Adaptive Insurance Data Warehouse (AIDW)
Using business intelligence and data warehousing to build an agile insurance enterprise

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Executive summary

“Things are happening so much faster today and that is affecting companies’ ability to compete. Companies are failing at a faster rate today. For a company that was born in the early ‘60s, 25 percent were gone by 1980. For companies that were taken public in the ‘80s, 45 percent of them were gone in 16-20 years. For companies born in the ‘90s, 20 percent of them were dead within five years.”

Greg Hackett, founder of The Hackett Group and Mergershop

In order to succeed in today’s competitive market, organizations of all sizes need to adapt to market conditions and keep ahead of changing customer demands. This well-known fact has been universally true for businesses from the dawn of commerce. The difference for today’s companies, however, is that the window in which they have to react to these changes is shrinking at an alarming rate.

According to research done by respected management consultant Greg Hackett, companies today are roughly 3.5 times more likely to be unprofitable than they were in 1960. Small companies (defined as less than $1.4 billion in revenue) are more than twice as likely to be unprofitable as large companies.\(^1\)

Greg Hackett’s extensive research has identified four reasons why companies fail. Number one and two on the list are missing market changes and cultures that tolerate inflexibility.\(^3\) In the insurance industry, the capability to react to external events and be flexible enough to anticipate and accommodate changes in the insurance cycle is paramount to corporate survival.

This white paper introduces the Adaptive Insurance Data Warehouse as a way to help the insurance industry capture the flexibility it needs to manage changing risks, define and deliver new products, manage agent effectiveness and overall adapt to the demands of the market. By delivering accurate, consistent information in an accessible way, the Adaptive Insurance Data Warehouse (AIDW) overcomes the shortcomings of ordinary data warehouses and help insurance companies gain agility.

AIDW couples Project Performance Corporation’s (PPC) insurance experience with Kalido’s innovative software, enabling insurance companies to:

• Identify, assess and react to market changes
• Understand and better serve changing customer needs
• Isolate good and bad business performance
• Manage risk and compliance
• Innovate

The AIDW helps insurance companies run the business via fact-based analysis rather than gut feel and intuition. AIDW combines PPC’s deep knowledge of the insurance industry, and Kalido’s innovative business-model capabilities to deliver a complete solution that uniquely allows you to provide comprehensive analysis that keeps pace with operational change in a timely, cost-effective way.


\(^2\) Hackett

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1. Agility - What does it mean?

Agility is a measure of organizational nimbleness and the ability to effectively respond to constantly changing market needs. Organizational agility has many attributes which include:

- Alignment with the realities of today’s business model
- The ability to easily adapt to the business model of the future
- Support for the growth of the business
- Compatibility with the external environment

Typically, agility is not a term that is often associated with the insurance industry. Indeed, the insurance industry has long been perceived as a conservative industry, one that lags when it comes to the adoption of technology. Gone are the days when brokers at Lloyds and elsewhere passed quotes around the office on scratch pads… or are they?

2. Why agility is important for insurance companies today?

Today’s insurance companies are facing a number of challenges. Terrorism, hackers, viruses, regulations and economic instability are just a few of the issues that insurers are tackling. Today’s business climate is fraught with uncertainty, and in every area of the organization, information technology is increasingly being depended upon to do more to effectively cope with these challenges. An industry in the spotlight:

The insurance industry is under the spotlight like never before. The “Spitzer effect”¹ is making every company take a hard look at the way business is carried out. The degree of concern is clearly evident in a recent commercial for a Bermuda-based insurance company which promotes “Legacy Free Balance Sheet” as one of its key differentiators in the market.

Clearly, insurance companies must streamline their financial performance reporting processes with a greater focus on accuracy and traceability of the reported numbers.

Greater scrutiny on operations:

As a result of a number of regulatory requirements across the world (Solvency II in Europe, National Provider Identifier (NPI), Medicare Part D mandates, the Patriot Act, HIPAA, SOX etc.) every function of the business has to operate

¹ The “Spitzer effect” is a reference to the actions and the ramifications in the market place of NY State Attorney General Eliot Spitzer’s crusade for better corporate governance.
under increased scrutiny – whether regarding corporate governance, regulatory compliance or general accounting principles. At the heart of the insurance business lies the reality of estimation. Insurers have to estimate every day – to set reserves, to set prices, to estimate impacts. Getting underwriters to properly understand the reality of estimation under a constrained environment is essential.

*Increased scrutiny poses a direct paradox with the estimation process, and it requires better analytical tools and techniques in order to strike a balance between the two.*

**Key ratios under pressure:**

For a long time there has been a general consensus about the cyclical nature of the insurance business. As a result, the sustainability of corporate performance has not been under much scrutiny. Today’s insurance companies are feeling a different kind of pressure. Companies like ACE insurance proudly boast a combined ratio of 92 for the last 20 years in the P&C industry.

As Nick Prettejohn, former CEO of Lloyds of London, said “Let’s stop talking about the cycle as though we are utterly powerless in the face of some all powerful dialectic. No one can deny the existence of the insurance cycle, but it is not an alibi for management inaction.”

1

Shareholders demand action and a greater return on capital. As a result, there is strong focus on improving the performance measures that build up key performance indicators (KPI) like combined ratio. These include improving customer loyalty, increasing underwriting profitability, improving quote to policy conversion rate and identifying cross-sell and up-sell opportunities.

*Insurers need to understand and influence numerous factors to find ever increasing ways to improve key ratios,*

### 3. What is business intelligence and data warehousing?

Insurance companies need to run the business efficiently, and manage the business effectively. Running the business is about building and maintaining appropriate processes and systems to quote, write policies, process claims and account appropriately. Managing the business is about getting trusted, actionable information on what is happening inside and outside the company so managers can make decisions based on reality, not gut feel.

Business intelligence (BI) is an umbrella term used for an ecosystem of people, process and technologies operating in tandem to provide accurate, timely and actionable information to business users so they can better manage the business. A data warehouse is the hub for any decision support / business intelligence system. Without a data warehouse, there is no consistent and trustworthy source of data for analyzing business performance. Operational systems rarely contain the historic data needed to track trends or compare results, nor are they compatible with each other, so multiple-system queries are impractical or even impossible. To process the data held in a data warehouse, there are numerous general-purpose reporting and analysis tools available in the market that provide powerful analytical features like slide-and-dice and cross-tab analysis, providing a rich presentation capability.

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1 Nick Prettejohn, former CEO of Lloyds of London, in a speech titled “The Reality of Reform—How will the industry look and feel?” April 7, 2005.
These tools can be used to perform a wide range of functions such as:

- Operational Reporting
- Management Information Systems
- Performance Scorecards
- Executive Dashboards
- Fraud Detection
- Customer Segmentation / Cross-sell/up-sell

A well designed data warehouse provides accurate, consistent and accessible data across all these functions.

**What is the need for a BI/DW system in an Insurance company?**

In a traditional environment, operational systems like policy management and claims management systems provide function-specific reports which can be used to extract information about a particular event. These operational reports are useful for functional staff; however they provide very little strategic insight about the overall effectiveness of company operations.

In order to assess the true health of a company, management needs to assess the interdependencies and impact of several factors like product risks, geography, claims volume, customer loyalty, underwriting effectiveness, etc. on the bottom line. Such an exercise is impossible without the ability to pull together data from various operational processes and analyze the impact of one factor on the other and on the whole. One of the most difficult aspects of this, however, is comparing apples to apples as information from operational systems is rarely compatible.

Figure 1.0 highlights key areas. Getting a better handle on these key areas is necessary for an insurance company to remain competitive and achieve profitable growth.

It is important to note that no single departmental application can be expected to provide an overall picture of the business. The data from multiple process areas must be combined together to get cross-functional intelligence. **This central repository is called a data warehouse.**

![Figure 1](image-url)
4. Using business intelligence for agile decision support in an insurance company

In insurance, agility comprises five pillars. In this section, we analyze the importance of each and examine how business intelligence and data warehousing can be used to support an agile environment for decision support. These five pillars are:
1. Customer loyalty management
2. Business process improvement
3. Staying ahead of the curve
4. Speed to market
5. Proactive risk management

Managing customer loyalty

Insurance companies have always battled to gain and maintain customer loyalty. Historically, insurance started as a supply-driven market. However, industry globalization and the explosion of options in the market has forced insurance companies to become increasingly customer-centric. Customer loyalty management today is a hot button issue for any insurance company.

Customer loyalty management can be understood best as a combination of five distinct functions. Because it follows the customer lifecycle, it is critical for insurers to identify points of failure in this cycle. By identifying and analyzing the right data, companies can not only identify those failure points, but also take steps to remedy them before they lead to customer attrition.

Insurance companies can use the data warehouse and business intelligence applications to analyze their customer data and provide necessary intelligence to their customer relationship managers.
Examples of analyses that can be performed from a data warehouse are described below:

<table>
<thead>
<tr>
<th>Process Area</th>
<th>Business intelligence from the data warehouse</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify your customers</td>
<td>Create a 360 degree view of customers by deduplication of customers existing in multiple systems</td>
<td>CRM application, Policy system, General ledger</td>
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<tr>
<td></td>
<td>Identify high net worth customers and assess their business value</td>
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<td>Calculate lifetime value for identified customers</td>
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<td></td>
<td>Identify most/least profitable customers</td>
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<td></td>
<td>Categorize customers by lines of business and products</td>
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<tr>
<td>Understand customer needs</td>
<td>Analyze written premium for identified customers by product line</td>
<td>Policy system, Claims system</td>
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<td></td>
<td>Analyze customer and agent requests for emerging or widespread trends</td>
<td>Call center log</td>
</tr>
<tr>
<td></td>
<td>Analyze quotes history and lost business</td>
<td></td>
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<tr>
<td>Meet customer needs</td>
<td>Evaluate current product portfolio against identified customer needs</td>
<td>Policy system, Claims system, Call center log</td>
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<tr>
<td></td>
<td>Analyze cost/benefit ratio of bringing new products to market</td>
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<tr>
<td></td>
<td>Design market basket analysis for the customer category</td>
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<tr>
<td>Serve them well</td>
<td>Provide response time analysis for open issues</td>
<td>Call center log, Claims system</td>
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<tr>
<td></td>
<td>Analyze compliance to service level agreements (SLAs)</td>
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<tr>
<td></td>
<td>Identify claims settlement process efficiency reporting</td>
<td></td>
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<tr>
<td>Prevent attrition</td>
<td>Perform behavioral analysis of past attritions</td>
<td>CRM system, Policy system</td>
</tr>
<tr>
<td></td>
<td>Analyze attrition statistics by product, customer demographics</td>
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<tr>
<td></td>
<td>Identify customers in high-risk groups</td>
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<td></td>
<td>Formulate retention schemes, offers and incentives</td>
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<td></td>
<td>Track retention program success, adjust plan and remark</td>
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</table>
Improving business process efficiency

The state of operational efficiency varies from company to company. However at a broad level, there is a clear need to improve the efficiency of certain key processes. More importantly, the process efficiencies need to be monitored over a period of time to ensure that processes are actually improving. Some of the key process areas include:

**Quote to Policy**: In simple terms this can be understood as the process of converting a prospect into an actual customer. In today’s competitive market, customers are swamped with a number of quotes from competing insurers and success often depends on how well customer needs are understood and met. Additionally, it is critical to know how well product features are communicated to prospects. The promptness of the follow-up and a timely response during a negotiation can make or break the deal. Hence, it is important for companies to measure the performance metrics of the quote-to-policy process.

**Claims handling**: Claims management is a critical area for the industry, both from an efficiency and a service standpoint. Despite being at the heart of the industry’s promise to the policyholder, claims management has never been accorded the degree of attention that it deserves. In fact, many insurance companies short-sightedly treat their claims departments as cost centers. With a sound underwriting process, the claims department is uniquely positioned to increase customer satisfaction. Timely response to claims, quick inspection and verification processes and a compassionate interaction with the customer during these periods of loss always help strengthen the customer relationship. Monitoring the effectiveness of the claims management process and taking necessary actions can have a great impact on customer satisfaction.

**Customer services**: Every customer interaction provides a touch point. Regardless of whether the call is a complaint or an inquiry, the interaction can be used to derive valuable intelligence and can be turned into an important source of value creation. For example, a sudden increase in the number of calls from a customer can statistically be linked to an unhappy customer. In such instances, a business rule can be deployed in the call center application that will check for these patterns and send an alert to the agent.

<table>
<thead>
<tr>
<th>Process Area</th>
<th>Business intelligence from the data warehouse</th>
<th>Data Sources</th>
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<tbody>
<tr>
<td>Quote to policy</td>
<td>Quote to policy conversion ration analysis by underwriter, agent, product, etc.</td>
<td>Policy system</td>
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<tr>
<td></td>
<td>Analysis of lead time between quote to policy stage by underwriter, agents, products, etc.</td>
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<tr>
<td></td>
<td>Lost business analysis by reason for loss, underwriters, agent, products, etc.</td>
<td></td>
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<tr>
<td>Claims handling</td>
<td>Analysis of claims data along with corresponding policy details</td>
<td>Claims system</td>
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<tr>
<td></td>
<td>Time elapsed for claims settlement</td>
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<td></td>
<td>Analysis of number of claims for any given customer segment (e.g. geography, customer profession etc)</td>
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<td></td>
<td>Fraudulent claims pattern detections</td>
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<td>Loss estimation</td>
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<tr>
<td>Customer services</td>
<td>Call traffic analysis by call type (e.g. enquiry, renewal, termination etc)</td>
<td>Call center application</td>
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<td>Average wait time</td>
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**Staying ahead of the curve**

In order to stay competitive in the market, companies need to look beyond the obvious. Market conditions are changing very quickly, and insurance companies must keep pace with customer needs. As a result, there is a greater emphasis on understanding market trends and being ready for action when there is a demand in the market. The key areas of emphasis include:

**Trend Analysis:** Estimation is the essence of insurance, and insurers need to spot trends and analyze them over a period of time. Trend analysis plays an important role in determining risk and performing underwriting functions in an effective manner.

**Demand Analysis:** By analyzing industry trends across various factors like geography, weather and lines of business, insurance companies can predict future trends for product and services needs of the market. This will allow them to design and create attractive propositions for prospects.

**Portfolio Diversification:** Smart insurance companies always try to balance their business portfolio in order to future-proof their business. It is easy to get tempted by increased demand, and underwriters might end up writing a book of business which can tilt the balance of the company in an unfavorable direction. A data warehouse can very easily provide the percentage split of policy count as well as written premium across lines of business, risk type etc. Such analyses can highlight any single point of dependencies for the company.

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<tr>
<th>Process Area</th>
<th>Business intelligence from the data warehouse</th>
<th>Data Sources</th>
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<tbody>
<tr>
<td>Trend analysis</td>
<td>Time series analysis of underwriting profitability by line of business</td>
<td>Accounting</td>
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<td></td>
<td>Identification of top performing products and worst performing products</td>
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<td></td>
<td>Seasonality analysis for new policies written by geography</td>
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<tr>
<td>Demand analysis</td>
<td>What-if analysis based on socio-economic development</td>
<td>Risk research</td>
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<td></td>
<td>Demand projection estimation for campaign</td>
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<tr>
<td></td>
<td>Demand projection for new products offered (e.g. terrorism insurance, epidemic insurance, etc.)</td>
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<tr>
<td>Portfolio diversification</td>
<td>Premium and Loss exposure analysis by risk type</td>
<td>Accounting</td>
</tr>
<tr>
<td></td>
<td>Premium and Loss exposure split by geography</td>
<td>Policy system</td>
</tr>
<tr>
<td></td>
<td>Premium and Loss exposure analysis by broker</td>
<td>Claims system</td>
</tr>
<tr>
<td></td>
<td>Identification of any major dependencies on risk type, customer group, industry, etc.</td>
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</table>

**Speed to market**

Speed to market refers to an insurer’s ability to get an early-mover advantage by offering relevant products to the market before the competition. This drive is fueling the increased focus on product development today. In seeking to get the right products to market faster, organizations need to have an information system agile enough to identify and adapt to these industry needs. The following are the key focus areas for improving speed to market.
Gathering market intelligence: Good market intelligence allows companies to understand the harmony of customer needs and competitor offerings against their own strengths and weakness. This requires that data from various internal and external sources be analyzed to provide intelligence to the product development team. The possible data sources include:
- Results of past campaigns
- Top performing products and offerings
- Top competitive products and offerings
- Market share performance reports
- Data from market research firms

Product Development: Market research provides valuable information to the product development team to help them design new products and offerings that are aligned with market needs. For personal lines, changing socio-economic conditions can give valuable clues about the future of the market. Multinational insurance companies can use the knowledge gained from historical trends in one part of the world to their advantage in a new emerging market.

Identify cross-sell and up-sell opportunity: This is where advanced data analysis mining techniques like market-basket analysis and associative-data mining can be very useful. Retail and consumer goods companies have been using these techniques for a long time to identify the buying patterns of the customers. Recently, Insurance companies have been finding greater successes in identifying the cross-selling opportunities with existing customers. By carefully analyzing at the data, certain trends can be easily established. For example:
- Individuals in a certain age group that have repeatedly renewed their auto policy are more likely to accept the homeowner’s insurance offer from the same company
- High net worth individuals who are in consulting professions are more likely to purchase travel protection insurance

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<thead>
<tr>
<th>Process Area</th>
<th>Business intelligence from the data warehouse</th>
<th>Data Sources</th>
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<tbody>
<tr>
<td>Market intelligence</td>
<td>Market share analysis by lines of business, by company Profitability analysis by companies, lines of business Cash reserve ratio analysis by company, by lines of business</td>
<td>External source Accounting</td>
</tr>
<tr>
<td>Product development</td>
<td>New policies written by product category, by customer segment Fast moving and slow moving products analysis</td>
<td></td>
</tr>
<tr>
<td>Cross-sell and up-sell</td>
<td>Perform market basket analysis and identify products with greatest affinity. Identification of customers who fall into a certain category and have purchased Product X Creation of propensity index ranking list for most likely prospect</td>
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</table>
**Proactive risk exposure management**

Technology has the power to be a significant enabler in this area. It can dramatically transform the ability of actuaries and underwriters to assess risk. There are sophisticated modeling tools and techniques available in the market, which many companies now rely upon. Some of these techniques have now been tested by the recent Florida hurricanes.

- Risk exposure management can broadly be categorized into three groups:
- Risk estimation and risk modeling
- Risk exposure determination
- Corrective actions & portfolio balancing

The challenge lies in a company’s ability to provide the necessary data with sufficient level of data quality on a reliable basis. A data warehouse has the potential to become the source of data for the risk management applications. The data from multiple sources can be massaged and transformed to deliver the right level of data quality. In addition, the data warehouse will also store the historical data, enabling companies to analyze predicted risk versus actual risk occurrence patterns.

5. Are existing data warehouses agile?

The insurance industry has been increasingly adopting business intelligence and data warehousing technologies. Most of the companies have built first or second generation data warehouses, data marts and business intelligence systems. It is interesting to observe how these systems have met their original objectives. Indeed, most of these systems show symptoms of losing relevance.

Recent surveys have found that more than 50% of data warehouse and business intelligence projects have failed (or have met limited success). Further investigations indicate that most of the failed implementations share a single common theme of “data warehouses failing to keep pace with changes in the requirements.”

**The Agility Gap: Does this sound familiar?**

With time, the gap between the business context and the data warehouse widens. The business and IT get into the classic tug-of-war where every change requested by the former is met by inertia from the latter. Conversely, every change made by the latter is met with frustration by the former – a result of a imperfect understanding, implementation time and the rapid pace of business. The following common practices highlight the situation surrounding a typical data warehouse project:

- IT asks business users to freeze the business model at a point in time. IT then builds a data warehouse to reflect the business context as defined by the data. Changes taking place during the development of the data warehouse are ignored.
- During the design of the data warehouse structure, conventional methodology requires the expected output to be clearly defined before any development work is started. Such definitions must be determined with great care, because once the foundations of the data warehouse are laid, changes in design will be costly.
- Subsequent business changes are restricted to avoid the need for costly re-design exercises.
- User requirements for information, queries and reporting are defined in advance, and then hardwired into the fabric of the data warehouse.
Any major change, whether due to a new business requirement, the correction of an error in reporting structures, or simply due to a user request for information in a different form, will require IT experts to hunt through large systems to identify what needs to be altered, and then make complex changes in the relevant places.

Performance measurement rapidly loses its relevance if changes in the business are not quickly reflected in the data warehouse and its reporting structures. Even if the enterprise succeeds in defining data warehouse requirements and implementing them, users will come up with new or changed requirements.

Business users are frustrated because much of the data they need doesn’t exist in the data warehouse, and what data does exist is difficult to access, manipulate into a usable form and analyze with confidence.

What is wrong with today’s data warehouses?

Data warehouses have their own lifecycles: business users request changes; a data warehouse development team evaluates these changes, translates them into development plans, and finally implements them before turning to the next round of user requests. The traditional methodology of incorporating changes into new (large-scale) releases of data warehouses makes it difficult to keep data warehouses aligned with the business.

Most data warehouse project plans focus entirely on technical aspects of initial implementation, and change is thereafter seen as a production issue. This does not reflect reality. Enterprises need to adopt a methodology where both business and IT align themselves during the entire life cycle of the data warehouse.

The real difficulty with data warehouses is that users cannot reasonably be expected to know what they want until they have used the system, particularly where business intelligence is concerned. In addition, change is a fact of life for any forward looking insurance company, whether it is responding to new market conditions or proactively taking a new strategic direction.

The need to rebuild data structures, and rewrite the data load for every business change slows down the update cycle of a data warehouse built according to traditional methodology.

This non value-added activity causes data warehouses to lag behind change requests from the business. The IT function becomes increasingly misaligned with the business, and users become more and more skeptical about the value of data warehousing. As the gulf between the business and the data warehouse grows, enterprise reporting loses relevance. Often, companies throw more IT resources at the problem in an attempt to keep up with change, so the misalignment can be costly as well as obscuring business performance.
As data structures (by which we mean the physical tables in the database) fall further behind the business structures they were designed to mirror, business opportunities may be missed and problems discovered too late. The data warehouse itself becomes more costly and slow to adapt to change, significantly increasing its total cost of ownership and reducing its effective return on investment.

6. What can be done to improve BI/DW initiatives?

Most organizations have the information they need somewhere within their business, but they can't get to it. Business intelligence and data warehouse systems have the capability to provide insurance executives much needed information and insight. Equipped with detailed insight and foresight, insurance executives can take strategic as well as tactical decisions which will position their companies for future growth. However, the current generation of data warehouses and business intelligence applications are struggling with the challenge of maintaining relevance with the business.

What are the alternatives?

A data warehouse which is out of step with the business structure is bound to lose credibility with its targeted users. There are only three ways to remedy the shortcomings of the current state of data warehouse and business intelligence.

- Companies use the “frozen” data warehouse model as the model for the business – with no changes or modifications. The data warehouse-based business model thereby acts as a restraint for growth and inhibitor for innovation. Unfortunately, this option will quickly lead to the downfall of the organization as a stagnant company cannot change to meet market demands.

- Deploy a large team of SQL programmers to constantly re-write the physical data warehouse schema, and a second team to maintain the linkages and model changes to the business intelligence tools in use across the company, to keep pace with internal and external business changes. This approach is prohibitively expensive and incurs significant fixed costs to the business.

- Adopt a model-driven approach to the design and maintenance of data warehouse and business intelligence so that these systems can change as rapidly as the business itself.

Introducing the Adaptive Insurance Data Warehouse (AIDW)

To meet the business intelligence needs of agile insurance companies, Project Performance Corporation (PPC) has developed an Adaptive Insurance Data Warehouse (AIDW) for the insurance industry. AIDW is based on data warehouse technology from Kalido, which employs a business modeling approach for building the data warehouse.

- AIDW automates the core data warehouse management function by eliminating most of the manual steps involved in changing the structure of the data warehouse (business modeling, data modeling, data warehouse structure creation and data warehouse loading).

- Automated data warehouse functions allow for business changes to be incorporated in a matter of hours and days as opposed to weeks or months.
AIDW does not use a physical data model as the starting point. It instead uses a business model as the core of the data warehouse. The business model is understood, specified and owned by the end users.

Increased ownership of the business model by users results in increased adoption of data warehouse systems by the business.

AIDW automates 20 of the industry best practices documented by Ralph Kimball and Bill Inmon – the industry’s two pre-eminent data warehouse gurus.

AIDW supports “Time Variance” out of the box. Hence, you can safely compare current, historic and even future states of data even though there may have been major changes such as reorganizations during the time of the comparison.

AIDW supports multinational multi-currency functionality out of the box.

AIDW architecture separates the transactional data from master data thereby establishing the foundation for future data management initiatives including Master Data Management, Corporate Standards, etc.

AIDW leverages standard Insurance industry infrastructure such as DBMS, ETL and BI/scorecarding technologies

Combining PPC’s extensive insurance industry expertise with Kalido’s award winning data warehouse technology delivers the first and only truly adaptive data warehouse for insurance companies.

Is AIDW suitable for you?

There are two types of insurance companies that can benefit from AIDW. AIDW can make a difference to both, but in different ways.

Smaller, specialized Insurance companies

Smaller companies do not have the luxury of having centers of expertise for every process area as their bigger counterparts do. Smaller companies are often in a state of change with frequent mergers and acquisitions; they keep introducing new products and lines of business in order to increase their market presence. These companies have a great opportunity to be more agile than their bigger competitors, as they have fewer people to “get on board” with changes in the business.

Smaller companies have limited budgets, so lofty BI/DW strategies seem out of their reach today. However, with the advancements in technology, maturing implementation methodologies and the availability of off-the-shelf software, strategic tools and techniques are now readily accessible in practice.
Most of these companies are implementing new transactional systems (policy, claims, and customer relationship management systems), which are having a positive impact on their business. These companies will soon have a large amount of operational data, which can be transformed to gain valuable intelligence about their own business strengths, weaknesses, opportunities and threats.

These companies are uniquely poised for rapid growth in the near future. They have the potential to greatly benefit from technological innovations like AIDW. Specifically, AIDW can be used in the following circumstances:

1. **Starting a new data warehouse initiative:** Is your company about to start a business intelligence and data warehousing initiative? You can avoid all the costly mistakes committed by previous generations of data warehouse projects and leverage years of learning to your benefit by using AIDW as the platform.

2. **Implementing new operational systems:** Your new policy management, claims management and CRM systems that you deployed to better run the business will very soon generate lots of data. How do you plan to use that data to better manage the business? You can start building your data warehouse in parallel to these initiatives. The modular implementation of AIDW will keep you ready to harvest the information from day one.

3. **Your company is poised for rapid growth:** Is your company headed for growth through a merger or acquisition? Is your company about to diversify into multiple lines of business? Build your data warehouse on the right foundation, so that it can continue to give you insight through an increasingly dynamic period of change.

**Large insurance companies**

Large companies are thinking strategically. These companies have several lines of business and operate in countries worldwide. Their biggest challenges are rooted in their sheer size, complexity and the conventional wisdom that “elephants cannot dance.” Most of these companies have written their own transactional systems to support their operational processes. They often believe that their business is so unique that an outside solution can not meet their specific requirements. As a result, most of their transformation initiatives have had little impact on their overall agility.

To compound the problem, some of these companies have multiple instances of operational systems (e.g. ERP systems) within the company. Changes take a long time because they are dealing with internal political as well as organizational battles. In large companies, AIDW can be used in these circumstances:

1. **Get a global view of your business:** Are you a multinational insurance company trying to gain a 360 degree picture of your business across the world? Are you in the process of creating global customer data repository? AIDW’s federated architecture can accelerate this process dramatically.

2. **Data mart consolidation:** Is your organization in the process of consolidating departmental data marts and data warehouses? AIDW provides an ideal platform for such initiatives. Using AIDW as the platform ensures that the new environment will extend, adapt and scale in the future.

3. **Building a global data warehouse:** For multinational insurance companies, building a global data warehouse is expected to provide KPI and metrics using a common data dictionary. Transforming heterogeneous data and country specific business rules into a globally standard reporting practice can be a tough ordeal. Kalido’s federated architecture dramatically streamlines this process.
4. Planning to use data warehouse for regulatory compliance: AIDW can be an ideal platform for enforcing standard reporting practices for the corporate. Its central metadata definition can support the much needed functionality of common reporting practices across the company. More importantly, as regulatory requirements change in future, your data warehouse can change without having to undertake a massive re-design and re-structuring of data. Best of all, the Kalido-based AIDW tracks history, so you’ll always have an auditable trail of the changes you’ve made to your business.

Large or small, Kalido’s automated, business model driven approach allows insurance companies to approach BI/DW projects in a different way. Instead of large, long lead-time IT projects, AIDW allows a fast, iterative development approach. Results are delivered quickly, and if they are not quite right the first time, can be modified quickly, at low cost, resulting in an iterative development approach. Business users can “try something” to see if it meets their needs in just a few hours or days. Requirements are “uncovered” and modified incrementally rather than being identified in advance and set in stone. AIDW implementations get to the right place efficiently, even though the right place is not always obvious or known in advance.

7. Customer examples

Insurance organizations around the world have taken advantage of this approach to quickly bring value and insight to their organizations. A couple examples:

A global commercial insurance and re-insurance firm used PPC’s AIDW approach and Kalido to successfully eliminate the gap between business managers and the information they needed to make effective business decisions. As a result, the company has gained competitive advantage through:

- More effectively measuring business performance by monitoring profit and loss for all policies, with the added ability to roll-up to the client and broker levels
- Better understanding how the launch of new products and services will fare in a highly competitive market
- Determining the overall risk exposure by geographies, risk type and lines of business.

A diversified financial services company with a focus on insurance needed a way to better track, manage and analyze agent/agency effectiveness. With seven main operational systems and no central data warehouse, they built an adaptive insurance data warehouse based on Kalido to consolidate information and deliver integrated analysis. Concurrently, they developed and maintained a data governance organization managed by the business using Kalido as its primary tool. The results included:

- Greater insight into agent / agency effectiveness through consolidated view of information
- Greater clarity into information quality organization-wide
- Auditable picture of the past and ability to scenario plan through Kalido’s history-tracking feature
- Business and IT collaborating very closely – ensuring the program continually meets business needs
8. Conclusion

To avoid being a future "why companies fail" statistic, insurance companies have to become more agile. Whether your company has already deployed a data warehouse, or whether you are just starting to plan for one, you need to think about how your BI/DW system will deal with external events and be flexible enough to anticipate and accommodate changes in the insurance cycle.

- By separating systems for managing the business from those used to run the business, and introducing AIDW as a BI/DW solution, insurance companies can:
- Quickly Identify, assess and react to market changes through continuous actionable information
- Understand and better serve changing customer needs through a 360 degree view of the customer
- Isolate good and bad business performance enabling sharing of best practices and correction of poor practices
- Manage risk and compliance in an uncertain and ever changing regulatory environment.
- Innovate, drawing comfort that the performance of new products, process and approaches can be measured accurately and accelerated if they do well, or retired quickly if they do not.
About the authors

Rajeev Kumar leads the business intelligence and data warehousing practice at PPC, where he is responsible for value delivery to all of its BI/DW customers. His responsibilities include the BI/DW consulting services as well the flagship portal usage analytics product “PT Tracker.”

A practitioner himself, he has extensive experience in managing and architecting several global BI/DW implementations. He has advised a number of companies in defining their Business Intelligence roadmap and mentored client teams to successfully carry out their implementations.

Cliff Longman is the chief technology officer at Kalido. After 10 years with Oracle Corporation designing and building large database systems for customers, Cliff helped found Kalido, taking it from a project as part of Royal Dutch/Shell Group to a stand-alone software company recognized as a provider of innovative information management solutions.

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- Portal Solutions
- Knowledge Management

About Kalido

Kalido delivers active information management for business. With Kalido’s unique business model-driven technology, decisions are fueled by accurate, accessible and consistent information, delivered in real time, to dramatically improve corporate performance. Kalido software can be deployed at a fraction of the time and cost of traditional information management methods.

Kalido software is installed at over 250 locations in more than 100 countries with market leading companies. More information about Kalido can be found at: http://www.kalido.com.