

EMC PERSPECTIVE



## Enterprise Data Management

Breaking the bad-data bottleneck on  
profits and efficiency

## Executive overview

### Why are data integrity and integration issues so bad for your business?

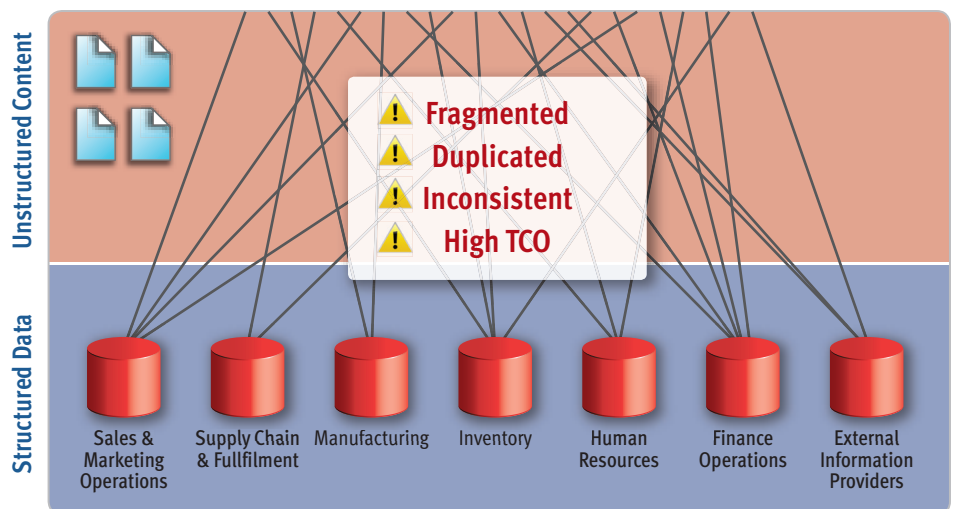
Many companies are finding that their key business initiatives are hitting the same bottleneck: data integration issues and poor-quality information. This “bad data” constrains strategic efforts relating to customer acquisition and service, sales effectiveness, operational excellence, product introductions, engineering change order control, financial transformation, supplier and distributor collaboration, compliance, and risk management.

If your information assets have one or more of the following characteristics, your organization’s profitability is probably being impacted by “good data gone bad:”

- Inaccurate and out of date
- Incomplete with data “silos”
- Out-of-synch across the enterprise
- Inaccessible to front-line staff

There are several root causes to the bad-data dilemma, many of which revolve around the growth and complexity that characterize leading enterprises today:

- Multiple and overlapping applications (holding some of the same data)
- Lack of business data ownership
- Growth in size and complexity of applications landscape
- Exchanging data with external vendors
- Mergers and acquisitions
- Traditional product or BU-centric, as opposed to process-centric, view of the world exacerbates fragmentation
- No clear “master” of core data
- Lack of enterprise data services and integration framework or mechanism
- Lack of clear data quality responsibility



While the root causes of this fragmentation and deterioration of data quality are easy to understand, their implications for a company's ability to sell, service, market effectively, and manage supply-chain operations are severe. These consequences include wasted effort and errors due to manual, repetitive data entry; lower customer satisfaction because call center and service personnel do not have the information they need to best serve the customer; business partner frustration and competitive disadvantage due to inability to manage customized offerings in distribution channels consistently; unrealized cost-reduction opportunities due to lack of accurate global spend analysis, and therefore, informed vendor negotiations; unrealized revenue opportunities as a result of marketers' inability to segment, analyze, and target customers accurately; and increased compliance and legal risk—not to mention that inefficient systems and lack of integration impede collaboration by making it impossible to share data across channels and lines of business.

### **The elusive single version of truth**

With bad data and inaccurate information affecting so many areas of a business in so many ways, it stands to reason that companies must find a means to address bad-data bottlenecks if they are to achieve a significant breakthrough in profitability or operational efficiency. That's why companies have invested heavily for years in CRM/ERP/PLM/EAI implementations and data warehouses in an attempt to attain the much-vaunted process integration and standardization and supporting single version of truth. However, in our experience, most have still not been able to fully solve their data issues, and data proliferation is rampant.

As a result, the emphasis is shifting to managing key foundational (master) data objects supporting global end-to-end processes and analytics such that it allows all master data to be complete, accurate, timely, and available to wherever it supports processes, whatever application it is in, and however it is being used...hence, the emergence of master data management (MDM) and data services.

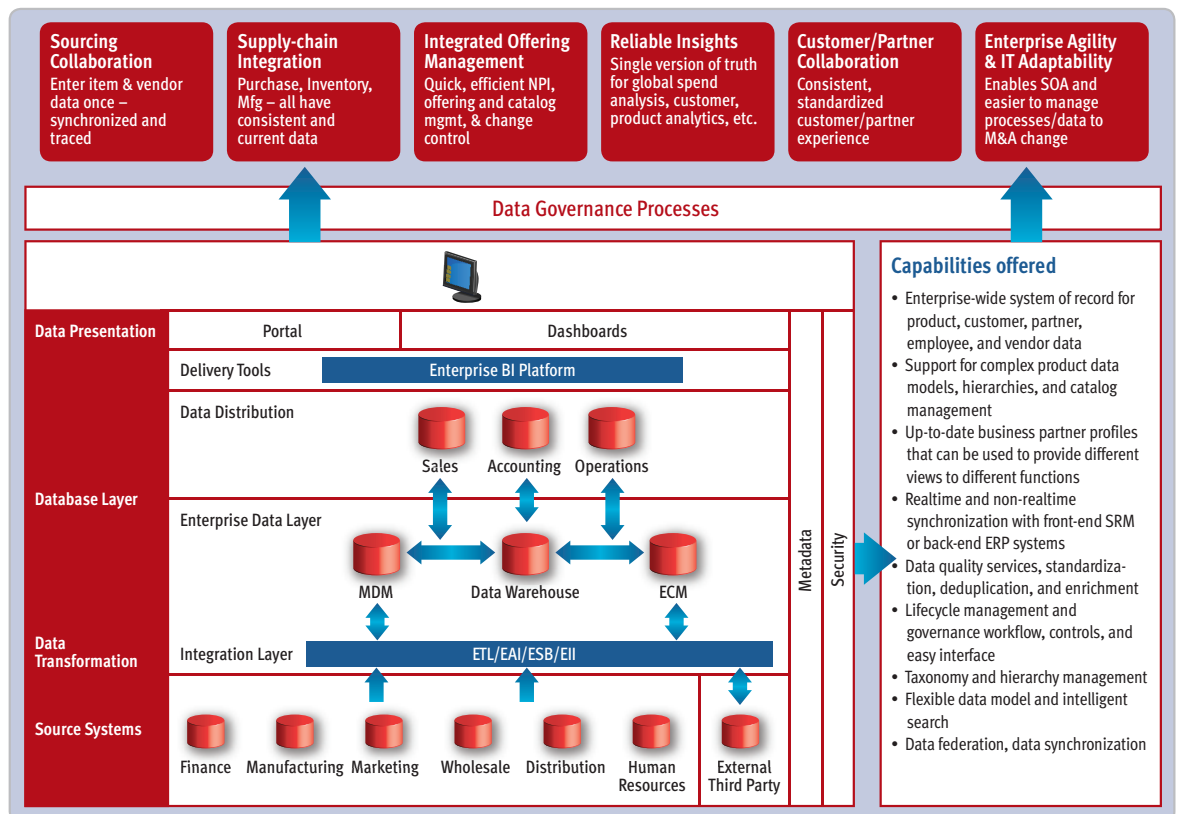
# How MDM changes the game

## The rise of MDM and data services

MDM is a combination of technologies, processes, and services used to develop and maintain an accurate, timely, and complete view of the enterprise master data such as customer, vendor, product, item, employee, chart of account across multiple channels, business lines—and potentially—companies in which there are multiple sources of master data in various applications and databases.

It is important to recognize that MDM is not just an implementation of some central data hub. Instead it is a new approach to data management that puts business process optimization and data governance first while taking advantage of a new class of software and data management services. End-to-end data lifecycle management and appropriate process controls to keep it consistent and harmonized across the enterprise are imperative to any solution undertaking. Cross-functional business ownership facilitates the overall change.

On a solutions level, MDM generally takes the form of a master data hub and integration layer tasked with acquisition and syndication of specific information to different applications. Usually, data management and hygiene services are included in order to enforce standards, cleanse data, match and merge, validate identities, and manage record deduplication. Together, the solution components are designed to manage data quality and control master data distribution across the enterprise.



## Breaking the bottleneck. . .how will MDM help?

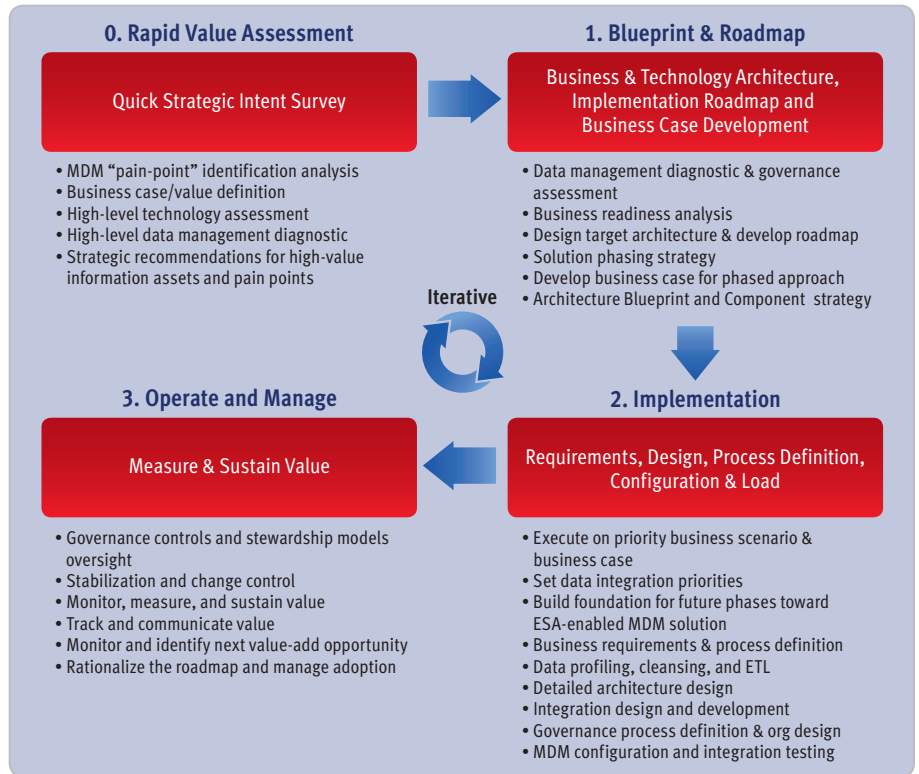
By providing on-demand access to cleansed, current, and comprehensive data, MDM can remove the constraints on your key initiatives without forcing your entire company into a single application and set of business logic.

The benefits of this approach are profound. Initiatives relating to the integrated and intelligent offering, cross-selling/upselling and supplier/distributor collaboration and product change control become eminently achievable. In addition, overall enterprise flexibility and risk management capabilities are improved through executive-level visibility into the customer base and its activities; the ability to centralize and simplify the management of product and vendor data; and the greater ease with which new processes and applications can be incorporated or removed.

# What you need to succeed

## Start at the beginning

Despite the many compelling reasons for forging ahead with a data initiative, successfully executing an MDM project is not easy. It takes a compelling vision, laser-like focus, and superior delivery skills to succeed. It can also be difficult to know where to start. To help, we recommend the following four-step approach to getting your MDM program off the ground.



## The keys to success

Our experience in the MDM arena has taught us a lot of lessons—many, the hard way. We have distilled these lessons into a handful of fundamental recommendations you may find helpful:

- **Stay focused.** Have a clear definition of the precise problems you are trying to address and how you will know when they are solved. Develop a strong business case articulating the expected benefits and a mechanism to track whether or not they are being achieved.
- **90-day wins.** Deliver value early and often. Address your immediate data integration priorities, encash on quick hits, and then work on expanding the solution. Consider prototyping and phased implementation.
- **Process first, technology later.** Take a big picture view of the solution itself. Start with the business processes, data lifecycle mappings, and supporting data models, and focus on making them work end-to-end with cross-functional participation. Only then move onto the technical components and their design.
- **The politics of data.** Don’t ignore the political reality impacting information and data. A lot of different people within your organization “own” data as they progress through their relationships with your firm. An investment in change management and communications will be critical to address questions of ownership and accountability effectively in the creation, sharing, quality, and movement of master data throughout the enterprise.
- **Design your master data model.** Define each element of your prioritized data object model in business terms. Ensure the definition meets the needs of the entire organization and that the business—not only IT—buys into it.

- **Understand the different approaches of MDM architecture.** Approaches to MDM vary from complete centralized hubs to a very decentralized harmonization mechanism. Understanding the proper approach for your implementation and roadmap to desired architecture is crucial.
- **Data governance is key.** MDM is a lot more than technology. Think of it as a data governance platform. As such, make sure that the data governance model and supporting processes are designed, implemented, and enhanced throughout the project.
- **Design error prevention and handling processes up front.** Focus on transactional integrity when designing your detailed processes and data flows. You will also want a robust, cross-application, error-handling framework to confirm that transaction failures are handled consistently and to prevent data corruption.
- **Verify necessity of data being captured.** A streamlined system and data management is generally of greater value than overly detailed and complex data. So spend some time looking at your data and eliminate redundant and distracting metrics.
- **Test, test, test.** Invest in robust integration and performance testing of all processes (happy and unhappy paths) end-to-end.

### A holistic approach needs a well-rounded team

Virtually every MDM initiative requires a team that has a wide range of people, process, and technology skills. The EMC® Data Management Practice brings you these skills when you need them. Our MDM offering has deep “focus area” expertise in the critical dimensions of MDM, complemented by industry-specific expertise, which enables us to assist you with any aspect of your enterprise data management efforts.

### About EMC Consulting

As part of EMC Corporation, the world’s leading developer and provider of information infrastructure technology and solutions, EMC Consulting provides strategic guidance and technology expertise to help organizations exploit information to its maximum potential. With worldwide expertise across organizations’ businesses, applications, and infrastructures, as well as deep industry understanding, EMC Consulting guides and delivers revolutionary thinking to help clients realize their ambitions in an information economy. EMC Consulting drives execution for its clients, including more than half of the Global Fortune 500 companies, to transform information into actionable strategies and tangible business results.

More information about EMC Consulting can be found at [www.EMC.com/consulting](http://www.EMC.com/consulting).



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