Integration auf Basis von BizTalk Server

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Agenda

• Herausforderungen
• Architektur und Grundlagen
• Orchestrierung von Diensten
• Anwendungsbeispiele
Customer Pain Points

**INCONSISTENT INFORMATION**
- Disparate systems
- Proprietary data formats, messages, schemas
- Investment in Legacy systems

**INEFFICIENT PROCESSES**
- High cost Manual processes
- Lack of asset and processes visibility
- Lack of collaboration with business partners

**LACK OF BUSINESS AGILITY**
- Changing business environment
- New Standards and Compliance requirements
- New Technological innovations
Integration Challenges Increase with Scope

**Scope Across:**
- Services in the same application
- Applications
- Domains
- Divisions
- Organizations
- Hosting platforms

**Challenges:**
- Location changes
- Sequencing changes
- Semantics differences
- Transport disparities
- Interaction model incompatibility
- Quality of protection
- Error recovery
- Monitoring & visibility
- Quality of service
BizTalk Server

CONTINUOUS INNOVATION EVERY 2-3 YEARS

V1 BizTalk: Server 2000
- XML B2B

V2 BizTalk: Server 2002
- EAI (partner adapters)
- Vertical B2B

V3 BizTalk: Server 2004
- BPM
- Partner Adapters
- Host Integration

V4 BizTalk: Server 2006
- SOA/ESB
- BPM
- Adapters in Box
- Extend B2B (+EDI/AS2)

V5 BizTalk: Server 2006 R2
- SOA/ESB
- BPM
- Extend B2B
- RFID

V6 BizTalk: Server 2009
- RFID Mobile
- & Std Pack
- SOA/ESB(2.0)
- BPM
- Extend B2B
- BAM+
- ALM Support
- Updated Swift
- Hyper-V support
- SQL Server 2008 and Windows Server 2008

V7 BizTalk: Server 2010
- Windows AppFabric
- SOA/ESB(2.1)
- SharePoint 2010 BCS
- Data Mapper
- Trading Partner Management
- Secure FTP
- Updated Swift & HIPAA
- SQL Server 2008 R2
- Windows Server 2008 R2

500 Customers
2,000 Customers
4,000 Customers
7,000 Customers
8,500 Customers
10,500 Customers
BizTalk Server

- Business Activity Monitoring
- B2B Integrations
- Business Rules Engine
- RFID and Sensor Platform
- Line of Business Connectivity
- RELIABLE MESSAGING/ORCHESTRATION
BizTalk Runtime Architecture

1. RECEIVE ADAPTER
2. RECEIVE PIPELINE
3. MAPPING
4. RECEIVE PORT
5. ORCHESTRATION
6. MAPPING
7. SEND PIPELINE
8. SEND ADAPTER

MESSAGE BOX

- Publish
- Subscribe
- Receive Port
- Send Port

HOST

XML, EDI or Flat File Message
BizTalk Server Capabilities

- Management & Operations
- Business Rule Framework
- Business to Business Integration
- Business Activity Monitoring
- AppFabric Connect
- Orchestration
- Tools
- Messaging
- RFID Platform
Messing
**BizTalk Simplifies Interoperability With The “Out Of The Box” Components**

<table>
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<tr>
<th>TECHNOLOGY</th>
<th>LOB</th>
<th>LEGACY (Host)</th>
<th>ADAPTER PACK</th>
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<td>DB2 Universal Database for open platforms (AIX, Linux, Solaris, and Windows)</td>
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<td>SOAP</td>
<td>Microsoft Commerce Server</td>
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Orchestration Service Composition

- Model driven visual logic
- Technology Agnostic
- Flexible transaction and exception handling
- Reusable design patterns
Orchestration Benefits

- Automates complex messaging patterns and system workflows
- Increases manageability through visual development
- Reduces change impact through separation of concerns
Business Rule Framework Benefits

**BUSINESS RULE AUTHORING**

- Provide Rule abstraction and automation
- Enable rapid rule changes to align with business needs
- Increase information worker productivity
- Provide consistent rules across various systems

**BUSINESS RULE ENGINE (BRE)**

![Rule Example]

- Conditions:
  - AND
    - (Monthly Base Income + Monthly Secondary Income) is greater than Requested Loan Amount
  - OR
    - Months Employed is greater than or equal to 6
    - Months in Current Home is greater than or equal to 6

THEN

- Update the loan Status to Approved for this loan
Business Visibility

- **Reduce costs** by escalating and mitigating problems earlier
- **Increase visibility** of shared KPIs across organizational boundaries
- **Enhance performance** of overall process execution
Postal Workers Use Latest Technologies, Process 100 Per Cent More Mail Items a Day

**Customer Business Challenge**

- Until recently, Saudi Arabia lacked a standardized addressing system. Each city had a different schema for numbering homes using numeric and alphanumeric characters.
- These factors were driving up the costs of providing the postal service because it took a long time to process mail. Postal workers delivering mail at home also had to rely on experience to find addresses.

**Solution**

- **Saudi Post** worked with Microsoft® Gold Certified Partner ESRI’s geographic information systems (GIS) technology to establish an address-mapping solution.
- Microsoft BizTalk® Server to integrate all the systems used for the new addressing and postal delivery solution.

**Customer Results/Benefits**

- High Customer Satisfaction with 100 Per Cent Automated Service
- Addressing System Helps Saudi Industry Offer New Services
- Employees Process 100 Per Cent More Mail
- Enables new services
- Gulf Countries Make Their Postal Systems 80 Per Cent More Productive

Using integrated Microsoft technologies, we can track the mail, direct postal workers to the right address, and help ensure delivery within the appropriate time. An important factor for the project’s success was integrating Microsoft technologies with other line-of-business applications.
“Everything we create should be reusable and available for the next project or business request. We expect the investment in Microsoft technologies and strong design patterns to reduce our implementation costs by around 20 percent.”

Jeremy Lock, Head of IT, British Energy Trading & Sales

British Energy Trading & Sales Supports Integration With Business Intelligence Tools

**Customer Business Challenge**

- BRITISH Energy Trading & Sales was looking for an IT environment that would effectively support its integrated wholesale and retail trading divisions with improved business intelligence solutions.

**Solution**

- A service-oriented architecture encompassing a new Enterprise Service Bus based on Microsoft® BizTalk® Server and Microsoft SQL Server®.

**Customer Results/Benefits**

- Adjusts to environment
- Reduces development costs
- Provides business control
- Supports business needs

BRITISH Energy Trading & Sales was looking for an IT environment that would effectively support its integrated wholesale and retail trading divisions with improved business intelligence solutions.