DOWNSTREAM DATA INTEGRATION ISSUES CONSIDERED

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Data is a beast. The technologies that we use to govern, manipulate and transfer data are never quite up to the challenge of taming the beast. It takes more than technology; it takes the experience of repeatedly dealing with data's wild side. Like Actuarial and Underwriting processes in the insurance industry, the secret to good data practices is the right technology plus applied expertise.

Though much has improved, and some organizations are making insightful decisions on their trusted data, others are still struggling to keep from drowning in data standardization across the enterprise.

Some of the original data issues not only haven't gone away, but they have just grown larger due to the higher volume of data and its wider reach and greater impact within the organization. Will core system modernization help tame data's unwieldy side?

It could. A large number of insurers are in the process of implementing new core systems to modernize and prepare for the future. This is the perfect time to organize, design and construct a modern data framework — but it is important to realize that core system modernization isn't, by itself, an enterprise data solution.
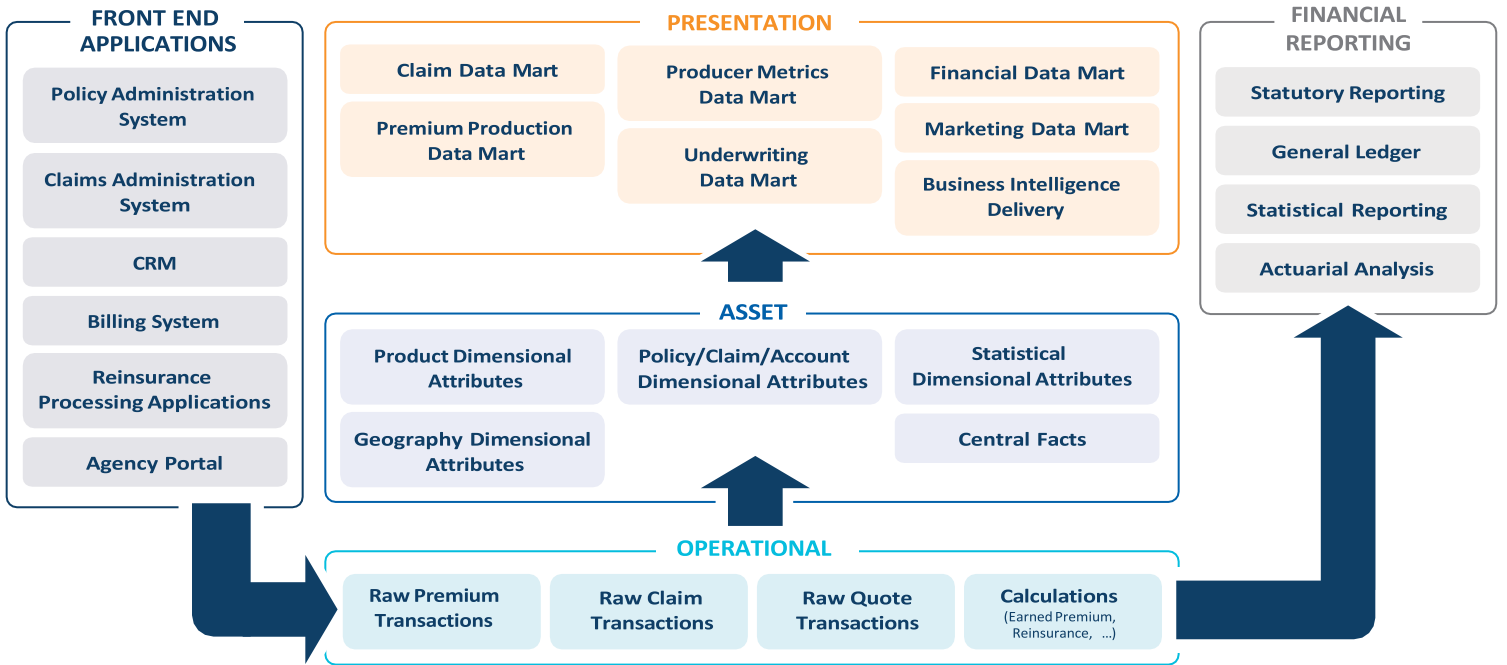
Some of the prevalent core system players, for example, are helping insurers to capitalize on modern technologies to improve efficiencies in administration across insurance platforms. At Wikifri, we are using our experience as a firm helping with these major projects to lay out issues that we see many insurers face with

Will core system modernization help tame data's unwieldy side?

integrating data from common core systems to their downstream financial reporting environments. Wikifri has found that even as functional and as modern as these systems may be, data wasn't fully considered in its development roadmap. We see the gaps and issues every day.

Without delineating every common hurdle, discussing a few of these will help us gain some perspective on how important it is to not accept a system's capabilities at face value and to instead, pay careful attention to how a system deals with data. The end goal of analysis is for data's end users (e.g. actuaries, CFOs, marketing or compliance officials) to not encounter headaches when it comes time to read reports and make decisions. They need data that is trustworthy, coherent, consistent and complete.

FRONT END APPLICATIONS

- Policy Administration System
- Claims Administration System
- CRM
- Billing System
- Reinsurance Processing Applications
- Agency Portal

PRESENTATION

- Claim Data Mart
- Producer Metrics Data Mart
- Financial Data Mart
- Premium Production Data Mart
- Underwriting Data Mart
- Marketing Data Mart
- Business Intelligence Delivery

FINANCIAL REPORTING

- Statutory Reporting
- General Ledger
- Statistical Reporting
- Actuarial Analysis

ASSET

- Product Dimensional Attributes
- Policy/Claim/Account Dimensional Attributes
- Statistical Dimensional Attributes
- Geography Dimensional Attributes
- Central Facts

OPERATIONAL

- Raw Premium Transactions
- Raw Claim Transactions
- Raw Quote Transactions
- Calculations (Earned Premium, Reinsurance, …)

Downstream reporting environments often include financial reporting, actuarial systems, reinsurance, compliance reporting and data warehouse / business intelligence platforms. The integration to those environments is a major element of core systems transformation and it is of paramount importance to consider how these environments will be affected when source systems change.

Not only is the downstream impacted in the future goal state but also during the various transition states that insurers go through during implementations that often take place over several years and include several phases. So, it is paramount to success to consider the following and not assume your organization is taking these into account or the system integrator has them in their project plan.
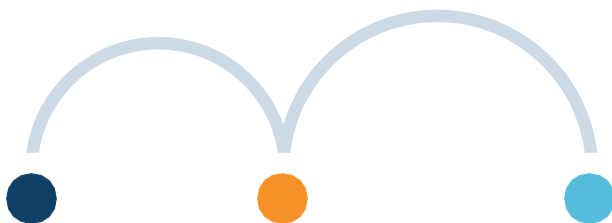
Many insurers share a similar story with the following elements:

- They purchased one or more modules from their core system provider,
- They are implementing using a phased approach,
- They are using a major system integrator who has a playbook for implementing product-by-product, state-by-state,
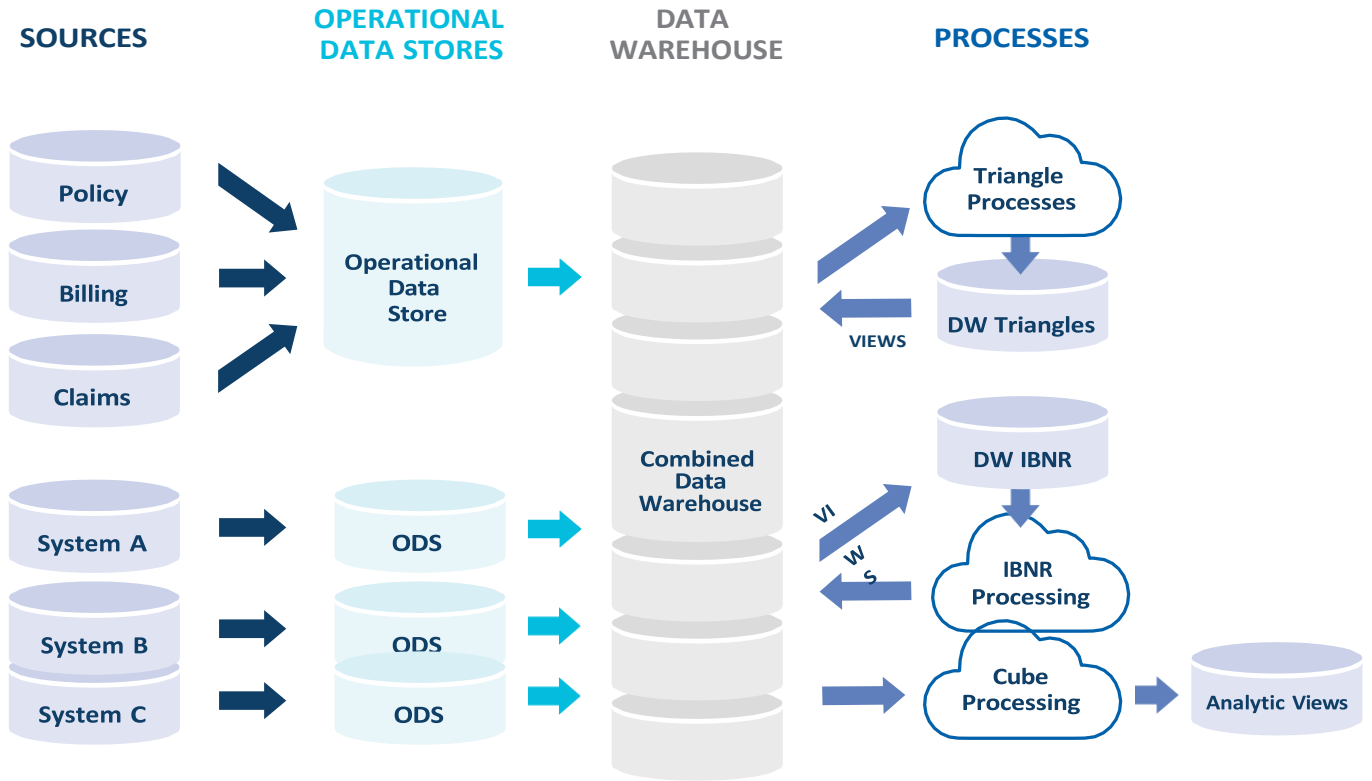- They draw upon large budgets for software and the implementation.

What is also common is that data integration is not considered in the full detail that is needed. There are some notable omissions regarding how insurers commonly deal with crucial data. For example:

- There is no usable built-in earnings engine
- There is no usable built-in accounting period
- There are no built-in aggregated reporting functions
- Databases are generated, not "designed", and will change over time

For those who are familiar with these areas, these are problematic, especially the inconsistency between databases and the lack of common reports.

SOURCES

OPERATIONAL DATA STORES

DATA WAREHOUSE

PROCESSES

Policy

Billing

Claims

Operational Data Store

Triangle Processes

DW Triangles

VIEWS

System A

ODS

System B

ODS

System C

ODS

Combined Data Warehouse

DW IBNR

VIEWS

IBNR Processing

Cube Processing

Analytic Views

In enterprise systems, even if there are various stand-alone components from one software vendor, those components should play well together. Between policy, billing and claims systems, however, there are often incongruities — all which require a level of data reconciliation.

- The policy system may only have commission percentages and the billing system may only use commission dollars
- Differences can come from sum-then-round versus round-then-sum between systems
- Policy data and billing data aren't typically at the same granularity
- Policy and billing system commission percentages and dollars can get out of sync
- Product model design and structure often don't match between the policy and the claims systems

What makes a stand-alone system strong on the one hand, can make it weaker when it operates within a suite, because development was single-system focused. The user assumes that you can rely upon Suite integration, but that isn't always the case. The discrepancies become more acute as you look at the core of the suite, where the confluence of data should be aligned. Often, policy systems suffer from data issues that happen outside of the core. For example:

- Policy and billing systems can occasionally get out of sync with each other
- Billing systems often don't include state or coverage details and can't be the source of earnings
- Some policy systems don't natively capture ASLOB (Annual Statement Line of Business) codes
- Quote data in the policy system is often overwritten and the history of changes made are lost
- Some claims and billing systems do not contain built-in support for processing claim recoveries
- Some billing systems don't contain a fully double-sided accounting system for certain types of transactions.

There is a whole list of data-related issues that are common to any enterprise, but that may be exacerbated if they aren't dealt with during transformation. These would include:

- Data can become orphaned and/or there may be references to missing data entities
- Core data extracts may only contain limited quote data from the policy system
- Raw rating worksheet data is sometimes buried in a complex data structure and can be very hard to extract
- Many database relationships are "logical" only and not enforced by foreign keys or naming
- OOSE (Out of Sequence Endorsement) data is always difficult downstream
- Not all contact-related data is automatically versioned causing some changes to be lost
- Some data that may be needed isn't generated on non-premium bearing endorsements

It is crucial that a data team or governance team is in place to ensure the data needs of the organization can exist during the transformation program and in the future goal state. It is most efficient if the company includes outside resources that are intimately familiar with the gaps.

Data experts who are familiar with the most common transformation solutions can smooth this transition and save insurers thousands of hours in gap resolutions. Wikifri has created a packaged solution set that smooths the transition from the current data state to an effective, consistent and clear future state. A typical Wikifri data transformation engagement contains:

• **Assessment and Analysis** — Wikifri makes a thorough assessment and analysis of the company's unique packaged system implementation and its downstream reporting for both the current state and the future state

• **Data Transformation Plans** — Vital to every insurer is its ability to use data to accomplish its goals. Wikifri makes certain that data management aligns with usage goals, creatively assisting insurers to get the very most from their data.

• **Solution Starter Kit with Data Model and ETL** To most effectively use the data generated from the policy system and to fix the gaps inherent between systems, Wikifri has developed a complete ground-up framework that makes implementation much easier and prepares the data systems to be used as quickly as possible.

• **Implementation services to build data solutions** — proper construction of the operational data store is crucial for reporting purposes and it takes care of many of data's reconciliation issues. Plus, it will give users the confidence they need to rely upon the data.

• **Validation and Testing** — Wikifri doesn't just stop with the design and construction of the overall data framework. We stay with the organization during their efforts to test and refine all of their data solutions and reports.

In short, Wikifri assists insurers in their journey to tame the data beast. The result is an organizational effectiveness across every portion of the organization that is affected by data. Everyone from Finance, Product development, Underwriting, Marketing, Claims, brokers, agents and customers will be positively impacted. It is the right step, and arguably one of the most important steps to helping transformation pay for itself.

For more information on Downstream Data, contact Wikifri at info@wikifri.com.
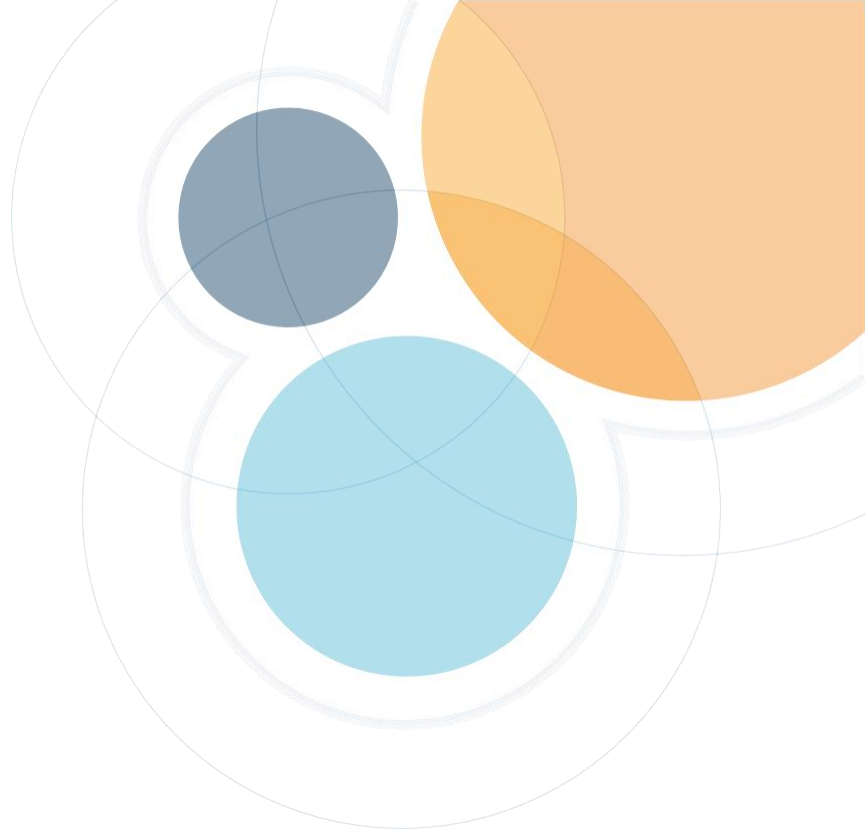
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