# TIBCO MDM

## BENEFITS

- Jump start advanced data management with fast and agile MDM capabilities delivered out-of-the-box.
- Gain superior speeds for data query and updates on large volumes of data with highly scalable architecture and embedded in-memory data grid.
- Meet your organization's specific needs with extensible and configurable data model structures and services.
- Achieve simplified enterprise integration with a complete set of RESTful APIs.

## SURVIVING THE DIGITAL ECONOMY

To meet the needs of customers and compete in today's digital economy, digital business transformation is needed. Becoming a digital business requires managing and governing your data in entirely new ways.

The rise of cloud technologies, IoT devices, and big data in multiple formats is creating new business opportunities—but also new challenges. Scattered across various on-premise and cloud applications and systems, this data is one of your most important assets, key to providing actionable insights, superior customer experiences, and a huge competitive advantage.

The challenge is integrating these new sources with long-standing data silos and transforming them into standardized formats to get a unified view of your business. What's needed is a business strategy to address potentially huge costs, data inconsistencies, quality, and governance—and build a foundation of trusted data that supports:

- Intelligent decision-making
- Improved customer experiences
- Faster and more profitable product launches
- Accelerated time-to-value from acquisitions
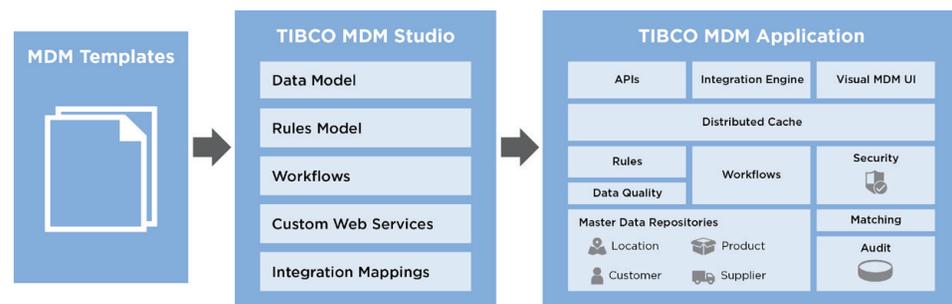- Increased operational efficiency

## THE FOUNDATION OF TRUSTED BUSINESS INFORMATION

TIBCO® MDM is the only complete, unified, multi-domain MDM solution on the market, allowing you to solve evolving and complex master data problems without needing additional software.

Using TIBCO MDM, you can eliminate data silos, achieve data governance, and manage data quality to create a trusted, clean, reliable, complete, and up-to-date source of information to support your journey to digital transformation and beyond. It lets you intelligently ingest virtually any type of digital data to get a real-time view across your business. This real-time perspective lets you make faster, better, more-informed decisions and deliver a variety of successful business initiatives.

## TIBCO MDM ARCHITECTURE

TIBCO MDM functional architecture includes design-time and runtime environments.



Templates can be used for lightning fast mastery of customer and product data domains. TIBCO MDM Studio lets you define data entities, the rules and processes that govern them, and the MDM interfaces for the rest of the ecosystem. With TIBCO MDM, you can integrate new and long-standing data sources and transform them into standardized formats to get a unified view of your business.

## PLATFORM AVAILABILITY MATRIX

Supported platforms, database, application server, and operating system combinations.

### SUPPORTED PLATFORMS

- HP HP-UX
  - 1i v3 (B.11.31) 64-bit on Itanium
    - HP Unix 64bit
- Microsoft Windows Server
  - 2008 R2 64-bit on x86-64
- Red Hat Enterprise Linux Server
  - 5.x, 6.1 64-bit on x86-64
- Sun Solaris
  - 0 64-bit on SPARC

### ADDITIONAL INFORMATION

This is the supported platform matrix for TIBCO MDM 9. For specific database and application server versions see the next section. Red Hat Enterprise Linux supports the following application server/database combinations:

- WebSphere/Oracle
- JBoss/Oracle
- JBoss/SQL Server
- JBoss/PostgreSQL
- WebLogic/Oracle

Microsoft Windows Server supports the following application server/database combinations:

- WebSphere/Oracle
- JBoss/Oracle
- JBoss/SQL Server
- JBoss/PostgreSQL
- WebLogic/Oracle

SUN Solaris Sparc supports the following application server/database combinations:

- JBoss/Oracle
- WebSphere/Oracle

HPUX supports the following application server/database combinations:

- JBoss/Oracle
- WebSphere/Oracle
- WebLogic/Oracle

AIX supports the following application server/database combinations:

- WebSphere/Oracle

## DESIGN TIME

The MDM design time is delivered by TIBCO® MDM Studio, a zero-coding development environment, providing ongoing configuration and iterative hot deployment to the MDM server. It's a one stop shop for defining data entities, the rules and processes that govern them, and the MDM interfaces for the rest of the ecosystem.

## RUNTIME

TIBCO MDM runtime capabilities:

### Multi-domain

TIBCO MDM provides an extensible master data repository with flexible data modeling features and supports complex cross-domain relationships. Data from multiple domains with multiple classification schemas and product and attribute relationships can be stored within master data repositories deployed in the central server. Automated data validation allows you to manage multiple domains of information within the single TIBCO MDM instance. All data is stored and versioned for complete historical analysis and auditing.

### Governance

TIBCO MDM helps you achieve data governance using the following features deployed on the application server:

- A powerful, user-configurable workflow and rules engine gives users a great deal of flexibility in defining their own processes and custom rules for master data validation. Or, users can choose to implement pre-defined workflows for common tasks such as new product add, product deletion, and others. Pre-delivered rules are available for the Global Data Synchronization Network (GDSN).

- A role-based security mechanism ensures permissions to access business critical data are provided to only the right people.

- A highly scalable in-memory matching technology uses algorithms to detect similarities across any data type, preventing duplicates and identifying relationships. Machine learning can be used to improve the match results based on your actual data.

- The new MDM UI Builder allows you to develop custom interfaces using simple drag-and-drop methods. This new tool allows you to have a cleaner, simpler, and more flexible user interface design for specific roles.

### Stewardship

A data visualization layer provides real-time visibility into the effectiveness of business processes, performance measures, data quality, and data evolution. This data visualization and reporting engine is based on TIBCO Spotfire®. (The Spotfire data vizualization and reporting engine is an optional component. When Spotfire isn't used, you can still access the underlying database views for the reporting engine of choice.)

### Operational platform

Data access performance can be increased and scaled as needed with memory caching, deployed using TIBCO ActiveSpaces® distributed in-memory data grid.

Web services and APIs can be deployed on the application server to enable anyone to access master data or participate in an MDM process anywhere through any business application, web portal, or mobile application. Master data is made accessible using a combination of TIBCO MDM APIs and a low-code, rapid-development environment that produces embeddable HTML5 role-specific user interfaces.

## PLATFORM AVAILABILITY MATRIX

### SUPPORTED THIRD-PARTY SOFTWARE

- Application Server
  - IBM WebSphere Application Server 8.5.x
  - JBoss Application Server 7.1.x
  - JBoss Enterprise Application Platform 6.3.0, 6.4.0
  - Oracle WebLogic Server 12.1.3
- Database
  - Microsoft SQL Server 2014
  - Oracle Database 11g 11.1.x, 11.2.x
  - Oracle Database 11g RAC 11.1.x, 11.2.x
  - Oracle Database 12c 12.1.x
  - Oracle Database 12c RAC 12.1.x
  - PostgreSQL 9.4.x
- Messaging System
  - IBM WebSphere MQ 7.1.x, 8.0.x
- Web Browser
  - Apple Safari 9.0.x
  - Google Chrome 44.0.x
  - Microsoft Internet Explorer 10.0.x, 11.0.x
  - Mozilla Firefox 40.0.x

## CAPABILITIES

To build a trusted source of business information, TIBCO MDM provides all essential capabilities:

### PROFILE

The first step toward master data management is to identify all possible data sources for each master data entity that you want to manage centrally in the MDM repository. You will work to understand the state of data quality in each source that will create and update master data entities. The TIBCO MDM platform integrates natively with an easy-to-use tool (TIBCO® Clarity), providing a rich feature set for high volume data preparation. It provides comprehensive profiling that allows data stewards and business users to identify and discover data sources for master data management.

### CONSOLIDATE

Next, by linking source applications and systems through batch or real-time transfer using JMS messages, web services, and other means, fragmented data is brought together to create a single record in the master data repository. TIBCO MDM leverages TIBCO's integration strength to manage synchronization and connectivity to your and your partners' business systems. It provides comprehensive standards-based integration via web services, XML/JMS, flat file, FTP, SMTP, AS/2, and others. TIBCO MDM also supports high volume, automatable batch import and export to support ETL integration environments. Any combination of batch and real-time integration patterns can be supported at any time.

### CLEANSE

Cleaning and de-duplicating can be done while selecting the highest quality values across all data sources for each master data attribute. TIBCO MDM leverages an embedded pattern-matching engine to match and merge duplicate records, and an enhanced built-in machine-learning engine to automate and simplify data matching and linking that replicate human insight.

### ENRICH

The next step engages both people and software to enrich the datasets to fill in gaps and standardize against internal and external standards. For example: This step can include verifying physical addresses using external postal standards and enriching location information using geocoded information to assure accuracy and confirm delivery.

### SHARE

Finally, you synchronize and share newly cleansed data with systems and applications across your organization. TIBCO embeds an in-memory data grid, TIBCO ActiveSpaces, within the MDM application to ensure that the latest version of your data is immediately available at the time and in the format that systems need it:

- Data model-specific APIs and web service calls can access in-memory master data, making your existing systems MDM aware and replacing the need to store master data locally.
- Changes to queues or topics can be published to files or using JMS to synchronize downstream systems with updates to master data as they happen.
- Individual systems or business partners can subscribe to data changes for relevant master data objects.
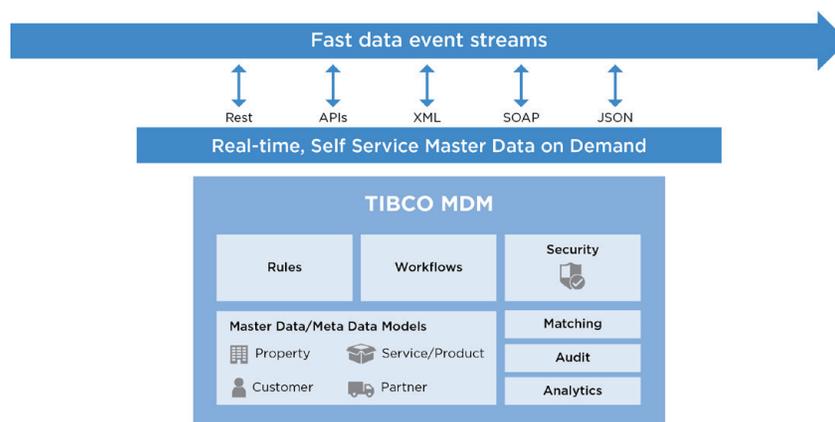
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## KEY FEATURES

### AGILE MDM
TIBCO provides complex capabilities out-of-the-box so your organization can take baby steps in realizing its MDM objectives and achieve tangible results in multiple, short sprints resulting in faster time to value.

### EVENT-DRIVEN AND REAL-TIME
TIBCO MDM is an event-driven application that can quickly respond to business events that trigger changes or updates in master data (for example, change in a customer's address is triggered during a customer support call). The required parties (systems or users) are then notified as soon as any changes are made to MDM data or processes.

### DATA MATCHING
An end-user friendly match and merge interface simplifies the merge process by:

- Merging hierarchies
- Providing manual editing of the merged record values
- Allowing a user to trigger a merge of multiple golden records

### SCALABILITY
TIBCO MDM is architected to scale both in number of records and throughput time to meet current and future needs. It's architected for performance to enable big-data use cases by providing fast access to a golden reference set of master data.

### HIGH AVAILABILITY
The product is architected to accommodate the high scalability and availability requirements of the global enterprise. This includes load balancers, failover appliances, and RAID storage, providing no single point of failure. Clustering is supported for application server, database, and JMS server.

For more information, visit www.tibco.com/products/automation/master-data-management/mdm