IBM Cognos Performance
Better Intelligence. Better Business.

Performance 2009
IBM Industry models

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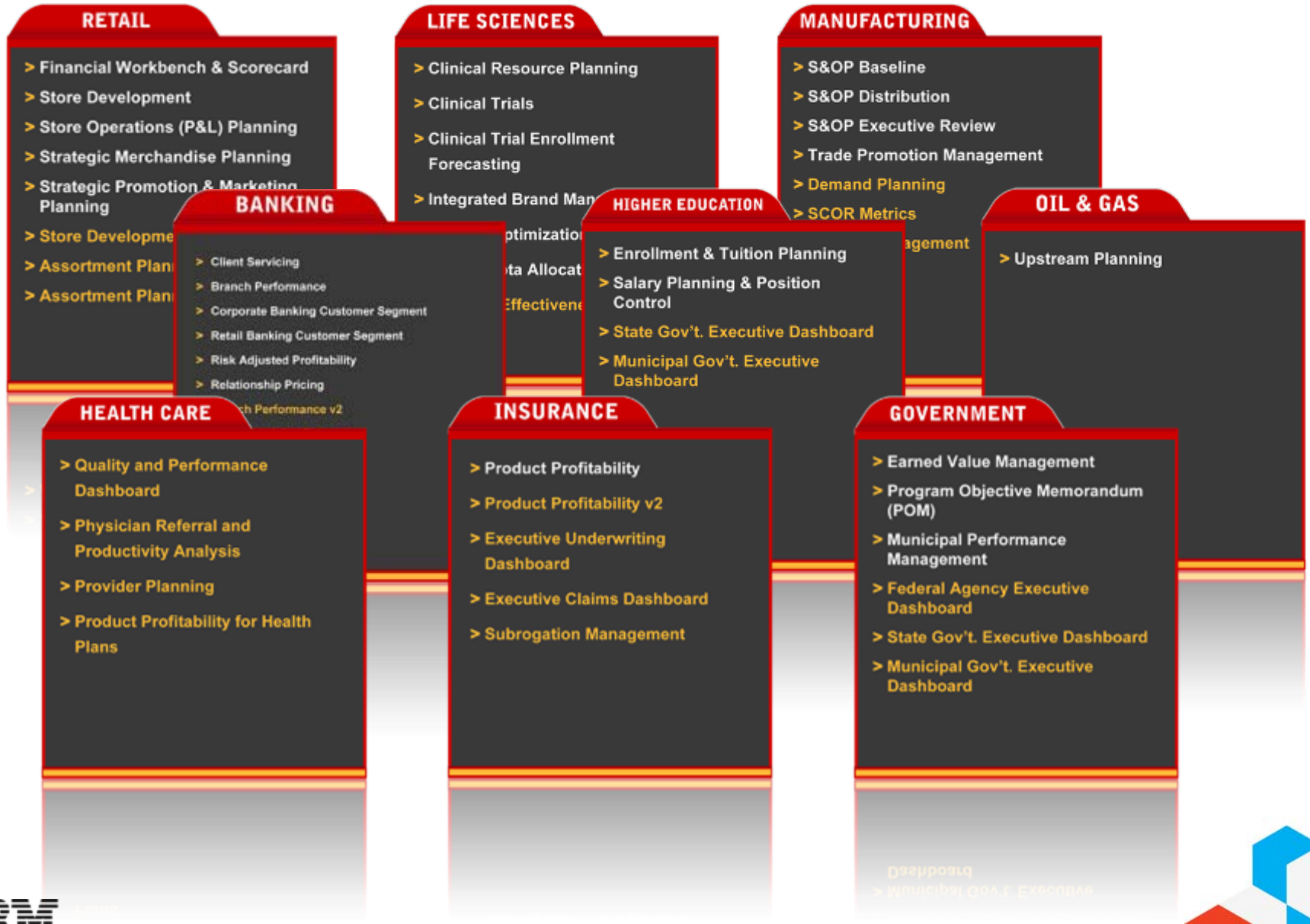
IBM Cognos Performance



Agenda

- IBM industry Models for Banking (IFW) and Insurance (IAA)
- IBM Banking Data Warehouse (BDW) and
- IBM Insurance Information Warehouse (IIW)
- IBM Industry Models and COGNOS

Industry Models for Business-Driven Development

Business Drivers
- Risk and compliance
- Cost control
- Outsourcing
- Business flexibility
- Differentiation
- Time to market
- Channels
- Customer focus

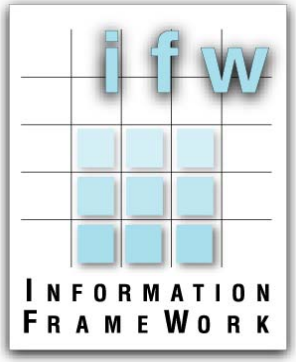
IT Drivers
- Application rationalization
- SOA
- Integration
- Maintainability
- Data consistency
- Components

EXTERNAL VALIDATION

Business content

EASE OF CUSTOMIZATION

LINK BETWEEN BUSINESS AND IT WORLDS



TRACEABILITY

STRUCTURE

ACCELERATION

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DEPLOYABILITY

Rational. software

DB2. Information Management Software

WebSphere. software

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IBM Process and Service Models

Banking
(IFW Process Models)

- KYC / Account Opening
- Lending, Syndicated Lending
- Mortgages
- Savings, Investments & Deposits
- Wealth Management
- Sales & Relationship Management
- Product & Marketing Management
- Payments
- Regulatory and Compliance
- Human Resource Administration

Financial Markets
(Financial Markets Process Models)

- KYC / Account Opening
- Lending, Syndicated Lending
- Mortgages
- Savings, Investments & Deposits
- Wealth Management
- Sales & Relationship Management
- Product & Marketing Management
- Payments
- Regulatory and Compliance
- Human Resource Administration
- Trade Processing
- Best Execution / MiFID

Insurance
(IAA Process Models)

- Enterprise Resource Management
- Channel Management and CRM
- Communications Management
- Marketing & Customer Acquisition
- Product Portfolio management
- Claim management
- Policy Administration
- Underwriting
- Financial transaction
- Reinsurance Management
- Investment Management
- Provider Management

Data Models, accelerators for Datawarehouse Projects

Banking
(Data, Process and Services Models)

- Profitability, Relationship Marketing
- Risk Management
- Asset and Liability Mgmt
- Compliance
- Business Process re-engineering

Insurance
(Data, Process and Services Models)

- Customer centricity
- Claims, Policy, Underwriting
- Intermediary Performance
- Compliance
- Risk Management
- Business Process Re-engineering

Financial Markets
(Data, Process and Services Models)

- Risk Management
- Asset and Liability Mgmt
- Compliance
- KYC and Account Opening
- Middle/Back Office Transformation

Health Plan
(Health Plan Data Warehouse)

- Claims
- Medical Management
- Provider and Network
- Sales, Marketing and Membership
- Financials

Retail
(Retail Data Warehouse)

- Customer centricity
- Merchandising Management
- Store Operations & Product Mgmt
- Supply Chain Management
- Compliance

Telco
(Telecommunications Data Warehouse)

- Churn Management
- Relationship Mgmt and Segmentation
- Sales and Marketing
- Service Quality and Product Lifecycle
- Usage Profile

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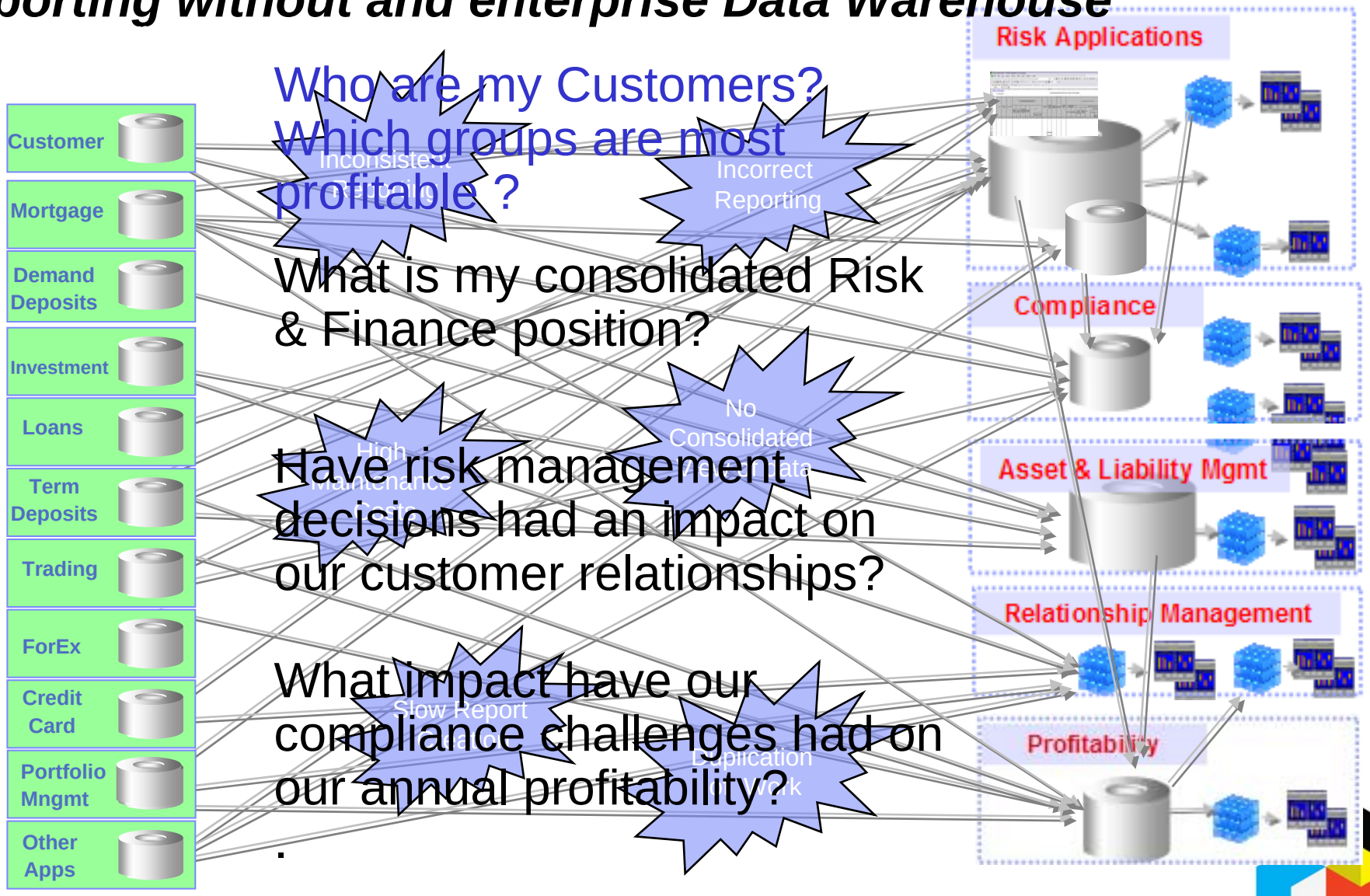
Reporting without and enterprise Data Warehouse



Who are my Customers? Which groups are most profitable ?

What is my consolidated Risk & Finance position?

Have risk management decisions had an impact on our customer relationships?

What impact have our compliance challenges had on our annual profitability?

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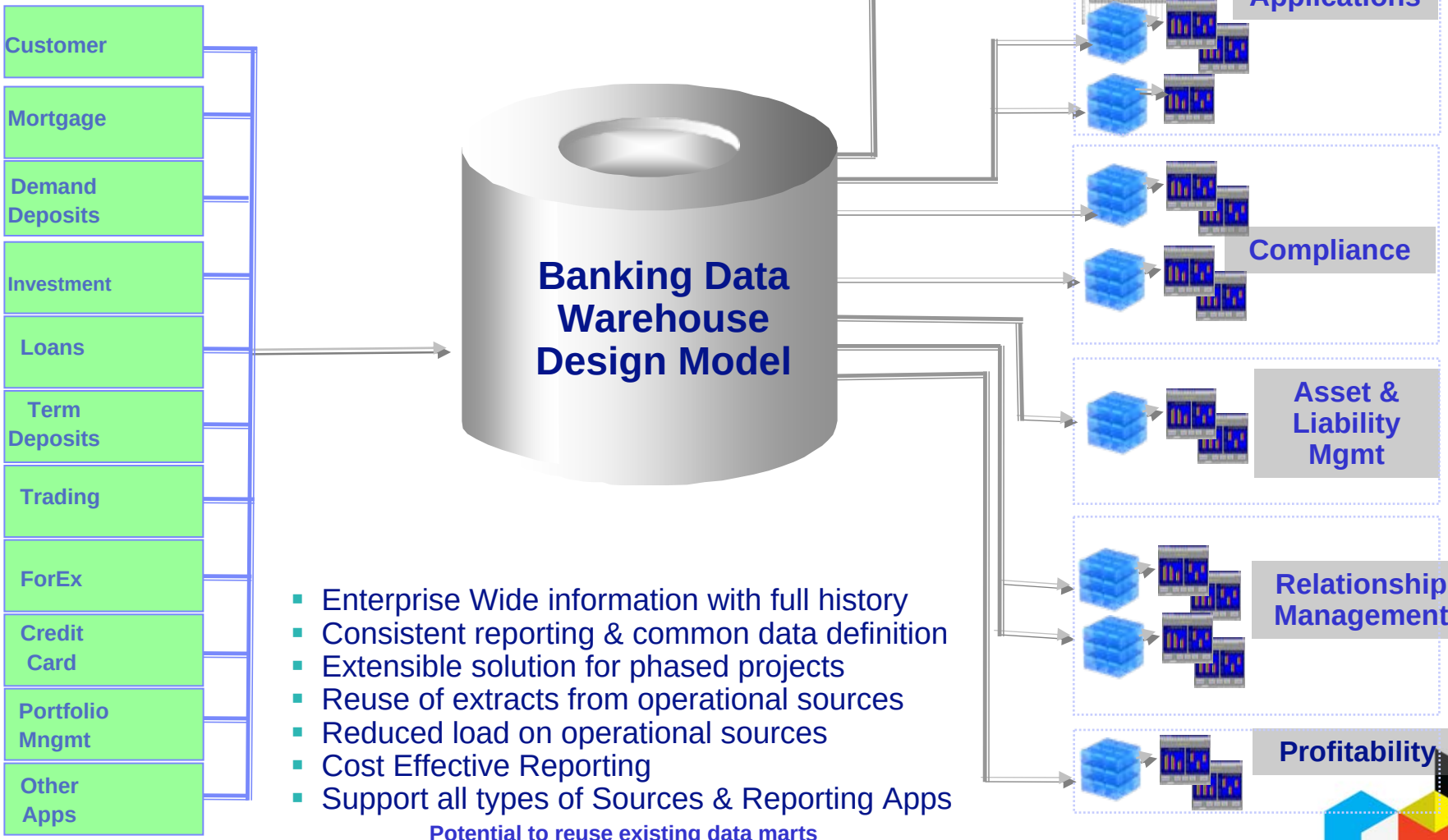
The need for a central data repository



- Enterprise Wide information with full history
- Consistent reporting & common data definition
- Extensible solution for phased projects
- Reuse of extracts from operational sources
- Reduced load on operational sources
- Cost Effective Reporting
- Support all types of Sources & Reporting Apps

Potential to reuse existing data marts /reports or facilitates re-design

Value Proposition Industry Models

IBM Industry Data warehouse Models

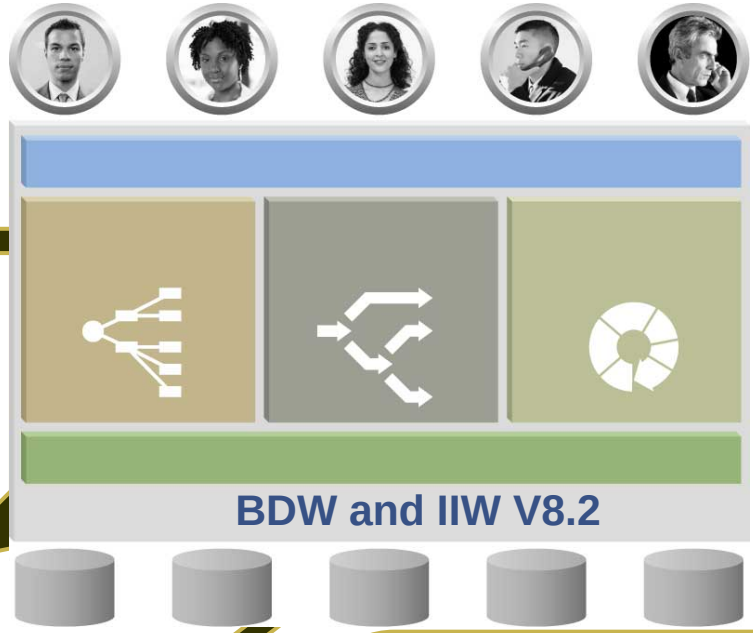
Data Warehouse Models used to as pre-defined accelerators to the definition of Data Warehouse structures. (including linkages to Info Server, MDM Server and Cognos)

IBM Industry Process Models

Process Models provide pre-defined analysis-level processes, used to ensure consistency and reuse of processes and activities within the Financial Institution

IBM Industry Integration Models

Integration Models provide the pre-defined analysis and design level structures to enable more consistency and reuse in the creation of Services



Key Capabilities

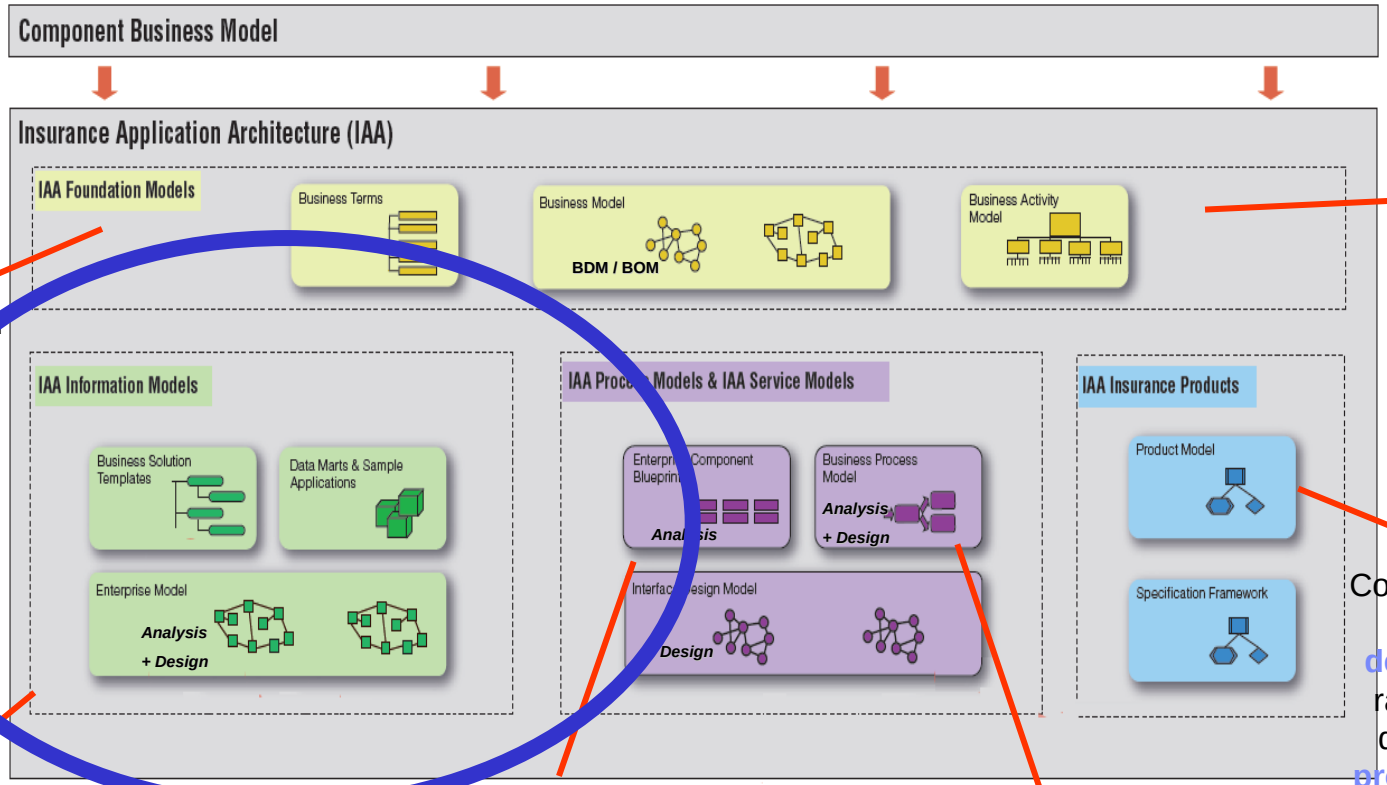
- Open platform Industry expertise
- Business structured
- Easily customized
- Standards compliant
- Integrated tooling

Key Value Propositions

- Enables business users to easily scope and customize their own requirements
- Facilitates step-by-step business focused development and roll-out
- Delivers regularly updated business, technical and regulatory content
- Creates open technology platform for any application or integration solution
- Manages definitions and standards in complex IT environments

The Insurance Application Architecture (IAA) is a comprehensive set of insurance specific models that represents best practices in insurance and is a natural extension to the Component Business Model

A Component Business Model (CBM) is a starting point that enables our clients to identify gaps, **determine investment opportunities** and **identify the critical initiatives** to implement for value.



Basis for enterprise architecture and model based application development

Rapidly and accurately define the **scope** of **projects**, existing applications and new initiatives

Comprehensive basis for **product definition**, portfolio rationalization and design of **flexible product rule engine**

Enterprise-wide specification for data marts and the enterprise data warehouse

Enterprise wide specification and design for **software components** and **services oriented architectures**

Comprehensive basis for **process improvement** and simplification

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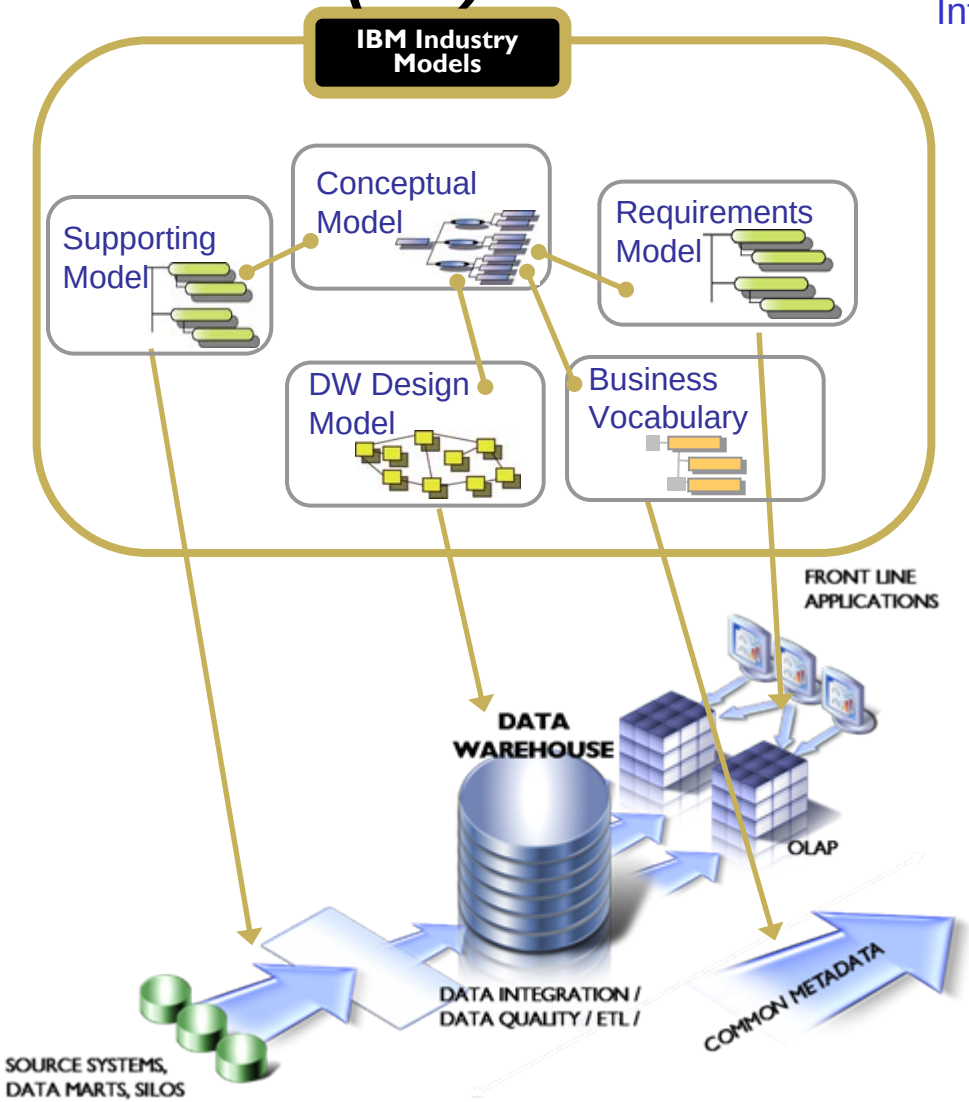
The advantages of the IBM models for Banking (IFW) and Insurance (IAA)

Why don't we just build our own model from scratch?

- IFW and IAA bring together **18 years** of experience in the financial services with over 600 existing customers
- Predefined and extensive solutions encompassing over **4,800 business data items**
- **Integrated model solutions** from business classification, through business process, data warehousing and service oriented architecture
- Extensive business design, with a solution specific focus to optimize **phased project** deliverables
- Built in support for business **requirements** such as Basel II, SOX, IFRS/IAS, AML, KYC, KPI, MISMO, MiFID, Solvency II, etc.
- Well **documented** and tested data models
- Business **consultants** experienced in banking and insurance industry and project implementation
- **Pre-empts** data requirement often not discovered until late in the project
- Releases to include **ongoing** data requirements of industry directives and new initiatives

It is CONTENT + FRAMEWORK

IBM Industry Data Warehouse Models for Banking (BDW) and Insurance (IIW)



Integrated set of models to address the different design requirements for building a reference model / data warehouse

Business requirements

- Pre-defined Industry-specific Analytical Requirements are used to accelerate the specification of User requirements

Cross-Enterprise wide Concepts

- An enterprise business reference dictionary

Data Warehouse Design

- Entity-Relationship Data Warehouse Model

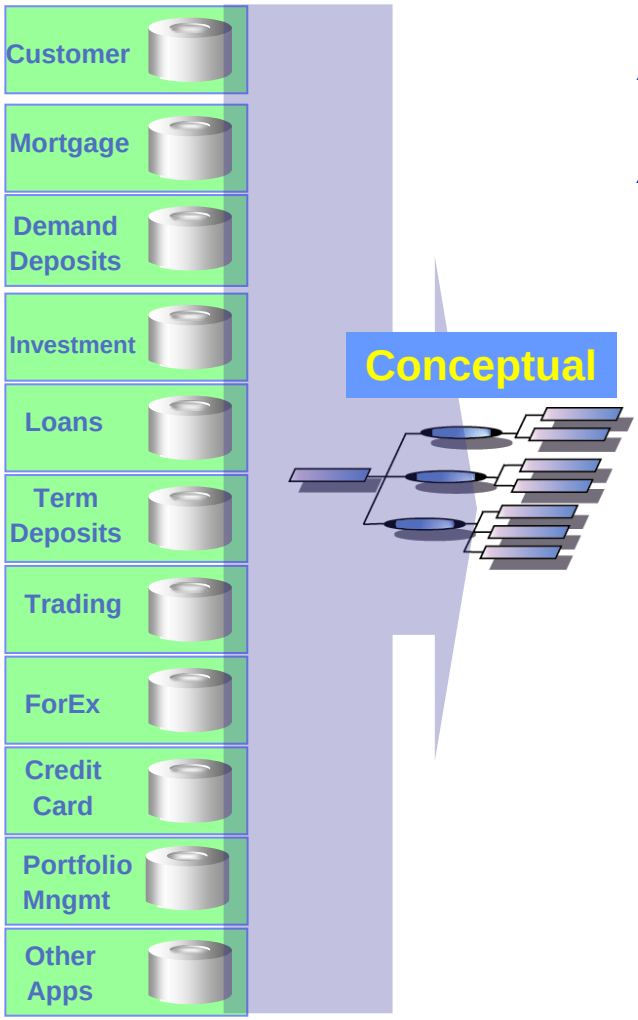
Business Vocabulary

- Predefined initial vocabulary of business terms (high-level business dictionary)

Supporting Models

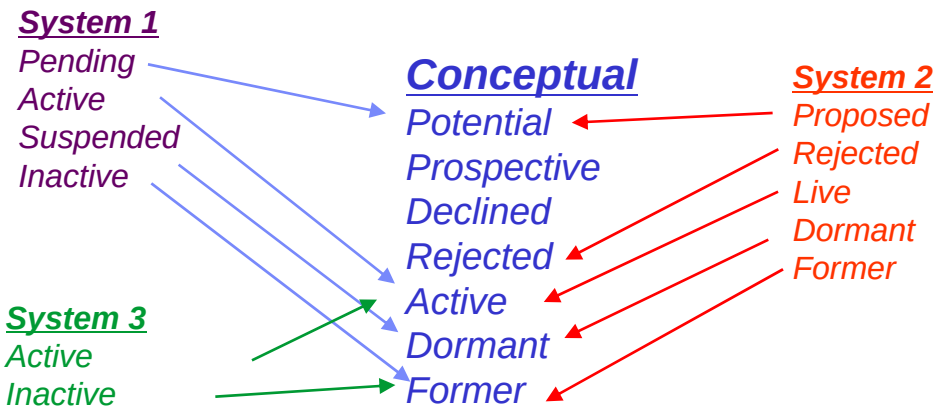
- External taxonomies/requirements defined as XML Schemas

Providing a single vision of business information

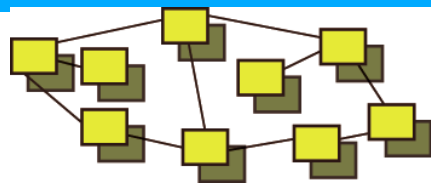


For example, one system refers to Customer Life Cycle Status as {Pending, Active, Suspended, Inactive}
Another system uses {Proposed, Rejected, Live, Dormant, Former}
Another may only care that the customer is Active or Inactive

It is difficult for a business co-ordinating communication between these application to determine any overlap and a common status of the data. Mapping to the Conceptual model will document the super-set of statuses with clear & full business descriptions



3 Types of Information in the Warehouse



The BDW Design Model has 3 granularity levels of data design

System of Record

The design to capture the low-level transactional data coming from source systems and external applications e.g. customer details, account balances, transactions, new products, etc.

Over 975 data concepts defined

Summary

The design of structures to store periodic, aggregated information e.g. Arrangement Credit Usage Summary, Credit Risk Portfolio Summary, Organization Unit Summary, etc.

Over 69 pre-designed summaries provided.

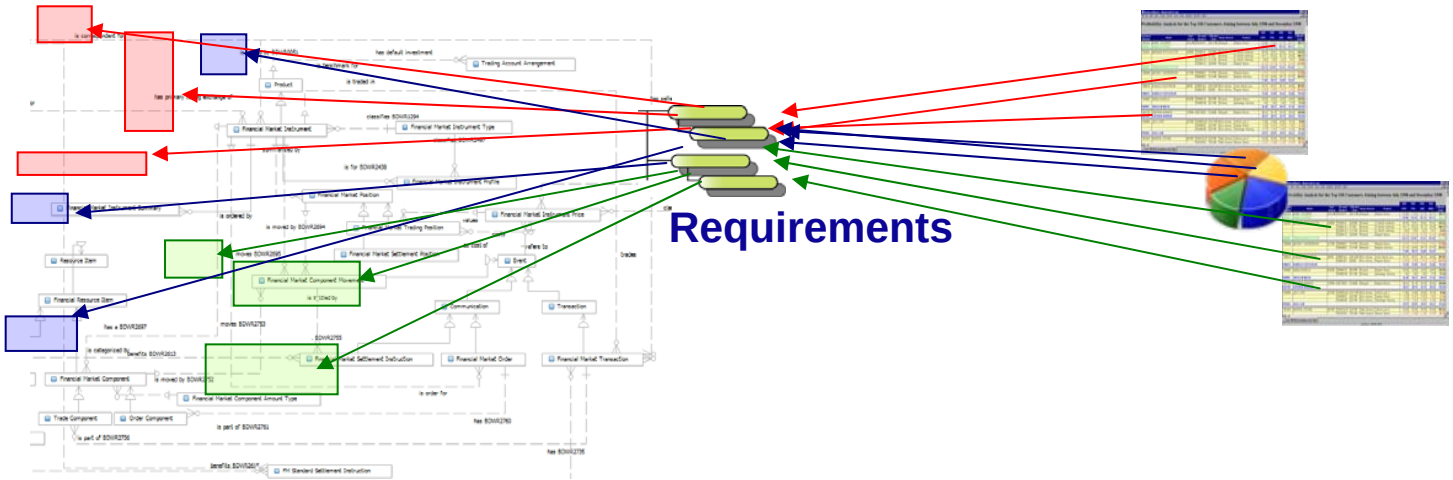
Analysis

The design of structures to store highly aggregated and specific business information typically to support down-stream MOLAP analysis.

13 sample analysis “star schemas” provided and the ability to generate specific new solutions from the BST model

BDW and IIW Analytical Requirements

How to link related business requirements on to the technical data warehouse model



The Analytical Requirements provide lists of common reporting requirements defined in the business users language

- **Allows for the capture of detailed and specific reporting information**
- **Pre-designed template approach reduces overall development costs**
- **Provides the data modelers with a mapping from business requirements to the structures in the BDW an IIW Data Model to store that data**
- **Enables significant re-use of reporting requirements and captured data across the enterprise**

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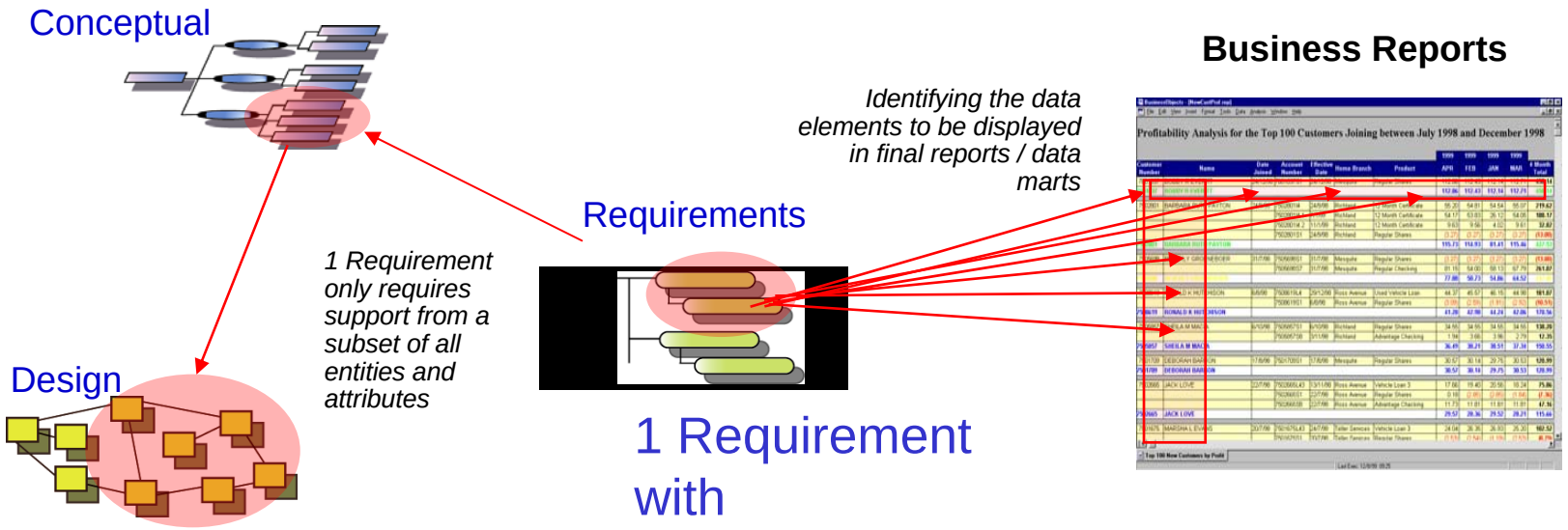
BDW report definition and BDWM scope

By working with the Requirements you are defining your reporting requirements AND simultaneously mapping to the Conceptual Model and identifying scope of the Design Model



BDW has 85 pre-defined Requirements / Data Marts

Relationship Marketing

- Campaign Analysis
- Cross Sell Analysis
- Customer Attrition
- Customer Behavior
- Customer Complaints
- Customer Delinquency
- Customer Interaction Analysis
- Customer Investment Profile
- Customer Loyalty
- Individual Customer Profile
- Lead Analysis
- Market Analysis
- Wallet Share Analysis

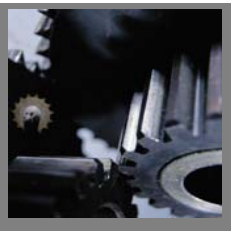
Profitability

- Activity Based Costing Analysis
- Business Procedure Performance
- Channel Profitability
- Customer Lifetime Value
- Customer Profitability
- Insurance Product Analysis
- Investment Arrangement
- Location Profitability
- Organization Unit Profitability
- Performance Measurement
- Product Analysis
- Product Profitability
- Profitability Analysis
- Transaction Profitability

Risk

- Authority Profiling
- Collections Analysis
- Credit Risk Analysis
- Credit Risk Assessment
- Credit Risk Mitigation Assessment
- Customer Credit Risk Profile
- Debt Restructuring
- Insurance Risk Profile
- Interest Rate Risk Analysis
- Involved Party Exposure
- Liquidity Risk
- Location Exposure
- Non Performing Loan
- Operational Risk Assessment
- Operational Risk Loss Analysis
- Outstandings Analysis
- Portfolio Credit Exposure
- Securitization Analysis
- Security Analysis
- Value At Risk Analysis

Asset & Liability Management

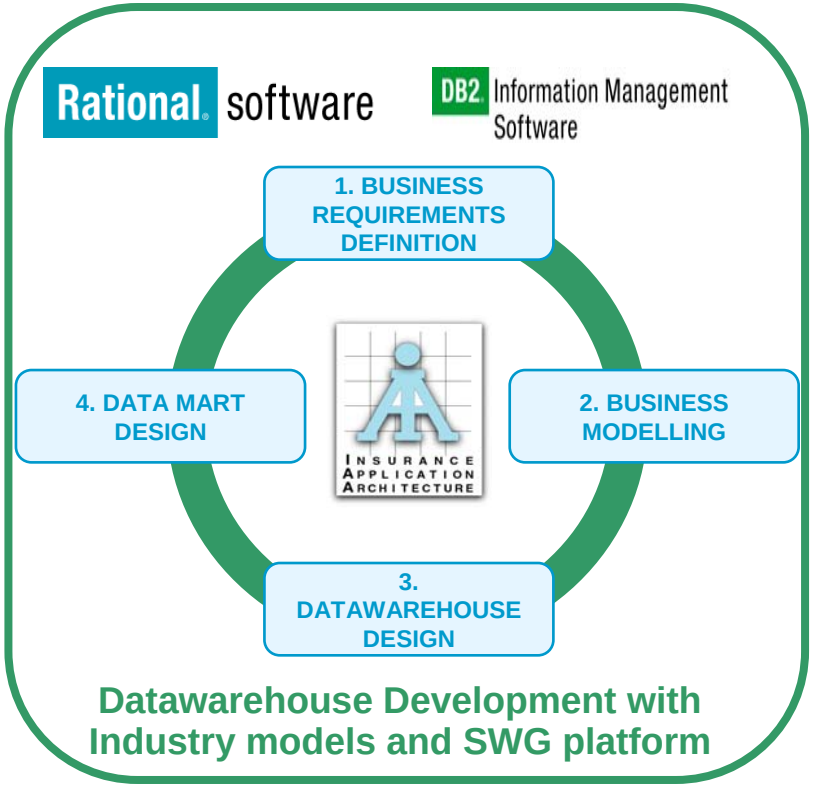


- Capital Allocation Analysis
- Capital Procurement
- Credit Loss Allowance
- Equity Position Exposure
- Financial Management Accounting
- Financial Market Transaction
- Funds Maturity Analysis
- High Value Outward Payment
- Income Analysis
- Interest Rate Sensitivity
- Inward Payment Rate Tolerance
- Inward Payment User Activity
- Inward Payments
- Inward Payments Volume
- Liquidity Analysis
- Net Interest Margin Variance
- Outward Payments
- Position Analysis
- Short Term Funding Mgmt
- Structured Finance Analysis
- VWAP Analysis

Compliance

- Balance Sheet Classified Approach
- Balance Sheet Net Assets Approach
- Balance Sheet Order Of Liquidity Apprch
- Balance Sheet Portfolio Basis Approach
- Best Execution Analysis
- Cash Flow Direct Analysis
- Cash Flow Direct Financial Institution
- Cash Flow Indirect Analysis
- Cash Flow Indirect Financial Institution
- Continuous Auction Analysis
- ECB Reporting
- Financial Capital Adequacy
- Foreign Financial Account
- Income Statement By Function
- Income Statement By Nature
- Income Statement Financial Institution Approach
- Periodic Auction Analysis
- Quarterly Transaction Reporting
- Quote Driven Analysis
- SOX Analysis
- SOX Balance Sheet Analysis
- SOX Cash Flow Analysis
- SOX Statement Of Change In Shareholders' Equity
- SOX Statement Of Income
- Statement Of Changes In Equity
- Structure Of Regulatory Capital
- Suspicious Activity Analysis
- Transaction Activity Analysis
- Transaction Reporting Analysis

Insurance Information Warehouse (IIW) roadmap



1. Business requirements definition

Catalogue of insurance business terms
175+ Business Solution Templates (BSTs)
3450+ (KPIs/Business Measures), 20+ conformed dimensions

2. Business modelling

1050+ entities, associations and relationships
970+ attributes
260+ states

3. Datawarehouse design

1030+ entities, associations and relationships
80+ pre-defined fact tables
6900+ attributes (incl. duplicate & derived)

4. Datamart Design

Financial Reporting
Intermediary Performance Analysis
Overall Profitability Analysis, Health Profitability Management, Claims Efficiency Analysis, Sales Forecast Analysis, etc.

Segmentation Discovery and Management (SDM)
Campaign Management Quick Start (CMQS)
Underwriting Profitability Analysis (UPA)
Customer Prospect Optimizer (CPO)

Data Models – Analytical Requirements Contents

Analytical CRM

- Campaign answer analysis
- Campaign communication analysis
- Campaign contact analysis
- Campaign cost analysis
- Campaign installment analysis
- Campaign profitability analysis
- Campaign sales analysis
- Campaign analysis by customer
- CRM event analysis
- Cross-sell strategy analysis
- Cross-selling forecasting analysis
- Policyholder behaviour analysis
- Household value analysis
- Customer persistency analysis
- Customer profitability analysis
- Customer prospect optimization analysis
- Customer satisfaction analysis
- Customer risk analysis

Profitability

Claims Efficiency

- Claim handling performance analysis
- Claim incoming recovery payments analysis
- Claims audit analysis
- Claims monthly close off analysis
- Claims statistical analysis
- Claims value variation analysis
- Late claims analysis
- Loss event analysis
- Year-to-date claims comparison analysis

Intermediary Performance

- Agency continuous professional development
- Agent performance based on competency
- Agent training analysis
- Customer feedback on intermediaries analysis
- Intermediary compensation analysis
- Intermediary persistency analysis
- Intermediary production analysis
- Intermediary sales performance analysis
- Policy delivery analysis

Business Performance

- Advance analysis
- Business volume analysis
- New business volume analysis
- Policy event analysis
- Policy persistency analysis
- Surrender analysis
- Switching analysis
- Underwriting Analysis

Risk & Compliance

Solvency II

- Liabilities analysis for P&C insurance
- P&C Claims, expenses and technical provisions Analysis
- Expenses for Long Term Insurance
- Premiums for Long Term Insurance
- Liabilities & margins analysis for Long Term Insurance
- Admissible Asset Analysis
- Net Asset Analysis
- Profit & Loss Analysis
- Summary of Premiums & Claims for P&C
- Solvency Analysis for P&C
- Solvency Analysis for Long Term Insurance
- Statement of Solvency

Sarbanes-Oxley Act

- Consolidated Financial Statements Analysis
- Consolidated Statement Of Cash Flows
- Consolidated Statement Of Changes in Shareholders' Equity Analysis
- Consolidated Balance Sheet Analysis
- Consolidated Statement Of Income Analysis
- Management's Discussion And Analysis Of Financial Condition and Results Of Operations

IAS

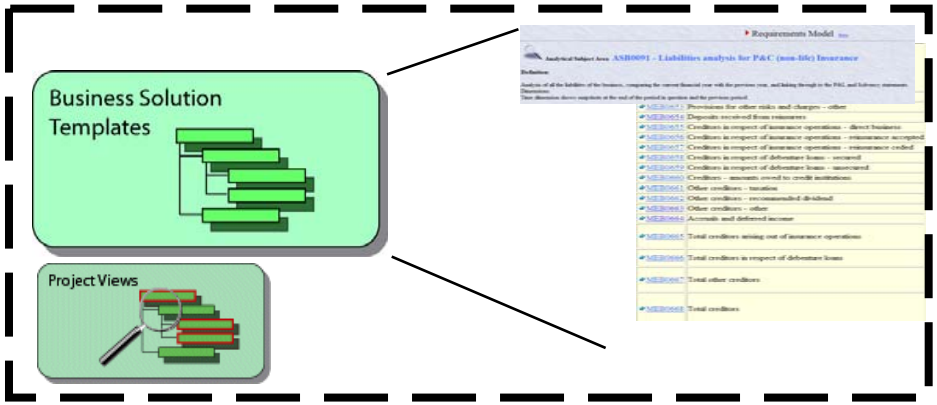
- Balance sheet classified approach analysis
- Balance sheet net assets approach
- Balance sheet order of liquidity approach
- Balance sheet portfolio basis approach
- Cash flow direct analysis
- Cash flow direct financial institution analysis
- Cash flow indirect analysis
- Cash flow indirect FI analysis
- Income statement by function analysis
- Income statement by nature analysis
- Income statement FI approach analysis
- Statement of changes in equity analysis

Definition of Solvency II Analytical Requirements

Illustrative

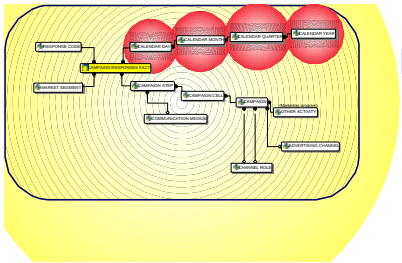
EU Solvency II Consultative Papers

Transformed into Metrics listed in pre-defined business solutions



Mapped

Insurance Warehouse Models



Data Mart Model

IBM Showcase: Architecture of a Solvency II solution based on IIW in La Gaude France

5. As-Is-Data, Financial KPIs

4. Allocation

3. Solvency capital/ Capital allocation across segments

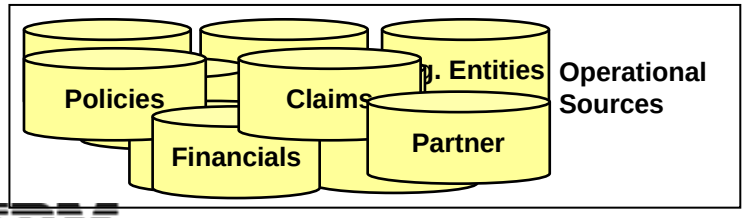
Risk engine
(Internal Model, simulation, reinsurance optimization asset allocation)

Datawarehouse based on IIW

DB/2

2. Detailed data for modelling

1. Data consolidated across Companies, systems and classes



Websphere DataStage / IBM Information Server

धन्यवाद
Hindi

多謝
Traditional Chinese

Grazie
Italian

ขอบคุณ
Thai

Спасибо
Russian

Obrigado
Brazilian Portuguese

Merci
French

Gracias
Spanish

شكراً
Arabic

多谢
Simplified Chinese

Danke
German

நன்றி
Tamil

ありがとうございました
Japanese

감사합니다

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