

Benefits of Industry DWH Models - Insurance Information Warehouse

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Management Summary

Implementing an industry model can help accelerate projects in a wide variety of industry sectors by reducing the effort required to create a database design optimized for data warehousing and business intelligence.

The example that is chosen to visualize the benefits of industry models is the IBM Insurance Information Warehouse (IIW) model pertaining to Solvency II (SII) regulations. IIW is an IAA-based enterprise-wide data warehousing solution for the insurance industry which is engineered to consolidate data from disparate systems, helping insurers to build a comprehensive and accurate picture of the customer and the business.

It consists of:

- Requirements Model
- Business Data Model
- Enterprise Warehouse Model
- Business applications and Demonstrators
- Implementation Roadmap
- Data Mart designs

Overview of Industry DWH Models:

An industry model is a comprehensive set of predesigned models that form the basis of a business and software solution. An industry models solution consists of a set of industry-specific integrated models that are optimized for business challenges in a particular sector. Domain areas include data warehousing, business intelligence, business process management, service-oriented architecture, business terminology, and business glossary templates. Usually an industry model

- Records the details of the business in a comprehensive, integrated, well-documented manner
- Acts as communication mechanism between business analysts and technical specialists
- Drives the development of IT specifications, Reporting and Analytical requirements
- Is used for phased and incremental projects
- Provides a formal view of the enterprise
- Provides multiple levels of abstraction
- Is meant to provide a single version of the truth

Industry models usually create the following Customer value:

- Reduces analysis and design of functional requirements by more than 40%

- Accelerates stakeholder approval by 50%
- Supports on average 85% of data requirements
- Reduces time and addresses risk compared to custom-built projects by helping to reengineer processes to comply with regulatory requirements.
- Increases ROI by
 - Identify opportunities to streamline and outsource processes and be more responsive to customers.
 - Reduce time-to-market with new products, such as online portfolio management.
- Integrates a merger and legacy systems more quickly.
- Facilitates a reliable mechanism for information availability across the organization such as customer data integration.

Challenges in the Insurance Industry

Over the past decade, all insurance industry sectors have experienced profound transformations in their business environments. Deregulation, competition, advances in technology and globalization combine to exert substantial pressure on insurers, brokers, asset managers and reinsurers, and on their ability to respond to these changes. Key forces shaping the insurance industry include:

- Shifting customer needs and expectations
 - Erosion of traditional value propositions, including the emphasis on value delivered through personal relationships
 - Willingness to assume more risk, and an increasing preference for self insurance and unbundled services
 - Need for self-direction, supported by rich sets of product and price information
 - Requirements for new standards of convenience and service
 - Demand for improved capabilities, including mass-customized products and services
 - Increasing willingness to deal with multiple insurers and change insurers more frequently
- Changing competitive dynamics
 - Increasing focus on revenue generation and cost reduction among existing insurers and emerging competitors
 - Potential for dramatically lower acquisition costs for new entrants
 - Ability of institutions to capitalize on existing trust-based or transaction-based relationships
 - Increasing product and service commoditization through competitive actions and informational transparency
 - Emerging lower-cost distribution options, potentially favoring new competitors
- Emerging technology levers
 - Rapid emergence of valuable but potentially disruptive new technologies such as pay-as-you-go vehicle insurance
 - Development of technologies enabling better collaboration and information sharing across insurers
 - Technology-driven delivery efficiencies and economies
 - Sustainable competitive advantages of insurers skilled in identifying and deploying key technologies
- Changing economic and business environment
 - Continuing global deregulation fueling competition, threatening revenue streams and eroding market shares

- Growing customer turnover in increasingly saturated markets, requiring higher customer acquisition rates simply to maintain market share
- Significant decline in long-term investment returns, severely impacting revenues
- Unsustainably high combined and loss ratios
- Growing medical inflation, increasing numbers of class action suits, asbestos claims and risk-covered catastrophes all impacting costs

Insurers increasingly turn to the features and capacity of data warehouses to support them in making the best business decisions to face these challenges. Simply put, a data warehouse is a corporate-level store of high-quality and integrated data from a company's own operational systems (often supplemented with purchased data) that is structured for analytical use. The data warehouses provide data for even more refined data in downstream data marts that are data subsets usually departmental, line-of-business or business-function in nature. Without a data warehouse and without the right analytical tools, making the right decisions in today's business environment is more than challenging - it may be impossible.

Yet, making better decisions faster can be the difference between surviving and thriving in an increasingly competitive insurance marketplace.

Benefits of the Insurance Information Warehouse

Achieving rapid and successful analytical value requires the right balance of a comprehensive data schema design across operational, financial, and other data elements, paired with the ability to support existing models and technologies. Only a flexible model structure developed specifically for the insurance industry can support this. IBM Insurance Information Warehouse (IIW) provides a glossary of requirements, terms and concepts that can be clearly understood and communicated by both business and IT, thereby helping to accelerate project scoping and data requirements gathering, facilitate appropriate reporting, improve and identify data sources. Ultimately, IIW acts as a blueprint by defining the structures necessary to build an effective data warehouse, and provides insurance managers with critical prebuilt reporting templates that offer a wide and deep view of their business through key performance indicators (KPIs) and other measures.

As platform-independent models, IIW is the result of tens of thousands of hours of development effort and deep subject matter expertise to help business users and IT staff implement an enterprise data warehouse on time and on budget. It provides insurance managers with critical predefined requirements definitions that offer a view of their business through key performance indicators (KPIs) and other measures.

IBM IIW reaches far beyond simple data gathering. It offers a significant competitive advantage through the ability to continuously process data and transform it into information-led business initiatives. By unlocking information contained in individual applications and repositories from a variety of vendors, and making it readily available to the people and processes that need it, IBM IIW can help get insurance organizations closer to a best-practice information management infrastructure.

- Solve complex problems requiring complex data
 - Turn operational data into strategic insight with end-to-end integration of your most valuable data
 - Build a comprehensive insurance analytics platform, and leverage the investment for years to come

- Track improvements and trends in cost and quality with historical views and traceability
- Provide data in a way that enables detailed analysis by business analytics applications
- Leverage existing investments by incorporating existing complex data models into the cross-functional view
- Turn insights into action
 - Integrate insurance and financial data to support emerging care delivery models and present reliable and actionable insights to your executive office
 - Combine resource and insurance information to identify inefficiencies that can inflate the cost of product delivery
 - Identify actionable opportunities for both claims processing and operational improvement by analyzing data from different perspectives
- Be responsive to the changing needs of the business
 - Align business and technical resources with a common target and vocabulary to accelerate the progress of initiatives
 - Increase agility and decrease time to deliver new reports to your decision makers with a design optimized for analytics
 - Provide department heads with the tools they need to be innovative and collaborative
 - Adapt to evolving regulatory requirements to maximize reimbursements and compliance
 - Expand analytical dashboards and reports to include emerging areas without reimplementing an entire platform

IBM Insurance Information Warehouse is a robust set of business and technical data models that are extensible and scalable to fit an insurer's unique environment and offers significant competitive advantage. It offers the ability to create an analytical data store that connects to the insurer's critical data, across disparate systems and formats, across diverse departments and other data providers. It helps to build a dynamic analytics environment, where data collected internally and externally is used to determine how to arrange, align, deploy and improve business performance. It forms the foundation of a true information management infrastructure where trusted, relevant information is available to the people who need it, when they need it, so that they can make better and more timely decisions.

IBM Insurance Information Warehouse is a fully realized development blueprint enabling insurance companies to build data warehouse solutions to suit their specific needs. IIW includes the key components required for the core of a data warehousing solution, offering:

- A flexible and scalable data warehouse design, enabling organizations to build a comprehensive data warehouse solution through phased development. This allows for rapid delivery of high-business-value deliverables by initially focusing on the business areas offering the greatest returns and feasibility, while building within a proven technical warehousing architecture.
- Content to cover analysis in critical insurance business areas such as Profitability, CRM, Financial Reporting and Risk Management. Selected analysis areas are detailed at the end of this manual.
- Flexibility to enable the creation of a range of data warehouse solutions, from departmental data marts to enterprise-wide data warehouses.
- A proven flexible and scalable data warehouse technical infrastructure required for successfully building a comprehensive data warehouse solution, and providing the rapid delivery of business value without compromising on a sound and scalable structure.
- An infrastructure blueprint, consisting of Analytical Requirements based on thousands of common business definitions and logical data structures, IIW is used by insurance companies

to integrate data from multiple operational platforms and to design the data warehouse infrastructure.

Summary of Benefits and Advantages of IIW

- Creates competitive advantage by providing consolidated, consistent and usable data structures
- Supports rapid implementation of warehousing solutions by identifying meaningful analytical data
- Provides a combination of sound infrastructure techniques, a proven method for using data management product sets and rich functional content
- Can be integrated with data warehouse appliances, such as IBM Netezza
- Eases the customization and extension of the data warehouse
- Enables business users to more effectively control the definition and scoping of the data warehouse solution
- Lower total cost of ownership (TCO) by being easy to change, leading to a high degree of re-usability and the ability to leverage existing company assets
- Helps reduce normal data warehouse development cost
- Reduces project risks by providing a proven implementation roadmap.
- Straightforward integration with best-of-breed applications needed in data warehousing phases such as Business Glossary, ETL, Insurance Analytics, Data Mining, OLAP and CRM tools
- Enables the development of high-performance, scalable and very large data warehouses (VLDWs)

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