Introduction to IBM Industry Models

IBM Models and Components

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IBM Industry Data Models

Banking
(Banking Data Warehouse)
- Profitability
- Relationship marketing
- Risk management
- Asset and liability management
- Compliance

Financial Markets
(Financial Markets Data Warehouse)
- Risk management
- Asset and liability management
- Compliance

Health Plan
(Health Plan Data Warehouse)
- Claims
- Medical management
- Provider and network
- Sales, marketing and membership
- Financials

Health Plan
(Health Plan Data Warehouse)
- Claims
- Medical management
- Provider and network
- Sales, marketing and membership
- Financials

Insurance
(Insurance Information Warehouse)
- Customer centricity
- Claims
- Intermediary performance
- Compliance
- Risk management

Retail
(Retail Data Warehouse)
- Customer centricity
- Merchandising management
- Store operations and product management
- Supply chain management
- Compliance

Telco
(Telecommunications Data Warehouse)
- Churn management
- Relationship management and segmentation
- Sales and marketing
- Service quality and product lifecycle
- Usage profile

Enhanced Capabilities!

New Offering!

Over 400 Customers!

Leverage industry best practices for faster time to market
IBM is the leading provider of Data Warehousing

11 of the top 12 banks
7 of the top 8 auto manufacturers
5 of the top 6 insurance companies
4 of the top 6 general merchandisers
4 of the top 5 specialty retailers
3 of the top 4 food and drug stores

IBM is ranked as a leader in Gartner’s “Magic Quadrant for Data Warehouse Database Management Systems 2006.”

Industry leaders use DB2 for warehousing
The Complete Industry Model

Foundational Models

- Provide the basis of enterprise architecture and model-based application development
- Provide an enterprise-wide specification for data marts and the central data warehouse
- Provide an enterprise-wide specification of business objects and a detailed design for a services/message-based enterprise application integration
- Provide a comprehensive basis for process improvement and simplification

Models related to Data Warehousing

- Models related to Data Warehousing
- Rapidly and accurately define the scope of projects, existing applications, and new initiatives

Business Intelligence Models

- Models related to Data Warehousing
Types of IBM Data Models

Appropriate types of model are used to capture different types of knowledge at different conceptual levels.

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<tr>
<th>Type:</th>
<th>Data Classification Model</th>
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<td>Structures:</td>
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<th>Type:</th>
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<th>Type:</th>
<th>Logical Entity Relationship Model</th>
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<td>Structures:</td>
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The Services Data Model (XSDM) comprises an enterprise-wide vocabulary which is used to precisely define the meaning of the many concepts that make up the Industries view of itself and its business environment. It enables all aspects or points of view pertaining to a particular business concept to be expressed in terms of the elements within a classification hierarchy.

- Provides enterprise-wide definitions of concepts and data
- Provides a highly detailed, formally structured index into the enterprise data resource
- Forms part of a common language between business and IT
- Provides a rapid and accurate scoping tool for new initiatives - saves time and cost
- Reduces data redundancy by providing transparency as to the meaning of data items
- Provides a common basis for the development of well-structured logical data models
- Encourages re-use and consistent data structures across the enterprise
- Provides a predefined, readily customizable enterprise data model
The Business Solution Templates (BSTs) provide a logical model of the dimensions and measures that make up the multidimensional analytical structures which are at the heart of users analytical environments.

- Encapsulates IBM’s extensive experience in delivering effective analytical solutions based on data warehousing to some of the world’s leading companies in each industry.
- Enable business users to more rapidly and effectively control the definition and scoping of an analytical and/or reporting solution.
- Provide a consistent structure and consistent reporting for every analytical structure generated from scoped portions of the BSTs, based on a common definition of industry measures and dimensions.
- Enables significant re-use of dimensions and measures across analytical structures.
- Pre-designed template approach reduces development costs.
The Application Solution Templates (ASTs) provide a template of the data requirements for non-reporting applications for which the Data Warehouse is expected to deliver data.

- Application Solution Templates cover major topics within industry for which standard downstream application solutions are prevalent.
  - Example Banking & Basel II – coverage of each Credit Risk Component (PD, LGD, EAD, Maturity, Expected Loss and Securitization Framework) and Operational Risk
- Each AST provides a detailed breakdown of the data requirements for a given downstream application
- Enables companies to quickly determine the required coverage in the XDWM to address specific non-Reporting Application data requirements
- ASTs can be customized and extended to address other non-Reporting Applications in other areas
The Data Warehouse Model

The **Data Warehouse Model** (XDWM) provides a logical Entity-Relationship model of an enterprise-wide central data warehouse.

- Encapsulates IBM's extensive experience in delivering effective data warehouse solutions to some of the world's leading companies within each industry
- Delivers competitive advantage by providing structures for consolidated and clean data
- Supports rapid implementation of warehousing solutions with meaningful data
- Provides a combination of sound infrastructural techniques and rich functional content
- Facilitates the subsequent customization and extension of the data warehouse.
- Integrates with the other models to enable business users to more effectively control the definition and scoping of the data warehouse solution
- Typically contains more than 80% of the Data Warehouse business requirements within each of the applicable industries
IFW Data Warehouse Component Roles

The xDWM provides the template for the construction of a phased physical data warehouse whose content supports the stated requirements. These models are for requirements capture—they use the language and concepts of business users, regulators and other non-technical parties. Project Views record a subset of all available items to document requirements.

Mappings translate business terms into technical data elements. Runtime data structures generated from scoped models.
IFW Data Model Packaging Combinations

◆ Full Offering

- XDWM + BST + AST + XSDM

◆ Starter Offering

- XDWM + BST + AST

◆ Model-Only Offering

- XDWM

◆ XSDM Only Offering

- XSDM
Why use IBM’s Information Framework

- Not all Data Models are the same – IBM offers a unique solution – a set of interlinked models which focus on each aspect of Data Warehouse design (unlike other competitors who offer ERD models only)
  - A model for defining and prioritising user reporting requirements (BSTs)
  - A model for defining and capturing downstream application requirements (ASTs)
  - A model for defining the structure of the central Data Warehouse Database (xDWM)
  - A model for defining the data items to be sourced from on-line systems (xSDM)

- Experience has demonstrated that a lot of EDWs fail due to lack of Business involvement
  - BSTS are structured to allow Business user to scope / customise requirements – unlike standard ERD which are difficult to understand

- BST’s enable a Data Warehouse to be developed in a step-by-step manner, focussing on business needs.
  - The BST’s define re-usable components used in end-user analytic structures
  - The xDWM defines the blueprint of a complete Data Warehouse, within which the scope of successive implementation projects can be defined
Why use IBM’s Information Framework

- The models are updated approximately every 12-18 months to reflect business, technical & regulatory trends in the marketplace.

- Technology Neutral Plug and Play Solution – use with any ETL, Database or Front End reporting tool – a truly open solution.

- The Models are delivered with a purpose-built tool (m1/EME) which enables the definition and maintenance of standards across a complex organisation.
  - The software tool allows data standards including:-
    - definition of reported facts and measures
    - classification of products, services, resources, customers,..
    - database structures
  - to be distributed and controlled across a complex organisation
Why use IBM’s Information Framework

- IBM Information Framework provides not just a point solution for an EDW model – but provides a platform for cross functional Information Governance
  - A common language to facilitate consensus on key business concepts (xSDM)
  - Helps identify areas of conceptual disagreement
  - Will help enforcement of Information Governance program/Data Privacy directives

- Many years of major Data Warehouse developments have shown that for success, there must be:-
  - Stepwise development of a central data warehouse (ie not ‘big bang’ development).
  - Business user driven scoping and prioritization of warehouse development.
  - Consistency and completeness in sourcing data for the warehouse.