

Open Source Business Intelligence

The SOA Way

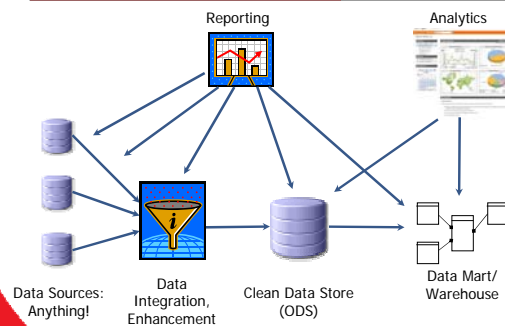
Agenda

- Business Intelligence
- SOA and Business Intelligence together
- Open Source Business Intelligence with JBoss
- Q & A

Examples of Business Intelligence

- Hospitals are using business intelligence to move from an accounting to a "business line" view of their organization
- A large plumbing and supply company in Oregon discovered that their "best" customer was actually costing them money
- Financial institutions are using business intelligence tools to help detect fraudulent security trading patterns, money laundering, etc.
- An emergency room wanted to improve the process of diagnosing and admitting stroke patients
 - ✓ Process analysis needed information to identify process issues and monitor process performance over time

Business Intelligence Architecture



Standing on the Pillars

- Data Quality
- Customer Data Integration (CDI)
- Master Data Management (MDM)
- Business Performance Management (BPM)
 - ✓ Dashboards
 - ✓ Business Rules
- Business Activity Monitoring (BAM)
- Forecasting
- Visualization
- Data Mining
- Real Time BI

SOA vs BI

Different focus

- Business Intelligence
 - ✓ Data => information
 - ✓ After the transaction has finished
- SOA
 - ✓ Transactions and processes
- Both say: "reuse what you have"

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SOA History - A series of storms

- Enabling technology and architectures
 - ✓ IBM: APPC/LU 6.2, HLLAPI, CICS, SNA
 - ✓ Microsoft: DCOM, .NET
 - ✓ CORBA/IIOP
 - ✓ EAI
 - ✓ EII
 - ✓ Web Services
 - ✓ ESB
 - ✓ JBI
- Always the same goal, but different technologies and standards
- Getting bigger every year

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BI History – rolling thunder

- A problem space rather than a technology or architecture
- Theoretical basis from Kimball and Inmon
- More fractured end-to-end
 - ✓ ETL vs output (OLAP)
- Little standardization
 - ✓ XML/A and MDX
 - ✓ SQL extensions
 - ✓ JOLAP: dead
- A journey, not a destination
- Getting bigger every year

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Similarities and Overlap

- Many similarities
 - ✓ Development process
 - ✓ Semantic modeling needed
 - ✓ The ideal is one version of the truth
 - Not possible
 - ✓ Dealing with Legacies
 - Technology mashup!
 - ✓ Politics of exposing information and processes
- Overlap
 - ✓ BPM + BAM + SOA
 - ✓ BI justifies and directs SOA
 - ✓ SOA can access BI
 - Data => information
 - Rules engines
 - Alerts => visualization

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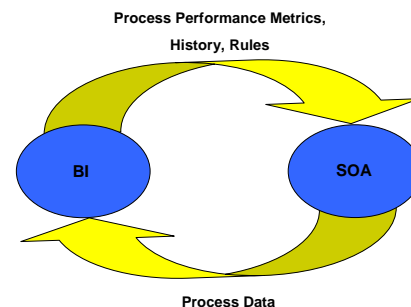
Formal Process Improvement

- Then:
 - ✓ Business Process Reengineering
 - ✓ Total Quality Management
- Now:
 - ✓ Six Sigma
- Technology Problems
- Data problems

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BI supports SOA



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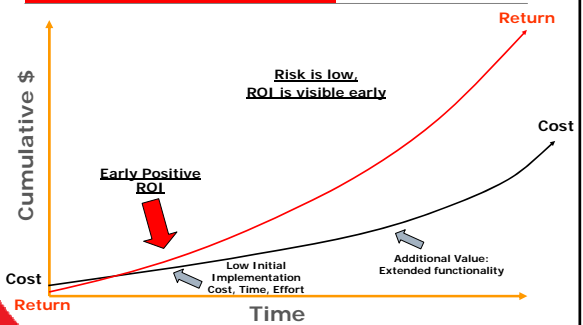
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Open Source BI

Changing the game

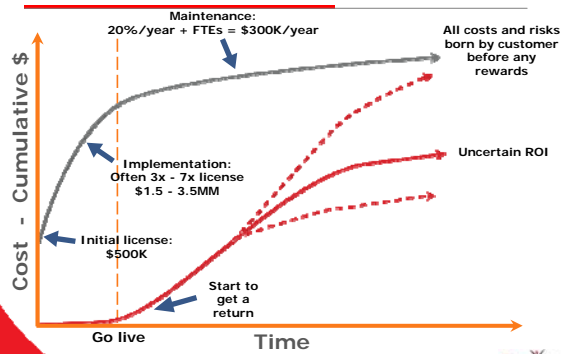
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What we all want



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This is what we get: BI. SOA?



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Open Source - Another Way?

- Big licenses lead to large, high risk projects to get ROI
- This is not a BI best practice
 - ✓ Best to pick a few questions to answer and then build on success
- Open source
 - ✓ Changes the cost structure
 - ✓ Allows organizations to follow best practices
 - ✓ Open Source infiltration model

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SOA with JBoss

- JBoss Application Server
- Tomcat
- JBoss Portal - WSRP
- jBPM
- JBoss Messaging
- JBoss Transactions
- JBoss Rules
- JBossWS

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Open Source Java BI Options

- Reporting
 - ✓ JasperReports
 - iReport – GUI designer
 - ✓ BIRT
 - Eclipse focus
- Analytics
 - ✓ JPivot – OLAP user interface
 - ✓ Mondrian – ROLAP engine
 - ✓ Not Java, but can be integrated
 - R – Statistics, Data Mining
 - Weka – Data Mining
 - Palo (Jedox) – Spreadsheet server

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Open Source Java BI Options

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- Data Integration
 - ✓ CloverETL
 - ✓ Kettle
 - ✓ KETL
 - ✓ Octopus
- Integrated BI technology stacks: leveraging JBoss
 - ✓ JasperIntelligence
 - JasperReports and beyond
 - ✓ SpagoBI – ObjectWeb, JBoss
 - ✓ Pentaho
 - ✓ OpenI - Software as a Service
 - ✓ JBoss partners

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Databases

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- Needed for data integration and data warehousing
- MySQL
- PostgreSQL
 - ✓ Bizgres – optimized for data warehousing, web log analytics examples

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Reporting: JasperIntelligence

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- Interactive report parameter prompts
 - ✓ Filtering
 - ✓ Sorting
 - ✓ Grouping, etc.
- Broad range of output channels
 - ✓ PDF, HTML, XLS, RTF, CSV, TXT, XML

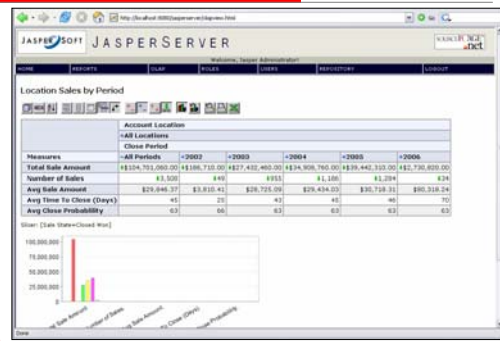


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OLAP: Slice and Dice

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SOA with OSBI

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- SOA as a data source for BI
- Providing services in SOA collaborations
- Analyzing SOA based processes for insight and improvement
 - ✓ Reporting
 - ✓ Analytics
 - ✓ Dashboards

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Q & A

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Thank you!

Open Source Business Intelligence
The SOA Way

JBoss Partners: BI

- Appian Enterprise - BPM
- Factor3 Technologies – BAM
- Seagull Software (LegaSuite) – BPM
- Pantero – Data Integration
- Ascential – Data Integration