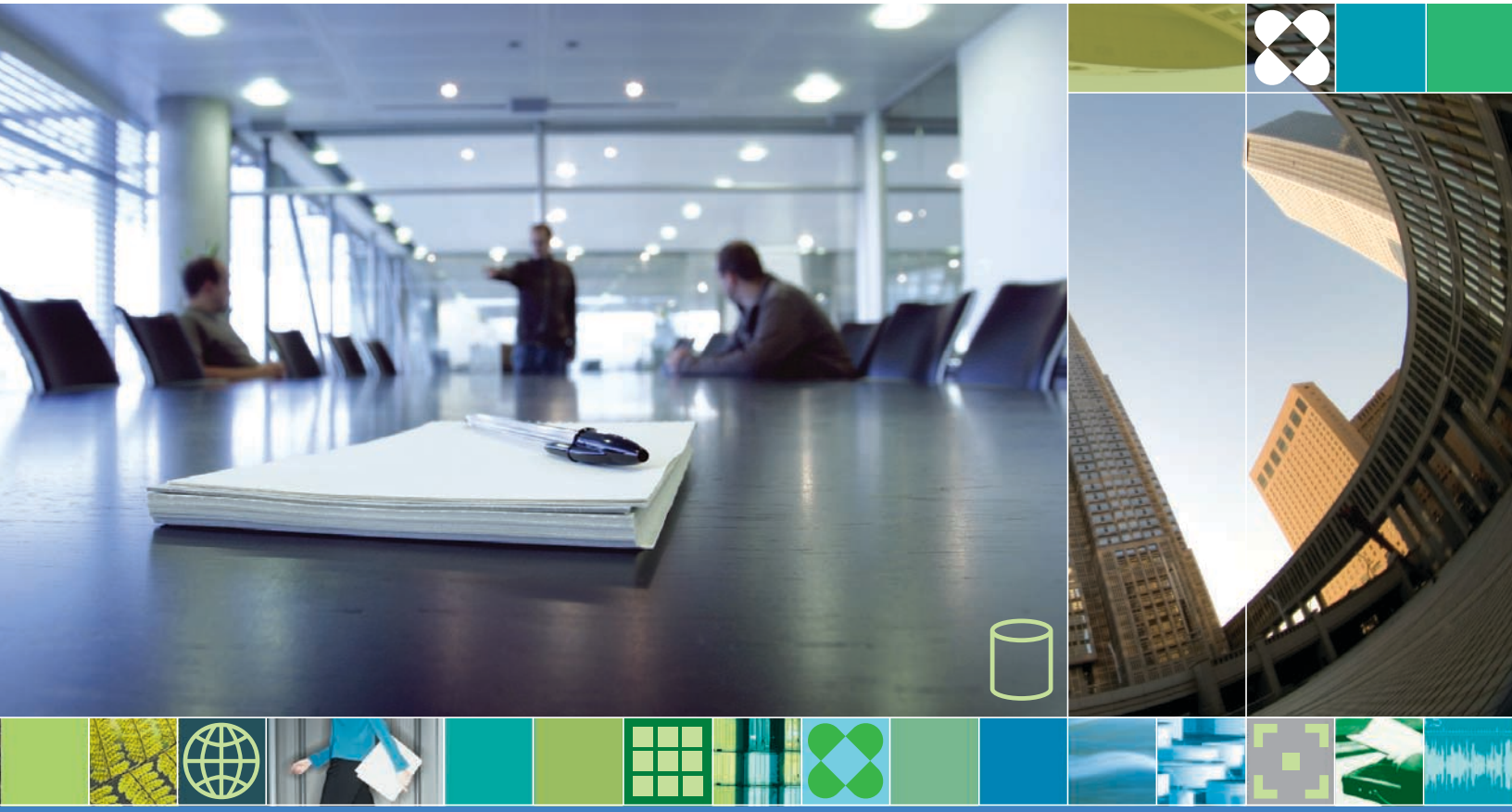
Harness the value of information throughout the enterprise

Information Management software



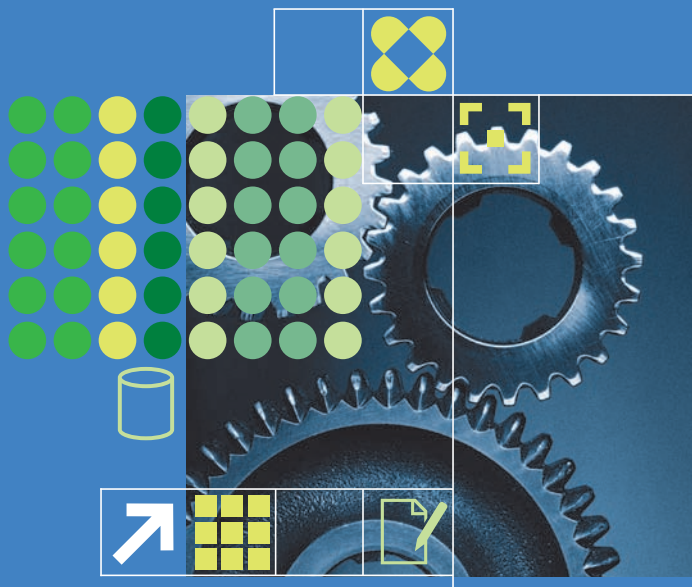
IBM InfoSphere Master Data Management Server

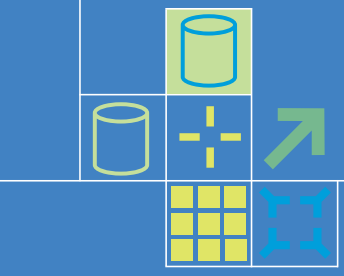
Technical Overview

Companies across many industries face business challenges that affect their master data—the high-value, business-critical information about customers, suppliers, products and accounts—and the ability of IT to deliver on the requirements of a dynamic business. This critical business information is replicated and fragmented across business units, geographic branches and applications. Enterprises now recognize that these symptoms indicate a lack of effective and complete management of master data.

IBM Multiform Master Data Management (MDM) addresses these challenges with a proven framework designed to help organizations manage master data across the enterprise. The fundamental principle of MDM is that master data is decoupled from operational, transactional and analytical systems into a centralized independent repository or hub. This centralized information is then provided to Service Oriented Architecture (SOA) business services so data is managed independently of any single line of business, system or application. This strategy enables enterprises to identify common functionality for all systems and applications and then support efficient, consistent use of business information and processes.

Early attempts at solving the master data problem often involved approaches based on business need, usually addressing one or two specific data domains such as customer or product information. These approaches resulted in the prominent market categories known as customer data integration (CDI) and product information management (PIM). Today, these categories are considered subcategories of MDM.





IBM Multiform MDM provides foundation for SOA

IBM Multiform MDM moves beyond previous attempts at centralizing control of data by allowing users to fully manage data with multiple domains and multiple styles of data usage. Three fundamental usage styles describe how applications use master data and reflect the data life cycle in which data is created, managed and accessed across the enterprise:

1. **Collaborative MDM** is a style of multiform MDM that manages the process of creating, defining and synchronizing master data. In this style, the focus is on the definition of master data.

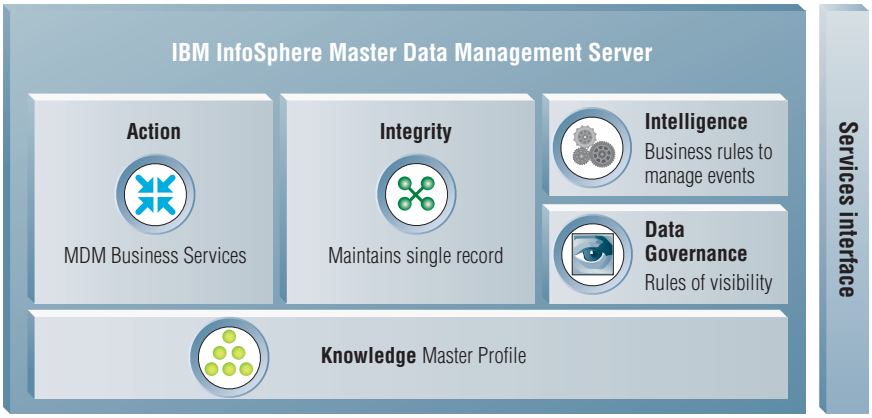
2. **Operational MDM** is the multiform MDM style where the use and maintenance of master data occurs within operational processes and applications. The master data is used by other systems through real-time-accessible SOA services.

3. **Analytical MDM** focuses on providing accurate, consistent and up-to-date master data to data warehouses. It provides the ability to feed business intelligence insight data back into collaborative and operational MDM.

MDM products vary in their domain coverage—some specialize in a single domain, such as customer, product, supplier, location, account or other type of information. Other MDM products span multiple integrated domains—helping to harness not only the value of each type of information on its own, but also the value of the relationship between the domains.

Multiform MDM can deliver significant benefits from an IT perspective, providing both a starting point and foundation for SOA. The platform's design can also help IT managers leverage existing investments by integrating with existing front-end and back-end systems, as well as with third-party applications throughout the organization—regardless of channel or organizational boundaries.

IBM InfoSphere Master Data Management Server provides a consolidated central view of an organization's key business facts



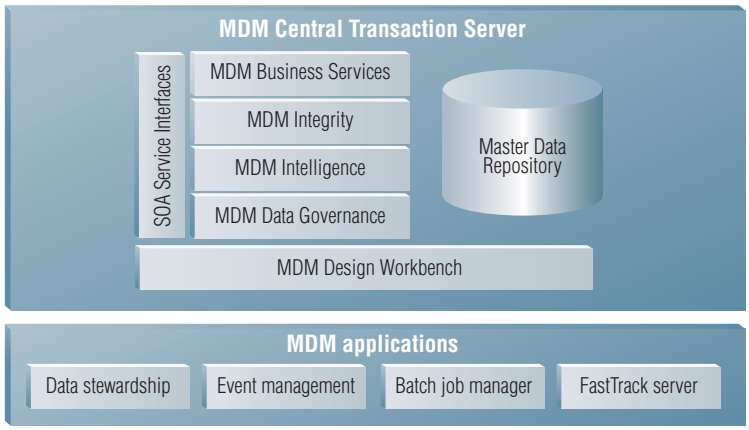
IBM® InfoSphere™ Master Data Management Server is an operational MDM solution from IBM that provides the strategic architecture companies need to solve critical enterprise MDM issues. InfoSphere Master Data Management Server helps organizations realize the full benefit of their investments in customer relationship management (CRM), enterprise resource planning (ERP) and business intelligence (BI) systems, as well as integration tools and data warehouses. InfoSphere Master Data Management Server maintains master data for multiple domains including customer, account and product as well as other data types such as location and privacy preferences. Through business services, InfoSphere Master Data Management Server facilitates integration with all applications and business processes that consume master data.

IBM InfoSphere Master Data Management Server offers out-of-the-box functionality

Built on a high-performance, scalable, tested architecture based on leading industry standards such as Java™ 2 Platform, Enterprise Edition (J2EE™) and XML, InfoSphere Master Data Management Server Server offers significant out-of-the-box business functionality. More than 700 distinct MDM Business Services are designed to work seamlessly with a tested, proven MDM data model. Both the services and the data model are designed to be easily extensible. This functionality can help to significantly reduce the lead time required to create new or updated functionality while also helping to reduce total cost of ownership (TCO) for an IT organization.

MDM Business Services are prebuilt and extensible

As an operational service-oriented application, InfoSphere Master Data Management Server provides more than 700 prebuilt MDM Business Services. All access to and management of master data must be



The IBM InfoSphere Master Data Management Server architecture is aligned into several logical architectural component layers

performed through a business service. These services are built with varying levels of granularity for ease of adoption. Some MDM services function in a business context, allowing access to MDM functions such as `AddParty` and `AddAccount`. These services can consume one or more granular, data model–specific services such as `AddPartyAddress` and `AddPartyIdentification`. The more granular services can also be called separately from various systems and applications. Services are available in these categories:

- Party demographic services
- Roles-related services
- Customer service and sales services
- Data stewardship services
- Party relationship services
- Location services
- Party financial profile services
- Party identification and discovery services
- Events and customer insight services
- Contract services
- History and audit services
- Account services
- Product services

In addition, MDM Business Services are extensible—allowing companies to build their own composite business services or provide changes or new extensions to existing services. These functions are all performed via the IBM MDM Design Workbench.

Key components of IBM InfoSphere Master Data Management Server include:

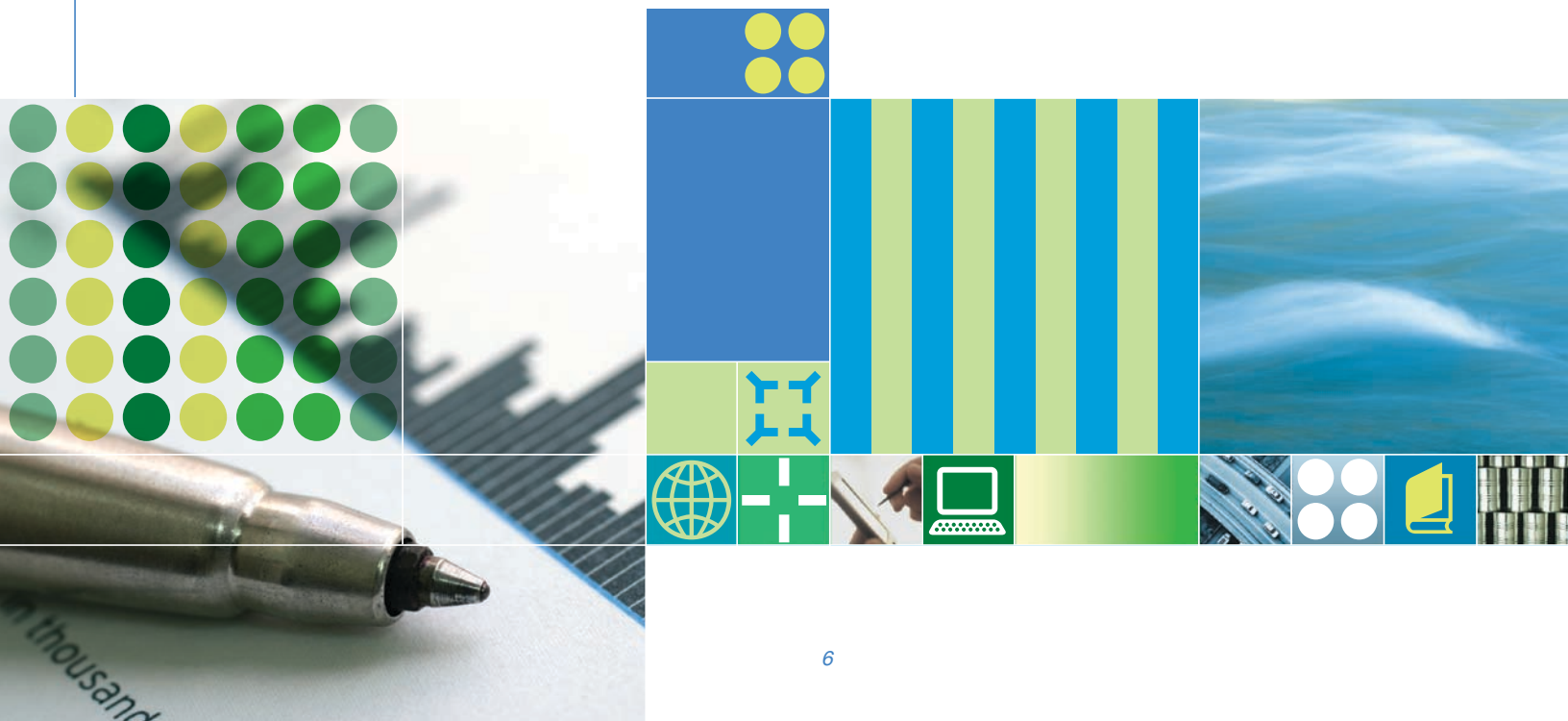
- ***Master Data Repository***

  The Master Data Repository within InfoSphere Master Data Management Server contains an operational database that houses all of an organization's master data in a highly scalable and configurable data model. This data model contains master data for party, product, account and location domain information. It also contains demographic, interaction, privacy and event data, along with role and relationship information for the different domains.

  The data model provides out-of-the-box capabilities for managing groupings and hierarchies for domain data. Highly configurable, this data model gives businesses maximum flexibility to use the prebuilt MDM Business Services. The MDM Design Workbench allows the platform to easily support an organization's existing data model via data model extensions, configuration, code table definition, aliasing and even disabling parts of the data model. The Master Data Repository also includes an audit trail database so IT managers can effectively maintain an audit trail for all master data.

- ***MDM Integrity***

  The MDM Integrity layer of InfoSphere Master Data Management Server provides data quality management capabilities around party matching, data validation, data standardization and external reference identifiers. The platform comes with an out-of-the-box deterministic matching engine with preconfigured matching rules around basic identity attributes. If deterministic matching is not a plausible option, more sophisticated probabilistic matching can be utilized through the IBM WebSphere® QualityStage™ module of IBM Information Server. WebSphere QualityStage can perform name and address standardization. The MDM Integrity layer also provides adapters to enable the installation of third-party standardization and matching tools.



- ***MDM Intelligence***
  The MDM Intelligence layer of the InfoSphere Master Data Management Server contains a business rule and event detection functionality that is fully integrated with the MDM Business Services. This feature allows IT administrators to customize external business rules without having to make programmatic changes to the services themselves—changes can be made to the rules via an external rule component or the MDM Extension Framework.

- ***MDM Data Governance Services***
  MDM Data Governance Services allow transaction and data attribute–based authorization. This capability provides data governance privacy and data security. Administrators can limit users' abilities to view and update master data down to the data attribute and transaction level, based on user roles.

- ***SOA Service Interfaces***
  The SOA Service Interfaces allow multiple systems and applications to integrate with the MDM Business Services. Use of the MDM Business Services is required to access master data that is stored in the Master Data Repository. Examples of common supported interfaces include Web services, XML via HTTP, Java Objects, IBM CICS® and other various messaging adapters.

- ***MDM Data Stewardship User Interface***
  The MDM Data Stewardship user interface provides an intuitive graphical interface for managing various collaborative data processes such as managing groups, duplicate suspect processing and hierarchies.

- ***MDM Event Management***
  The MDM Event Management client provides the ability to trigger events and schedule processing at a party level. The event manager is used to trigger the MDM Integrity layer for suspect processing.

- ***MDM Batch Job Manager***
  This client application is designed to manage batch processing by providing capabilities such as pacing, logging and multithreading.

For more information

To learn more about InfoSphere Master Data Management Server, please contact your IBM representative or visit **ibm.com**/software/data/masterdata

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Produced in the United States of America
February 2008

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IMB12039-USEN-01