Analytics @ IBM: Delivering Business Intelligence

Paul Scorza
Vice President, Finance, Incentives, Supply Chain and Technical Support Transformation
IBM
Agenda

- Our CIO Transformation
- IBM’s Business Analytics Story
- Keys to a Successful Business Analytics Center of Competence
To support our strategy we had to evolve IT from a cost center to a value center by…

- Establishing a framework for transformation
- Redefining our organization via an Enterprise Process Framework with executive Enterprise Process Owners
- Creating a single Business Transformation and IT organization as a shared service
- Installing a governance model based on: accountability, integration, and transparency
- Aligning our CIO agenda with the goals of the business
Before Jan 2009

CIO

Influence

BU

BU

BU

BU

$ People

$ People

$ People

$ People

EPO

EPO

EPO

EPO

IBM IT $ IN BUSINESS UNITS

After Jan 2009

Decision makers
Prioritize
Make tradeoffs
Control $s
Application Owners

CIO

TE

TE

TE

Requirements & Priority

IBM IT $ IN CIO

© 2011 International Business Machines Corporation
IBM’s Business Analytics Story
Historically, our “functionally fragmented” Business Analytics (BA) environment created a number of challenges for business and technical leadership …
Today our Business Analytics (BA) environment is centralized with a common infrastructure and standardized processes … providing numerous advantages for the business.

Blue Insight is the world's largest private cloud environment for business analytics which delivers a centralized hosting and support environment for Cognos 8 BI applications. Business Analytics Center of Competence (BACC) manages the Blue Insight environments and provides guidance to adopters to efficiently deliver business analytics solutions enterprise wide.
What exactly is Blue Insight?

Transformational technology delivery matched with process and solution delivery model changes

Common BA “appliance like” service for delivering Business Intelligence to IBM (Infrastructure)

- Common extensible infrastructure (HW & SW) – zLinux for scale
- Common operational support
- Common management of Cognos 8 BI licensing and Level 3 support
- Transformational technology delivery matched with process and solution delivery model changes

Common service definition and boarding process (Common Processes)

- Defined BA tooling service scope (Reports, Adhoc, cubing, pervasive, etc.)
- Defined standard security and LDAP management
- Common operational processes

Business analytics experts to assist adopters (People)

- Business Analytics Center of Competence (BACC)
- Consultants available to assist in solution definition and consumption of service
Why Blue Insight?

<table>
<thead>
<tr>
<th>Proliferation of Cognos installations</th>
<th>Standardized operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Stops the proliferation of siloed analytics installations</td>
<td></td>
</tr>
<tr>
<td>▪ Without centralization and oversight an estimated 35-50 independent installations would occur across IBM within 36 months @ a cost of ~$30M</td>
<td></td>
</tr>
<tr>
<td>▪ Commoditize tools and the operations service levels</td>
<td></td>
</tr>
<tr>
<td>▪ Delivers operational excellence for a well defined service</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Platform and organizational structure</th>
<th>Analytics skills are scarce</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Provides central “Always on” analytics platform on a scalable zLinux environment</td>
<td></td>
</tr>
<tr>
<td>▪ BACC drives the BA strategy for IBM internally</td>
<td></td>
</tr>
<tr>
<td>▪ Maximizes leveraging scarce Cognos skills by centralizing some into the BACC</td>
<td></td>
</tr>
<tr>
<td>▪ Promote sharing and education to grow teams with common analytics skills</td>
<td></td>
</tr>
</tbody>
</table>
IBM’s Blue Insight Analytics Cloud leverages standardization and centralization for process and IT delivery efficiencies

In the spotlight

IBM

Our commitment to informed decision making led us to consider private cloud delivery of Cognos via System z, which is the enabling foundation that makes possible +$25M savings over 5 years.

- IBM CIO Office

Blue Insight enables IBM to deliver business analytics with greater efficiency across the enterprise

- Establishes a corporate strategy for service delivery of BA
- Reduces the time and cost to deliver BI to new divisions and departments
- Maintains current departmental business processes, corporate security and compliance
- Maximizes departmental budgets by subscribing to standard services
- Private cloud solution implementation offers economies of scale and flexibility

Customer results:

- Consolidating +40 multi-product, departmental BI deployments to Cognos 8 BI on System z
- Deploying a private cloud to support +200,000 named users across our global workforce
- Realizing value from +100 data sources across IBM
Service delivery scope is business domain agnostic…

- Adopters cover all geographies and business process areas
- User groups range from 50 K to < 50 users
  - Sales Commissions
  - Sales Management
  - Sales Operations
  - Supply chain – Fulfillment, Procurement
  - Finance – Expense, Revenue
  - Brand/Unit reporting
  - Channel reporting – Direct, Business Partner, Web

- Blue Insight user support
  - 2009: 72K users (exceeded 2009 objective of 55k)
  - 2010 objective: 120K users (currently 160K users have boarded)
  - 2011 projection: 300K users (expected to hit steady state)
Our transformation and deployment plans for Blue Insight are multi-year and multi-faceted, focused on expanding the IT service and maturing business processes.

**Consolidate (2009)**
- Established executive stewardship of BA Globally
- Formed a dedicated cross-functional BACC
- Converged / centralized BA infrastructure
- Leveraged existing trusted data sources
- Defined and standardized boarding processes and services

**Virtualize (2010)**
- Extended common boarding processes
- Completed analytics maturity assessment
- Extended shared SaaS model for defined services
  - Predictive Analytics (SPSS)
  - Data Services

**Automate (2011)**
- Integrate boarding automation
- Complete boarding adopters and sunsets
- Automate boarding and planning process
- Adopter self definition
- Automated evaluation of infrastructure and service impacts
- Automated evaluation of infrastructure impacts
- Automated communications of status, audit reporting and billing

### Analytics Consumers Growth
- **Simplified**
  - 66K
- **Shared**
  - 160K
- **Dynamic**
  - 300K

### Blue Insight Growth (2011+)
- Identify growth areas for standardization of services
- Data Tools – ILOG Jrules™
- Notes integration
- Portals / Dashboards
- Harvest IP from solutions
IBM created a BACC to provide Analytics Common Services to accelerate delivery and yield economies of scale.

- **Business Domain**
  - IT Transformation Executive (TE)
    - Solution Architecture
    - Project Management
    - Data extract
    - Data modeling
    - Intelligent analytics

- **BACC**
  - Analytics tool delivery in the cloud
    - ETL
    - Business Intelligence
    - Predictive analytics
    - Warehousing
  - Standard boarding services
  - Architecture standards and governance
  - Solution consulting
  - Defined operation levels
  - Education consulting

- **Components**
  - Cognos (BA)
  - SPSS (Prediction)
  - DataStage (ETL)
  - Marts / Cubes

- **Solutions**

© 2011 International Business Machines Corporation
CIO Dashboard

Supporting strategic and operational agenda of the CIO: through instrumentation, priority setting, communication, target definition, progress measurement/ transparency and business analytics.

- Establish **top to bottom management system** ensuring alignment to the CIO priorities and performance objectives
- Provide **drill down capability** to meet the needs of each direct line organization
- Drive fundamental change towards a **balanced dashboard between run and transform**
- Enable **optimization, streamlining and automation of CIO operations**
- Ensure **clear outcomes and targets** for CIO organization – make visible baseline and target measurements
- Provide **reference point** to drive Business Analytics maturity across IBM and **showcase Cognos"**
Keys to a successful business analytics center of competency

- **Executive sponsorship of the CIO:**
  - Extensive socialization of the notion of centralized services as being self service and necessary for enterprise efficiency without sacrificing business agility
  - Governance of licensing and infrastructure delivery of BI solutions

- **Know where BI investments are being made throughout the enterprise:**
  - "Follow the money"
    - Control points in procurement and infrastructure delivery for new BI solutions
    - Inventory and review planned investments in BI enterprise wide

- **Not all services for a particular business segment need to be controlled by the organization**
  - Cloud approach provides the tenant with central tools NOT central solutions
  - Perception by adopters needs to be a "self service" model, with extended services available

- **Positive business case:**
  - Centralized service needs to produce real savings
  - Conservative projection of 20-30% savings (IBM achieved > 50%)
- Wes Hunt
  Vice President, Customer Analytics, Information and Capabilities
  Nationwide Mutual Insurance Company

- John Macllwaine
  Head, Global Development
  Visa Inc.

- Paul Scorza
  Vice President, Finance, Incentives, Supply Chain and Technical Support Transformation
  IBM