Commentary

Data Stewardship: Critical Component of Data Architecture

Data quality is an often-overlooked component of data architecture. By establishing a data stewardship program to increase the focus on data quality issues, enterprises can optimize results of their data architecture efforts.

More enterprises are realizing that poor data quality is a significant inhibitor to the success of strategic business initiatives. Data quality issues make it difficult, if not impossible, to generate business value from customer relationship management, business intelligence (BI) or any effort requiring significant integration of data. This prohibits achievement of the goals and benefits of managing the enterprise data architecture (see "Enterprise Data Architecture: Why, What and How").

Enterprises that recognize data quality as a critical issue typically pursue a range of solutions, technological and organizational. A common theme in discussions with Gartner clients is the value of a data stewardship program in which individuals are assigned responsibility for the quality of subsets of the enterprise data architecture. However, many data stewardship programs provide limited or no improvement because the wrong individuals are selected as stewards, or those individuals are not organized and managed to ensure success. To help address this problem, we offer the following guidelines for enterprises planning a data stewardship program to supplement their data architecture efforts.

Stewardship does not equal ownership.

The concept of data ownership, specifically when the ownership is bestowed on a single individual or department, cultivates the wrong mind-set. Ownership implies control, and control implies restriction of access. Stewards do not own the data, nor do they have complete control over its use. Rather, they are trustees, ensuring that adequate quality is maintained so the data architecture can provide optimal support for critical business processes. Data stewards must work with data architects to identify opportunities for improving data quality and accessibility through changes in the architecture.

Stewards must have specific goals for data quality improvement.

As with any improvement effort, not having well-defined goals will lead to a lack of focus. The enterprise must define clear goals for data quality improvement based on measurable metrics (see "A Strategic Approach to Improving Data Quality"). Stewards should participate in the process of defining the metrics,
building the business for improvement and establishing the targets. They should also monitor the progress of the data quality improvement effort, constantly reporting data quality metrics to the rest of the organization.

**Stewards should reside in the business, not in the IS organization.**

Data quality is a business issue, not an IT one. To achieve the best results, the focus and drive to improve data quality should occur in the business organization. To be most effective, stewards need to be intimately knowledgeable of the data and its use in a business context, as well as have a stake in improving quality. Data stewards must be tightly aligned with data architecture plans and efforts. If driven completely from the IS organization, the data quality improvement effort is unlikely to succeed.

**Stewards must be visible, respected and influential.**

Effective stewards must inhabit a fairly high level in the enterprise. They have the vision to understand the importance of data quality to the overall business objectives, as well as the impact of quality issues on downstream business processes. Stewards are empowered to make business process changes and apply resources to address quality issues. Furthermore, they have the ability to influence how their peers execute business processes to achieve further improvements. This is critical because data flows through multiple business processes, each of which has different quality requirements.

**Stewardship should be based on manageable subsets of data.**

Far too often, enterprises give data owners or stewards very broad responsibility. For example, a steward might be charged with overseeing all customer data. In such cases, the steward is generally ineffective, because he or she can't adequately address the entire range of data. Although some data subject areas are small enough in scope that a single steward can be effective, most are not. Successful stewardship programs are typically based on subsets of major data subject areas, rather than entire subject areas.

**Stewardship should be placed closest to the point of capture and maintenance of the data.**

A logical way to organize data stewardship is to place stewards closest to the point of capture of the data. For example, the call center manager might have stewardship for customer contact information. Focusing on data quality closest (in a logical sense) to the point of data capture will minimize the opportunity for quality issues to enter the architecture. Getting it right at the beginning will eliminate significant data cleansing and correction work downstream. Stewards need to analyze the business processes in their immediate sphere of influence, identifying data quality requirements and gaps in controls, procedure or technology representing potential data quality risk.

**Stewards must be accountable.**

Because stewardship is generally not the individual's primary responsibility, it is easily pushed to a lower priority. Stewards must be accountable for improvement. Some enterprises tie achievement of data quality improvement goals into the steward's compensation. Steward accountability is also generally driven by a reporting structure where a member of the senior leadership team is the ultimate owner of the strategic data quality initiative. Regardless of the mechanism, data quality improvement must be a high priority.
Stewards are responsible for guiding the effort, not doing it themselves.

Stewards have other roles and responsibilities and, therefore, cannot effect significant change on their own. Much like the role of the enterprise data architect (see "The Responsibilities of the Enterprise Data Architect"), stewards work to guide and influence others in implementing the changes necessary to improve data quality. They should be viewed as the leaders of the data quality improvement effort, driving implementation of the changes necessary to improve data quality.

Stewardship efforts need to be consistent and leverage each other.

Even though data stewards will operate in a somewhat, independent mode, focusing on the subsets of data most important to them, their efforts need to be coordinated across the enterprise. Leveraging the same methodologies, approaches, tools and shared services — such as IT resources, the BI competency center or the integration competency center — will bring consistency to the effort and enable sharing of best practices across the stewardship program. The enterprise data architect can serve as facilitator for the stewardship team, raising issues of inconsistency and identifying opportunities for greater leverage.

The success of stewardship requires the right culture.

Even with good stewards, well-defined goals and accountability, stewardship cannot be successful unless the enterprise moves toward a culture that views data as a competitive asset rather than as a "necessary evil." At all levels, the enterprise must understand the importance of data quality as a critical component of the enterprise data architecture and start to act on it. Without this type of mind-set, data stewardship and data architecture efforts will not achieve optimal results.

Bottom Line: A data stewardship program can bring needed focus to data quality issues, increase the benefits derived from data architecture efforts and increase ties to the business. Enterprises seeking to refine and improve their data architectures must treat data quality as a critical business issue and seed the business with data stewards. Selecting the proper individuals for these roles and organizing them in an effective manner are the keys to success for data quality improvement programs.