Microsoft

Bringing Master Data Management to the Stakeholders

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Summary: This article provides information about the organizational challenges of implementing a master data management solution. Data governance and data stewardship provide a central role in the success of master data management within an organization. The right combination of people, processes, and policies can play as important a role as any software implementation. Working with the stakeholders to generate acceptance and ownership can go a long way to creating a successful master data management project.

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

No matter how well thought out the vision of a project is, nor how committed higher management is to achieving that vision, it is the key stakeholders that control the ultimate success of the project. Within a master data management implementation, the need for consensus is heightened. A master data management project brings together users of disparate roles including business users, technologists, sales people, and foremen. Everyone must put aside their differences and reach a common understanding of the key concepts within a business. Providing the proper framework for data governance and an effective communication strategy are essential to a successful organization-wide implementation.

Determining the Scope

Unlike most processes, where it is valuable to limit the initial scope, master data management projects are most successful when planned with an eye to the entire organization. Planning top-down from the start allows the organization to create a comprehensive solution for each master data set even though the actual implementation is incremental. It is imperative that your understanding of the customer model contains all facets of that customer.

Accounting sees a customer as an Accounts Receivable (AR) balance. Their concerns include:

- Credit limit
- Credit risk
- Secure information, such as routing numbers for direct billing and social security numbers

Sales sees customers more deeply. Their concerns include:

- Contact Information
- Birthday
- Product interests

Support sees only the issues with a customer. Their concerns include:

- Support calls
- Open issues

It is important to take all of these views into account when building the customer model. It is also important to delineate what should be stored in a master data management solution. Transactional records, such as a customer's open support issues, should remain in the source system. What may be valuable as master data is whether the customer has ever contacted support and whether the customer has a support agreement.

Before we go further, I would like to define a term that will provide value for the rest of this paper. Implementing a master data management solution never happens in a vacuum. We have never seen an instance, where a company springs to life, ready to handle their data issues fresh. There are a web of

processes and applications that are allowing all of the organization's systems to currently function in a synchronized fashion. For any functioning system within an organization, there is always at least one user who is responsible for the cleansing and reconciliation of the master data used. These individuals may report to IT or they may be business users. For simplicity's sake, we will identify all of these individuals as "intermediate data stewards."

Data Governance

A vital component of any master data management strategy is data governance. Data governance sets the rules for data management in an organization. Examples of data governance rules are required fields, standard values, encryption or security requirements, data retention policies, and so on. Although data governance is a discipline complimentary to the role of master data management in the organization, there is a depth and breadth to governance that is not addressed within this paper. See "A Data Governance Manifesto: Designing and Deploying Sustainable Data Governance" (http://www.baseline-consulting.com/pages/page.asp?page_id=51296) for a more in-depth discussion of governance. Organizations with mature data governance processes within their organization will only need to incorporate some strategies around master data management to solve many of the common process issues. But those organizations that have dealt with data issues in a much more distributed, ad hoc, and individual manner will need to develop some comprehensive policies to effectively deal with the data management requirements that master data management requires.

As master data is integrated across the organization, a number of governance issues must be addressed:

- How will the organization manage changes to the master data?
- What rights does each group have over attributes of the models they maintain and consume?
- How will dependencies be monitored and managed?
- When data inconsistencies arise, how will these be addressed?

You must have the right tools to implement a master data management solution, but, without the proper processes in place, master data will begin to degrade in some of the following ways.

- Master entities are updated in such a way that they break some supported system
- Supported systems do not provide changes to synchronization keys
- New systems are brought online without using the master-data integration strategies

Creating maintainable processes that address most common issues requires an organization to be proactive in identifying possible issues of contention. The following steps need to be completed for each master data set before any size organization is prepared to implement a master data management solution. Answering the global questions early in the project should not significantly increase the scope of your initial project. You should use the results of the following process to identify any potential issues early in the process, but not address every item in the initial phases. Attempting to be all things to all people is the quickest way for a project to spiral out of control.

Determine all groups that rely on this dataset

Once you have selected an entity to review, the first step is identifying all groups within the organization that rely on this data. Identifying all of the stakeholders early in the process ensures that early work in the process is able to meet the needs of the larger organization in the future.

Determine all systems that assist these groups that have a dependency on this dataset

After identifying the groups with a vested interest in your entity, you need to identify those systems that rely on the dataset.

Identify key decision-makers for each group or application

Depending on the structure of your organization and the application in question, key contacts should be identified. Larger enterprise-wide applications may have dedicated teams that manage the application across the organization. Smaller, ancillary applications may be represented by a single person determined by the business area.

Model system attributes, relationships, dependencies, and dependent processes

Analysis of each system's data needs should create a complete view of each master data entity. Common attributes across multiple systems should be identified during this step. Look at any issues with data types and sizes that may create issues during integration efforts.

We will discuss this further in the third white paper in this series.

Identify the data elements to be managed within the master data management system and any data quality rules that can be applied at the master data source

Now that the data containers have been identified, data should be reviewed to determine which records will be managed within the master data management system. This may require decisions to be made on the definition of each master data entity.

Customer

- Does customer only include active customers?
- When does a prospect become a customer?

Product

- Do we include parts or SKUs?
- How do we manage sets?

When reviewing the data, any data quality checks should be identified. What fields are mandatory? What fields are unique? What are the Business Rules for this dataset?

Manage initial inconsistencies and rule interference

As the data is initially loaded into the system, look for those inconsistencies and issues that have been missed over time. I have never done a master data management implementation where the business users were not shocked by at least three major rules that were not being maintained.

Formalize processes for ongoing data issues

Now that data has been loaded into the system, it is essential that a formalized plan is developed to manage changes to the data over time. This process should proactively address dispute resolution between multiple business divisions. Determining the lifecycle of master data members should be documented so that all stakeholders can be aware of the composition of these datasets.

Create policies for new system integration

One of the great benefits of master data management is to provide clean data for new system-integration projects. Whether comparing an acquired company's customer list or adding a new accounting system, clean data can provide efficiencies. Generic processes to identify these systems and their master data management integration potential can formalize this process and provide a roadmap for later projects.

Create a review process

Organizations need to create formal review processes that allow each stakeholder's concerns to be heard. Depending on the size of the organization, the responsibilities associated with these processes may be a minor task or a full-time job. It is important that these master data management processes work within the larger data governance framework, as many of the key issues with master data will have far reaching effects across systems of the organization.

In larger organizations, data governance requires far more knowledge and understanding than is imparted here. Data governance encompasses all facets of the organization's data processes; many of these are not related to master data.

Data stewardship

Master data management systems require accountable, technically proficient business users to create and continually monitor the rules and processes created by the data governance board through changes in the business. The stewards should act in an objective manner, agnostic to any one system or business area. The term "steward" is apt, as it conveys responsibility without any claim to ownership. Data stewards are the governors making the tough decisions to keep master data entities effective. Based on the size and structure of the organization, the number of data stewards will vary. Typically one data steward for each type of business area is best. In a larger or more distributed organization, more data stewards may be required to manage the data needs at each major location. Data stewards should be experts on the data. In some cases, the steward may be a business user who intimately understands data, and in others cases someone in IT may make the best steward.

Data stewards should be designated early in the implementation of master data management for the subject area. The data steward should collaborate with an impartial business user who can manage the collection of system requirements as well as assets that already exist. Early involvement allows the steward to more completely understand each group's needs and identify any potential risks or shortfalls. These stewards are also the first line of arbitration when data inconsistencies arise.

Stakeholder Objections

When working with the current data managers within an organization, you may hear several common objections when master data management projects are initiated. With any of these objections, it is best to recognize the significant change that a master data management process presents to these stakeholders. Master data management projects represent a major loss of control for stakeholders. Although the final result may result in less work for these intermediate data stewards, there is usually a general apprehension with any new processes. After all, most of these contributors took the initial initiative to take over the process when the original processes failed to keep their master data synchronized. It is very likely that other projects have been attempted to alleviate these data issues in the past. Statistically, many of these projects did not deliver on their promise, and often led to more work for these intermediate data stewards. Common objections are:

- You don't understand my data
- This process will not be responsive enough
- This will just add work
- We can't learn a new system

You don't understand my data

This is a common complaint of a master data management implementation. During the process of modeling the master entities, it is common to find a number of data discrepancies that need to be eliminated from the model. Many functional systems handle smaller changes in scope by modifying the master data within the system. One example is an order processing system that does not effectively handle different roles of a customer. To handle these shortcomings in the product, a company may create multiple customer records to handle these different roles of the customer. The company has used data to manage a coding limitation. This is one of the major reasons these systems will never be good applications to manage the master data. These intermediate data stewards know intimately all of these nuances within their system. In the past they have seen projects attempt to whitewash over significant differences that provide important functionality to the organization. Whether it is multiple records for the same customer to provide invoice breakouts or alternate product specifications to handle an older model of the manufacturing machine, they are quite concerned that this master data management project will eliminate these special records. If they have looked at the cleansed records that we will discuss in later white papers, then they may be even more concerned, as these modifications will not be found in the general records of the master data management system. It is imperative to the success of the project that the integration processes be prepared to deal with these

issues. All of these differences need to be detailed and mapped, but the master records must be free from any functional system modifications.

This process will not be responsive enough

As you can see from the data steward discussion earlier, some measure of control of the master entities will be taken out of the hands of the intermediate data stewards. Most of these IDS representatives are used to working in at least a partial data management vacuum. They may have taken into account a few systems that were dependent on their master records, but very few controls were in place and they were the final arbiter of the issues. The controls that are added to bring the entire organization into compliance will certainly create some additional overhead. Although this is a valid concern, the amount of reconciliation effort that will be eliminated should offset any additional overhead that the data steward's processes add.

This will just add work

This is a common complaint against any new process implemented in an organization. This objection is best offset by providing a clear understanding of the benefits of the final implementation. Although certain members of the team may have additional duties, it should be communicated to the stakeholders that integrated master data provides more value and less monthly reconciliation.

We can't learn a new system

This one is phrased in a number of different ways. It is most often heard from the users of very longstanding systems such as mainframe applications. The intermediate data stewards and their teams have made a career out of green screen data entry. Many of these individuals have been very successful staying away from the Windows world. Many view any new technologies as an impediment to their jobs. While it is likely that their efficiency in adding new data will probably suffer as they use the newer systems, most of these old systems are the largest sources of data discrepancies within an organization. Many of these systems were designed before the current IT organization was in place. Documentation is commonly dated or nonexistent. Success of the master data management implementation depends on convincing the data owners that the advantages of gaining control over master data justify the pain of learning a new way of doing things.

Conclusion

Many of the most intractable issues in implementing a master data management system involve getting buy-in from the stakeholders who currently own the master data. Getting them to see master data management as a boon and not a threat is key to effective data stewardship and master data management success.

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