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IBM **Information Management** software

Pathway to master data management: Master data integration from IBM

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In the complicated world of enterprise business applications running on complex information technology architectures, we often come full circle to discover “hot” topics that are similar to those we started out to do years ago. Each original set of core applications supporting basic front- and back-office functions has always managed its own reference data about core business entities. In today’s information-intensive environment, the core data about an enterprise’s customers, vendors, items and products must be accurate, shared across functions and available on demand for a variety of heterogeneous applications. Master data management (MDM) is receiving significant attention as an “enterprise” business and technology opportunity to manage shared data that deserves serious consideration.

Master data management is a hybrid software solution. In one sense, the idea of MDM is already included in the legacy and packaged enterprise application portfolio. On the other hand, it is fundamentally a data integration capability that needs to be available in real time across applications, manipulating the facts about core business entities. Whether it is reducing cost, meeting legal requirements for compliance, exchanging “standard” data with partners, implementing new applications or consolidating old ones, master data needs to be processed consistently.

Best practices suggest that methodology to drive data integration development and related business process alignment is critical to success. Framed by data integration and business process methodology, the overall MDM solution needs to leverage the current legacy and enterprise applications footprint. Master data integration services bind MDM applications with a variety of business applications and provide integration services required to acquire, transform and deliver trusted master data in real time throughout the enterprise.

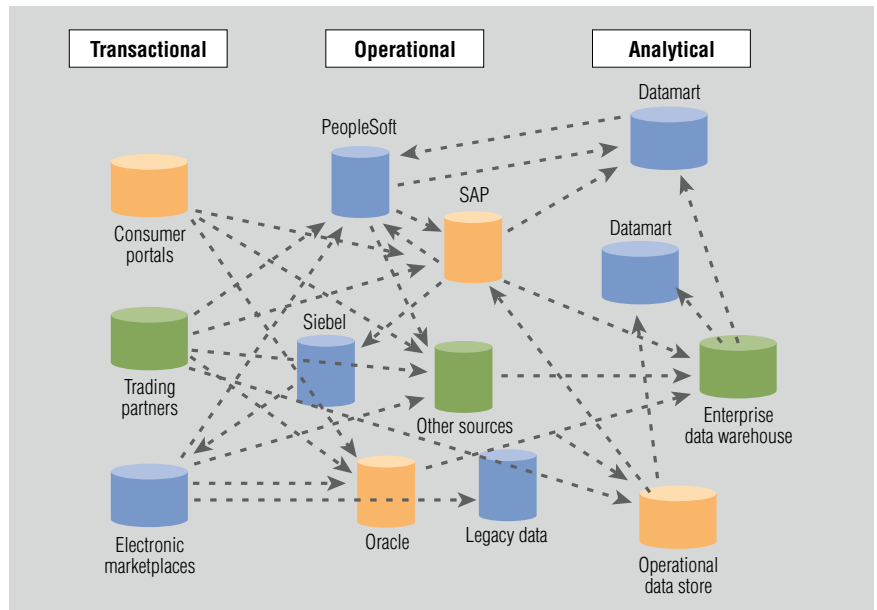
This white paper examines the information integration necessary for successful MDM. First, we will describe MDM and why it is emerging so strongly as a topic demanding the attention of CXOs. Then, we will describe the functional components of a complete master data management solution with a focus on requirements for master data integration. Next is a look at alternatives for deployment and operational architectures. Finally, we will highlight the critical role of methodology, discuss benefits and review customer success with MDM solutions from IBM.

Master data management—what it is and why it is important

For this white paper, we will use the following working definition for master data management: the business process, applications and technical integration architecture used to create and maintain accurate and consistent views of core business entities across disparate applications in the enterprise. For example, regardless of how many ways you interact with a financial institution—ATM, Internet, branch office, credit card, marketing and customer service departments—the institution will recognize you. You may say, isn't that what we have been doing? But in reality, do you have one view into your customers, suppliers, employees, products and materials that reflects the facts in the real world—without data duplication and inaccuracies?

Unfortunately, problems related to the enterprise management of master data are more acute than ever before. Creation and transmission of data describing core business entities such as customers, products and locations continue to grow exponentially within and outside all organizations. Most large businesses lack a consistent, accurate system of record for master data. In reality, many application silos hold fragmented versions of master data, but no one application has the complete picture. At the same time, data quality continues to emerge as a legitimate business issue, driven by interoperability and compliance requirements. Adding to the complexity, a new generation of browser-based portal style applications is driving requirements for more discrete “master” data sets to be delivered in real time with quality assured. Figure 1 illustrates the complexity of managing master data across the enterprise.

Figure 1: The complexity of managing master data across the enterprise



The high-technology manufacturing industry is a good example. It can take up to four weeks to get a new product added to various provisioning systems, local territory applications and partner systems before one new unit can be sold and shipped. Therefore, many companies are investing in MDM to help introduce new procedures and processes that can help reduce the time required for introducing new products—in some cases from weeks to days.

At the very time your business requires instant access to high-quality information about core business entities, the facts that describe them are scattered to more data transaction structures, databases, datamarts and spreadsheets than you can even count—often to locations in your enterprise that you did not even know existed. For example, you may have eleven million customer identification numbers, but only eight million customers. The lack of a single, consistent enterprise view of core business entities can severely impact the enterprise.

CRM delivers less than what we were planning

Customer relationship management (CRM) was never a logically correct view of who the customers are, how they are related, where they are located and what they have purchased from us.

- ***Profitability:*** 66 percent indicate profitability of the company as a whole was negatively affected by poor information quality¹
- ***Customer service:*** 75 percent indicate bad customer data quality is harming customer service, quality and loyalty
- ***Inaccurate:*** 52 percent identified integration of diverse systems as a major source of inaccurate information
- ***Incorrect:*** A telecommunications firm lost US\$8 million a month because data-entry errors incorrectly coded accounts, preventing bills from being sent out

Items cannot synchronize

Companies purchase, manufacture and maintain inventory in 100 locations and there is no common key to link the same material, part or product across the dozens of disparate data sources without looking at the description of each individual item. You need a business expert to do it. The impact can be significant:

- ***Errors in data***—30 percent of data in retailers systems is wrong
- ***Lost productivity***—25 minutes manual cleansing per SKU per year
- ***Slow time to market***—4 weeks to introduce new products
- ***Invoice deductions***—43 percent of invoices result in deductions
- ***Failed scans***—up to 70,000 per week (one large U.S. retailer)
- ***Lost sales***—up to 3.5 percent per year

The wrong answers from business intelligence

Unique keys assigned to primary dimensions like customer, vendor and product do not reflect the facts in the real world. When aggregating the basics, such as units and dollars, the answers are incorrect and do not agree with answers generated from other sources.

- ***Limited acceptance***—Through 2007 more than 50 percent of data warehouse projects will suffer limited acceptance, if not outright failure, as a result of lack of attention to data quality issues.
- ***Productivity loss***—In most business intelligence efforts, approximately 80 percent of the IT effort will be expended on dealing with infrastructure issues, data analysis, data acquisition and data quality.

There are also many more issues. Companies cannot consolidate vendors across systems. They cannot cross-reference members, subscribers and providers. They cannot accurately describe loan exposure. They cannot comply with regulations and standards.

Master data management provides the opportunity to:

- *Implement an information integration platform that can access the facts about your core business entities from anywhere within the enterprise*
- *Automate the creation of a single logically correct view—based on your business rules—that agrees with the facts in the real world*
- *Actively manage master data repositories with master data management applications*
- *Automate and standardize business processes such as “introduce new product” or “set up new customer”*
- *Deliver high-quality master data to your current suite of business applications in real time*

Functional components of master data management

At the heart of a successful master data management solution is the capability to automate the process that determines if one instance of a master data entity is the same as another. For example, to process a purchase, when presented with a new instance of a customer (comprised of the basic facts that describe the customer, such as name and address) the MDM solution must decide, based on your business rules, whether this customer already exists or is new to the enterprise. It sounds easy, but it definitely is not.

The IBM approach to a MDM solution includes the following major components:

Master data management system. This transactional software infrastructure manages a repository of reference data through a package of business services. These services include administrative and user screens, repository management functionality, workflows and events that define and maintain the data hierarchies, relationships and attributes associated with specific data elements and industries. For example:

- *For retailers and Consumer Packaged Goods manufacturers, an MDM system such as IBM WebSphere® Product Center manages part numbers, descriptions, pricing, images and packaging details, suppliers and vendors. This type of MDM system is commonly referred to as Product Information Management (PIM).*
- *For financial services, retailing, banking, telecommunications and insurance companies, an MDM system such as IBM WebSphere Customer Center, manages financial profiles, location, demographic data, financial profile, billing and account information. This MDM system implements a concept of “party” that covers all roles associated with individuals and legal entities—commonly referred to as customer data integration (CDI).*
- *Additionally, organizations often build custom applications for MDM to provide product or customer-oriented information management.*

Master data integration. This component provides a single integration infrastructure necessary to solve implementation and ongoing operational data challenges across any industry, business function and scope of business data. It includes managing master data business transactions and helping to ensure that the data is synchronized across the enterprise. In addition, federated middleware enables MDM systems to dynamically access external data sources for content such as images and documents related to the entities managed by the MDM system.

Master data solutions. Beyond a horizontal technology, MDM comprises industry-specific data models, workflows and business processes that help ensure the speedy customization of MDM systems targeted at core business domains. Additionally, this includes reusable integration templates that help to rapidly move and cleanse data more quickly from common application sources such as enterprise resource planning (ERP) and CRM during the initial load of the MDM repository.

Master data root cause analysis

Before a master data repository can be deployed, it first needs to be created with a single logically correct view of the entity, such as customer or product, from across the enterprise. Unfortunately, there is no agreement on the meaning or “semantics” of how facts about customers are stored in applications across the enterprise. Establishing an agreed upon meaning for the facts that describe a master data entity is critical to the successful establishment and continued integration of any master data repository.

For example, the attributes used to describe customers throughout the enterprise usually do not have a common definition. The parts of name (first, last, title, salutation and so on) and location (street number, street name, street type, suite, apartment, PO box, city, state, zip and so on) may have no stricter definition than “name line one 40 characters long”. The same is true of attributes related to products (name, brand, size, color, package, weight and so on) put into “product description 50 characters long”.

Each application that maintains data about core business entities—customer, location, vendor, part, product and material—does this in terms of the purpose of the application using its own data model; however, the data and format is never consistent across the systems within the enterprise. Legacy applications are often account oriented with no particular notion of customer master data entities often described as “name and address lines 1 through 5”. Finance applications care if the “Bill To” customer is credit worthy and will pay for goods delivered and services received. ERP applications are concerned with who to contact to ship a specific part, product or material to a particular location. CRM applications care about customer contacts, how customers are related to each other and how to optimize the contacts across touch points.

Projects that require master data by definition must draw data from across the various application silos. All too often organizations fail to pay proper attention to understanding source data before it is transformed and moved. Poor quality data causes projects to fail. It is a mistake to assume these data quality myths are true:

- *We know our data.*
- *Source documentation exists and is accurate.*
- *Our metadata accurately describes the data.*
- *Our users use the systems “appropriately”.*
- *The business rules have not changed over time.*
- *Subject matter experts are available.*
- *Project scope provides adequate data quality assessment and remediation time.*

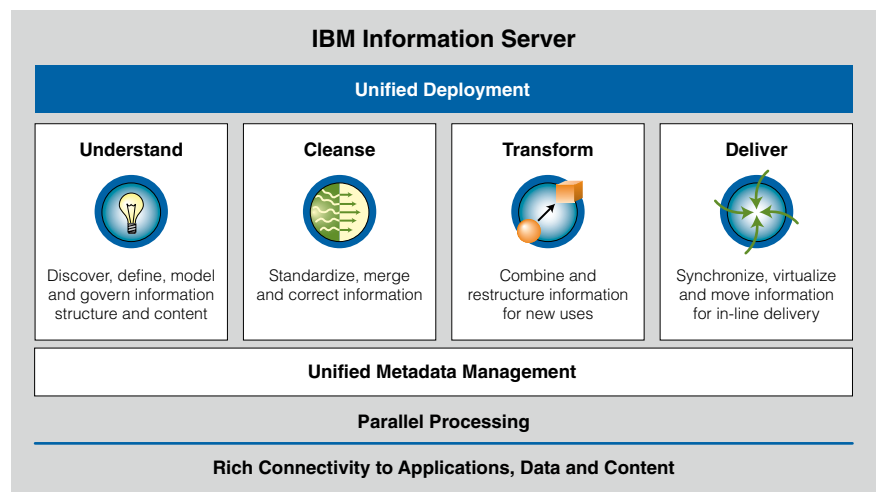
Successful master data management logically binds the master data across disparate applications by creating a repository of core reference data within the MDM system. Cross-reference keys link the objects in the MDM system and their equivalents in each of the other applications, databases or external reference sources. These cross-reference keys enable the enterprise to work with one version of the truth that reflects the facts in the real world.

This basic process of reengineering the data facts, uncovering relationships among core business entities, creating and maintaining logically correct keys, managing those keys via cross references and leveraging a common data integration platform is critical to success.

Master data integration (MDI) overview

Several functional components are necessary to transform facts from anywhere in the enterprise into high-quality master data at initial deployment and for on-going data integrity of the MDM system. IBM® Information Server offers core capabilities that form a compelling offering for this transformation, as noted in Figure 2.

Figure 2: IBM Information Server offers a platform for master data integration



Understand

First, it is vital to understand the data within source systems. This process helps establish the data quality as it exists today, the usage patterns and rules associated with the data. Data profiling tools automate this process and provide insights into source system data without the laborious manual efforts of traditional data analysis.

IBM WebSphere Information Analyzer is an automated profiling solution that provides column, cross-column and cross-table analysis. It also allows data analysts to define a metadata map of source systems that can be used by downstream processes like cleansing and data integration to determine and assemble linked records. The metadata can be used as the basis for a new master data model, if one is being derived from source system schemas, or simply to map source schemas to a new target model. The IBM white paper *Profiling: Take the first step to assure data quality* provides detailed coverage of the rationale, challenges and benefits of source data profiling.

Cleanse

The process of cleansing data includes the following steps to help ensure the quality of master data.

Standardization. With the staging database in place, rules can be created for standardizing the facts related to core business entities found on records sourced from throughout the enterprise. Standardization is the process of fix-fielding the facts or attributes and assigning a business-oriented semantic label to each fix-fielded fact. Standardization helps to ensure that the facts are understood in a business context and also lays the groundwork for matching and linking records.

Global address verification and certification. Global address verification matches the standardized facts about each instance of location against reference databases compiled by third parties to verify that an address in a particular locale is valid. Certification software confirms an additional postal discount offered by postal authorities for customers who use software they have “certified” as performing high-quality address standardization; such an example is IBM WebSphere QualityStage™ CASS software certified by the U.S. Postal Service.

Enrichment. Enriching master data is the process that links standardized facts to extend and expand the understanding of each instance of the customer. For example, many organizations extend their view of individual customers with demographics from vendors like Acxiom with InfoBase.

Matching and record linkage. Matching and record linkage is a challenging technical problem that takes one set of facts related to an instance of a master data entity and compares those facts to a reference store. The objective is to determine if that instance of the entity is already known. Matching takes place because there is no common key available across the enterprise. The matching process must see through data anomalies and conflicts. In practical terms, take one set of input data that describes a customer and in half a second, with 99.5 percent accuracy, automatically determine whether that customer exists on the customer master file.

Traditionally, this work was so difficult, resource- and time-intensive, that organizations could only do it offline periodically, and in many cases outsourced the whole problem to a service bureau. What drives master data management today as an enterprise business strategy is the need to match and link records about core business entities in real time across a variety of enterprise applications. A deep dive exploring matching technology is available through the IBM white paper *IBM WebSphere QualityStage™: Superior technology produces superior results*.

Survivorship. The output from the matching and record linkage process is often a group of records, which describe the same entity in the real world as determined by the matching technology. The assignment of a single key to that group creates the “logical key integrity” that in turn provides the foundation for a 360 degree view and a single version of the truth. Survivorship is the business of deciding which combination of facts is “best” for a particular business purpose. Like standardization and matching rules, survivorship rules are flexible for different business purposes and can be applied to one transaction or one batch at a time on the output from the match process.

Transform

MDM often involves extracting large amounts of data from source systems and transforming that data to a common format, in both batch and per-transaction scenarios. Ideally, these rules should be defined once and applied consistently across both scenarios. IBM WebSphere DataStage® allows rules to be defined for transformation and delivery that can be used in both batch and real-time scenarios. WebSphere DataStage supports the intensive processing requirements of moving very large bulk data sets and the complex transformation requirements for creating analytical views of data for loading to a data warehouse and other enterprise targets.

Deliver

The process of synchronization helps maintain consistency across the master data store and all source systems. Synchronization is very complex, since it involves keeping track of changes to any source and to the master data store. When a change occurs, it must be replicated to all affected systems, according to survivorship rules—which are typically governed by the data quality solution. If one system is updated, all systems should receive that update as quickly as possible to avoid discrepancies; and if one update fails, the others should be rolled back.

Taken together, these are the functional capabilities for data integration necessary to support a complete MDM solution. IBM Information Server enables trusted master data as a core competency that organizations must develop to support a variety of enterprise initiatives.

Pathway to master data management

Master data management is truly an enterprise-level initiative that integrates horizontally across the enterprise. Many of the most significant challenges with successful MDM are not technical, but related to process and organization. In fact, MDM is a journey undertaken by the enterprise to integrate process, applications and underlying technology in pursuit of core objectives related to efficiency, effectiveness, return on investment (ROI) and competitive differentiation. The pathway to MDM needs to incorporate methodology and consider architectural alternatives for deployment and operation.

Critical role of data integration methodology

A critical success factor for all data integration projects, especially MDM, is methodology. Methodology (see Figure 3) organizes and binds several components:

- ***Process***—the steps (and relationships between steps) necessary to build and implement data integration solutions
- ***Technology***—the functional components applied at each process step to manipulate data
- ***Resources***—the skill sets required to apply technology and perform the process step with clearly defined roles and responsibilities
- ***Deliverables***—the artifacts produced by the process steps and phases, which taken together, automate the acquisition, transformation and delivery of data

Figure 3: IBM master data integration methodology

Requirements		Deployment			Operation	
Phase 1 Capability assessment	Phase 2 Blueprint	Phase 3 Data assessment	Phase 4 Data alignment	Phase 5 Data harmonization	Phase 6 Data integrity	Phase 7 Evaluation
<ul style="list-style-type: none"> Confirm requirements and current footprint Assess capabilities Perform GAP analysis Develop alternatives and benefit statements 	<ul style="list-style-type: none"> Project formation Initial architecture Extract and load samples Project timeline 	<ul style="list-style-type: none"> Discover validate sources Establish technical assessment Business rule validation requirements 	<ul style="list-style-type: none"> Initial alignment Cleanse sources Confirm technical specifications Test specifications Validation routines Lookup tables 	<ul style="list-style-type: none"> Consolidate, integrate, cleanse, normalize and harmonize Prepare transform load 	<ul style="list-style-type: none"> Query Hierarchy and object management Synchronize and access Manage events and transactions Manage repository Manage entitlements Reporting 	<ul style="list-style-type: none"> Monitor quality Update current footprint Evaluate benefits Prioritize initiatives
Methodology binds process steps, skills and software to produce MDI deliverables						

Methodology makes successful data integration a reality. IBM Iterations® methodology is a proven framework for data integration infrastructure projects, based on the knowledge gained from more than 500 projects by IBM consultants and partners. It is a comprehensive, step-by-step roadmap that takes your team from initial planning and strategy through tactical implementation and production deployment.

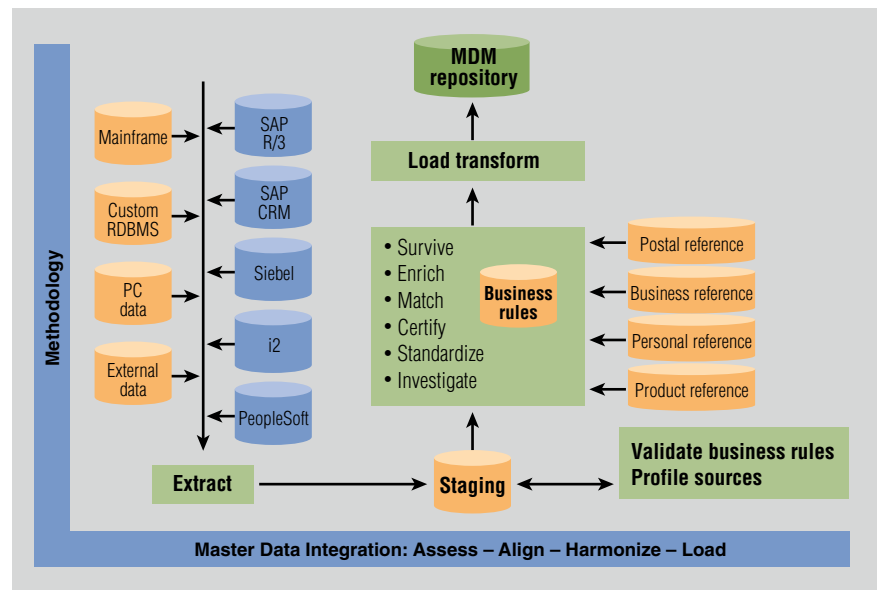
IBM Iterations methodology includes high-level process steps for design and implementation of master data integration services:

- **Capability assessment and blueprint** help ensure that projects are grounded in the reality of the current state of the business/IT infrastructure, reflect an understanding of the most significant opportunities and are formulated in the context of a roadmap with an overarching vision.
- **Data assessment and validation** help understand the current state of master data from a technical and business rule perspective on a source-by-source basis.
- **Data alignment** defines the processing necessary to acquire, standardize, validate and map master data on a source-specific basis for initial loads, batch changes, transactions and real-time updates.
- **Data harmonization** defines the de-duplication, enrichment from reference sources, record linkage, consolidation, survivorship, transformation, aggregation and mapping specifications for master data across sources for initial loads, batch changes, transactions and real-time updates.
- **Solution implementation** constructs tests and implements the master data integration solution.
- **Data integrity, evaluation and assessment** specifies the process, measurements, maintenance mechanisms and reporting for the master data in an operational setting and also closes the project loop by examining benefits achieved and lessons learned.

MDM deployment framework

Regardless of the master data entity and operational style, deployment covers the same four steps. The same process and data integration components are also used for a variety of enterprise initiatives. Figure 4 shows the framework for MDM deployment.

Figure 4: MDM deployment



1. Extract data into staging area. First, data must be extracted into a “safe harbor” for assessment and subsequent transformation.

2. Profile and align individual sources. As discussed earlier, it is critical to first establish an understanding of source data via profiling in order to confirm target and transformation requirements, as well as uncover business practices that only surface upon close inspection of the actual data values. Alignment provides a vehicle to remediate each source system—one at a time. Often there is an opportunity to look at changes to source system applications, process flow and responsibilities to improve the quality of the application data.

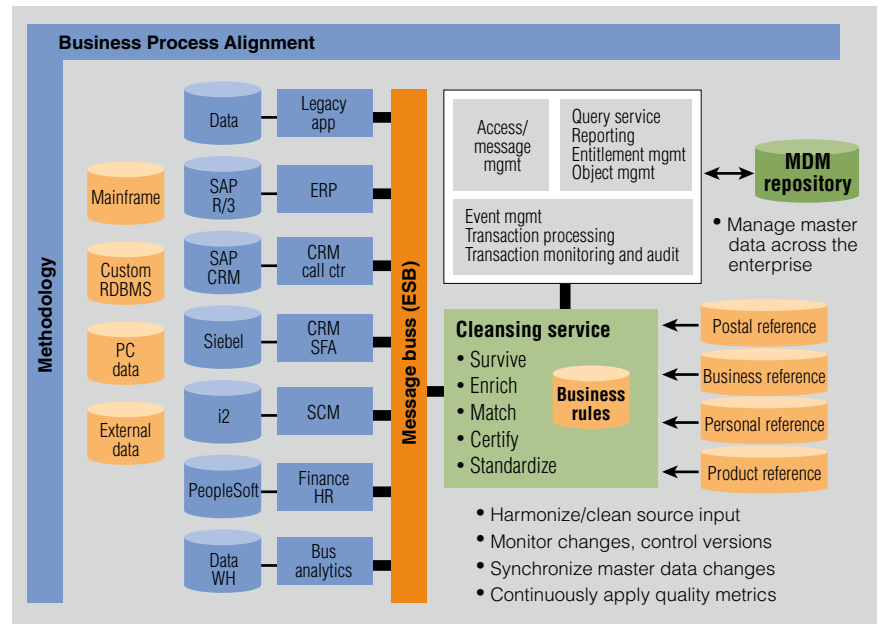
3. Standardize, verify, match, enrich and survive. Now the data can be transformed, literally reengineered starting with the data values to produce the high-quality facts, logical keys, relationship and hierarchies required to populate a master data repository. During project development, the business confirms the rule sets that produce the structure, content and quality of data required by the master data solution. These business-driven business rules form the foundation to maintain high levels of data quality in production environments.

4. Transform and load MDM repository. Finally, high-quality data is moved into the master data repository. The data is transformed and formatted in terms of the particular requirements of the target. Often, data is loaded directly into the structures managed by the repository. Other times the output from the transformation process will be an XML format so that the business services layer of the MDM solution can process the load as input transactions and write directly to the underlying schema.

MDM operational framework

Making master data and the related management of the information operational for all three deployment styles requires two additional components: inline cleansing and synchronization. Figure 5 shows the MDM operational framework.

Figure 5: MDM operational framework



Cleansing and matching services

Matching services ensure the ongoing integrity of data. These services take the rules defined in the data quality technology and make them available to be called on the fly by any application that creates master data. This helps ensure that new data entering the system is not producing a duplicate record and that it is appropriately linked to existing records.

Loosely coupled Service Oriented Architecture (SOA) provides the additional benefit of making the same cleansing services available directly to the master data management application, or optionally to other applications independent of the MDM system. For example, the party matching logic for CDI can be shared by marketing applications. These services optionally allow new information within an inbound duplicate record to be “survived” into a master record. For example, new address data may be received for an existing customer; we do not want to create a duplicate record, but we also do not want to lose the new address.

Synchronization services

Synchronization is the process of maintaining consistency across the master data store and all source systems. Synchronization is a complex process because it involves keeping track of changes to any source and to the master data store. When a change occurs, it needs to be replicated to all affected systems, according to survivorship rules, which are typically governed by the data quality solution. During the synchronization process, transactional integrity is very important. If one system is updated, all systems should receive that update as quickly as possible to avoid discrepancies; and if one update fails, the others should be rolled back. This level of process synchronization requires specialized technologies can integrate with any type of source system and can ensure transactional integrity.

Operationally, new source systems and batch updates are also continually applied to the master data repository in a fashion similar to the deployment model. The transformation and load model often works in reverse as well as other applications such as business intelligence and fraud detection draw from the MDM repository.

Best practices, benefits and success

IBM recommends best practices that can help ensure the success of your master data management project.

- **Build a detailed business case** and ensure you have completed a value analysis prior to beginning the project. The considerable investment of time and resources required for these projects and the number of departments and groups required to participate make this mandatory.
- **Align the project initiatives with business objectives** and ensure executive sponsorship of those objectives. Make sure that your projects support the corporate strategy and try to encourage executives to provide incentives to align the various involved business units and functions.
- **Design the project to produce quick hits with measurable ROI.** Use prototyping and proof of concept where possible to avoid long product cycles and maintain business involvement throughout the process
- **Understand the “master data” interaction life cycle.** Examining the full people and process life cycle related to master data provides a better understanding of the business requirements, helps ensure that you get the right data and helps to support your projects
- **Implement a data stewardship process** where possible. This provides governance oversight of the data, helps in conflict resolution between groups and confirms data ownership as a business responsibility.

- ***Avoid complex data architecture and integration science projects.*** Focus each release on providing a complete top-to-bottom slice of scope. This ensures that each project moves the architecture forward, but still addresses the business objectives.
- ***Make sure you define success and measurements upfront.*** Getting agreement on the measures of success and establishing the measurement criteria help ensure that value can be proven.
- ***Select a proven approach and proven technologies.*** Experience is the key to making these projects successful.

Benefits

According to Gartner, the creation of an accurate, timely and rich single view of the customer across channels and lines of business will be a key enabler for reducing costs, managing risk and increasing revenue and profitability in customer-centric organizations². Companies that implement master data initiatives have seen a significant return on their investments.

It has been shown that a 5 percent increase in customer retention will result in a 75 percent increase in aggregate lifetime profits from an individual customer³. Customer retention and loyalty is just one benefit of this approach. Other benefits may include:

- **Reduced time to market.** *MDM provides a single system for creating and maintaining product information, promotions, and rich, accurate consumer communications via online and traditional channels. One major retailer used MDM to reduce the time to introduce a new product from four weeks to one day.*
- **Supply chain improvements.** *A single, accurate and agreed upon definition of products and suppliers, made possible by MDM, eliminates duplication, increases buying power and provides insight into supplier relationships. A major European retailer is combining MDM with IBM WebSphere Portal to allow more than 30,000 suppliers to manage their own master information.*
- **Revenue increases.** *MDM contributes to better customer relationships. By creating a single 360 degree view of customers, MDM helps sales, marketing and service teams better anticipate customer needs, provide targeted offers and improve customer service.*
- **Better integration.** *IT departments use MDM to eliminate information silos that have developed across their companies, reducing integration costs, enabling collaboration and improving business productivity. A major European manufacturer uses MDM to cleanse and synchronize rich, accurate master information across more than 200 instances of SAP and other ERP systems.*
- **Comply with industry mandates and government legislation.** *IBM offers solutions and deep expertise to help customers comply with information-centric mandates like the Sarbanes-Oxley Act, The Patriot Act, Basel II, ACORD, HIPAA, and global data synchronization across a broad range of industries.*

MDM also provides common business services to support information-centric procedures across all applications. It gives micro and macro business process capabilities to integrate with or drive business applications. Business processes are always associated with maintaining master information, whether it is setting up new products to be sold, hiring new employees or eliminating suppliers.

Another MDM benefit is accurate business intelligence. Historically, data warehousing initiatives attempted to address data quality problems downstream from applications. Data warehousing does not attempt to fix the business processes by which inaccurate master data is created in the applications, nor does it try to correct the master data in the applications. MDM gives businesses a way to correct bad data and the processes that create bad data at the source applications. Master data management allows accurate objects and structures to be automatically synchronized with data warehouses and analytic applications.

Customer success profiles

Companies that can effectively manage master data can derive much greater returns from their customer, vendor and partner relationships. To be successful, organizations need to recognize the master data problem, link resolution to specific and measurable business objectives and select an approach that maximizes their existing technology components and skills. By choosing a proven approach and proven technologies, and implementing best practices in their adoption, companies can achieve rapid return on their investments and meet short-term and strategic business goals.

The snapshot of organizations in Figure 6 shows how these organizations have leveraged the IBM Information Server portfolio of information integration solutions to drive significant benefits around master data integration.

Figure 6: Customer project business drivers

Customer	Project	Business drivers
JP Morgan Chase	Business performance management	Customer profitability
Rockwell Automation	Operational customer master	Closed loop marketing
Aetna	Subscriber of record	Marketing and customer service
Scotts	Supply chain optimization	Reduced inventory costs
DHL Worldwide Express	CRM rollout	Merger-driven consolidation
Celanese	SAP consolidation	Reduced operating costs, faster time to value
Bombadier	Single view of parts	More efficient inventory management
Outo Kumpu	Global parts master	Eliminate duplication, manage inventory more efficiently
Colonial Electric	Single view of customer	Consolidation, faster time to value, reduced implementation costs
GMAC Mortgage	Customer/policy cross reference	Cross sell
UK Ministry of Defence	Consolidated inventory items and suppliers	Reduced inventory, time to value, cost to implement
Tyson's	Single view for global ERP	Acquisition, legacy consolidation, lower costs

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¹ A.T. Kearney. *GMA Pathway to Master Data Management with Master Data Integration from IBM*. Date needed.

² Radcliffe, J. *Create a Single Customer View with Customer Data Integration*. Gartner, October 7, 2004.

³ Reichheld, Frederick F. and Thomas Teal. *The Loyalty Effect*. Boston: Harvard Business School Press. 1996.

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