Breaking the Data Bottleneck to Achieve SOA Objectives

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Agenda

- What is SOA?
- Data Bottleneck
- Traditional Strategies
- Data Services
- Demo of Data Service Middleware
- Q & A
What is a Service Oriented Architecture (SOA)?

- Definition:
  - An IT strategy that organizes the discrete functions contained in enterprise applications into interoperable, standards-based services that can be combined and reused quickly to meet business needs.

- Objectives:
  - Improve productivity of end user of IT applications
  - Speed up time to solution for IT projects
  - Reduce cost of new IT projects
  - Promote interoperability of disparate applications
  - Leverage reusable services
Objectives at a top Wall Street bank

Support Multiple Projects

1. Prime Brokerage Reporting
2. Risk Management
3. Back Office Reconciliation
4. Portfolio Balancing

While...

- Satisfying real-time data needs
- Promoting reusability
- Improving response times
- Lowering total costs

SOA & Data Services

Existing Data

- Packaged Apps
- RDBMS
- Data Warehouses
- XML Web Services
- Flat Files
Data Bottleneck to Achieving SOA Objectives

- Data is complex
- Data is diverse
- Data is spread across the enterprise in various technology and application silos
  - Relational Databases
  - Data Warehouses
  - Data Marts
  - Packages Applications (SAP, Peoplesoft, Siebel)
  - Documents and Flat Files
Traditional Strategies

- Hand Code
- File Extracts / Database Replication
- Data Marts / Warehouses

Business Solutions

Constant Change

Data Integration Challenge

Existing Data

Siloed & Complex
Traditional Strategies
Replication-based Approaches Not Always Optimal

**Batch refreshes**
- Delay real-time information

**Building marts**
- Forces the business to wait longer for solutions
  - Wait, wait, wait!

**Replicating data**
- Adds significant costs

**More silos & complexity**
- Slows future IT progress
Data Services

Business Solutions

Data Service

Real-time Information

Virtualizes

Abstracts

Federates

Siloed & Complex

Dashboards
Reporting
Applications

Customers
Orders
Impedes

Impedes
Employees

Employees

Packaged Apps
RDBMS
Data Warehouses
XML
Web Services
Flat Files

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Data Services and other SOA Components

- **SOA Management**
- **UDDI Registry**

**Business Solutions**

- **BPM**
- **ESB – Service Orch. and Aggr.**

**Data Services**

- **Transaction Services**
  - **App Server**

- **Packaged Apps**
- **RDBMS**
- **Data Warehouses**
- **Web Services**
- **XML**
- **Flat Files**
Demo - Easy to Use Modeling & Code Generation

Business Solutions

- Dashboards
- Reporting
- Applications

Composite Studio

- Drag and Drop Designer
- Metadata Integration & Mgmt
- Standard Drivers
- Pre-built Enterprise Apps
- Data Services

- Automated Code Generation
- XML/SQL Transformations
- Scripting Optional

Existing Data

- Packaged Apps
- RDBMS
- Data Warehouses
- Web Services
- Flat Files
Demo - High Performance Query & Reliable Delivery

**Business Solutions**
- Dashboards
- Reporting
- Applications

**Data Services**
- Access / Connectivity
- Query Optimization
- Federation
- Abstraction
- Delivery via Service or View

**Composite Information Server**
- Data Security
- Caching
- Clustering
- Flexible Management
- Technology Independent

**Existing Data**
- Packaged Apps
- RDBMS
- Data Warehouses
- Web Services
- Flat Files

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Q & A

- White Papers:
  - *Understanding the Critical Need for Data Services when Building a SOA*
    - Linthicum Group
  - *Case Study: When Drug Discovery Needs Data Fast*
    - Pfizer Corp.