Crawl, Walk, Run Approach: Developing a Mature Business Intelligence Capability

Emtec Boot Camp Web Event - July 2011
Agenda

- Benefits/Trends
- Industry Analyst Viewpoint
- Crawl- How & Where to Start
- Walk- Information Delivery
- Run- Building New BI Capabilities
- Ride- Advanced BI Capabilities
- Conclusion
- Resources
Developing a Mature BI Capability

Business Benefits

- Permits large volumes of data, available from across the organization, to be leveraged to improve business performance by supporting important operational decisions and strategic business initiatives.

- Information Management allows organizations to make better decisions, faster:
  - Increase Revenues, Reduce Costs, Improve Profitability
  - Tracking Actual Expenditures to Revenues
  - Operational Efficiencies - Reduce Inventory
  - Measure (A&P) Marketing Effectiveness
  - Improve the Customer Experience
  - Integrate & Disseminate Information Across the Organization
  - Help the Organization Respond to Change
 Biggest driver behind BI investment is to speed decision making – especially important in recovering markets

37% of those surveyed indicated they would spend > $1M on BI and infrastructure (down from 44% in 2009)

Gartner conclusions:
- BI is at or near the top of IT spending
- Making better decisions, faster in a Post-recession marketplace
- High complexity is a barrier to widespread deployment
- High cost is a barrier for SMB businesses

Source: Gartner 2010
Crawl, Walk, Run Approach to Developing a Mature BI Capability

- **Discover / Validate / Assess**
  - IT Developed Management Reports
  - Establish the BI Platform Environment
  - Focus on Adding Business Value

- **Information Delivery**
  - IT Provides Report Templates / Parameters
  - Building out the Data Infrastructure
  - Expanding the Business User Community

- **Building New BI Capabilities**
  - Dashboards / Content / Navigation
  - Mature BI Deployment & Support
  - Exec Users / Power Users / Report Consumers

- **Advanced BI Capabilities**
  - Enterprise-wide BI Deployment
  - BI Center of Excellence
  - Master Data Management / Data Governance
Crawl: How and Where to Start
Crawl: How and Where to Start

- **Discover / Validate / Assess**
  - IT Developed Management Reports
  - Establish the BI Platform Environment
  - Focus on Adding Business Value

- Typical Maturity Horizon is 3 to 6 Months
- **Goals** -
  - Alignment with Strategic Business Initiatives
  - Establish the BI Platform and Data Infrastructure
  - Initiate & Complete First Projects
Align Strategic Business Initiatives with BI Strategy

- **Drive out the Business Intelligence Strategy & Priorities**
  - Interviews with Exec Leadership
  - Voice of the Customer
  - Other Sources of Corporate Information
- **Evaluate Business Initiatives & Technical Complexity to Implement**
- **Strategic Business Initiatives are based on Iterative Deliverables**
- **Quantifiable Outcomes rather than Qualifiable**

Diagram:
- Technical Complexity
  - High
  - Low
- Business
  - High
  - Low

Prioritize SBI’s & Projects on this trajectory
Initial Emphasis on Reports

Ensure Report Accuracy & Time to Deliver

✦ Phase 1 – Management Reports
  ➢ Operational reports that resolve problem areas
  ➢ Reconciliation - One version of the truth
  ➢ Adopt a release level approach to incremental delivery

✦ Phase 2 – Parameterized Reports
  ➢ Satisfies one of the reasons for acquiring the BI tool
  ➢ Takes some pressure off IT to deliver reports
  ➢ Exposes business users to “self-help” reporting

✦ Ensure Report Accuracy & User Adoption
  ➢ Emphasize a strong repository design
  ➢ Focus on report quality & completeness
  ➢ Changing business user behavior is never easy
Emtec Experience

Too much Complexity
- Report complexity
  ... but the data infrastructure is not ready

Avoid the temptation to “Boil the Ocean”
- Don’t promise too much; take too long to deliver
  ... scope creep from 8 reports to 60 reports

Forgetting the Importance of User Adoption
- Design & navigation are as important as content
- Business user training & on-going support

Technical spec’s over Business Functionality
- Deliver business value (not cool Techie-stuff)
- Incremental delivery
Recommended Approach

Set realistic Goals & Timeline

✦ People: IT Collaboration with Business Users
  ➢ IT & Business Analyst collaboration
  ➢ Changing Behaviors & User Adoption Training

✦ Processes: Evolutionary change, Build on Success
  ➢ Formal process to Discover / Validate / Assess current state
  ➢ Re-develop & add value to existing Reports
  ➢ Transition from current to new BI Platform

✦ Technologies: Architect BI Services for the Future
  ➢ Initial BI Platform deployment
  ➢ Initial BI Repository design
  ➢ Data Infrastructure is incomplete
  ➢ Admin, Design & Developer Training
Walk:
Information Delivery
Walk: Information Delivery

- Discover / Validate / Assess

- Information Delivery
  - IT provides Report Templates / Parameters
  - Building out the Data Infrastructure
  - Expanding the Business User Community

- Typical Maturity Horizon is 3 to 6 Months

- Goals -
  - Continue to align with Strategic Business Initiatives
  - Enabling Business User access to information, not to raw data
Focus on Information Delivery

- BI Platform becomes the Framework for all Reporting
  - Information access is through the Repository
  - Define standard business rules in the Repository

- Build on the Operational / Management Reporting foundation
  - “Local” analysis using XLS, data extracts through BI Platform
  - Power user Query & Analysis style reports
  - Report Menus- Drill-down & Drill-across reports

- Working towards a Data Infrastructure that is 100% trusted, not necessarily complete
  - Ensure DW data is accurate & timely
  - Structured on Dimensions that support BI Reporting & Analysis
  - Commence Data Quality initiatives
Impacts on People, Processes & Technology

People

❖ Training Business Analysts as BI leaders
❖ Changing Business User behavior
  ➢ Every organization has early adopters & those who resist change
❖ Adding value to the Business User experience

Processes

❖ Beginning of “self-help” Reporting & Analysis
❖ Business Analysts provide Level 1 support

Technology

❖ Technical Training for BI Admin, Repository Design & Report Development
❖ Commence Data Quality initiatives
Emtec Experience

✧ Too much Complexity
  ➢ Lack of familiarity with Access, Selection menus, Drop-down lists
    ...follow a Windows design metaphor
    ...perceived poor performance is a barrier to adoption

✧ Access to BI is “clean” & non-technical
  ➢ Technical complexity is a barrier to adoption

✧ User Adoption remains an important consideration
  ➢ Ongoing Business user training, align to new capabilities

✧ Dashboards need time & experience to mature
  ➢ Phase 1 – IT understanding of what Business users want
  ➢ Phase 2 – Build out structure with drill-down to detail
  ➢ Phase 3 – Maturity - Models the business decision tree
    ...Dashboards that business users really want
Recommended Approach

Build Data Infrastructure and New BI Capabilities

✦ People - Collaboration with Business Leaders
  ➢ Business Analysts play a key role
  ➢ User Communications, Adoption & Deployment support

✦ Processes – Building new Capabilities
  ➢ Continue to Prioritize around SBI’s
  ➢ New Information in New formats
  ➢ Accuracy, Timeliness & Completeness

✦ Technologies – Early stage of an Enterprise Information Architecture
  ➢ BI Platform is the “Trusted” reporting platform
  ➢ Data Infrastructure is 100% trusted
Run: Building New BI Capabilities
Run: Building New BI Capabilities

- Discover / Validate / Assess
- Information Delivery
- Building New BI Capabilities
  - Dashboards / Content / Navigation
  - Mature BI Deployment & Support
  - Exec users / Power users / Report consumers

Typical Maturity Horizon is 9 Months to 2 Years

Goals –
  - Reach new Business user communities
  - Deliver new information in new formats
  - Data Infrastructure matures to support new capabilities
Focus on Building New Capabilities

❖ Add new capabilities to the BI Platform
  ➢ New tools are installed on the BI Platform
  ➢ New capabilities will require additional data
  ➢ Data Warehouse to Data Mart ETL processes

❖ Deliver new content in new formats
  ➢ Dashboard - Design & navigation are as important as content
  ➢ Drill-down to operational information
  ➢ Advanced analytics & forecasting
  ➢ Budgeting & planning

❖ Data Infrastructure that is 100% trusted
  ➢ Production ETL, Data Quality processes
  ➢ Mature Data Architecture & Data Analysis experience
  ➢ Scales to meet peak processing periods
Impacts on People, Processes & Technology

People
- Power users are self-sufficient – Generate reports & analysis
- Widespread deployment implies “Low or No” training
- Adding value to the Business User experience

Processes
- BI Project Management
  - Emphasis on UAT & validation of content
  - Non-disruptive Deployment planning is important

Technology
- ETL processes to Import partner or Industry data
- Build interfaces to other systems / applications
BI Platform is built on a set of BI Services (SOA)
- BI Platform & Repository are common to all Reporting Tools
- Utilize XLS for Analytics within the BI Platform
- Might “spin-off” Data Marts to support Dashboards & Analytics
- Adopt formal ETL, Data Quality & Data Modeling processes
In a Mature BI Environment

Why Business Benefits

- Responsive - To changing business needs
  Prioritize around changing business needs
- Enable - Meets a wide range of business needs
- Trust - One version of the truth
- Flexibility - The right BI tool to meet the right set of requirements

How IT Benefits

- IT as a BI Services Provider, builds templates, Technical assistance
- Administration & Deployment support
- Secure, Scalable, Supportable & Robust
- Support a Local, Regional or Global deployment
  All Information delivered from a common BI Platform
Emtec Recommendations

✧ People- Achieving an Enterprise-wide Deployment
  ➢ Ongoing Business user training- staff turn-over, and “worst practices” sneak in over time
  ➢ Need Exec sponsorship to achieve a strategic deployment

✧ Processes- Evolve & Maturity of the Organization
  ➢ Formal Project Management where Data & BI work streams

✧ Technologies- New BI tools to deliver new capabilities
  ➢ New tools installed on common BI Services,
  ➢ BI Services scale to meet peak processing loads
  ➢ Production ETL processes to refresh Data Warehouse & Data Marts
  ➢ Hire or train staff for new tools
Ride: Advanced BI Capabilities
Ride: Advanced BI Capabilities

- Discover / Validate / Assess
- Information Delivery
- Building New BI Capabilities
- Advanced BI Capabilities
  - Enterprise-wide BI Deployment
  - BI Center of Excellence
  - Master Data Management / Data Governance

- Typical Maturity Horizon is 2+ Years
- Goals -
  - Organizational Maturity
  - IT as Internal Consultants & Information Services Provider
New Trends Impacting Business Intelligence

- Mobility: BI on iPad & other Tablet Devices
- Cloud Computing: On-Demand BI
- More Powerful Analytics to Empower Business Users
- (Advanced) Statistical Functions for Power Users
- BI Applied to Social Networking

“Buy for Parity: Build for Advantage”
Advanced BI Capabilities: People & Process

✧ Evolve the People & Processes
  ➢ Begin to formalize roles, responsibilities & interactions
  ➢ Evolve the structure over time

✧ Program Management & Governance
  ➢ Develop standards and publish best practices
  ➢ Authority to enforce compliance
  ➢ Not overhead...
    ...but necessary for the maturity to an Enterprise-wide BI Platform
Advanced BI Capabilities: Technologies

- Technologies
  - Mature Repository Design- Common business rules, user-enabled reporting, secure access to information
    - Probably multiple Repositories
    - Multiple channels for Information Delivery
  - Enterprise-wide BI Platform & Data Infrastructure deployment
    - ERP or Application Integration
    - Portal & Single Sign-on Integration
  - IT leadership for new Enterprise BI Capabilities
    - Data Mining / Data Discovery
    - External data interfaces
    - Master Data / Reference Data
SMB business might implement selectively

Large Organization Impact:

- Exec Leadership support is required to achieve an Enterprise-wide deployment
  - PMO & Governance = Enablement, not Overhead,
  - Best Practices = Scale, Supportable, Secure & Robust
- Necessary to achieve a deployment that spans divisions, geographies, etc.
- Internal consultants to define Data Governance policies & Best Practices
Emtec Experience

✧ As the BI deployment scales:
  - Competing BI tools lead to fragmentation, too many exceptions
  - Standards are seen as an internal barrier
  - PMO & Governance aren’t empowered to enforce standards
  - Disconnected Data Architecture & BI Architecture
    ...Change Management because a change could impact 1,000’s of Business users

✧ BI budget & tool acquisition is often driven by Business units:
  - Challenge to standardize on a BI Platform
  - Mergers, Acquisitions, Divestitures leads to a very dynamic BI environment
    ...ERP applications are merged, BI Platforms seldom are
Conclusions
Profile of a BI Strategy

Work Streams
- Business User Adoption
- Business Analysis Design / Build / Deploy
- Technical Training
- Repository Design & Admin
- Data Infrastructure Work stream

Visible to Business Users

IT Technical Infrastructure

Timeline
- Crawl: Management Report Conversion
- Walk: Query & Analysis
- Run: Explore / Discover / Predict / Visualize

BI Center of Excellence

Operational Data, Data Warehouse, Data Marts, Data Governance

Explore / Discover / Predict / Visualize

Profile of a BI Strategy
Emtec Deployment Experience

- Business user Adoption & Impact of Change becomes easier as BI Maturity develops

Diagram:
- Adoption
- Business Impact
- BI Maturity
- Crawl, Walk, Run
- Business User Adoption becomes easier over time
Emtecl Planning Experience

Structure & Coordination - Matrix developed around People, Processes & Technologies

<table>
<thead>
<tr>
<th>People</th>
<th>Current efforts</th>
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<tbody>
<tr>
<td><strong>Crawl</strong></td>
<td><strong>Current efforts</strong></td>
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<tr>
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<td>• VOC Survey &amp; Interviews</td>
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<td>• Develop SBI’s</td>
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<td>• Selected Business user training</td>
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<td><strong>H1 - 2012</strong></td>
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<td>• GELT to set strategic direction</td>
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<td>• Additional training for Q&amp;A users</td>
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<td>Organization</td>
<td><strong>H2 - 2012</strong></td>
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<tr>
<td><strong>Walk</strong></td>
<td>• IT Steering Committee alignment &amp; prioritization</td>
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<td>• Dashboard Training for Business users</td>
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<td><strong>Run</strong></td>
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<td>• Data Marts &amp; Dashboards Aligned to SBI's</td>
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<td>Processes</td>
<td><strong>Ride</strong></td>
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<tr>
<td><strong>BI Strategy</strong></td>
<td><strong>Planned for 2013 &amp; beyond</strong></td>
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<td>• PMO &amp; Governance</td>
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<td>• Align with Enterprise Data Architecture</td>
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<td><strong>Technologies</strong></td>
<td><strong>H1 - 2012</strong></td>
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<td>• Align BI Tool with ERP or other Applications</td>
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<td>• Architect BI Platform</td>
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<td>• Developer &amp; Admin Training</td>
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<td><strong>Walk</strong></td>
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<td>• Build Q&amp;A Repository</td>
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<td>• Develop Parameterized Reports / Q &amp; A capability</td>
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<td>• L1 Support by Power Users,</td>
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<td>• L2 Support by IT</td>
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<td><strong>IT Enablement</strong></td>
<td><strong>Run</strong></td>
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<td></td>
<td>• Portal &amp; Single Sign-on</td>
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<td></td>
<td>• Build out back end data infrastructure</td>
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<td></td>
<td>• Data Quality, Master Data, etc.</td>
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<td><strong>Ride</strong></td>
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<td>• Advanced Analytics, Data Mining,</td>
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<td>• Incorporate External Data</td>
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<td>• Virtualization – SAAS</td>
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Emtecl Planning Experience
Developing a Mature BI Capability

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  - Enterprise-wide BI Deployment
  - BI Center of Excellence
  - Master Data Management / Data Governance
Available Resources

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Industry Links

- TDWI (The Data Warehousing Institute)
- Regional User Groups & Conferences (Vendor Focused)

Emtec

- Emtec Website
- Information Management Brochure
- Emtec Event Archive
  - Crawl, Walk, Run Approach to Service Catalog - May 2011
  - Crawl, Walk, Run Approach to ITIL - Apr 2011
  - CMDB: Design for Success - Nov 2010
  - VBM: Measuring the Business Value of IT - Sept 2010
Crawl, Walk, Run Approach – Developing a Mature BI Capability

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This Webinar is the first in our “Crawl, Walk, Run” IM series. Next event to be announced shortly!