

DebTech International, Wilshire Conferences and TDAN.com "Data Governance Best Practice Award" 2011 for Sallie Mae

SPONSORSHIP, PLANNING and FRAMEWORK

Describe your data governance program planning process, when the program started, where in the organization the program resides (business and or technical areas), and who is ultimately responsible for delivering value.

Sallie Mae began formalizing a data governance program in the beginning of 2006. In the Spring of 2006, as a first step, we kicked off a project entitled, Enterprise Data Definition, to identify our enterprise data. We identified data by each line of business and then developed a list of enterprise data. We defined a field as "enterprise" if it was used by two or more lines of business. This list of enterprise fields was utilized as the scope of our future Data Governance Program. Our next phase was a pilot project (7 Data Elements) that focused on addressing the issues of seven key fields needed for improving the marketing efforts within Sallie Mae. The identified roles and responsibilities, lessons learned and the issue resolution framework used during this project were utilized as inputs to the development and design of our Data Governance Program.

The pilot project ran from August to November of 2006. In November of 2006, we began the development of our formal Data Governance Program, working with Gwen Thomas of the Data Governance Institute. In April of 2007, we went live with our Data Governance Program. Two organizations, the Data Governance Council and the Data Governance Office, support the Data Governance Program at Sallie Mae. The Data Governance Council consists of business representatives from every line of business in the company. The Data Governance Council meetings are coordinated and facilitated by the Data Governance Office. The Data Governance Office reports through the Enterprise Technologies Group which is a part of IT. The Data Governance Office is made up of the Chief Data Steward (from the business), the Data Governance Program Director (from IT) and a Data Governance Assistant. The Data Governance Office is accountable for delivering value to the organization. The Data Governance Program also consists of business and technical subject matter experts (SMEs) that are pulled in as needed to solve data issues.

In the Fall of 2009, we entered the next phase of our Data Governance Program where we designed a formal, enterprise Data Quality Program that fits under the data governance umbrella. The formal, enterprise Data Quality Program was implemented on June 29, 2010. Similar to the approach we used for DG, we conducted a pilot DQ project that resulted in Sallie Mae successfully implementing 22 business rules (BRs) in June, 2010. We then finalized the design of the DQ Program based on our lessons learned from the pilot and have continued to work DQ issues under the DG umbrella. To date, we are actively monitoring 55 BRs that the DG Council has responsibility for reviewing, determining root cause and having the error records corrected. Associated with the DQ Program, we have also implemented a DQ Dashboard that reports on the following: State of Data Quality (using red, amber, and green statuses); Business Value that includes the total projected and actual amounts for revenue generated and costs avoided, as well as intangible benefits; number of DQ Issues; and Number of DQ Engagements.

Describe the phases of the program, when you went "live" with your data governance program, and whether or not your program aligns with an industry standard framework or consulting organization's approach that has been made public through presentations and written content.

The phases of the Sallie Mae Data Governance Program to date are:

- Enterprise Data Definition (defined enterprise data for scope of Data Governance Program), March – July, 2006
- 7 Data Element Project (Pilot project to test out approach, roles and responsibilities, etc.), August – November, 2006
- Data Governance Program Design, November, 2006 – March, 2007
- Data Governance Program Implementation, April, 2007 (go live date) – present
- Enterprise Data Quality Program Design, October – December, 2009
- Enterprise Data Quality Program Pilot Project, January, 2010 – June, 2010

- Enterprise Data Quality Program Implementation, June 29, 2010 (go live date) - present

The Sallie Mae Data Governance Program aligns with the Data Governance Institute's Governance Framework and Gwen Thomas helped us design our program. The Data Quality Program was designed with help from Danette McGilvray, Granite Falls Consulting, Inc., and utilizes her approach to data quality called Ten Steps to Quality Data and Trusted Information™ (Ten Steps™).

Describe the level of management sponsorship, promotion, enforcement and the business drivers of your data governance program.

Our Data Governance Program has management sponsorship at the executive level ("C" level) from both the business and IT sides of the company. Initially, the Data Governance Program was approved to help Sallie Mae with their marketing efforts (increase revenue). Subsequently, the three corporate business drivers: increasing revenue, managing costs and complexity, and reducing risk have become the drivers of the Sallie Mae Data Governance Program.

Describe the program's business and technical goals and objectives, how these goals and objectives were decided upon, and the level to which these goals and objectives have been achieved.

The objective of the Data Governance Program at Sallie Mae is to "solve boundary-spanning issues by pulling together the pieces of the data puzzle." The goal of the program is to use horizontal alignment to achieve what is impossible to do in separated, vertical silos. The three main focus areas of the Sallie Mae Data Governance Program are to: proactively create and align rules; react to data issues; and protect and serve the interests of the data stakeholders through ongoing support. The data issues are identified by the business areas, project teams, or application development teams. The Data Governance Council then prioritizes the data issues based on business value. The initial objectives and goals of the program were developed during the design phase and were reviewed and agreed to by upper management on both the business and IT sides. The initial pilot project increased revenue by \$2.4M for the first two years based on an estimated increase of \$50M in loan volume; and eliminated costs of \$4.8M spent on letters/postage that were replaced by email campaigns. Since the Data Governance Program inception at Sallie Mae, we have implemented resolutions for 77% of the data issues that have been elevated to the program.

BUSINESS REQUIREMENTS and BUSINESS PARTICIPATION

Describe your organization's business requirements for Data Governance and the level of business involvement in the daily operation of the data governance program, as data stewards, facilitators, decision makers, ...

Sallie Mae requires a Data Governance Program in order to increase revenue, reduce costs and complexities, and to help manage risks. The Sallie Mae Data Governance Program sponsorship includes "C" level management from the business areas who have agreed to provide business participation for the Data Governance Council and additional subject matter experts to work with the Data Governance Council and the Data Governance Office. Our Chief Data Steward was assigned this role as her primary responsibility. The Data Governance Council members and SMEs work on data issues on a daily basis and are champions of data quality. The business is very committed and involved in the program. They prioritize the data issues, perform root cause analyses, identify possible solution paths, and help to show the business value of getting an issue fixed. They function as data stewards and facilitators of information from the Data Governance Council to their own business teams. These data stewards also act as decision makers since they are often asked to determine business rules and agree to changes to the data. They are mostly middle to upper management level, and know their business processes and the data. They are some of the best experts in the company for their given line of business.

Describe the Data Governance business requirements gathering process, who was involved in that process, and

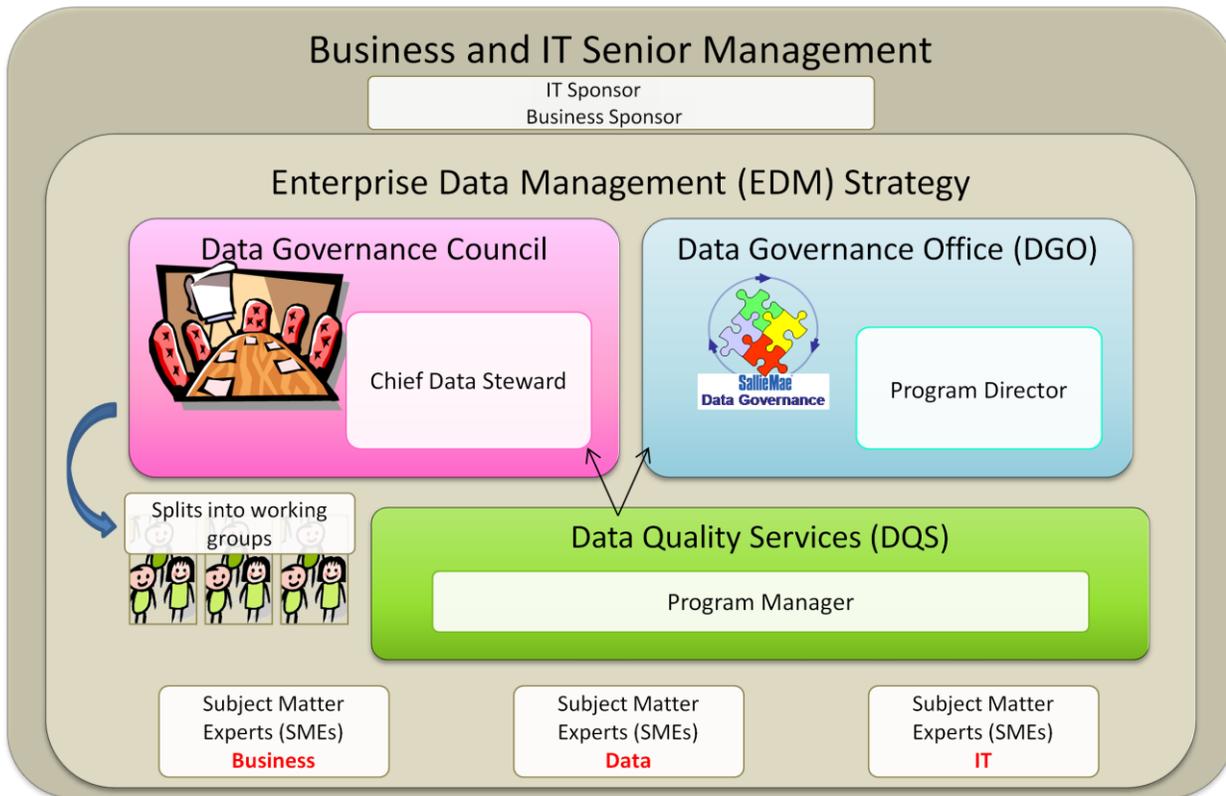
how specific requirements were addressed by the program.

The initial Data Governance business requirements gathering process involved filling out a questionnaire on a set of key fields identified as impacting one of the three corporate drivers for Sallie Mae. The summarized results of the questionnaires were used as input to a 2-day JAD session where each field, and the associated issues, was discussed and possible solution paths were identified.

Since the initial kickoff, key strategic projects to Sallie Mae have driven many of the data issues that are addressed by the Data Governance Council. For example, the development of an Enterprise Data Warehouse, a new process for “putting” loans to the federal government and the need to securitize loans, have all led to certain data issues being addressed by the Data Governance Council. The other data issues arise from business processing errors and are prioritized based on their impact to revenue and operational costs. In addition, at every bi-weekly Data Governance Council meeting, we solicit the group for new data issues.

DATA GOVERNANCE PROGRAM STRUCTURE

Describe your program's Data Governance Structure (operational, tactical, strategic, executive and support).



The Data Governance Office and Data Governance Council report to upper management through an operating committee made up of senior management on the IT and business sides of Sallie Mae. This committee is responsible for prioritizing and approving all business driven initiatives. Each team above has the following responsibilities:

- **Business and IT Senior Management**
 - Sets vision and goals for Data Governance at Sallie Mae, resolves issues and makes decisions

- that are beyond the empowerment level for other groups
- Data Governance Office (DGO)
 - Administers the Sallie Mae Data Governance Program; facilitates Working Groups
 - Data Governance (DG) Council
 - Led by the DGO and made up of Business Data Stewards, who represent Sallie Mae stakeholder groups to make data-related decisions
 - Working Groups
 - Subsets of the DG Council and formed as needed to work in-depth on issues
 - Subject Matter Experts (SMEs)
 - Business, data and IT staff who participate in Working Groups and provide information to the DGO and DG Council
 - Data Quality Services (DQS)
 - Administers the Data Quality Program and provides services for DQ requests, project implementation, production support/data quality tool admin, on-going monitoring, DQ consulting and training

Describe the tools (internally developed or externally purchased) that have been used to support the activities of the Data Governance program.

The Data Governance Program at Sallie Mae utilizes:

1. DataFlux for all data profiling tasks and initiatives
2. ER/Studio and the ER/Studio Portal for the metadata repository
3. Database jobs, queries and utilities for data profiling
4. Custom built Access Database for issue tracking
5. Website for the Data Governance Program home page and supporting documentation
6. Word, Excel, Visio, and PowerPoint for documentation and presentations
7. Website for the Data Quality Dashboard (backend processes use DataFlux, Oracle DB, and OBIEE)

Describe where the information (meta-data) that supports the Data Governance Program (example: relationships between people and data, relationship between data and systems, relationship between data and business rules) is located, maintained and made available. Who are the people that are using that information and how are they using it.

Sallie Mae uses ER/Studio as our metadata repository. This repository is maintained by the Data Administration/Data Governance/Data Quality teams. The entire corporation has read-only access to this repository through the ER/Studio Portal or through reports generated and stored on the local area network. Of significance to note, is our “enterprise where used” report that is generated daily. This report shows all the systems, tables and columns where a data element is being used across the company. We have also leveraged and extended ER/Studio capabilities to store business rules, data element maturity level, line of business owner, and whether the field has been standardized by the Data Governance Council. This information is used heavily by the application development teams and by the business for research and reporting purposes.

Describe how the Data Governance program is designed to assure the quality of data and any agreements that are held between the business and technical areas of the organization that use Data Governance and associated metrics to maintain the agreements.

As part of the design of the Data Governance Program, Sallie Mae developed written policies and procedures dictating what could or could not be done to a field. The Data Governance Office has an open door policy where either the business or IT can “blow the whistle” on a team not abiding by the policies. We also have an escalation path, if needed, to upper management to resolve issues and conflicts. We have built in data governance processes into the IT System Development Life Cycle to ensure that data governance has become part of the application development processes. We have also built in a “data governance trigger” into an

Enterprise Architecture Assessment that must be filled out for every new project/major change that is needed. Additionally, we have a Data Governance Program email address that is used for communication purposes. We have just completed designing the formal, enterprise data quality program. As part of this program, we are implementing active monitoring of governed fields so that any changes to those fields will be quickly identified and managed. The Sallie Mae Data Governance Program also provides metrics for measuring the corporate business drivers associated with data governance initiatives.

Describe the relationship between your data governance program and ancillary activities including master data management, risk management, business intelligence, data quality/quality reporting initiatives, compliance initiatives, others that have aligned with your program.

The Data Governance Program has played a key role during several audits including an FDIC audit and it is leveraged by the compliance, risk and fraud teams. It has been instrumental in defining business rules and reviewing data quality issues for the development of a customer master data management system called the Customer Information System. The Data Governance Program has also been leveraged, on a daily basis, by the teams developing our new Enterprise Data Warehouse (EDW) and associated data marts. For the EDW/mart environment it is imperative that the data is defined the same across the enterprise so that the data mining results and business intelligence reports all match.

Sallie Mae considers the Data Quality Program to be under the umbrella of our Data Governance Program so we have been working hard to formalize our data profiling efforts and to implement more pro-active monitoring of the data. The results of data profiling are used by the Data Governance Council and project teams to achieve better quality data. To achieve this objective, we designed our formal, enterprise Data Quality Program in 2009 with consulting help from Danette McGilvray and are implementing our program currently.

PEOPLE PROGRAM TEAM and the DATA GOVERNANCE ROLES

Describe the business, technical and support roles associated with your data governance program, how many people participate in these roles, where they reside in the organization, and who manages their responsibilities.

The Data Governance Council is led by the Data Governance Office and is made up of 24 business enterprise stewards who represent Sallie Mae stakeholder groups to make data-related decisions. The Data Governance Council is a virtual team and the members report up through their existing business management chains. Those who comprise the Data Governance Council tap members of their teams/lines of business for research and analysis activities on an as-needed basis. In addition, we have identified 17 business SMEs that play an additional role in supporting the Data Governance Program. A couple of these representatives represent risk and compliance teams that do not actively attend the Data Governance Council meetings on a regular basis but get involved when required.

The Data Governance Office administers the Sallie Mae Data Governance Program and facilitates the working groups. It consists of three individuals: Chief Data Steward (business), Data Governance Program Director (IT) and Data Governance Assistant (IT).

In addition to the business SMEs, Sallie Mae has 25 IT SMEs and two data SMEs who participate in the working groups and provide information to the Data Governance Office and enterprise stewards.

The Data Governance Program reports up through an operating committee that is comprised of upper management representatives from both the business areas and IT. The role of the committee is to set the vision and goals for data governance at Sallie Mae, resolve issues that are escalated, and make decisions that are beyond the empowerment level for the other groups. However, to date, we have not had to go to the operating committee for issue resolution. The Data Governance Council has been able to resolve all the data issues within their boundary of control.

The Data Quality Services team administers the Data Quality Program and provides services for data quality

requests, project implementation, production support/data quality tool admin, on-going monitoring, data quality consulting and training. This group currently consists of three individuals and they report to the Data Governance Director. This year, we have re-staffed our business enterprise stewards due to changes in the organization. Working directly with the stewards we have identified a Business Rule Approver who will be accountable for each of the existing 55 business rules that are being monitored on a weekly basis.

Describe the data governance organization base (both business and technical), how many people are currently associates with following data governance guidelines, areas of your organization where they are receiving the most value from the data governance program.

The Data Governance Program at Sallie Mae is intended to be an enterprise program. As such, all SLM employees are expected to adhere to our data governance policies and practices. We work with business teams and application development teams on a continual basis that are trying to add new data to our environment or want to change the existing data to meet changing business requirements. The areas that have seen the greatest ROI from our efforts include marketing, corporate finance and our loan originations and servicing areas. In addition, developers of a customer MDM system (the Customer Information System) and an Enterprise Data Warehouse have benefited substantially from our data governance expertise; we help resolve data issues for them, respond to metadata questions, and ensure that the data is consistent and accurate for their use. Additionally, in March 2011 we introduced our first set of actual revenue generated and actual costs avoided dollar amounts on the Business Values section of our data quality dashboard. These figures are derived from the cleanup efforts related to data issues from several of our address fields and provide benefit to print and mail operations, servicing, collections, and marketing.

Describe how the data governance program is marketed and promoted internally in your organization and how accountability for the governance of data is applied and enforced.

Sallie Mae has taken a top-down and bottom-up approach to marketing the Data Governance Program. The Data Governance Program has been marketed from the CEO level down to all his directs and then their direct reports. It was also presented to middle management and their teams to make sure everyone understands why Sallie Mae needed a Data Governance Program and what their role and responsibilities were to make the program a success. To this day, it remains a key foundational program for the successful execution of business driven initiatives. The Data Governance Office reports on a monthly basis to upper management and has received their approval to hire staff and continue the program each year. Both the business and IT departments leverage the Data Governance Office and Data Governance Council to enforce governance of data. The business and IT departments serve as a good "check and balance" for each other.

Describe the techniques that you use to attract new governance associates and how you assist new associates to learn how to use and navigate through the data governance program.

Sallie Mae's Chief Data Steward and/or business upper management recommend new members for the Data Governance Council when a vacancy occurs. To bring a new enterprise data steward up to speed we meet with them to review the Data Governance Program kick-off presentation, review roles and responsibilities and work with them until they are comfortable with their new role.

MEASUREMENTS PROGRAM and SUCCESS STORIES

Describe how your organization measures the success of your Data Governance program, how KPIs (key performance indicators) are defined, and the Data Governance program quality reporting method (balanced scorecard, Six Sigma).

We measure the success of our program through our issue tracking database and DG dashboard. The DG dashboard documents the issues by type, and shows how many are opened, closed or in-progress during each

month. For closed issues that have had a significant impact on the business we attempt to do a cost-benefit analysis on them to show the value that has been achieved. For example, a couple of issue resolutions demonstrated significant cost savings and revenue enhancements, and justified several business initiatives for 2010.

We also track the percentage of time spent on the following categories for DG Program metrics:

- Data Standardization
- Metadata Support
- MDM
- Project Support
- Data Quality

Over the last 2 years, we have implemented techniques to identify business value associated with the data errors uncovered through active profiling of the data. First, the DG Council identifies and prioritizes the fields to be monitored and works with us to develop the business rules. For each business rule, we interview the data stewards from the Lines of Business (LOBs) to determine business impact to their areas and derive business values calculations. We update the Dashboard below with the updated Business value on a monthly basis. We show potential and actual business value for revenue generated and costs avoided, in addition to intangible benefits for each business rule.

We have also developed summaries of numerous success stories that we share with upper management and the business areas (see below for some example).

SLM Corporate Drivers



Increase Revenue



Facilitate Private Credit products speed to market



Increase volume available for the PUT process and trusts



Improve servicing performance for Dept of Ed contracts = increased SLM volume percentage awarded



Manage Cost and Complexity



Eliminate data reconciliation efforts and workarounds



Reduce operational servicing costs



Implement enterprise architecture improvements (e.g. SOA, person matching)



Improved risk management and corp. compliance through DQ and standardization



Reduce audit findings due to inaccurate or inconsistent data



Improve identification and documentation of identity fraud

Describe your ability / attempt to define and report a financial ROI on the program, whether or not this type of reporting is required, and how well this reporting has been accepted.

A financial ROI on the program is not required since upper management and the business areas understand the importance of quality data and treating data like any other asset of the corporation. However, we know that upper management likes to see numbers so we have been working hard to provide them with better metrics in addition to building the business case by telling a story to which our audience can relate. Also, the Data Governance Office and Data Quality Services teams have now also been trained in techniques to assess the business impact of a data issue (from the Ten Steps™). Once the business information is identified, we involve the business areas and finance to develop the cost savings or revenue enhancements for the Data Governance Program so that we have a “legitimate” metric for upper management. See dashboard below. Also, we have developed business examples for each of the Sallie Mae corporate drivers. These examples really help to drive home the impact of the Data Governance Program at Sallie Mae. Each of the examples is documented on a template by the DG Council and the DGO.

