Insurance Data Warehouse

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With advances in information technology, companies over the last couple of decades have provided insurers the luxury of logging and capturing data from multiple channels on systems with database capabilities. Insurers have realized that the data captured is quite useful to augment or focus market groups; provided the information is available for statistical analysis.

The increasing popularity of intranets and the Internet, itself, has given rise to repositories of data and engines that can search and correlate internal usage and "sellable" information (e.g. "what kind of people watch what kind of television shows and during what time"). With huge volume of data, these "gold mines" of hidden information need to be centralized. Organizations are looking towards the usage of data warehousing tools for handling data and performing analysis.

The classical transaction database used to store data does not have the capabilities to perform analytical processing, because:

- Transactional databases contain only raw data, thus, reducing the processing speed
- Transactional databases are not designed for queries, reports and analysis
- Transactional databases are inconsistent in the way they represent information

Data warehouses are, thus, specially designed to handle different types of queries based on statistical analysis. In essence, a data warehouse represents the memory of a company, providing a centralized and historical view of an organization’s data. Through the collection, retention and analysis of operational and informational data, companies can easily access and act on this data to address security concerns, compliance issues, general system management, and management and customer specific reports.

Insurance companies have realized the importance of gathering information to create a special niche for their market in this increasingly competitive economy. Companies have started using data warehousing tools with statistical engines to analyze and draw useful marketing conclusions. These tools use the data available to create an opportunity or niche.

In the insurance industry, the advantage of custom-built marts and warehouses ensures that the structure and queries match the data, but the customization makes it very difficult and expensive to maintain. On the other hand, off-the-shelf marts and warehouses maintained by the third party and are general and less useful than the custom ones. In either case, they can easily grow beyond anything manageable.

This whitepaper focuses on providing an overview of data warehousing in the insurance industry. The paper also provides information on the NIIT Technologies data warehousing capabilities.

Data Warehousing for Insurance Industry

Finance Teams have taken an increasingly central role within the Commercial Insurance Organizations. Their responsibilities and workloads have increased following number of regulatory and statutory reporting requirements from within the home markets, as well as new geographies. Even after increased scrutiny their support teams and systems have not scaled up.

Finance Directors are held accountable for the accuracy of their organisation’s financial data, whilst producing more complex reports in shortened timelines. This emerging environment requires a step-change in the flow and processing of financial data across the organisation.
Through the use of data warehousing, insurance firms can access and report data with unparalleled speed and efficiency. Rather than manually searching through the data across multiple databases on multiple machines, data is centralized for access and allows insurers to view data from multiple sources simultaneously. Data warehousing reduces errors; allowing data to be viewed and reported from a single cohesive vantage point. Additionally, operational systems used in an insurance firm are relieved of excessive processing burdens for querying and reporting. When dealing with large volumes of data these systems significantly slow down.

**Acumen: all the way…**

The NIIT Technologies Customer Advisory Board (CAB) highlights a number of frequently recurring problems in insurance firms relating to risk management, governance, data and reporting. These include poor risk control culture, poor reporting, ineffective governance, inadequate allocation of control staff, lack of integration across controls and risks, and poor formalization of roles and accountability.

Many insurance firms have realized that data is the essence of any organization and affects the overall decision-making process. Proper data management is essential, to ensure that the data is accurate, complete and appropriate. Data policies, must facilitate the identification and control of the risks associated with data. Poor information can lead to poor data quality, and vice versa.

The NIIT Technologies Tool – Acumen

Acumen provides consistent, accurate, and scalable management information for insurers. It is more than an Insurance Data Warehouse tool that enables global insurers and reinsurers to gain real value from enterprise data. It gives senior executives and staff the insight to track and manage business, ensures better information delivery, greater business innovation and more accurate forecasting.

NIIT Technologies has considerable experience in deploying data warehousing capabilities for insurers across the globe and our tool Acumen provides the following:

**Prebuilt Insurance Data Model:**
- Robust and proven in market place
- Underwriting, Claims, Reinsurance, Accounting, Actuarial, Marketing

**Insurance Metric**
- Over 200 metrics and KPI’s
- Over 300 insurance attributes

**Data Quality Assured**
- Intuitive data quality and business rules
- Suspense area for failed business validations

**Auditability**
- Data lineage to source

**Reconciliation Guaranteed**
- Reconciliation between all sources and warehouse

**Insurance Calculation Engine**
- Earnings, RI Allocations, Forecasting, IBNR, Claim allocation, Custom

**Generic Transfer Mechanism**
- Integration to any financial ledger system

A prodigious regulatory reporting solution, Acumen is a comprehensive data warehouse manager that includes the following elements:

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**A prodigious regulatory reporting solution, Acumen is a comprehensive data warehouse manager that includes the following elements:**

**Data Capture**
- Other Policy Admin System
- Subscribe
- General Ledger

**Data Mapping**
- Actuarial Inputs
  - TPD-Risk Margin, Best Estimate Provisions
- Lloyd’s Reporting DataMart
  - SOVENCY II
  - GGD TPD PMD QRT OTHER FUTURE RETURNS

**Reinsurance**
- XLRAS/ELGAR/PROCEDE

**Lloyds Reporting**
- DataMart
  - GGD TPD PMD QRT OTHER FUTURE RETURNS

**Prudential Regulation Authority (FSA Reporting)**
- XBRL

**Submission**
- Lloyds Core Market Returns
NIIT Technologies Acumen solution helps clients deliver business value in a sustainable fashion. It is designed to capture, aggregate and consolidate data generated across the entire organization. It includes flexible tools for extraction, transformation and loading of insurance data for easy integration of multiple source systems.

Clean, consolidated and accurate data seamlessly propagated throughout the enterprise can save companies millions of dollars a year; assuring data quality through application of data quality and business rules, and provides a suspense area for failed business validations. NIIT Technologies has the implementation know-how to develop and utilize market-proven Insurance data model encompassing underwriting, claim, reinsurance, accounting, actuarial and marketing.

These strengths have led to a large ecosystem with a large number of partners. The results for companies that have implemented these solutions are dramatic. They are successfully achieving that elusive goal – that of a fully dimensional enterprise-wide data warehouse.

**Conclusion**

Modern day businesses are demanding more and more data warehouse solutions. These solutions are imperative for faster and more pervasive access to information in order to take critical business decisions. Huge volume of data and easy reach to information demand changes to the solution architecture and technology that underpins the solutions.
About NIIT Technologies

NIIT Technologies is a leading IT solutions organization, servicing customers in North America, Europe, Asia and Australia. It offers services in Application Development and Maintenance, Enterprise Solutions including Managed Services and Business Process Outsourcing to organizations in the Financial Services, Travel & Transportation, Manufacturing/Distribution, and Government sectors. With employees over 8,000+ professionals, NIIT Technologies follows global standards of software development processes.

Over the years the Company has forged extremely rewarding relationships with global majors, a testimony to mutual commitment and its ability to retain marquee clients, drawing repeat business from them. NIIT Technologies has been able to scale its interactions with marquee clients in the BFSI sector, the Travel Transport & Logistics and Manufacturing & Distribution, into extremely meaningful, multi-year collaborations.

NIIT Technologies follows global standards of development, which include ISO 9001:2000 Certification, assessment at Level 5 for SEI-CMMi version 1.2 and ISO 27001 information security management certification. Its data center operations are assessed at the international ISO 20000 IT management standards.