Business Intelligence in the Cloud

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Agenda

- Introductions
  - Cloud
  - BI
  - Jaspersoft
- Open Source Powers the Cloud
- Jaspersoft Cloud BI
- Futures
Where are we on the hype cycle?

Hype?  Reality?
What is “the Cloud?”

“only” 1.9M options

“quantum physics” = 600k results
What is “the Cloud”?

Analysts

Academics

Community

“…a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”

National Institute of Standards & Technology (NIST)

Cloud Computing is Internet-based computing, whereby shared resources, software, and information are provided to computers and other devices on demand, like the electricity grid.
What is “the Cloud?”

Remember the 3’s - Computing that is …

On-Demand

Elastic

Pay-as-You-Go
What is “the Cloud”?

- **Flavors**
  - **SaaS/AaaS (Software/Application as a Service)**
    On-demand application, e.g., Gmail
  - **IaaS (Infrastructure as a Service)**
    On-demand hardware and software, e.g., Amazon EC2
  - **PaaS (Platform as a Service)**
    On-demand app development, deployment, e.g., Google AppEngine

- **Public** (e.g., Amazon EC2, Rackspace OpenStack) vs. **Private** (“On-Premise” / e.g., VMware vCloud)
Hybrid Clouds

“Hybrid environments will dominate.” IDC, April 2010

Private
- Designed for, and access restricted to, a single enterprise (or extended enterprise)
- An internal shared resource, not a commercial offering
- IT Org is the “vendor” of the shared/std service to its users

Public
- Designed for a market, not a single enterprise
- Open to a largely unrestricted universe of potential users

Hybrid
- Enterprise’s cloud services portfolio includes both private and public cloud services
- Some specific services are delivered through a combination of public and private models (e.g., private cloud “bursting to” a public cloud service)

Integrated Mgmt
What Customers Want from Cloud Vendors

Q: How important is it that cloud service providers...
(Scale: 1 = Not at all important  5 = Very Important)

- Offer competitive pricing: 91.6%
- Offer Service Level Agreements (SLAs): 88.6%
- Option to move 'cloud' offerings back on premise: 87.8%
- Provide a complete solution: 86.0%
- Understand my business and industry: 84.5%
- Allow managing on-premise & cloud together: 82.1%
- Support many of my IT needs: 81.0%
- Offer both on-premise and public cloud services: 79.2%
- Are a technology and business model innovator: 78.3%
- Have local presence, can come to my offices: 72.9%

Source: IDC Enterprise Panel, 3Q09, n = 263
What’s Desired in the Cloud?

Q: Rate your likelihood to pursue the cloud model for the following

Collaboration Apps
Web Apps
Data Backup/Archive
Business Apps
Personal Apps
Storage on demand
IT Management
Server on demand
BI/Analytics
App Dev/Test/Deploy
Technical Apps

% rating 3, 4 or 5
(scale: 1 = not at all likely, 5 = very likely)

Source: IDC Enterprise Panel –
What kind of “BI” are you using today?

a. We use a BI platform from Oracle, MSFT, SAP, IBM, etc.
b. We use some custom SQL query reports and Excel
c. Does Excel count?
d. We don’t really do BI right now
What is BI?

- **Business Intelligence**
  - “What happened?”
  - Reporting: static question and design
  - Why did it happen?”
  - Analysis: interact with data

- **Predictive Analytics**
  - “What will happen?”
  - Also Statistical, data mining, etc.
  - “R”
Jaspersoft Overview

A Commercial Open Source Business Intelligence Company

- Transforming Data into Decisions
- Through ...
  - Reports
  - Dashboards
  - Analysis
## Jaspersoft Overview

A Commercial Open Source Business Intelligence Company

<table>
<thead>
<tr>
<th><strong>Cost Effective</strong></th>
<th>80% less than traditional BI providers*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flexible</strong></td>
<td>Modular, 100% Java, Lightweight for Cloud, SaaS, On-Premise</td>
</tr>
<tr>
<td><strong>Any User</strong></td>
<td>Application &amp; Report Developers, Business Users, Data Analysts</td>
</tr>
<tr>
<td><strong>Proven</strong></td>
<td>Worlds Most Widely Deployed &amp; Highest Growing BI Vendor</td>
</tr>
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Corporate Summary

Headquartered in San Francisco, approx. ~120 employees worldwide

Recognized by industry analysts and journalists

Funded by venture capital / private equity firms and strategic partners: Morgenthaler Ventures, DCM, Partech International, Scale Venture Partners, SAP Ventures, Adams Street Partners & Red Hat

~60% 2009-2010: Year-over-Year sales growth

More than 40 global partners including:

- Right Scale®
- InfoBright
- Red Hat
- Vertica
- Oracle®
- Workbrain Japan
- Talend®
- Ingres
Jaspersoft Momentum

Every Minute …
- 6 product downloads

Every Day …
- 240 New registered community members
- 30,000 users building BI applications

Every Month …
- 250 New Customers

Worldwide Adoption
- 11 million product downloads
- 13,000 Commercial Customers
- Nearly 1,000 Software Subscribers
- 160,000 production deployments
- 150,000 registered community members
Sample Jaspersoft Customers

Software & Technology
- redhat
- SIEMENS
- RLP Technologies
- prosilient Technologies
- allstream
- HANDYSOFT
- Fat Spaniel Technologies
- CENTRIC CRM
- alfresco

Public Sector
- United States Postal Service
- VANDERBILT UNIVERSITY
- NASA
- Nebraska
- U.S. DEPARTMENT OF DEFENSE

Financial Services
- QED
- Virgin money
- LeasePlan
- HARLAND

Manufacturing
- Rockwell Automation
- 3M Worldwide
- Dupont
- Building Engines

Telecommunications
- BT
- swisscom
- T Deutsche Telekom

Travel & Transportation
- AIR FRANCE
- SOUTHWEST.COM
- MATRIX
Jaspersoft Business Intelligence Suite
Reporting, Analysis, and Data Integration

iReport
Report and Dashboard Designer

JasperServer
Ad Hoc Reports, Integrated Analysis, and Dashboards

JasperAnalysis
Interactive OLAP Data Analysis

JasperETL
High Performance Data Integration

World's Most Widely Deployed Reporting Library
- Developers

Developers
Developers & DBAs
Business Users
Business Users
Configure for any directory provider supported by Acegi

Use any data source supported by Jasper Reports
- JDBC (RDBMS, TXT, CSV), XML, XML/A, Hibernate, EJB, POJO, Custom

MySql, Oracle, Microsoft SQL Server, IBM DB2, etc.

Configure for any directory provider supported by Acegi
- LDAP, JAAS, MS Active Directory, IBM Tivoli, SiteMinder, CAS, Tomcat realm, static/in-memory, custom database lookup, X509

Jaspersoft Technical Architecture

Replaceable, Customizable Front-End Clients Interface with Service APIs
- Web UI: SiteMesh, Spring WebFlow, JSP, AJAX
- Extensions: JSR-168 portlets, JMS, etc.

*** Business Logic: Service APIs ***
- Reporting Engine
- Ad Hoc Reporting
- Report Scheduling
- OLAP
- Repository
- Object Permission
- User Authority
- Extensions

Spring Framework "wires together" Jaspersoft Services ▲ with Implementations ▼

"Pluggable" Back-End Implementations can be Configured and/or Replaced
- Jasper Reports
- Jasper Server Pro
- Quartz Scheduler
- Mondrian, JPivot
- Hibernate ORM
- Spring Security
- Extensions

Integration Interfaces
- Web Services / C/C++, PHP
- Java API
- HTTP API
- XML/A (OLAP)
Open Source Powers the Cloud

• Free license in the cloud
  – Use as you wish for unlimited users
  – Any code changes must be contributed back (AGPL)
  – Jaspersoft open source in the cloud
    • Partners: JumpBox® BitNami (Bitnami.org)

• Commercial editions add: (via RightScale)
  – Multi-tenancy
  – Enterprise features:
    • AJAX based designer
    • Metadata layer for simplifying data complexity
    • Audit logging
# Cloud-Based BI Use Cases

<table>
<thead>
<tr>
<th>Use Case</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| **Enterprise: BI Proof-of-Concept** | • “Sandbox” for fast experimentation  
                             • Managed service delivers low cost |
| ![Financial Services firm](image) | **Enterprise: Project-Based BI** | • Time saved through “instant-on”  
                             • Enables rich analysis and low cost |
| ![Large, Global Systems Integrator](image) | **Cloud-based SaaS Application** | • Scale with budget, usage |
| ![Health Care Organization](image) | **Small to Mid-Business BI** | • Scarce or no IT resources  
                             • Capital and OpEx cost savings |
| ![SCALE Venture Partners](image) | **Web 2.0 Cloud-Based Business** | • Matches company infrastructure  
                             • Lowest TCO |

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## Cloud BI vs. SaaS BI

<table>
<thead>
<tr>
<th></th>
<th>Cloud BI</th>
<th>SaaS BI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Audience</strong></td>
<td>Technical Implementer, System Integrator, Value Added Reseller</td>
<td>Business User</td>
</tr>
<tr>
<td><strong>Use Case</strong></td>
<td>Generic stand-alone and/or Embedded</td>
<td>Specific BI Application for specific use case</td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>$$ to start</td>
<td>$ to start</td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>Virtually unlimited</td>
<td>Virtually none</td>
</tr>
<tr>
<td><strong>Scaleability</strong></td>
<td>TBs</td>
<td>GBs</td>
</tr>
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</table>
Jaspersoft Cloud BI

No upfront costs
Affordable commercial subscriptions
Pay as you go

Fully integrated BI stack at the push of a button

Push-button launch
Zero training for business users
Simple, powerful Web based UI
Jaspersoft’s Strengths for the Cloud

• Architecture
  – Modern
    • 100% Java
    • Open standards
    • Pluggable (configurable services … LDAP, Schedulers, Visualizations)
    • Customizable & Re-skinnable (Sample)
  – Consistent across Cloud, Virtualized, SaaS, On-premise
  – Built-in multi-tenancy
    • Critical for SaaS
    • Enterprise IT
• Proven in small and large deployments
# Jaspersoft Cloud Pricing

<table>
<thead>
<tr>
<th></th>
<th>Support</th>
<th>JasperServer Professional</th>
<th>JasperAnalysis Professional**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard On-Demand Instances</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>Standard</td>
<td>$300 per month</td>
<td>$500 per month</td>
</tr>
<tr>
<td>Large</td>
<td>Standard</td>
<td>$600 per month</td>
<td>$1000 per month</td>
</tr>
<tr>
<td>Extra Large</td>
<td>Standard</td>
<td>$1200 per month</td>
<td>$2000 per month</td>
</tr>
<tr>
<td><strong>High CPU On-Demand Instances</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>Standard</td>
<td>$600 per month</td>
<td>$1000 per month</td>
</tr>
<tr>
<td>Extra Large</td>
<td>Standard</td>
<td>$2400 per month</td>
<td>$4000 per month</td>
</tr>
</tbody>
</table>

The pricing listed above is promotional pricing. Contact cloud@jaspersoft.com to purchase. Pricing is per instance month consumed for each instance type, from the time an instance is launched until it is terminated. Each partial instance-month will be billed as a full month. Subscription options are available for OEM / ISV customers wishing to embed Jaspersoft into their cloud application. Contact us for details and pricing.

*Does not include cloud account (eg, Amazon), cloud management (eg, RightScale), data integration, or business data store or data warehouse

**Includes JasperServer Professional

Go to: jaspersoft.com/cloudBI
Cloud BI / Data Warehouse Architecture

www.RightScale.com/BI

On-Premise Data Sources:
- RDBMS
- POJO, EJB, XML, MDX, Custom

ETL

BI User
BI Power User

Analysis
Reporting
Dashboards

Cloud BI in Action

• Social networking trivia game
• Selection criteria
  – Low budget to get started
  – Full Integrated BI, ETL, DW stack
  – Source data from a variety of systems
• Main benefits
  – Uncover patterns in traffic
  – “Slicing and dicing” of large amounts of data
  – Turn Amazon cloud images on and off on-demand

“The products work incredibly well together. With very limited time and effort, we were able to get our cloud-based analytic Engine up and running.”

Co-Founder
Coming Soon: More Cloud “Plays”

- Four Production deployment models
  - Cloud Management (RightScale)
  - IaaS: Public Clouds
  - Private Clouds
  - PaaS
Thank You!

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• Learn more
  – www.jaspersoft.com/cloud
  – www.rightscale.com/bi