Implementing a Phased Approach to Master Data Management

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Applies to: SQL Server 2008 R2 Master Data Services

Summary: This article provides common ways to approach master data management so that it has the best chance of being successful. These examples include implementing a departmental solution that spreads across an organization and implementing a global project based on regions.

This article is part of a series called "Organizational Approaches to Master Data Management." For more articles in this series, see http://go.microsoft.com/fwlink/?LinkId=187888.

Introduction

Master Data Management projects can be complex undertakings that require significant effort and expense. Many times a project can be broken down into smaller atomic implementations; a phased approach to a master data management project can provide opportunities to test assumptions related to data quality as well as potential ROI. Multiple phases also provide an organization the opportunity to apply lessons learned from initial phases to all later implementation efforts.

Implementing in a phased approach

There are many possible techniques for implementing master data management within an organization; however, some are more efficient than others. Implementing master data management in phases can increase the chances of overall success, building support for the project and increasing awareness throughout the organization.

The examples detailed in this paper can provide an organization a reasonable path to implement and grow with a master data management solution. An organization's structure will have a significant impact on which method will be the most feasible.

There are a number of methods for breaking a project into phases. The best approach depends on the structure of the organization and the type of problem being solved. It is important to review each phase after completion to ensure that all assumptions are still applicable and to communicate any concerns that have arisen to the entire project team.

Single Dimension Build Out

Many organizations come to realize that master data management is needed in their organization through one significant business driver. Commonly, the master data issues in this organization revolve around a few distinct dimensions. These pain points provide the perfect location to start the master data management process.

This approach is applicable when the master data management problem has these characteristics:

- Single dimension is affected
- Low resistance to a new system of entry for this dimension
- Minimal additional stakeholders required for complete implementation
- Central data management (at least for the dimension in question)

For this example, let us discuss a fictitious company called Fabrikam, Inc. This company spends at least 20 hours per month reconciling changes between seven systems that rely on account-related information. New accounts are created by three different groups. The Accounts Payable group creates a new account for each new supplier. Accounts Receivable creates a new account for each new customer. All other account changes are handled by the financial controller. These changes and all the corresponding attributes must be propagated to all seven systems. Difficulties arise because many of

these accounts are created a few months before a balance is shown in them. If a system is not in sync at that time, reports will not balance and it is difficult to determine where the error is coming from.
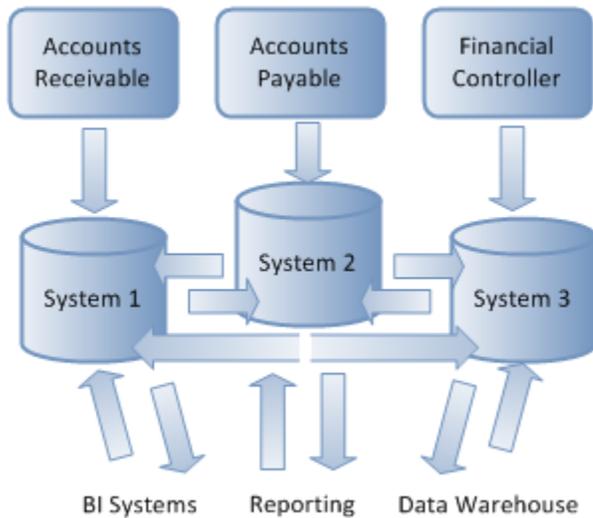

Figure 1: Phased Approach - Before

After reviewing their options, the finance and IT departments agree that this problem is a commonly recurring issue with the master data within the organization. The IT department is able to identify at least six places within the organization where critical company master data must be synchronized. While the time and monetary resources are not available to implement an enterprise-wide master data management solution in the next quarter, it is determined that the solution should have the ability to scale across the organization.

Three months later, the initial implementation is a success. All three account creators are using the master data management solution to create new accounts. All of the account structures are being propagated to the seven internal systems. The company spends less than one hour per month reconciling issues between any of the financial systems. After seeing the initial success of the finance department's implementation, the sales organization is preparing a project to leverage the master data management system to manage its active customers. The accounting group will be able to leverage this data when creating the accounts receivable data as well.

Leveraging the early success, this project is prepared to grow organically throughout the organization, each group taking advantage of the efficiencies learned in early phases of the master data management implementation. As the project grows into other areas of the business, it is imperative that clear ownership is determined.
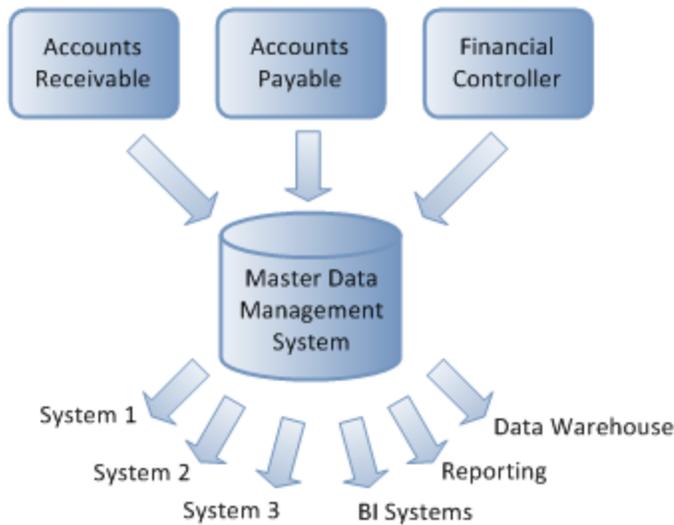
Figure 2: Phased Approach - After

Regional Build Out

There are certain master data management projects that require integration across multiple functional areas and that lend themselves to a more regional approach. These projects can be identified by regional autonomy. By implementing master data management in a phased approach, organizations can also lessen the costs of travel and time zone differences. It is likely that subtle differences will exist between regions. If global projects are not broken down into regional implementations these subtle differences might be overlooked or under-appreciated.

In this example, Fabrikam is broken into three production divisions worldwide. While each division is responsible for producing similar products, regional differences in product specifications and safety standards necessitate differences in manufacturing techniques in each division. Fabrikam has identified the management of suppliers, raw materials, and production as a major source of confusion and has recently encountered embarrassing recalls due to attempts to source products from different divisions when local shortages exist.

Fabrikam determines that they will initially implement master data management for the North American division due to its relative proximity to headquarters and the visibility of the regional division. This project will integrate a number of suppliers with a central manufacturing system. Using service-oriented architecture (SOA), the implementation team wants to ensure that there is greater communication between major suppliers and production related to the needs for raw materials and projected demands.

After Fabrikam completes their implementation for the North American division for the management of suppliers, materials, warehouses and products, a post mortem on the project is performed to understand which parts of the system integration were effective and which parts need work. Management decides that some suppliers were not prepared for the level of integration necessary to make those areas of the system successful. For future regional implementations, they will try to enforce a stricter set of guidelines and provide better guidance for supplier integration. Before beginning the

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second regional phase, the implementation team that will remain engaged for the second phase does a full week review of the European production process to identify any idiosyncrasies that exist in their processes. Differences in raw materials and processes will be reviewed to ensure that the implemented system will meet the needs of the European business.
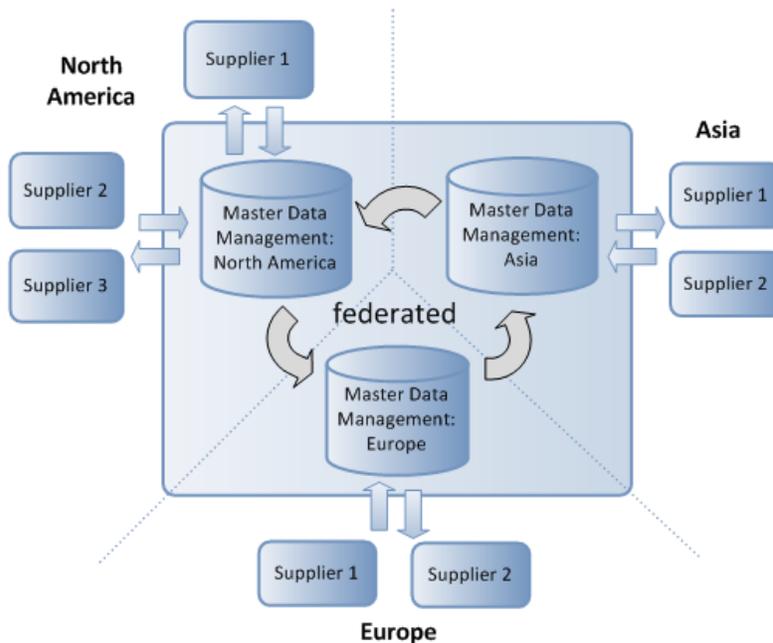

Figure 3: Regional approach

After the completion of all regional phases and any additional adjustments that need to be made, the final phase is to federate the regional solutions to provide a top down view of product management across the enterprise. This top down view should be geared toward solving supply chain issues and routing goods to appropriate destinations allowing the regional solutions to manage the daily production process.

Conclusion

The most successful master data management projects begin with easily discernable goals and a relatively quick time to value. Creating a phased approach that solves early challenges but is easily expandable to other areas of the business can allow your master data management project to show initial value and build momentum throughout your organization.

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