IBM Cognos Performance
Better Intelligence. Better Business.

Managing a Large Scale BICC

Jeremy Massimino
Director of Business Intelligence
Massachusetts Mutual Life Insurance Company

Tim Kreytak
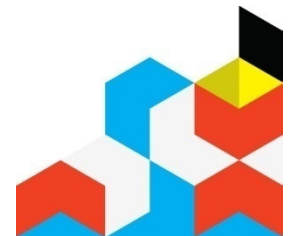CEO/Principal Consultant
The Ironside Group, Inc.

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Presentation to Cognos Performance 2009

- Given on 11/13/2009 at Grand Hyatt, NY, NY

Speakers

- Jeremy Massimino - Massachusetts Mutual Life Insurance Company
  - Director of Business Intelligence BICC (Enterprise Technology Org.)
  - Responsible for:
    - Cognos Modelers/Application Consultants
    - Database Modelers
    - Cognos Governance
    - Cognos Architecture/Integration

- Tim Kreytak – The Ironside Group, Inc.
  - CEO/Principal Consultant
    - >13 Years as a Cognos/BI/DW Consultant
    - Strategic Advisor to MassMutual around BI and Data Warehousing
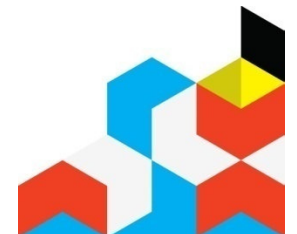
MassMutual

Founded in 1851, Massachusetts Mutual Life Insurance Company (MassMutual) is a mutually owned financial protection, accumulation, and income management company headquartered in Springfield, MA.

- *MassMutual provides a range of quality products including:*
  - *Life insurance*
  - *Disability income insurance*
  - *Long-term care insurance*
  - *Annuities*
  - *Retirement planning products.*

- *Our family companies in the MassMutual Financial Group includes:*
  - *Babson Capital Management LLC*
  - *Baring Asset Management Limited*
  - *Cornerstone Real Estate Advisers LLC*
  - *First Mercantile Trust Company*
  - *MassMutual International LLC*
  - *MML Investors Services, Inc.*
  - *The MassMutual Trust Company, FSB*
  - *OppenheimerFunds, Inc.*

Key 2008 Accomplishments	
Insurance In-Force Worldwide	$523 Billion
Assets Under Management[1]	$363 Billion
Premium and other deposits[2]	$25 Billion

1. Assets under management include assets and certain external investment funds managed by our subsidiaries. All financial information is as of and for the year ended December 31, 2008.

2. Premium and other deposits include the premiums of our worldwide insurance operations and deposits made into certain external investment funds managed by our subsidiaries.
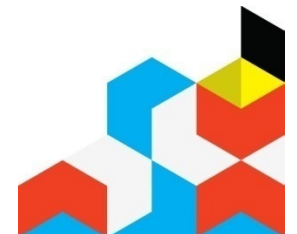
Ironside Group, Inc.

- Ironside is a Northeast based Consulting firm focused on helping it's customers leverage information as a strategic asset

- Practice areas include:
  - Enterprise Business Intelligence
  - Performance Management
  - Data Warehousing
  - Training

- IBM-Cognos Partner (since 1999) SoftwareValueNet Member

- HQ in Lexington, MA
  - Branch Offices in (Cleveland, OH and Deer Park, NY)

- IBM - Certified and Experienced Consultants
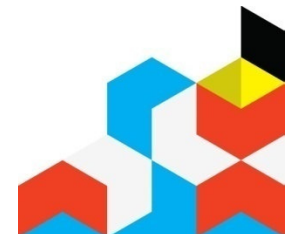
- Trusted, Flexible, and Dependable Partner

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Agenda

- BICC- Business Intelligence Competency Center

  – Organization

  – People/Process

  – Challenges

  – Training

- Cognos Architecture

  – Environment

  – Integration

  – Security

  – Content Management
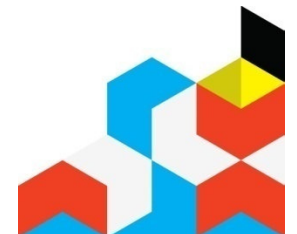
- Conclusion

- Questions

BICC Drivers

- The MassMutual Enterprise BICC was formed under a Technology simplification mandate

  – Centralize Administration and Governance of BI Technology

  – Provide standard tools, process, and resources to enable reporting and BI throughout enterprise

  – Provide an single place for business information across company

  – Standardize elements of Developer and User Training to gain economies of scale, and allow reuse of resources across projects and organization

  – Provide an internal "Consulting Service" from Enterprise IT (ETO) to Business Unit IT

  – Remove burden of architecture and security infrastructure from BU IT reporting Projects

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IT Organization / Responsibility

- MassMutual BICC is an Enterprise IT service

- Enterprise IT(BICC) is responsible for:

  – Overall technology integration

  – Supporting infrastructure, standards, and operational change management

  – Internal Consulting around BI/DW technologies

- Business Unit IT is responsible for:

  – Funding

  – Prioritization

  – Execution of project deliverables

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The Value of BICC

- Centralized Architecture

- System Administration and Monitoring

- Security (Authentication and Object only, not Data Security)

- Training

- Change Management

- Peer support of many people authoring content in a large company

- Performance Testing and Tuning

- Reporting Look and Feel Standards

- Training and Guidance of new developers

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BICC Evolution

- Prior to 2007 – MassMutual had a most of Breed approach to BI Tools (Actuate, Cognos 7, Crystal, Bex, Homegrown Apps)

- 2/2007-Enterprise Cognos 8 License

- 5/2007-Engaged Ironside Group to Help Build Enterprise Architecture, Governance Model, and Internal Team

- 2/1/2008 – Go Live of First Solution on Cognos 8.2 (Extranet)

- 9/2008 – Upgrade to Cognos 8.3

- 2009

  - 9/2009 – Successfully sunset Actuate as a Tool

  - Working to convert legacy Cognos 7 investment to Cognos 8, strategically upgrading other tools to C8 on a case by case basis

  - Over 20 applications have gone live on Cognos 8 BI infrastructure

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People - Build the Team (Began in late 2007)

- No Cognos 8 Experience in house

- Identify Internal resources with relevant experience:

  – Cognos 7

  – Data Modelers

  – Analysts and Report Writers

- Provide appropriate training

- Flexible staffing model is important to meet changing demand for resources on project by project basis

- Support team with external Consultants (Ironside Group)
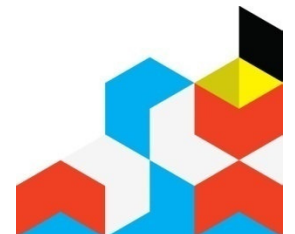
# *Current State of BICC Team*

- BI Application Designers

- Framework Modelers*

- Server Administrators/Performance Tuning*

- Report Developers

- Data Modelers

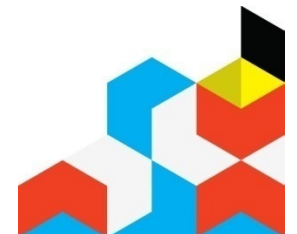* - critical skill to have in house

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Flexible Staffing Model

- Utilize Consulting/Contract Resources:
  - New Usage Patterns
    - Cubes
    - Portal Integration/SDK applications
    - Complex Framework Manager Challenges
    - SAP BW integration
    - Dashboarding and Creative Presentation of Data
  - Staff Augmentation
    - When there are not enough resources to get the job done in time frame required
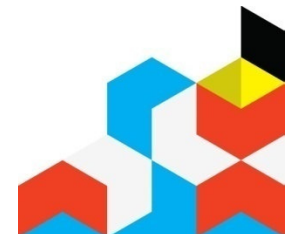 - Federated resources in business units

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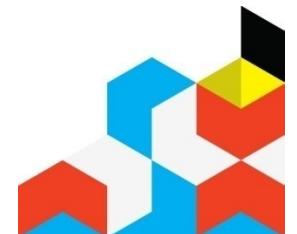
Engagement Model

- Specific Process/Document that educates reporting project teams and ramps them up quickly

- Defined to be a repeatable process that is executed for every BI project

- Engagement Model includes process:

  – Triage

  – Database Suitability Analysis

  – Architecture / Design

  – Requirements Templates and Reporting Templates

  – Architecture and Framework Modeling Support

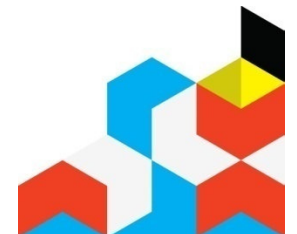 – Code/Standards Rev iew

  – Third Level Support

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Challenges Faced as MassMutual

- Data

  – Data Quality

- Reporting off of Transactional Databases

  – Often viewed as "Easier" solution to business

  – Provides "Real Time" data

  – "Cheaper" that transforming data into data mart

  – Our experience: **Performance almost always suffers**

 – Recommendation: Always perform Database Suitability

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More Challenges

- **Evolving Requirements**
  - Users new to BI often are unsure of what they want
  - Iterative Cycles more appropriate for BI projects

- **"Purple Team"**
  - Critical to involve resources that have both Business and Technical Knowledge

- **Internal Marketing of Solution**
  - Important to educate Business/IT on capability of tools
  - Necessary to avoid competing solutions to gain momentum, thus decreasing value of Technology Simplification Mandate

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Training Strategy

- Framework Modeling – Use IBM-Cognos Training + peer shadowing

- Server Administration – Peer cross training and Consulting Knowledge Transfer

- Report Studio

  – 2 Day Report Studio CBT for Basic Concepts

  – Followed by 3 day onsite class given Quarterly

- Query Studio

  – BICC developed a Query Studio class to be used as many times as necessary

- Users

  – Project specific training implemented as necessary

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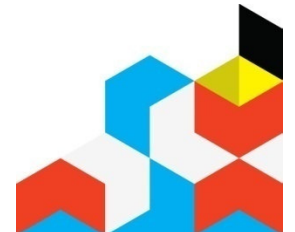
Cognos Architecture
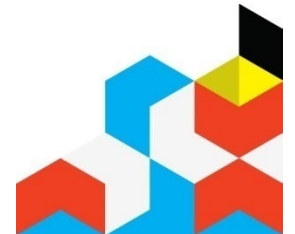
Establish the Architecture/Environment

- Building infrastructure/integration defined as a project

- Educate
  - Provide information to other IT teams of what and how the Cognos platform will operate within the MassMutual environment

- Hardware
  - Sizing - Start moderately and add hardware as usage increase
  - Test and Provide High Availability/Failover at each tier (web/app)

- Performance Testing
  - Define baseline test
  - Define expected environment performance
  - Tune, Test, and measure
 - Rinse and Repeat…..

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Environment Integration

- Security – SSO / Authentication Provider (AD, LDAP, SAP)

- Scheduler –required Custom SDK Application to fully integrate with Tivoli Scheduler

- Portals - many exist, rather than full integration, define generic application usage patterns to be applied to projects

  – Application Usage Patterns Defined

    • **Light**- Cognos Connection Access
    • **Moderate-** integration with existing internal applications/portals (parameterized URL's)
    • **Complex** - full integration with external custom applications (SDK)

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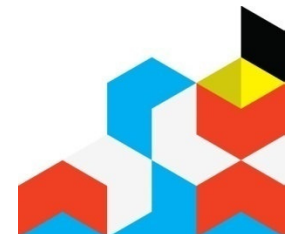
Security Model

- Authentication
  - Enterprise integration with WebSeal and SAP
  - Handled and managed at Enterprise Level
- Object Security – (reports, links, folder, etc..)
  - Defined at project level, managed via enterprise LDAP
  - Drives security of Objects in Cognos Connection
- Data Security – (Row/Column Security)
  - Defined at project level and maintained at database or LDAP level
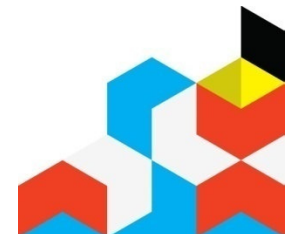 - Determines access to specific sets of data

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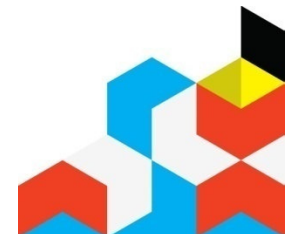
Content Management Strategy

- Report/Object naming convention enforced
  - ex:(REPO010 Quarterly Financial Report by BU)

- High Level Cognos Connection (CC) Portal Strategy Defined and Agreed to by Business

- Projects can define lower levels of tree as they see fit, but can not alter path within CC

- Use of Portal Tabs/Views Objects prevents user from having to endlessly drill thru folder to get to content

Conclusion

- We are making progress toward our goal, of delivering the right information necessary in today's challenging business climate

- Provide foundation/knowledge to move towards business self service

- Internal Resources Getting Stronger

- Better predictability in development projects

- Architects, Data Modelers, BI Technical Leads adding more value

- Less need for outside help for Daily Tasks

- Ironside's role has evolved from a day to day partner in initial stages to a more strategic realtionship

Questions?

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