



So Long, Silos: Why Multi-Domain MDM Is Better For Your Business

Rob Rowe

Sr. Marketing Manager, Software AG

December 2011

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EXECUTIVE SUMMARY

Every business is driven by its processes—and every business process relies on complete and accurate data. Ideally, businesses endeavor to do anything and everything to ensure the accuracy and validity of their data. However, in the real world, data comes from many different sources, often without it being consolidated, cleansed or governed.

As a result, data gets duplicated, and updated information in one system may not be used by operational business processes. This leads to inefficiency across the enterprise, including time wasted on exception handling.

This is why companies turn to Master Data Management (MDM)—and they start by asking questions like: where does the “best” data reside and who “owns” it? In the past, most organizations chose to master data only for a single domain like customers or products. That approach, however, has proved to be too focused, too limited and too expensive.

Say “so long” to silos. This white paper explains why a multi-domain MDM solution is far better than single-domain, single-focused point solutions. You’ll learn what to look for in a multi-domain solution so you don’t outgrow it or are forced to purchase multiple products down the road. You’ll also get tips on how to select a multi-domain solution that can lead to multiple benefits over many years.

The age of multi-domain MDM is here. See why you should say “hello” to it!

WHY BUSINESSES NEED MDM

“Master Data Management is a business capability enabling an organization to first identify trusted master data and then leverage master data to improve business processes and decisions.”

– Forrester Research, Inc.¹

On the surface, it seems simple enough. In the process of conducting business, businesses collect data, whether it's customer contact information, transaction details, sales or product return information. Hidden within that data is powerful insight that can help your business make better operational analytical decisions, such as:

- When to ramp up production
- What additional products and services should be offered to particular customers, or
- How to increase customer service and satisfaction

The challenge is in preparing that data—verifying, centralizing and enriching it and removing duplications—to make the data useful to operational processes and for better decision-making.

That's where MDM comes in. Let's begin with the most common domain, customer data, to see why MDM is useful.

Every business has customers whose needs they want to meet and even anticipate. Unfortunately, in many cases, customer data is all over the enterprise, siloed in numerous legacy systems where it may or may not be accurate or complete.

You know how it happens: A customer calls to place an order. During that call, the agent finds a customer phone number or e-mail address needs to be updated. So then:

- Who takes the updated information?
- Where is it entered?
- How long before this updated info makes it down to sales or shipping systems?

Or, what if this contact information is changed in the field? When does that get synchronized with the home-office systems? Or does it ever?

From Customer Relationship Management (CRM) to Enterprise Resource Planning (ERP), from laptops to smartphones, there are literally hundreds of systems, applications and databases that use or create data, all scattered throughout even mid-sized organizations.

There's also a glaring lack of data integration and governance from all these siloed systems, and many companies reach their tipping point when:

- An order gets delivered to the wrong address
- Someone takes an order for an obsolete product
- Up-selling opportunities were lost

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¹ TDWI Article: <http://tdwi.org/articles/2010/03/24/mdm-coming-into-its-own.aspx>

All of these consequences can result from the use of bad data. Upon investigation, a company may even realize that many unverified copies exist of the same data throughout the enterprise!

Without a single, reliable source of data that provides a 360-degree view of the customer:

- Business processes are sapped of efficiency
- Privacy and communication preferences may not be adhered to by all enterprise applications, infuriating the customer
- Customers may be solicited for a service or product they already have, such as a checking account, or they may not even be contacted at all—resulting in lost up-selling opportunities
- Time will be wasted calling wrong numbers or contacts who have moved
- Shipments may go to out-of-date addresses
- Optimizing customer service and satisfaction becomes more challenging

Truth is, incomplete, inaccurate data can cost companies millions of dollars each year in missed sales opportunities, lower revenue and lost customers. Data is one of a company’s most valuable assets. MDM enables you to manage that data with care.

Business Value of MDM



Businesses turn to MDM to run, grow and ultimately transform their organizations. The right multi-domain MDM solution can make a business more agile and more competitive.

TRADITIONAL MDM: SINGLE DOMAIN, SINGLE FOCUSED

The good news is that many businesses recognize that bad data negatively impacts their business. To improve processes and better manage their business-critical (e.g., customer and product) information, companies traditionally looked to single-domain master data solutions that specialize and are limited to managing a single domain, such as customer data. Problem solved? Not quite.

Specialized solutions may solve the initial domain problem but are not easily expanded to master additional domains. For example, if Company A purchased a Customer Data Hub solution to master its customer data, what happens when Company A needs to master product data as well?

Data structures created for customer data aren't the same as those for product data. Operations and workflows related to customer management aren't the same as those for managing the product data lifecycle. So the single-domain or point solutions just don't accommodate the company's needs. These solutions are designed to master one type of data only. They aren't necessarily less expensive than a multi-domain system either.

The thinking behind this "traditional approach" is straightforward: Right now, I have one problem to resolve, and this is all I need. That belief is typically built on the faulty idea that a point solution is all that's needed to solve the business process problem at hand and additional subject areas won't be involved in the future.

However, the cycle of funding, installation, training, integration into the enterprise infrastructure and quality-assurance testing can make for a long, drawn-out process in getting the solution operational. Imagine having to do it all over again when you need to add another MDM product to master another domain.

*"By 2012, more than 65% of Global 2000 organizations will deploy two or more domain-specific, MDM-supporting technologies that start out as specific business requirements, but become part of a larger MDM initiative."*¹

- Gartner

Most organizations come to realize that fixing master data in just one domain doesn't solve the business problem. Master data must also be improved in additional related subject areas, such as product, asset or reference data. Unfortunately, a point solution can't manage those other subject areas. What's more, bottlenecks from bad data in other domains can stand in the way of making any real progress. Valuable time, money and goodwill are lost, and another request for funding is usually made for yet another point solution.

More people, more training and more time are then required. Stakeholders and champions may become discouraged, and the MDM momentum dissipates. Once again, the enterprise IT environment is disrupted to add another system, as if the disruptions from upgrades, acquisitions and mergers weren't enough.

Another downside is that single-domain solutions don't provide overall governance of mastered data. Companies end up with siloed data being mastered and governed by different systems, which is not ideal. Relationships between the data, and overall enterprise data governance and centralization are impacted negatively.

The key takeaway? MDM technology that only addresses one domain or type of use case is incredibly inefficient, may not save any initial costs and creates new types of data silos. This can lead to unnecessary risk, poor business decisions and lost revenue.

Until recently, enterprises had no choice but to adopt specialized and rigid MDM solutions. They had no other choice than to train and force business and IT users to use multiple systems as the scope of MDM expanded to new data domains and use cases. And, further, they had no choice but to live with the high cost of linking and integrating these silos of master data.

Fortunately, enterprises today have access to modern MDM technology that's designed to be comprehensive, flexible and expandable: multi-domain MDM platforms.

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¹ Gartner Research: Orchestrating Your Enterprise-Specific MDM Reference Model

MODERN MDM: MULTI-DOMAIN, MULTIPLE BENEFITS

Multi-domain MDM solutions may not cost any more than a point solution, and they have the added benefit of being able to master additional subject areas as the need arises. They also provide governance and relationships between the mastered data domains. Multi-domain MDM can save organizations time and money with both short- and long-term gains in efficiency throughout the enterprise.

How do organizations arrive at multi-domain MDM solutions? Sometimes businesses consider them at the outset when planning their MDM implementations. They're the fortunate ones—the ones who have done their homework and have thoroughly researched all the options in the marketplace.

With others, it's an MDM maturity level that comes into play when they realize they can't get to the next level without mastering additional domains. Fortunately, the original single-domain focus paved the way for MDM adoption within the company by delivering some ROI to the organization, even if its scope was limited.

However businesses arrive at multi-domain MDM solutions, they'll find them superior to single-domain solutions because:

1. You can avoid the second (third, fourth, fifth...) round of purchasing, installation, services fees, training and adapting to another MDM system as your needs expand.
2. To master a new domain, you can simply expand the solution your company already knows and understands.
3. Your Total Cost of Ownership (TCO) is lower as the system provides more service and functionality without added cost.

*"Those vendors that span multiple domains help harness not only the value of the domain, but also the value between domains, also known as relationships. Relationships may include customers to their locations to their accounts or to products they have purchased."*²

- Gartner

This Gartner quote makes the point that siloed master data with no integration loses valuable information, particularly for additional sales opportunities and business intelligence purposes.

As an example, how can a financial institution provide a clear picture of its risk and exposure to a particular counterparty, a region or an adverse event without painstakingly collecting all the necessary information from the various siloed systems? Or, what if the institution wants to determine the top 20 customers in terms of financial assets, or which products sell best with specific demographics?

Point solutions typically cannot accommodate these analytics because they cross multiple subject areas, such as customer data, asset data, product data and location data. These solutions are typically incapable of managing hierarchies for corporate dimensions and Key Performance Indicators (KPIs). Or, they are incapable of integrating with the business intelligence infrastructure.

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² Gartner Research: G00211235 A View of Master Data Management Vendors' Experience In Handling Multiple Master Data Domains

THE POWER OF MULTI-DOMAIN MDM

- **Multiple types of data:** Flexible, open and adaptable to meet master any type of data—such as customer, product, location, reference and hierarchies
- **Multiple use cases:** Operational or analytical business intelligence, drawing on accurate, up-to-date information to support smarter business decisions
- **Multiple implementation styles:** Consolidation, centralized, coexistence, hybrid or central deployment
- **Unmatched data quality and governance:** Configurable rules and workflows, match/merge/unmerge, compliance and audit trails, and concurrent change management

Multi-domain MDM produces greater long-term results by assuring one version of the truth.

Let's say a financial institution has mastered customer data and product data with separate point solutions. The company knows who its customers are and what products it has to offer them. What's missing is the relationship between the two: knowing what products each customer currently has, and what they may be eligible for but don't have in their portfolio. This valuable information can help identify new sales opportunities that otherwise would be missed.

This is the power of domain relationships, possible only with a multi-domain solution.

Compared to traditional single-domain MDM, multi-domain MDM offers many benefits, most realized almost immediately, including:

- Centralized, consolidated data management
- Improved governance of enterprise data
- Increased transparency of enterprise data
- Support for more accurate audits, reporting and optimization
- Efficient, real-time relationships between data domains
- Better tool familiarization and minimal training for mastering new domains
- Lower TCO
- Higher ROI as other domains are mastered and it extends to other lines of business

WHAT TO CONSIDER BEFORE YOU JUMP INTO MDM

Before jumping into MDM, you should have a clear vision of what you want from all this consolidated data. You should define the success metrics and plan the road ahead.

*"An increasing number of organizations are trying to map out a multi phase MDM journey that includes management of multiple master data domains."*³

- Gartner

Planning ahead forces you to take a wider view—to look beyond an immediate fix to today's problem and to adopt an enterprise-minded MDM strategy for better processes, better governance and the long-term need to support multiple master data domains.

As noted, most organizations historically acquired MDM technology on the basis of individual MDM initiatives that mapped to specific master data domains. Today, organizations are increasingly interested in mapping out how they will support multiple MDM data domains over time. Many are hoping to leverage the typical cost optimization, growth enablement, risk and regulatory compliance business benefits associated with MDM initiatives while minimizing the proliferation of different MDM vendors and products and their potential costs and complexities.

Mastering data of any domain inherently provides data governance. This is because only certain individuals will be given authority to manage the data. For data that changes through operational processes, there are typically rules which govern that data. Greater accountability and auditability result from recording data changes—when they occurred, by whom and on what specific systems.

³ Gartner Research: G00201678 MDM 'Primer': How to Define Master Data and Related Data in Your Organization

The responsibilities of data governance and enforcing data as a corporate asset belong to data stewards. These seasoned analysts understand the business and data management requirements. They are accountable for determining, describing and enforcing the data's business rules and definitions, and they usually determine the access levels of those who use the MDM solution. When planning for MDM, data stewards play an important role that should be placed into the hands of the proper individuals.

All multi-domain solutions aren't the same

While the long-term benefits are clear, any organization exploring multi-domain MDM should be aware that not all multi-domain solutions deliver the same benefits. Some MDM vendors "fake it," claiming to support multiple MDM data domains by leveraging multiple MDM products. These patchwork solutions are typically the result of acquisitions and are based on different technologies and user interfaces with limited packaged interoperability. At the end of the day, none are true multi-domain MDM solutions by themselves.

A true multi-domain MDM platform should support within a single instance of the system:

- Multiple data subject areas (such as product, customer, hierarchy, reference data, metadata, assets and location.)
- Open data models
- Multiple architectures
- Operational and analytical use cases
- Enterprise integration advantages
- End-to-end MDM lifecycle capabilities
- Workflows with notifications and escalations

They should also offer a user interface that can easily be used by business colleagues. webMethods OneData offers all of these capabilities.

Seven reasons OneData excels at Multi-Domain MDM

Today, the market-leading multi-domain MDM solution is Software AG's webMethods OneData. This is substantiated by analyst firm The Information Difference in a 2011 report that ranked OneData #1 in technology and customer satisfaction. This is the third year in a row that OneData received this top rating.

webMethods OneData empowers "any domain, any relationship" multi-domain MDM by reconciling and synchronizing enterprise master data on all subject areas, including customers, products, hierarchies, metadata and reference data. Enterprises deploy OneData as the single MDM solution to improve process performance and empower better business decisions.

Here are seven reasons OneData is better than other multi-domain solutions:

1. OneData can master multiple subject areas simultaneously. Need to master customer data, location data, product data, reference data and asset data all at the same time? No problem with OneData as proven daily by our customers.
2. OneData has an open data model. You can import your existing model, or use templates provided out-of-the box. Any domain or subject area that is in the data model becomes part of the solution. That means no proprietary structures. You can easily modify or extend the model at any time, and changes are reflected immediately in the user interface.



3. OneData supports multiple architectural styles including centralized, consolidated, hybrid, coexistent and deployment.
4. Both operational and analytical MDM use cases are supported.

OneData integrates easily into the enterprise—and not only with other webMethods products but with any industry-standard Enterprise Service Bus (ESB) or Service-Oriented Architecture (SOA) environment.

5. OneData supports end-to-end lifecycle capabilities for:

- Model
- Acquisition/import
- Create
- Maintain
- Distribute
- Data quality
- Survivorship
- Security
- Governance
- Workflow
- Change management collaboration
- Business rules
- Messaging
- SOAs
- Reporting
- Auditing

6. Most implementations can be accomplished in a matter of weeks. This is because OneData usually only requires configuration changes instead of coding.

7. The OneData User Interface (UI) is highly regarded and even used by Software AG. Yes, Software AG uses its own webMethods OneData as the source for product information that supports its business processes.

Taking a process-driven approach

The benefits of multi-domain MDM aren't limited to efficiency and cost savings. Multi-domain MDM is also a key enabler for a business-oriented methodology and approach to MDM. Software AG calls this approach process-driven MDM.

With a process-driven approach to MDM, organizations can identify the sources of bad data that is impacting their business processes and improve the data, which in turn, improves the processes. Then, they can move on to the next process area with the same approach. This way, an organization isn't simply "fixing a bad master data problem," domain by domain. It's focusing on its business practices and tying the associated data to measurable process improvement returns.

So where does a multi-domain MDM solution fit in? As the technology behind the methodology, it can master ALL the data that is involved in a business process. It can also, through business rules, enforce data quality and governance on the data that is produced by the process. For master data that must reside outside of the MDM database, the MDM solution can provide a pointer to that data, ensuring that the process uses the desired data source each and every time.

While this is a relatively new approach to MDM, it is already being endorsed by leading industry analysts. It's expected that other vendors will soon be capitalizing on this methodology. Make sure your vendor's technology fully supports a process-driven methodology.

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The common thread in both definitions is their emphasis on business processes, which has emerged as a new and very effective methodology for mastering data.

Start by investigating the most important processes in your business:

- What data do the processes consume, and what data do they create?
- What is your level of confidence when using that information?
- Where does that data reside?
- Is that data mastered and used across the enterprise or is it hidden away in some siloed application?
- What people, systems, and processes create, capture, and update that information?
- Do the processes function smoothly or is there a large amount of exception processing?
- How much of that exception processing is due to bad data?
- For many organizations, the answers to these questions define their vision for MDM.

CONCLUSION

Say “so long” to siloed MDM systems. Welcome multi-domain MDM solutions to treat your data as one of your most valuable corporate assets. Your data should be mastered and shared across the enterprise to provide a unified, consistent view while increasing the ROI and enabling you to capitalize on more sales opportunities, to increase customer retention and revenue.

Here are some final thoughts:

When deploying your solution, be sure to assign data stewards to enforce policies. Your MDM implementation should be thought out with the approval of the stakeholders. Metrics for determining the success of the project should be clearly established. Start small with a project that can be successful. This will ensure stakeholder approval as larger projects are considered subsequently.

Consider carefully how you will implement MDM. Take a process-driven multi-domain MDM approach to realize multiple benefits: reduced overall costs in implementation, reduced IT disruptions and training, the assurance of governance, accuracy and validity across multiple data domains and, importantly, better processes, thanks to better data.

RECOMMENDED RESOURCES

Learn more about Software AG’s OneData MDM solution: www.softwareag.com/mdm

Get smarter about process-driven MDM. Download our free e-book, Process-Driven Master Data Management for Dummies: www.softwareag.com/books

Discover how Software AG uses webMethods OneData and read other success stories: www.softwareag.com/resources

ONEDATA AT WORK

A life sciences company began using MDM to manage employee data. That was two years ago. Since then, the company has expanded into client hierarchy data management and ISO standard reference data management. It’s also adding metadata management. The solution provides operational use case functionality as well as analytical.

With webMethods, the company can now create regulatory and customer revenue reports and can better forecast revenue and resource utilization, realizing tangible benefits.

Another business unit is also planning to use the system, further increasing the company’s ROI in OneData while increasing its value across the business.

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ABOUT SOFTWARE AG

Software AG is the global leader in Business Process Excellence. Our 40 years of innovation include the invention of the first high-performance transactional database, Adabas; the first business process analysis platform, ARIS; and the first B2B server and SOA-based integration platform, webMethods.

We offer our customers end-to-end Business Process Management (BPM) solutions delivering low Total-Cost-of-Ownership and high ease of use. Our industry-leading brands, ARIS, webMethods, Adabas, Natural, CentraSite, Terracotta and IDS Scheer Consulting, represent a unique portfolio encompassing: process strategy, design, integration and control; SOA-based integration and data management; process-driven SAP implementation; and strategic process consulting and services.

Software AG – Get There Faster

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