

**Operational MDM: Getting Started**  
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IBM **Information Management** software

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**Summary**

Master Data Management (MDM) is a growing discipline companies are adopting to define, organize, and view a cohesive set of key business facts, or master data, about their organization in order to better understand the facts that drive their business. This approach is not new. It has most recently has been the focus of two initiatives; Customer Data Integration (CDI) and Product Information Management (PIM). These initiatives are focused on uniting customer data and product data, respectively, across the enterprise to bring a single version of the truth to data which is impeded by information silos. While CDI and PIM are subsets of MDM, MDM is more than the sum of these two parts. MDM has broader capabilities including: creating and managing additional data domains; recognizing and managing the relationships among domains; and managing the overall master data lifecycle. Clients run the risks of building silos of MDM solutions and potentially inverting the silo problem they have today, if they fail to understand these broader MDM capabilities. Therefore, it is important to choose an experienced vendor like IBM, who can provide a Master Data Management platform which will steer clients away from these risks.

IBM takes a broader approach to Master Data Management by being the only vendor to offer Multiform MDM (See Figure 1). Multiform MDM takes into consideration the desire of clients to manage multiple domains of information (e.g. customer, product, account, location) and manage this data using through different approaches, or functions. These functions of Multiform MDM are:

- *Collaborative MDM: focuses on defining, creating, and synchronizing master data across the enterprise*
- *Operational MDM: focuses on the use of master data in day-to-day operations.*
- *Analytical MDM: focuses on reporting and gaining insights out of the master data with the ability to add this gained insight into day-to-day operations.*

This paper will explore the relationship between Operational MDM (OMDM) and CDI.

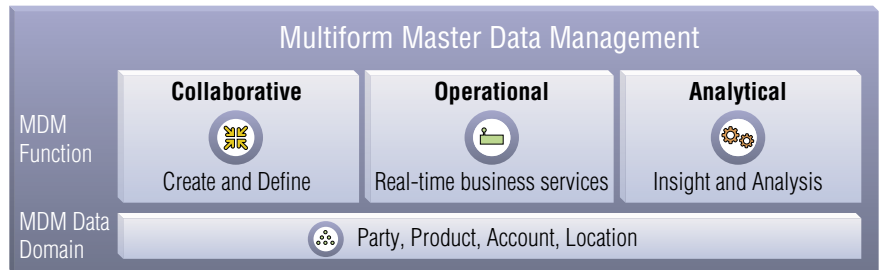
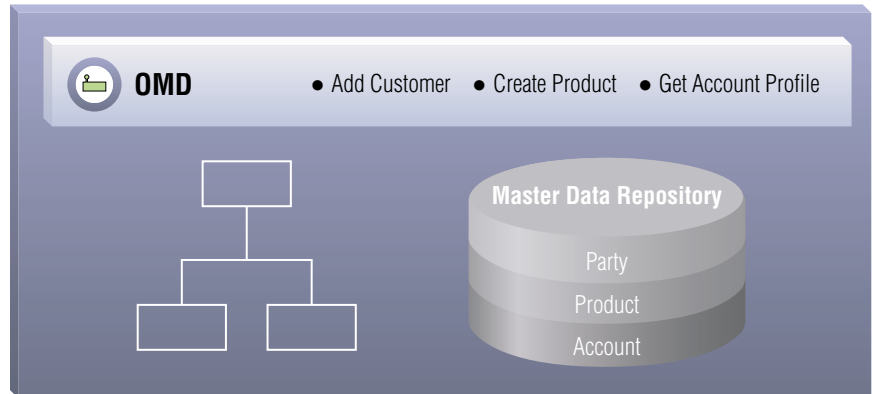


Figure 1: Multifunction Master Data Management brings together multiple data domains, and multiple functions.

**What is Operational Master Data Management?**

Recall that master data management does not mean managing all of an enterprise's data, but rather the key business facts, or master data, that help define an organization. As described in Figure 2, Operational MDM (OMDM) manages all master domains that an organization chooses to harmonize for consumption in business operations throughout the lifecycle of that master data. This includes adding, deleting, updating, validating, and securing access to the master data. IBM's OMDM also includes the most comprehensive set of out-of-the-box SOA business services available on the market today to manage this data in a service-oriented architecture. OMDM provides a wide range of connectors to back and front office systems. It also includes a set of orchestration capabilities which lets enterprises manage and manipulate the master data in a way that is configurable to their own business processes and requirements. This information can be provided real-time or updated alongside the needs of the business. OMDM can use the domain definitions established using Collaborative MDM (CMDM) for the operational data it manages. It also interoperates with Analytical MDM (AMDM) to deliver the intelligence and insight generated from AMDM to operational systems.



*Figure 2: Operational Master Data Management Functionality*

**CDI is a Logical Starting Point for OMDM**

Recall that Customer Data Integration (CDI) is a form of OMDM focusing primarily on the customer/party domain with some capabilities to maintain product and account reference information. Throughout this document, the terms customer, organization, and party will be used interchangeably. IBM is highly proficient in managing person records in B-to-C situations as well as organization records in B-to-B environments so we make no distinction here. When looking to implement OMDM, CDI is a logical starting point. Why?

***Importance of Customer to Existing Operations***

The majority of operational transactions involve customer data. The insight we have gained by working with clients across industries and examining their operational business models is that a great deal of focus and energy is devoted to determining who is the customer or organization.

- *If someone wants to buy an item, the seller wants to know who they are and whether they have done business with them before.*
- *If someone calls for service, the service provider wants to know who the customer is and their previous purchase and service history.*
- *When an organization places an order, the supplier wishes to determine who that organization is, and whether they are the parent or subsidiary of a larger entity (i.e. their organizational hierarchy) to determine the extent of the customer relationship.*

Since most operational business processes need a complete view of the customer before they service an account or sell a product or a bundle, it makes sense to start with CDI for OMDM and then grow to other data domains.

### ***Gap in Current Capabilities & Hindrance to Future Operations***

In looking at most enterprises' environments before they begin the OMDM journey, for product information there are systems of record in existence for each product, but there may not be an aggregation point for all the products. Similarly, for account information, there is often a system of record in existence for all current accounts. In contrast, customer data is usually the most fragmented of all data domains, with no operational system of record in place. Pieces of information about a given customer are often spread across many systems in the infrastructure. As a result, the lack of an OMDM strategy around customer data is the biggest gap in existing environments to getting the information that businesses need.

Often the need is not to master existing products or accounts but the challenge lies in creating new offerings, such as product bundles, and determining the account relationships required to service them. When that is the case, those domains are linked heavily to the customer information. In other words, we should not sell the product bundle until we know who the customer is and whether they qualify for the bundle. Therefore, it makes sense to start with mastering your customer data in order to support these new initiatives.

### ***Low Risk Choice***

Of all the OMDM domains, customer is the most proven, most implemented system across the industry and across vendors with hundreds of clients worldwide. Therefore, CDI is the lowest risk option when implementing OMDM.

- *Starting Too Large? Depending on how large your customer/party domain may be and across how many systems you have to integrate, getting a master data repository of the customer domain may seem like a daunting task. It is important to note that deriving value out of an OMDM implementation is not an all or nothing proposition. Users can implement a subset of the customer domain, or the subset of processes and systems that carry this information, and still see significant benefits in operational efficiency and customer insight.*
- *Performance: Another risk reducing factor to consider when embarking upon an OMDM initiative is performance. Choose a vendor who has very strong, proven performance and scale. This way you are well positioned as you increase your transaction volumes and additional data domains.*

### **What's the Next Step?**

Once clients decide to take the first step of OMDM and embark on mastering customer data, their subsequent phases usually evolve in two ways. Either they fully implement the customer domain, where a small phase of the customer domain was implemented initially. Or they incorporate other domains into their OMDM environment. The next section describes the path of some of our clients.

### ***OMDM Journeys of Real Clients***

Here are some examples of our existing clients' OMDM progression:



Figure 3: Logical data diagram depicting domains linked to Customer/Party

***A large European bank has mastered their operational view of customers***

Now they are expanding their OMDM environment to include accounts and products. By linking customers with multiple accounts, they are able to send a combined monthly statement rather than the separate statement per account which they send today. This saves the bank millions of dollars in printing and mailing costs. It also improves the customer experience by simplifying their view of all accounts in one statement.

***A large international hotel conglomerate initially focused on the customer (guest) domain as their first master data domain, in order to unite fragmented guest information that was stored across multiple systems***

The next major OMDM enhancement is to include hotel operations data. The client's plan is to broaden their MDM scope to incorporate "Hotel Configuration" (info on number of floors, rooms per floor, restaurants, etc.) as master data. Linking together this information helps the client generate accurate and consistent system-wide information on hotel configuration. Understanding the relationship between the guest and hotel configuration provides added insight into the factors that contribute to customer satisfaction and can help tailor the client's services accordingly.

***A large US bank is expanding upon the customer OMDM domain to include accounts and products to better enforce product bundling***

Customers are offered a discounted price when they purchase several products or accounts together. Over time, a customer may drop one of the products but the bank has no mechanism to detect this and remove the discount. As the client creates an operational master of a customer's product bundle, OMDM will monitor the bundle's associated terms and conditions to help detect when the bundles are broken. This will help the bank charge for the accounts and products at their non-bundled price, helping the bank maintain the integrity of their pricing rules and recover potential sources of revenue that are going unclaimed today.



### **Implementation Approach**

To implement a successful OMDM project a few points are worth noting:

#### ***Start with a product that can grow into OMDM***

The customer domain is the likely first step in implementing an OMDM project. It is important to recognize that most clients will likely incorporate other master domains into their operational environment as they strive to achieve a consistency and accuracy of information across their organization. As clients manage additional master domains, the interaction between domains provides considerable insight into business operations. Choosing a single domain product or tool is going to limit a client's capabilities.

#### ***An experienced implementation team is vital***

One of IBM's advantages in this area is that we provide a product, not a toolset, to implement OMDM. Toolset vendors create new domain models from scratch each time and therefore, the implementation team has a shallow base of knowledge. IBM's product-based approach provides a starting point that allows us to train services resources and partners thoroughly; therefore, they can gain deeper experience by carrying more repeatable experiences from one engagement to another. This reduces our clients' risks, and accelerates their time to production.

Two other implementation points that are worth reiterating:

- *Performance should be a strong consideration when evaluating a product offering even for a small initial implementation, as the system is almost certainly going to grow in volume and domains. To date, no other vendor has been able to match IBM's speed or implementation scale. This is supported by the product-based approach which delivers known performance.*
- *Clients do not have to wait for the end state to see results. Starting small by either limiting the parameters of the domain which is implemented, or integrating data over a small number of processes and systems, can still lead to improved insights and operational efficiency. OMDM is not an all-or-nothing initiative for seeing results.*

### Conclusion

In conclusion, clients run the risk of building master data silos unless they think through their requirements for domain types, relationships between domains, and their function for master data. The biggest gap that most enterprises have today is with customer data which is highly fragmented across their systems. For OMDM, the customer domain is the logical starting point because it helps close this gap enabling organizational initiatives that are hindered today. OMDM can provide the foundation of customer-based marketing and service initiatives, offering product bundling, and managing those bundle relationships. In addition, CDI is a logical first choice for OMDM as it has been heavily implemented throughout the industry. This substantially lowers implementation risk. Among industry offerings, IBM is the clear choice.

- *IBM has the largest number of successfully deployed CDI implementations in the market today.*
- *IBM has highly skilled services professionals who are able to rely on their product knowledge instead of creating a new offering with each new engagement like many tool vendors.*
- *IBM offers unmatched performance and scalability.*
- *IBM allows clients to expand beyond the customer domain to master other data domains and exploit the insight of domain relationships.*
- *IBM's Multiform MDM supports other MDM functions of Collaborative and Analytical MDM which work in conjunction with OMDM.*

IBM's well thought-out approach to solving the master data puzzle helps clients avoid the pitfalls of creating master data silos, truly addressing the master data problem, and uncovering its benefits.

**For more information**

For more information about Multiform Master Data Management from IBM and IBM Information Platform and Solutions offering, contact your IBM sales representative or visit: [ibm.com/software/data/masterdata](https://ibm.com/software/data/masterdata)



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