What to Look for When Selecting a Master Data Management Solution
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Table of Contents

Business Drivers of MDM .......................................................................................................... 3
Next-Generation MDM .............................................................................................................. 5
Keys to a Successful MDM Deployment .................................................................................. 6
Choosing the Right Solution for MDM .................................................................................... 7
Talend’s MDM Solution .......................................................................................................... 7
Conclusion .............................................................................................................................. 8

Master data management (MDM) exists to enable the business success of an organization. With the right MDM solution, organizations can successfully manage and leverage their most valuable shared information assets. Because of the strategic importance of MDM, organizations can’t afford to make any mistakes when choosing their MDM solution. This article will discuss what to look for in an MDM solution and why the right choice will help to drive strategic business initiatives, from cloud computing to big data to next-generation business agility.
It is critical for CIOs and business decision-makers to understand the value that MDM brings to the entire organization. Master data can sometimes be perceived as strictly an IT-related issue, so business stakeholders may be reluctant to support MDM initiatives. However, MDM exists to enable the business success of the organization. Therefore, the MDM vision has to be seen as enabling the business vision. MDM is not about “better integration” or “another attempt at an enterprise data warehouse.” It is about changing the way the business manages and leverages its most important shared information assets.

Typically, the IT landscape within an enterprise consists of a complex set of disparate systems and technologies, such as customer relationship management (CRM), enterprise resource planning (ERP) and supply chain management. The complex, fragmented environment of these disparate systems and applications creates proliferating islands of information. When data is isolated in separate silos, the result is duplicate, incomplete and inaccurate data, which leads to inaccurate analytics and, ultimately, poorly conceived business decisions based on misinformation.

Without a system in place to address these issues, the enterprise will have a problem with data quality, which negatively impacts not only business decision-making, but also the ability to maintain proper governance processes and provide accurate and timely compliance reports. One might think that this problem is not new. But now that organizations are engaging their digital transformation, and aiming to leverage critical data related to their customers, products, employees, or suppliers to fuel new data driven processes, this capability has elevated into a must, not an option.

Business Drivers of MDM

MDM addresses these challenges by enabling organizations to create a single source of records or systems of records that prevent multiple versions of the same master data — which are often inconsistent with one another — from being used across different parts of the enterprise. With MDM, data from disparate systems across the organization undergoes transformation and reconciliation as it is loaded into a master data management hub.

A successful MDM solution provides complete functionality for data integration, data quality, data profiling, data mastering and data governance. Depending upon which vendor’s solutions you choose, MDM can go further and provide systems of records that ensure that master data is clean and available to those who need it.
The main business drivers of MDM can be divided into three general categories:

1. Revenue and profitability
   - Increasing sales
     - Understanding customer value and behavior
     - Cross-marketing and cross-selling
     - Customer retention
   - Delivering the right customer experience
     - Consistent customer “touches”
   - Enabling business agility
     - Leveraging mergers and acquisitions sooner rather than later
   - Improving decision-making based on having the right information

2. Cost optimization and business agility
   - “Joined-up” end-to-end processes
   - Efficient billing invoicing and accurate days sales outstanding information
   - Consolidated ERP and CRM instances
   - Efficient procurement and supply chain

3. Regulatory compliance and risk management
   - Adhering to a wider range of stricter regulatory standards
   - Improving risk management across products, channels and other organizational silos
   - Ensuring IT agility and business continuity during major transformational events, such as a merger or an acquisition

Having an MDM solution in place will allow your organization to build for the future and have a single unified platform for next-generation initiatives. Once MDM has delivered the system of record for master data about your customers, product, suppliers, etc. across your internal processes and activities, it should be able to address new generations of business opportunities while being augmented with new sources of external data, such as from clickstreams or social networks.
Next-Generation MDM

MDM creates an asset out of the massive amount of data — structured and unstructured — that is being generated enterprisewide. The number of files that organizations are creating and storing is more than doubling every two years, and more than 90% of this data is unstructured. Beyond this massive growth of data are the high velocity at which it is being created and the changes that are constantly impacting data.

Just to give an idea of how quickly data can change: In one hour, 240 U.S. businesses will change addresses, more than 5,700 individuals will changes jobs, and a dozen new businesses will open their doors. According to various sources, master data changes at a rate of 2% per month. By deploying an MDM solution, organizations can address these data challenges, while extracting, transforming and loading enterprise data so that it can deliver valuable and actionable business information.

Here are some of the major MDM initiatives:

- **Multi-domain solution:**
  - Achieve a “single version of the truth” across multiple types of data entities, such as customer information, separate legal entities, products, individual departments, specific geographic regions and other significant entities
  - Drive business opportunities through advanced intelligence and analytics

- **Flexible deployments:** Organizations can deploy MDM in a variety of ways. Some of the benefits of each:
  - **On-premises MDM:**
    - Different instances for various divisions
    - Support cross-enterprise, cross-instance business processes
    - Interoperability and consistency
  - **MDM in the cloud:**
    - Initial loading
    - Performance bursting
    - Hosting cost-effective MDM solutions

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3 [Extracting Value from Chaos](http://www.idc.com/getdoc.jsp?containerId=244914), IDC Digital Universe Study, June 2011

4 D&B; U.S. Census Bureau; Bureau of Labor Statistics; U.S. Department of Health and Human Services; Gartner; A.T. Kearney; GMA Invoice Accuracy Study
MDM as a service:

- For cloud applications
- Shared data set
- Shared business processes
- Value-added services

Big data and social analytics: There is a huge opportunity for MDM to provide a foundation for big data analytics, particularly as it relates to unstructured data. It’s imperative to have the MDM solution in place first. In fact, one can argue that it is imperative to take the social data into account when designing the MDM program. MDM can enable:

- A 360-degree view of customers that can be supplemented with unstructured data from social media
- Discovery of new user preferences and interests
- The ability to respond to business opportunities in real time

Keys to a Successful MDM Deployment

A company’s MDM program should be an enterprisewide initiative. However, it is difficult to start a program across the enterprise, often because of cultural issues or departmental silos that tend to be protective of their own information. It is much smarter to start small and expand from there. The key to a successful deployment is to embark on tactical projects that are aligned with an overall enterprise vision for MDM. Pick a starting point with limited scope that proves the technical approach and delivers fast and measurable business benefits.

For instance, a starting point could be mastering any domain data from a limited number of systems within the enterprise. Then, you can run data quality in a central location — that is, a hub. This helps put together the technical foundation of the hub and allows the organization to gain experience with a limited and controlled data stewardship.

Once the first tactical trial of MDM proves successful, companies can quickly assemble the information they have learned and use it to develop a longer-range strategic vision for MDM across the enterprise. It is important to develop a road map outlining the enterprise MDM architecture, complete with the source and target systems, and identify the scope of the entities to be covered in the next round of MDM implementations.

For example, key decision points could be whether to implement both customer and product master data and, even within customer and product domains, whether to plan for mastering data division by division or move forward by mastering one source system.
after another. Outlining the potential options and calculating the return on investment of each will help drive the decision about which option makes the most sense.

Choosing the Right Solution for MDM

In considering MDM implementations, look for these 10 key characteristics:

- Unified single-technology-stack data management platform for MDM, data quality, data integration and business process management (BPM)
- MDM solution that can handle multiple domains on a single set of technology and hardware
- MDM solution that offers a broad set of data integration connectors out of the box
- MDM solution that offers flexible deployments, such as MDM on premises, in the cloud and as a service
- MDM solution that supports all architectural styles: registry, consolidation, coexistence, centralized and hybrid
- Lower total cost of ownership
  - Flexible and rapid implementation: Implement quickly and demonstrate real value with iterative and incremental-valued deployments
  - Open integration platform to work in heterogeneous customer environments
- Predictable pricing and licensing model that scales as your MDM solution is rolled out
- MDM solution on a future-proofed technology platform
- MDM solution that can scale horizontally and vertically
- Best-of-breed MDM solution with a platform approach that avoids vendor lock-in

Talend’s MDM Solution

Talend is the only vendor that offers a complete MDM, data quality, BPM, Enterprise Service Bus (ESB) and data integration solution on a single technology platform. Talend is also the only vendor that offers a data profiling on big data solution through a unified platform, with a common code repository and tooling for scheduling metadata management, data processing and service enablement. Talend provides an enterprise edition of open source solutions, with full service and support backed by a dedicated R&D and enablement team.
Conclusion

In order to take advantage of the business opportunities that data can provide, your organization has to get its data under control, no matter where it was created, where it resides or what format it takes. MDM provides the solution to getting your data under control and achieving the long-sought “single version of the truth.”

There are many ways that MDM can help your organization achieve its most important goals, such as reducing TOC, improving IT agility, reducing risk and compliance issues, improving customer satisfaction and retention, and creating new revenue streams. But it is important to make sure you put the right MDM solution in place.