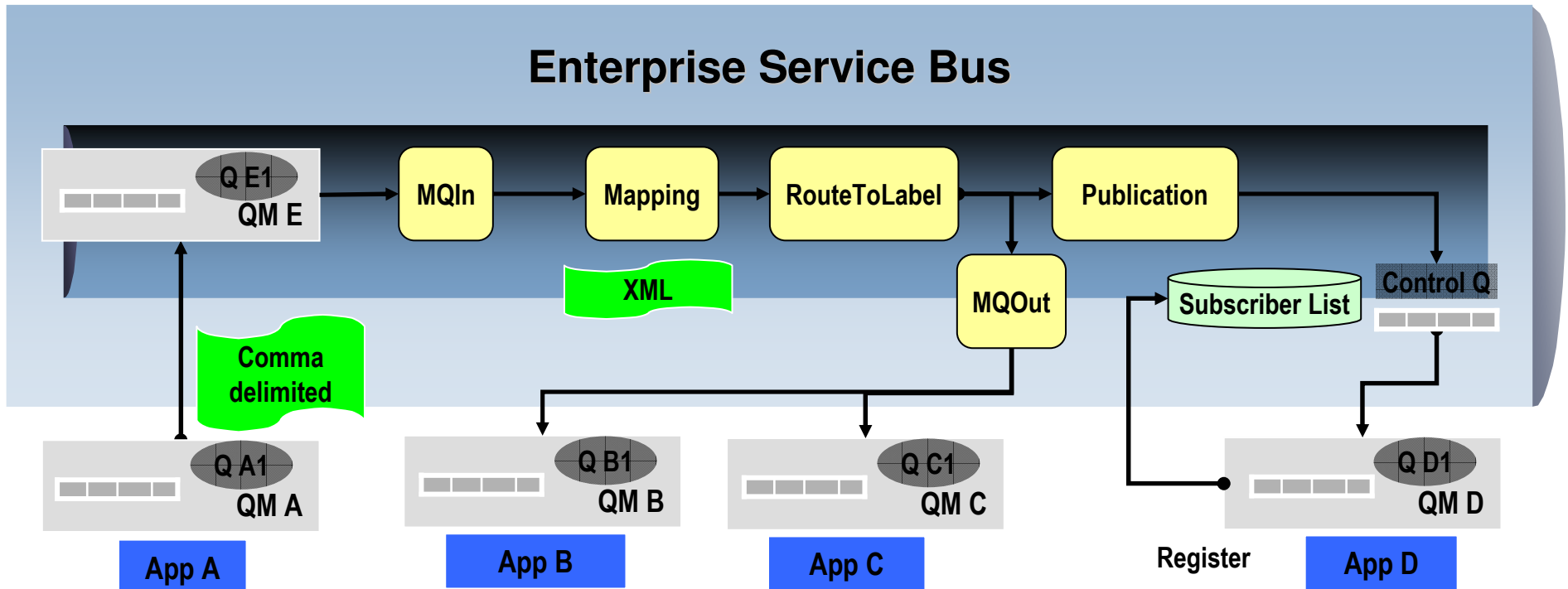
Core component of a Service Oriented Architecture (SOA)

Unsurpassed technical characteristics

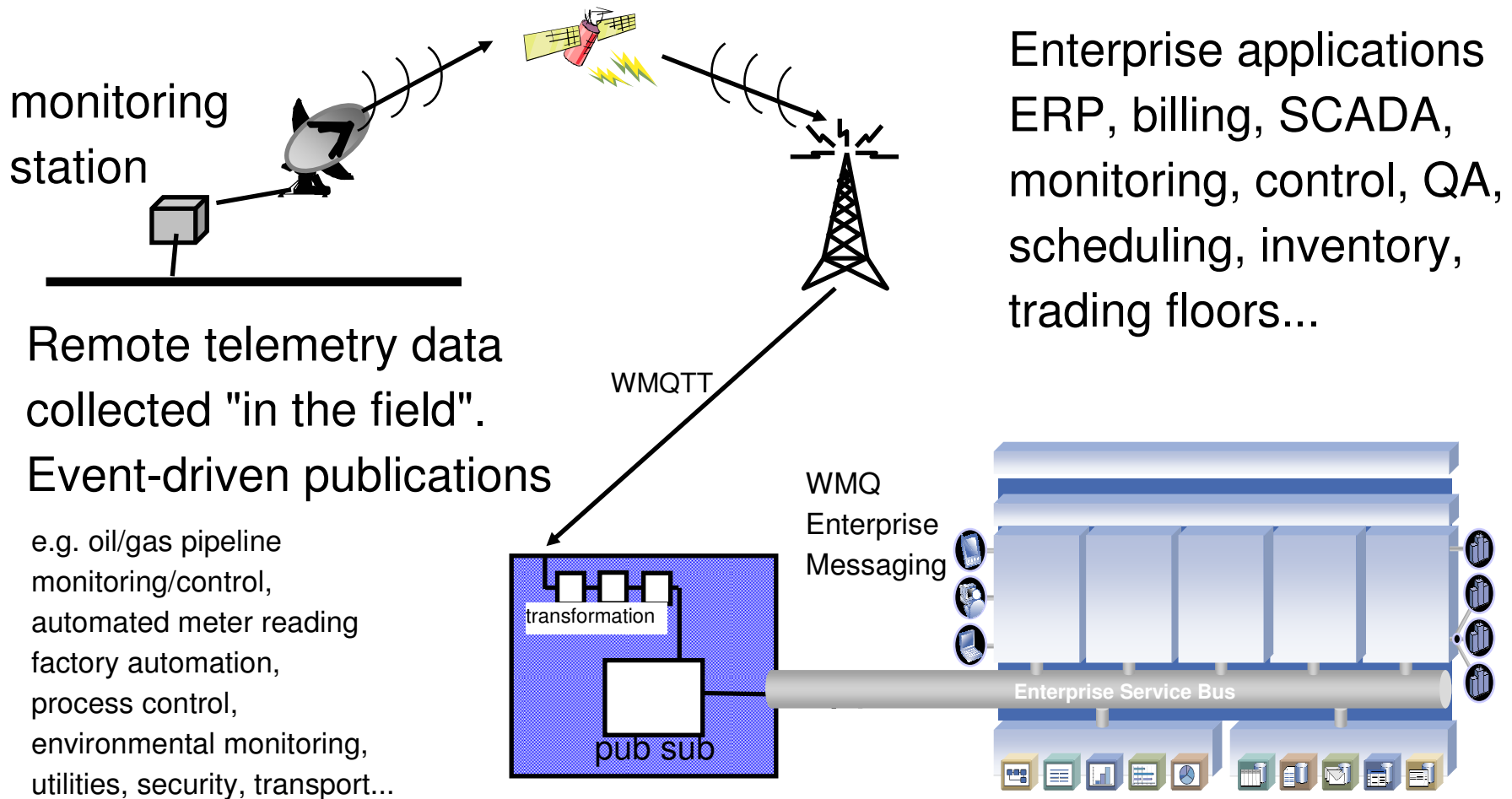
- Scale to match performance and throughput needs
- Security



Mediations

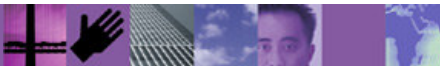
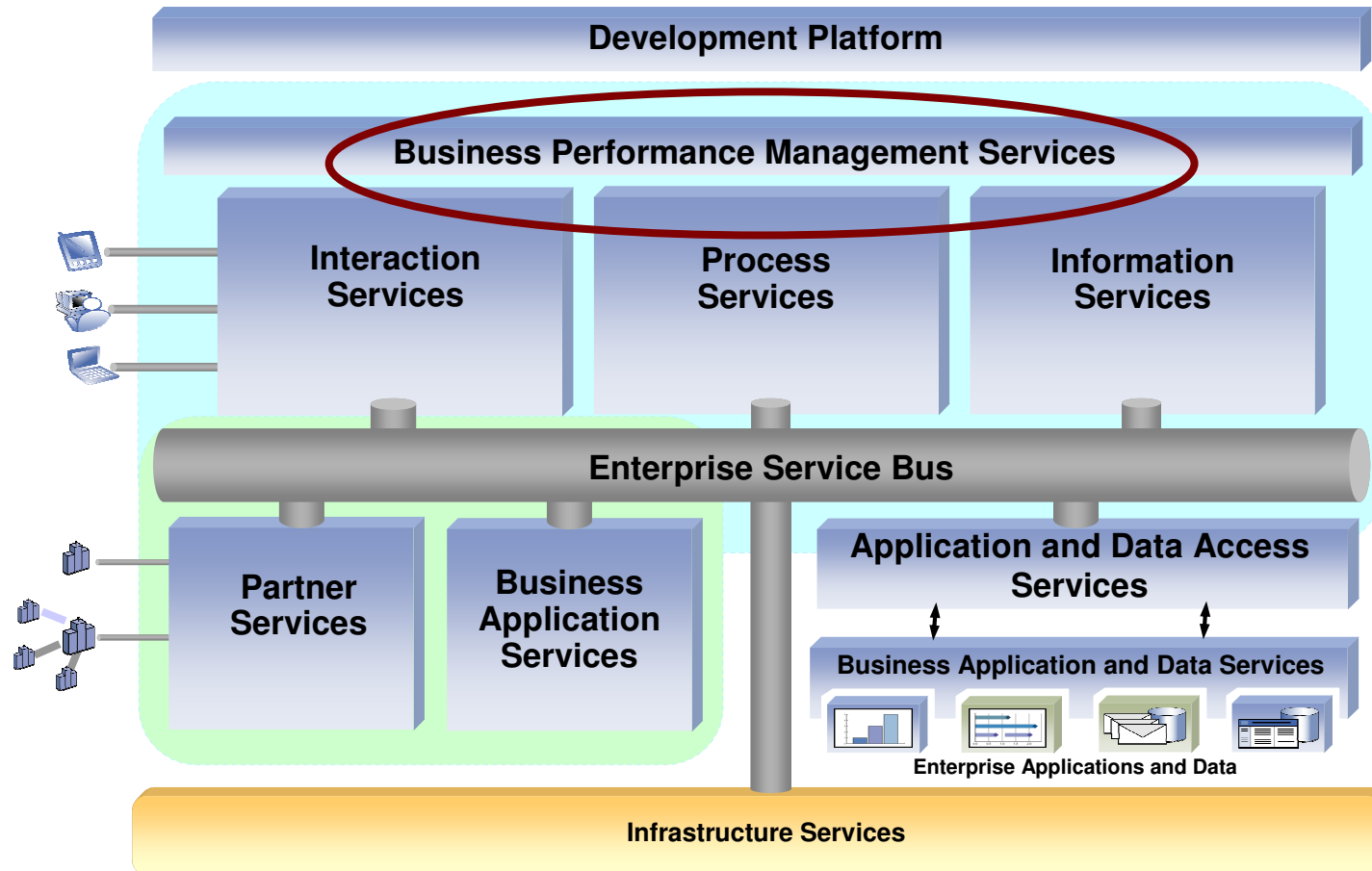


End-to-end business integration from SCADA telemetry to Enterprise Applications



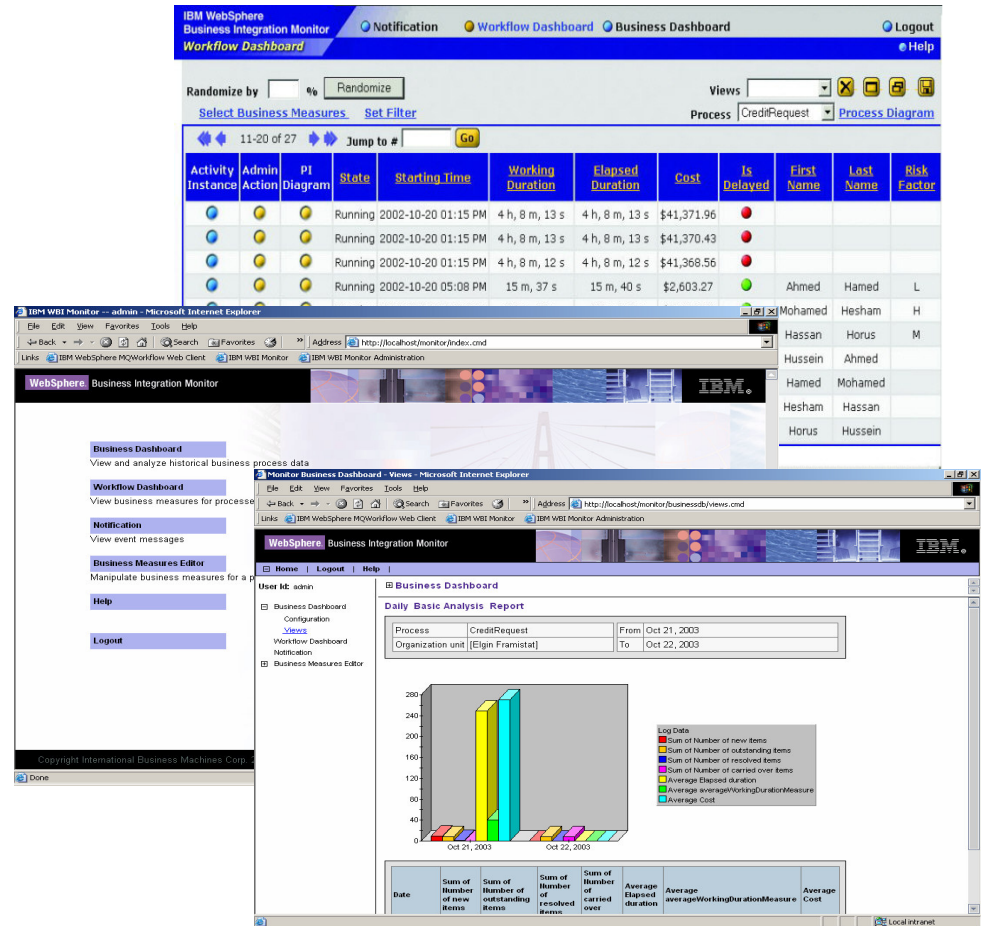
Business Integration Reference Architecture

Business Performance Management

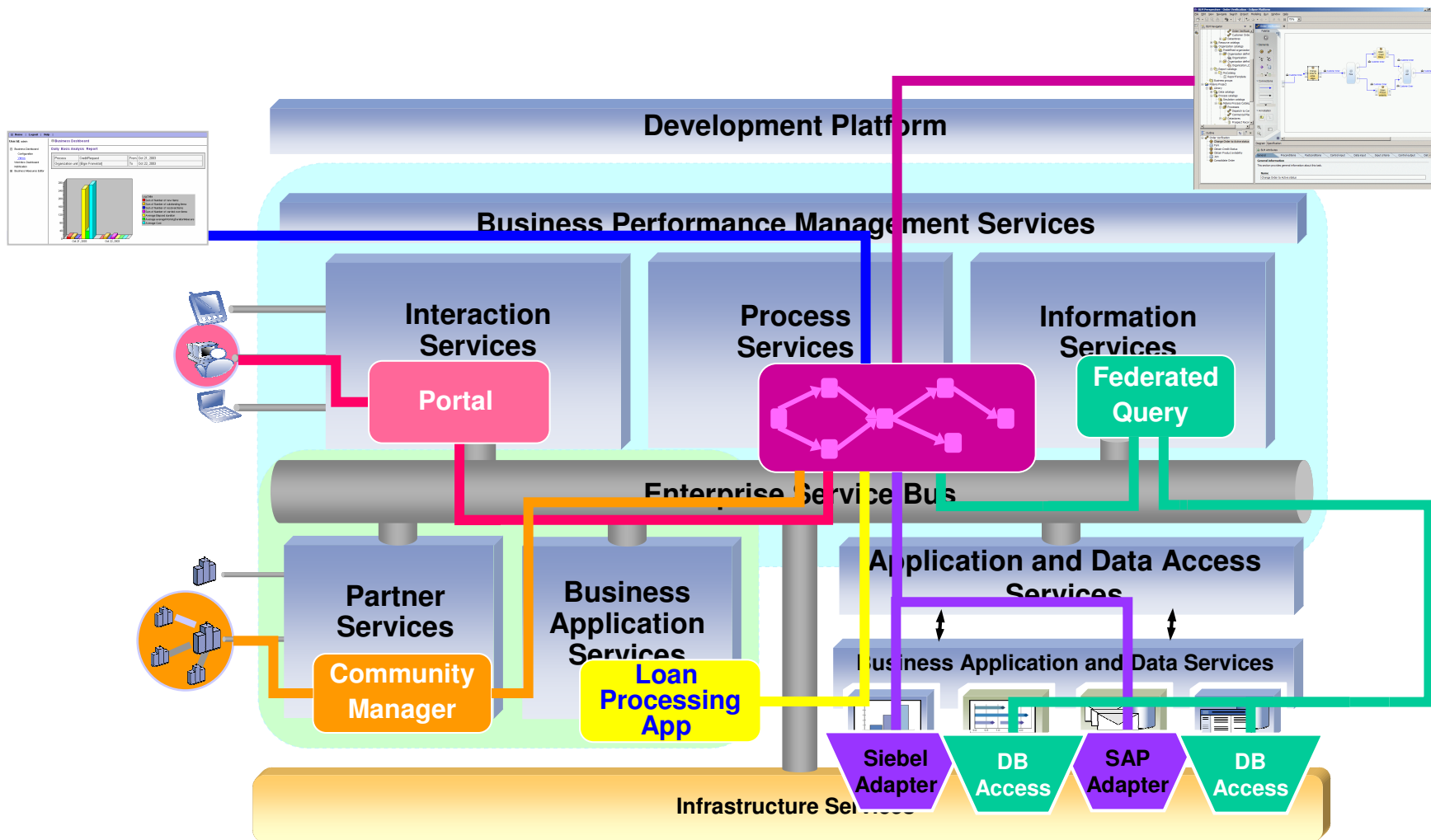


Monitoring Functionality Collects and Presents Feedback

- Business Activity Monitoring – tracking business events across the enterprise, and the value chain
- Role-based dashboards (Executives, LOB, IT) expose:
 - Real-time metrics from processes in motion
 - Alerts to ensure service levels
 - Business measures to confirm investment results
- Allows
 - Optimized, near real-time decision-making
 - Reaction to out-of-line conditions
 - Stopping, starting, or redirecting processes

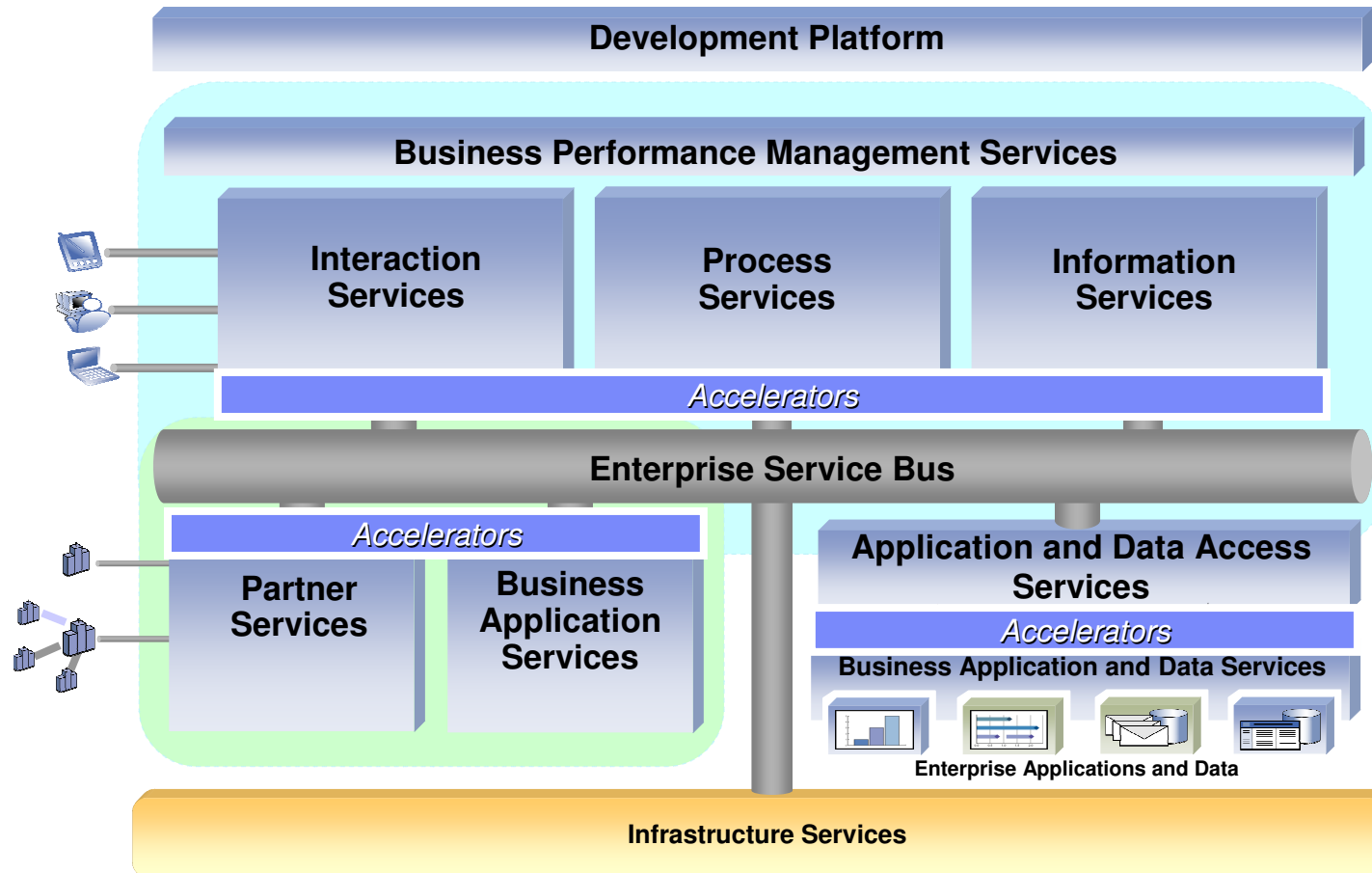


Business Integration Reference Architecture



Business Integration Reference Architecture

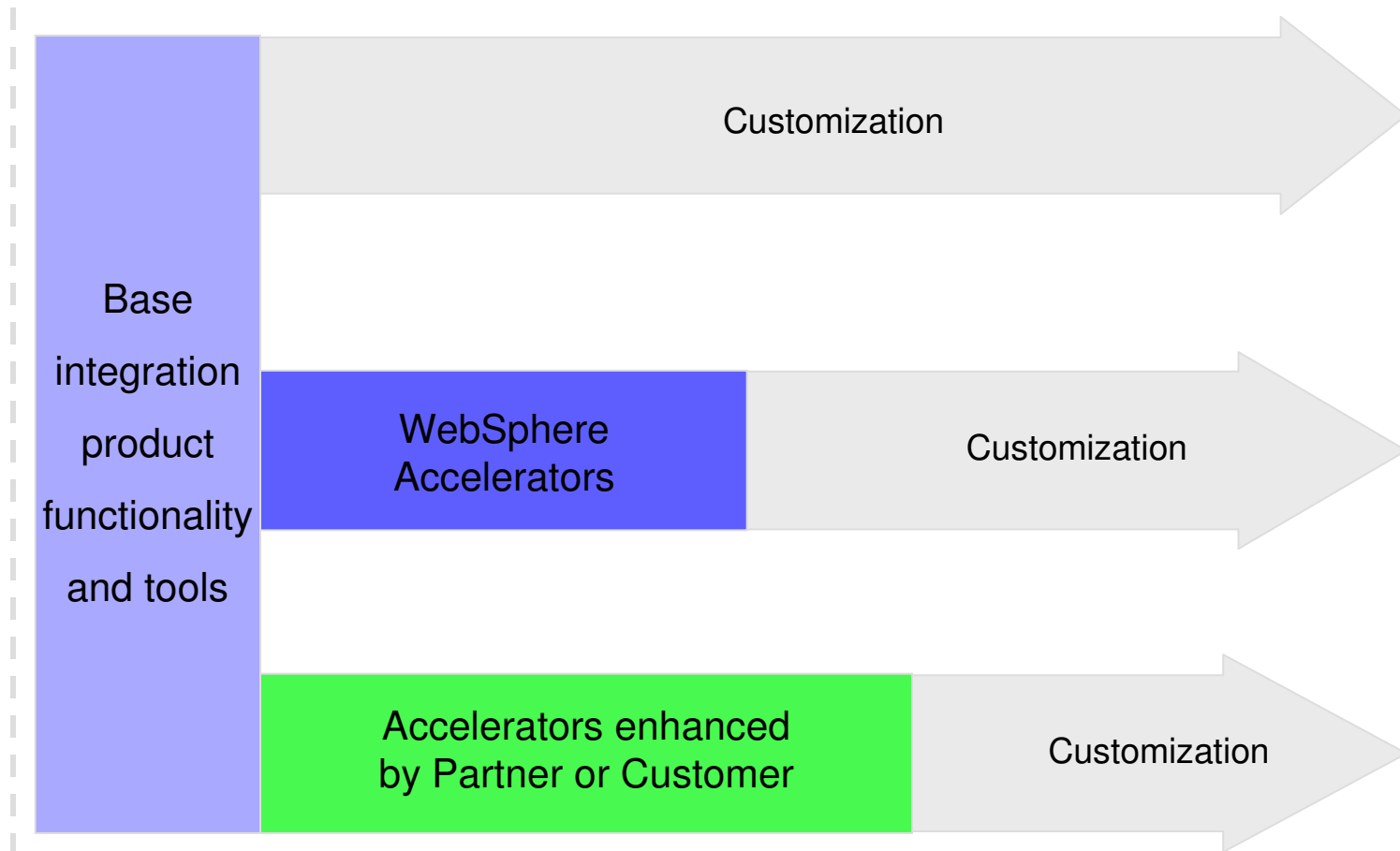
Accelerators



Accelerators

Solution Starting Point

Completed Solution



Reduce the time, effort, and cost of implementing integration solutions



Accelerate: Pre-built speeds Time-to-Value

Pre-built Portlets	Process Templates	Adapters	Commerce	Data Access
<p>Transactional Data</p> <p>Syndicated Content</p> <p>Content / Data Retrieval</p> <p>Enterprise Applications</p> <p>Applications / Functions</p> <p>Knowledge Extraction</p> <p>Content / Data Retrieval and Analysis</p>	<p>Procurement CRM</p> <p>Order Management</p> <p>Financials and Human Resources</p> <p>Collaboration Foundation</p> <p>Insurance</p> <ul style="list-style-type: none"> ➤ Life ➤ Property and Casualty <p>Telecommunications</p> <p>Retail</p> <p>Healthcare</p>	<p>Application</p> <ul style="list-style-type: none"> ▪ SAP ▪ PeopleSoft ▪ Seibel ▪ Oracle ▪ JD Edwards ▪ Many more! <p>Technology / Data Handlers</p> <ul style="list-style-type: none"> ▪ JDBC ▪ JMS ▪ Jtext ▪ Exchange ▪ CORBA ▪ Many more! <p>Mainframe</p> <ul style="list-style-type: none"> ▪ CICS ▪ IMS ▪ VSAM ▪ DB2 ▪ Natural ▪ Many more! 	<p>Business Context Engine</p> <ul style="list-style-type: none"> ➤ Entitlement ➤ Personalization ➤ Globalization ➤ Analytics <p>Configurable Business Processes</p> <ul style="list-style-type: none"> ➤ Marketing ➤ Merch ➤ Catalog / Content ➤ Order Mgmt ➤ Trading <p>Foundation / Tools</p> <ul style="list-style-type: none"> ➤ LOB User ➤ Administrator ➤ Developer 	<p>Biological Data and Algorithms</p> <p>Text & Excel XML</p> <p>WebSphere MQ</p> <p>Extended Search</p> <p>DB2 II Classic Federation for zOS</p> <p>ODBC</p> <p>Teradata</p> <p>Oracle</p> <p>SQL Server</p> <p>Informix</p> <p>Sybase</p> <p>DB2 Family</p>

WebSphere's Industry Solutions Accelerators

IBM Middleware Solution for Automotive

- Product Lifecycle Management
- Factory to Enterprise Integration
- Dealer Collaboration
- Early Warning for Warranty
- Systems & Software Engineering
- Telematics



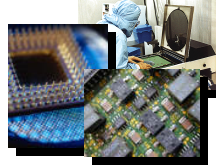
IBM Middleware Solution for Retail

- Merchandising
- Item Management
- Inventory Management
- Store Operations
- Multi-Channel Management
- Advertising, Marketing & Promotions



IBM Middleware Solution for Electronics

- Product Innovation Mgmt
- Software Lifecycle Mgmt
- Supply Chain Collaboration
- Business Performance Mgmt
- Risk & Compliance



IBM Middleware Solution for Telecom

- OSS / BSS Optimization
- Contact Center Optimization
- Mobile Services Delivery
- Partner Content Enabler
- Next Gen Network Services



IBM Middleware Solution for CPG

- Item Management
- Customer Management
- Brand Management
- Consumer Information Management
- Risk & Compliance Management



IBM Middleware Solution for Energy & Utilities

- Trading and Settlement
- Mobile Workforce Management
- Contact Center
- Asset Operations
- Regulatory Compliance



WebSphere's Industry Solutions Accelerators cont.

IBM Middleware Solution for Government

- Access
- On Demand Workplace
- Collaboration
- e-Forms & Records Management
- Emergency Response



IBM Middleware Solution for Financial Markets

- Front Office Insight
- Trade & Order Management
- Financial Information Interchange
- Post Execution Integration
- Risk and Compliance



IBM Middleware Solution for Life Sciences

- Clinical Trials & Management
- Annotation & Knowledge Sharing
- Clinical Genomics
- Investigator Recruitment & Trials Mgmt
- Corporate Information Asset Management



IBM Middleware Solution for Banking

- Branch Transformation
- Channel Empowerment
- Core Systems Transformation
- Risk and Compliance Foundation
- Wholesale Payments Processing



IBM Middleware Solution for Healthcare

- Patient-centric Portal
- Collaborative Network
- Clinical Decision Intelligence
- Payer Services Portal
- Health Plan Administration

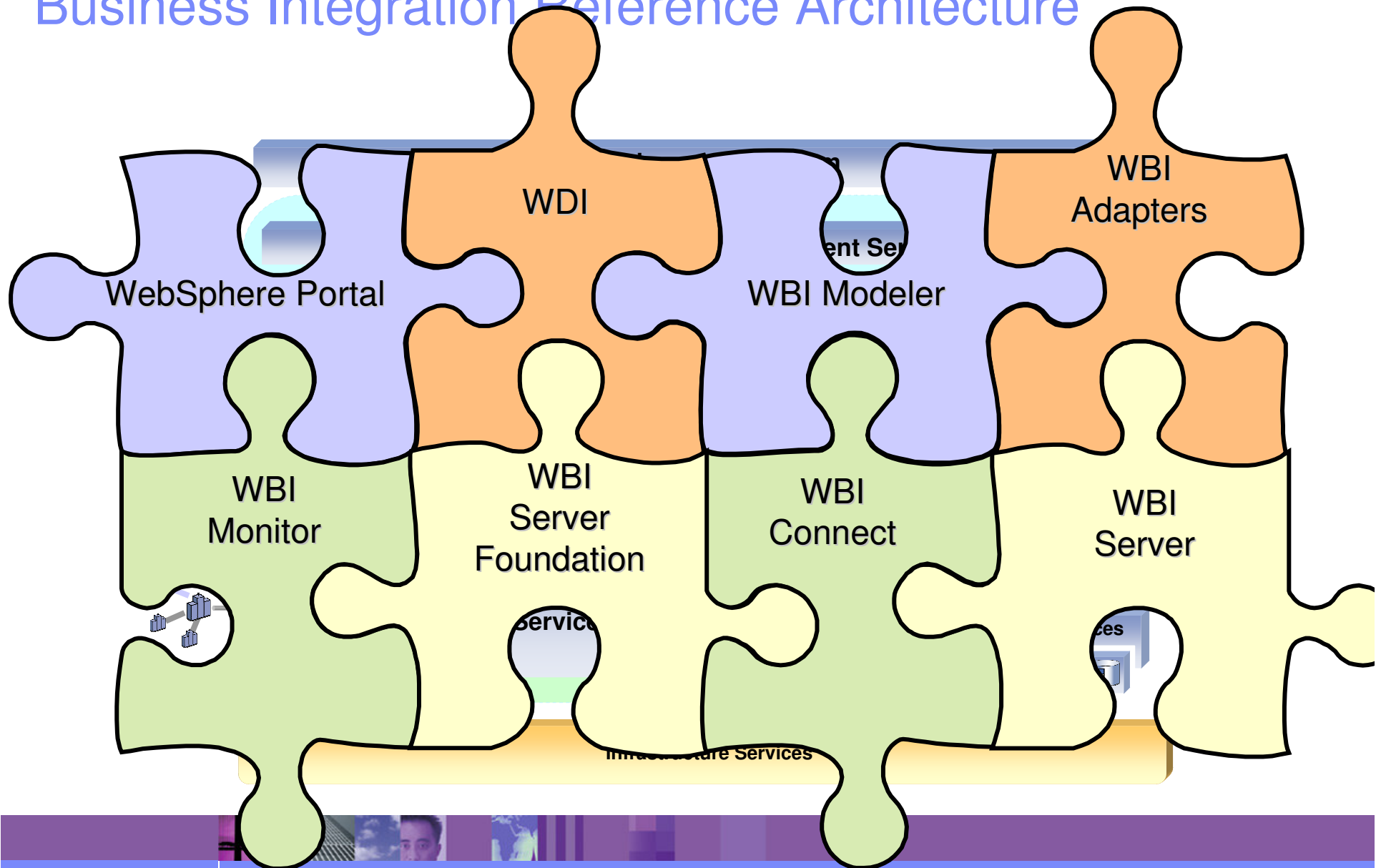


IBM Middleware Solution for Insurance

- Claims Management
- Underwriting
- Policy Management
- Channel Distribution Integration
- Customer Insight



Business Integration Reference Architecture



धन्यवाद

Hindi

多謝

Traditional Chinese

ขอบคุณ

Thai

Dankie

Afrikaans

Спасибо

Russian

Gracias

Spanish

Siyabonga

Zulu

Thank You

English

Danke

German

شكراً

Arabic

Obrigado

Brazilian Portuguese

Grazie

Italian

多谢

Simplified Chinese

Merci

French

நன்றி

Tamil

ありがとうございました

Japanese

감사합니다

Korean

Tak

Danish / Norwegian

Tack

Swedish

