



# Rose Business Technologies

Clarity - Simplicity - Productivity



## Master Data Management (MDM)

Master data management (MDM) comprises a set of processes and tools that defines and manages data. MDM lies at the core of many organizations' operations, and the quality of that data shapes decision making. MDM helps leverage trusted business information—helping to increase profitability and reduce risk.

Master data is reference data about an organization's core business entities. These entities include people (customers, employees, suppliers), things (products, assets, ledgers), and places (countries, cities, locations). The applications and technologies used to create and maintain master data are part of a master data management (MDM) system.

Recent developments in business intelligence (BI) aid in regulatory compliance and provide more usable and quality data for smarter decision making and spending. Virtual master data management (Virtual MDM) utilizes data virtualization and a persistent metadata server to implement a multi-level automated MDM hierarchy.

Benefits include:

- Improving business agility
- Providing a single trusted view of people, processes and applications
- Allowing strategic decision making
- Enhancing customer relationships
- Reducing operational costs
- Increasing compliance with regulatory requirements

MDM helps organizations handle four key issues:

- Data redundancy
- Data inconsistency
- Business inefficiency
- Supporting business change

**Data redundancy:** Without MDM, each system, application, and department within an organization collects its own version of key business entities. This leads to redundant master data and poor data quality.

**Data inconsistency:** Enterprises spend enormous resources trying to reconcile master data, often with limited success. Furthermore, this reconciliation process is repeated over and over because there is no mechanism to capture the data assets garnered from the first or succeeding reconciliations.

**Business inefficiency:** Redundant and inconsistent master data leads to inefficient supply chain management, inconsistent customer support, customer dissatisfaction, and wasted marketing efforts. Fractured master data in business processes causes ineffectiveness and inefficiency.

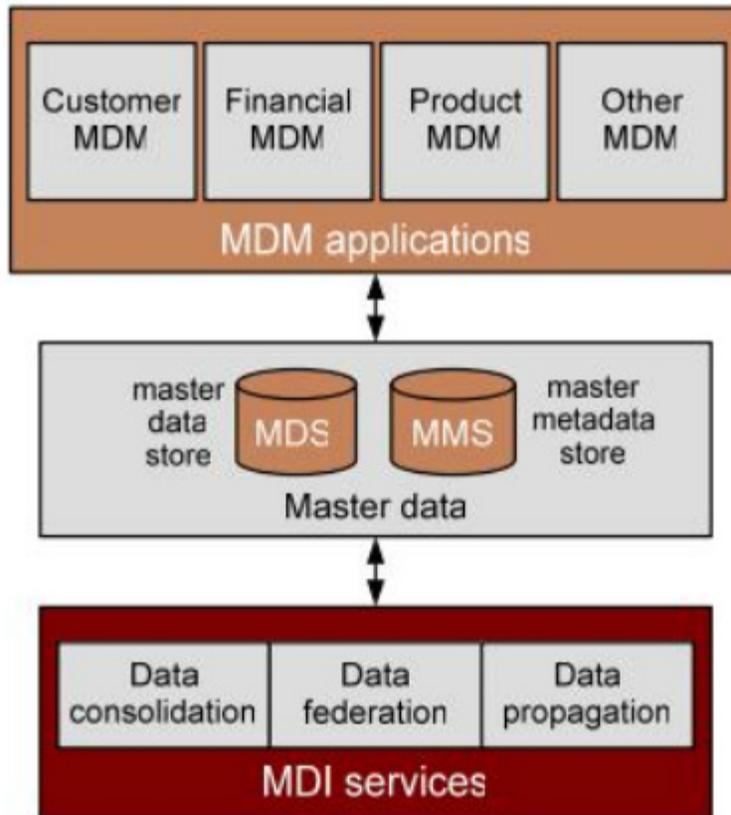


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Supporting Business change: Organizations are constantly changing as new products and services are introduced and withdrawn, companies are acquired and sold, and new technologies appear and reach maturity. These disruptive events cause a constant stream of changes to master data, and without a way of managing these changes, the issues of data redundancy, data inconsistency, and business inefficiency are exacerbated.

## MDM Components



MDM provides processes for collecting, aggregating, matching, consolidating, quality-assuring, persisting and distributing data throughout an organization to ensure consistency and control in the ongoing maintenance and application use of this information. MDM seeks to ensure that an organization does not use multiple (potentially inconsistent) versions of the same master data in different parts of its operations and solves issues with the quality of data, consistent classification and identification of data, and data-reconciliation issues.

MDM solutions include source identification, data collection, data transformation, normalization, rule administration, error detection and correction, data consolidation, data storage, data distribution, and data governance.

MDM tools include data networks, file systems, a data warehouse, data marts, an operational data store, data mining, data analysis, data virtualization, data federation and data visualization.

MDM requires an organization to implement policies and procedures for controlling how master data is created and used.

One of the main objectives of an MDM system is to publish an integrated, accurate, and consistent set of master data for use by other applications and users. This integrated set of master data is called the master data system of record (SOR). The SOR is the gold copy for any given piece of master data, and is the single place in an organization that the master data is guaranteed to be accurate and up to date.



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Although an MDM system publishes the master data SOR for use by the rest of the IT environment, it is not necessarily the system where master is created and maintained. The system responsible for maintaining any given piece of master data is called the system of entry (SOE). In most organizations today, master data is maintained by multiple SOEs.

Customer data is an example. A company may, for example, have customer master data that is maintained by multiple Web store fronts, by the retail organization, and by the shipping and billing systems. Creating a single SOR for customer data in such an environment is a complex task.

**The long term goal of an enterprise MDM environment is to solve this problem by creating an MDM system that is not only the SOR for any given type of master data, but also the SOE as well.**

MDM then can be defined as a set of policies, procedures, applications and technologies for harmonizing and managing the system of record and systems of entry for the data and metadata associated with the key business entities of an organization.