

Know Where Your Data Is

Insurers can eliminate poor data control and management issues by filing their metadata in a repository.

by Bill Jenkins



Many organizations question the need to control and manage their enterprise data.

Metadata is data about data, who produced the data and when, the formats (business and technical) used and which systems use the data. In effect, metadata adds context and meaning to data and improves communication about its use for analysis, decision-making and strategy implementation.

Having a centralized metadata repository allows organizations to:

- Agree on a standard definition and meaning and structure of data, thereby eliminating inconsistencies in data definitions and meanings.
- View the use of data throughout the organization's processes.
- Understand the sources of the data and its use in the processes, all the way to storage and reporting.
- Maintain a history of all changes to, or versions of, the data.
- Assure compliance and adherence to regulatory demand.

Organizations encounter difficulty in applying and analyzing the data necessary to efficiently and effectively leverage pricing, product recommendations, renewal underwriting and profitability

analysis, and other business intelligence and analytics efforts at a centralized or enterprise level.

They also encounter difficulty in sharing findings or the understanding of how data is used from one area within the organization to another because of the diversity in the definition and treatment of data at the individual line of business or functional level. This situation is exacerbated when companies possess multiple data sources and siloed systems having different data definitions, in different formats.

Here is an example of what can happen when a central metadata repository isn't available. It involves a carrier that applied different business rules (use of data) to certain medical expenses. Without full knowledge or understanding of how and why the business rules changed, a review of certain claim expenses showed significant shifts in expense categories over time.

Research revealed this abnormality in the expense category was due to a business rule change being made in the method of allocating certain expenses in the claim reporting process. These changes or reallocation rules were followed over a three-year period and impacted the way these expenses were allocated and shown on management reports.

These changes were documented via procedure manuals, emails and Word documents. However, they were invisible to individuals unfamiliar with the claims process and who were

Key Points

► **Issue Defined:** Insurance companies can balk at the need to control their metadata.

► **What Can Happen:** By not organizing metadata, companies can lose the ability to effectively analyze data to leverage pricing or share findings with others in the organization.

► **The Solution:** Building a metadata repository can move a company from a "data mystery" to a "data mastery" organization.

now reviewing the data in the claims processing system and the company's data warehouse. In effect, there was no centralized point in which to see when and why these business rules (metadata) were changed.

Defining these business rules and identifying where this data exists, how it flows and where it ends up in reports needs to be stored and accessible to those throughout the organization who need to know.

Properly housed metadata is held in a repository, which is a storage mechanism or system that provides a solution for capturing, organizing, maintaining, modeling, integrating, sharing, visualizing and analyzing the information that describes the key elements of an enterprise. The repository acts as a "reference manual" for data, similar to a library card being the reference for books in a library.

The metadata repository is the vehicle for centrally managing and maintaining an organization's data assets across multiple sources. It

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is the source of information for all key data elements of the organization—thus being a sound foundation for proper data governance and data management.

Benefits of a Repository

A metadata repository allows an organization to move from a "data mystery" to a "data mastery" organization. An effective metadata repository and management solution will:

1. Simplify data discovery and tracking with a central catalog of data. Most companies have to manage increasingly complex systems. By managing metadata, IT organizations can create an inventory of data assets across multiple systems that enables the search and quick discovery of those data assets. This ability simplifies use of the data, speeding business decisions. It also speeds system development and maintenance efforts. For example, the effort required to determine which fields to include on a report or how to interpret the data on a report is simplified when the information about those data fields is readily available to everyone involved in the process.

Making Repositories Work

State-of-the-art metadata repositories contain the following basic capabilities that support both the business and IT in the management of the organization's data:

Business Glossary: Includes a complete listing of all terms important to the business, including a formal definition of each term. The definition documents the business usage of the term; a technical definition specifies the utilization of the data in databases, files or other systems and as such, supports computer or software efforts.

Data Traceability: Provides the ability to follow the flow of data from its source to its target point(s).

Data Lineage: Provides a history of how data was received or originated and whether the data and its usage has been modified, and if so where, when and by whom.

Data Governance: Links data to associated "owners" of the data in order to establish accountability, and establishes an approval process for any changes.

2. Reinforce consistency through data reuse and redundancy elimination, thereby increasing productivity and reducing project delivery time. A central metadata repository serves as the "single source of truth" to discover reusable components that developers can leverage. Companies can reduce the amount of redundant or unused data, which allows for hardware and software consolidation and cost savings.

3. Reduce the risk of knowledge drain from staff turnover. Valuable information about where and how data is stored and what it means frequently goes undocumented, residing only in the heads of certain employees. When these key individuals leave the company this knowledge disappears with them. A central metadata repository within a metadata management system alleviates any risks of this information leaving with a departing employee.

4. Increase confidence in the data delivered in reports to business users. Tracking the flow, use and lineage of data—where it comes from and how it is derived, processed and delivered—provides important context to business users. Profiling data in source systems allows data inaccuracy and inconsistency issues to be exposed and resolved, resulting in trustworthy, high-quality data.

5. Improve IT responsiveness to the business by making the development process more efficient. The integration and visibility of metadata helps IT understand what data exists, where it is located and what it means, minimizing information complexity. In addition, this visibility provides the infrastructure for analyzing the impact of changes brought on by changing business requirements and will speed up the development of new data integration projects. Data integration developers can rely on this information to easily and accurately determine the data needed for their projects. The ability to assess the impact of potential changes also can help managers quickly estimate

project duration and resource costs. Finally, a central repository, linked to business intelligence tools, allows business users to immediately view data definition or calculation without referencing a separate source.

6. Provide transparency to key information to effectively react to compliance and regulatory requirements. A metadata repository provides transparency to key information and provides audit trails of how data moves across applications. It more easily retraces the steps from the reports and financial statements to the original source of data, especially as data changes and transforms on its journey through various systems. A metadata repository documents these data flows and data changes across systems to deliver a lineage that can be used for transparency and ability to audit the data. It provides a way to prove that data is reliable, traceable and accurate. A repository, where data assets are well-documented and traceable to the business processes they support, also facilitates compliance to regulations, as well as responses to any e-discovery steps in litigation.

7. Assist in reducing the time and costs in mergers and acquisitions data integration efforts. When two companies merge, the acquiring company faces the challenge of consolidating data of the two organizations to run day-to-day operations. When one company acquires another, it is buying that company's customer, financial and product data. Metadata management helps handle this consolidation and integration of merged company data by maintaining an inventory of existing data assets, where they are located, what they mean and how they are derived within each organization.

The metadata repository within each organization helps identify and eliminate redundancies and promotes consistency of data definitions and use. This repository can store other data foundations and building blocks, such as used data models and data dictionaries, for the entire organization to use.

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