



Master Data Management




Release Definition

Release 4.9.0
B035-0000-9700
March 2024

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Revision Record

Release History

Release	Date	Description
Master Data Management 3.05.03	November 15, 2016	Maintenance Release
Master Data Management 4.00.00	June 16, 2017	Major Release
Master Data Management 4.00.01	September 22, 2017	Maintenance Release
Master Data Management 4.01.00	December 11, 2017	Minor Release
Master Data Management 4.02.00	June 21, 2018	Minor Release
Master Data Management 4.03.00	April 12, 2019	Minor Release
Master Data Management 4.04.00	November, 2019	Minor Release
Master Data Management 4.05.00	June 22, 2020	Minor Release
Master Data Management 4.06.00	March, 2021	Minor Release
Master Data Management 4.07.00	June 30, 2022	Major Release
Master Data Management 4.08.00	Dec 15 th , 2022	Major Release
Master Data Management 4.09.00	March 29 th , 2024	Major Release

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Chapter 1

Introduction

About This Chapter

This Release Definition Document briefly describes the Master Data Management (MDM) software. The document is provided to give you information that should be taken into consideration before, during, and after using this software. To ensure that you receive optimum benefits from this product, please read this document in addition to the other user documents.

The user documents are available for customers from Teradata@YourService via the Teradata Information Products website at www.info.teradata.com. Please refer to the Installation section of this document for instructions on how to install the online documents.

This MDM Release 4.9.0 is a Major Release, containing several enhancements over the previous MDM Release 4.8.0 and as well as fixes for some defects that were found in previous MDM releases.

Before proceeding, please check the Teradata Information Products website at www.info.teradata.com for any up to date additions to the MDM documentation, including this Release Definition Document.

Master Data Management Overview

The Master Data Management solution provides a way to integrate and consolidate master data without having to replace existing infrastructure investments. Master Data Management can provide a trusted infrastructure with built-in processes and services for Enterprise Data Management. You can stage, consolidate, validate, cleanse, store, augment, cross-reference, and publish data to systems in your IT infrastructure. By ensuring cross-system data consistency, Master Data Management can enable flawless execution of business processes – while leveraging existing IT investments and reducing the total cost of ownership to manage business critical data.

Master Data Management helps you synchronize key data elements across disparate systems and geographies. Specifically, Master Data Management helps you with:

- Data staging for loading, cleansing, validating, aggregating, and publishing data.
- Data Model Maintenance for model extension and model repository.
- Master Data Life Cycle Maintenance for data maintenance workflows and versioning, editing, and archiving data.

MDM simplifies deployment and integration of heterogeneous systems, is easier to manage, provides high quality data, and decouples data from business application software. Consider using Master Data Management at these levels in your organization:

- Enterprise Asset Level (e.g. Product Master, Customer Master, etc.)
- Program level (e.g. Supply Chain Data Management, Enterprise Risk Data Management)
- Enterprise Wide MDM Repository for all your master data needs.

Master Data Management Framework

The Master Data Management framework separates process from data, enabling Information Technology (IT) organizations to meet their business needs. The framework is built on open standards and lets IT organizations leverage their existing investments in addition to reducing the Total Cost of Ownership (TCO) of business solutions. IT organizations have heterogeneous architectures comprising best of the breed and legacy applications and MDM combines the proven best of breed technology components with the following characteristics:

- Open standards based
- Adaptable infrastructure
- Reduced operational costs
- Reduced deployment time
- Easy upgrades
- Reduced project risks

As business practices evolve, and companies are forced to rapidly streamline their processes to meet consumer demands, the biggest challenge faced by them is the inability of the IT systems to keep pace. Most IT organizations lack the ability to quickly adopt new business models. Every business process is supported by multiple applications, each having its own data model and workflows. Often, custom solutions and point-to-point bridges have to be built so that data and transaction integrity across these multiple applications can be maintained. However, they are inflexible to change and cost prohibitively high to maintain as the business processes go through subsequent rounds of evolution.

The key to the MDM Framework is its ability to enable flexible business process management using a Services Oriented Architecture (SOA). It provides a distributed transaction framework and robust integration framework to enable flawless execution that scales as transaction volumes increase. It has a powerful business programming environment to describe business rules, workflows, and data models and is based on open-standards (XML, Web-Services).

In an abstract sense, a business workflow involves moving a document through a series of steps; at each step, more information is added to the document. The key to this framework is its ability to enable intuitive definition and extension of workflows with very little or no programming. For the workflow steps that require user intervention, MDM offers a powerful interface for building the UI screens and the related plumbing for data input and output.

There are two components of the MDM framework, as listed below:

MDM Studio

MDM Studio is an integrated development environment (IDE) for designing, debugging and maintaining the workflows, data models, and user-interfaces that together define a business process. Web-Services, used to define the integration touch points with external applications, can be imported inside Studio and used seamlessly within workflows.

MDM Server

The workflows, data-models and user-interfaces designed in MDM Studio are deployed in a production environment using the MDM server. It scales as the transaction volumes increase and can easily be configured for load-balancing, fail-over etc. One of the key goals of MDM is to avoid building point solutions for every new workflow. The framework promotes reuse of components like business rules, UI screens, documents, sub-workflows, etc. intuitively, thus enabling users to define, and later extend, new workflows with ease.

Why Use Master Data Management?

If you are using the MDM Studio to develop an application, it allows you to introspect the models, workflows, rules, and so on, within the application very easily without having to go through code. It also provides you with a mechanism to change and configure the application during and after the implementation.

The MDM Studio is a complete Solution Building Environment. It can be used for data modelling and data related workflows. It can be used for rapid prototyping a solution including data models, workflows and user interfaces. It can be used for complete composite application development as demonstrated by packaged solutions that are built out using this framework.

All the tools for data modelling, workflow development, user interface creation, and composite application development are available within MDM Studio to enable rapid time to value.

Key Features of Master Data Management

MDM Studio

The MDM Studio is a complete Solution Building Environment. It consists of these three basic nodes:

- **Model Set** - For defining your data models and data dictionary.
- **Solution** - For defining your business processes, workflows, business rules, events and User Interfaces.
- **Web Services** - For importing the Services that are available both within and outside the Enterprise.

Lookup Reference Data Management(LRDM) (Valid Values)

The LRDM helps you add, modify, and delete the valid values of an editable code type. You can also modify code type values, add new values to the selected code type, and/or delete existing ones from the Code Master page. In addition to this, you can maintain source values and its mappings to valid values. The code type when used in data models of tables/view through studio/model builder can be accessed as dropdown of valid values on data management UIs (configurable UI) built on them.

Alerts

Alert is a mechanism by which notifications are published to users on occurrence of events to which the user is subscribed.

The Data Load (E2E) workflow

The E2E Workflow facilitates propagation of the Input Staging data into the Master tables. The E2E Workflow sends notification and error alerts to users with relevant roles and permissions. Data must be loaded into the MDM Input Staging tables prior to starting up the E2E Workflow. A part of this data may be owned by legacy systems. This data is typically fed in bulk mode as a flat file or via ETL (Extract Transform and Load). The E2E Workflow provides the ability to validate, fix and clean up errors, and load the data to the master tables. It also provides the ability to plug in or disable business validations.

Role Based Access Control

The User Security Infrastructure of Master Data Management is both flexible and configurable. The key functionalities provided are as follows:

- User Group Management: Facilitates the association of groups with Users and Roles.
- User Management: Facilitates the association of Users with User Groups.
- Role Management: Facilitates the association of Roles with Activities/Workflows.

The MDM User Security model is based on Role Based Access Control (RBAC). You can create roles based on the group requirements. You can then assign activities to these roles, which in turn, are assigned to the Users. This determines the activities/workflows that a user with a particular role, will be able to perform. MDM thus provides a two-tier User Security infrastructure. You can assign multiple roles to a user. This is achieved by creating User Groups, which enables multiple users to have similar privileges. A User Group is essentially a collection of users that may be assigned similar roles.

Localization of User Interface

MDM is designed to support internalization and can be localized for specific regions. You can set the language settings to the language of your choice. When you log into MDM, the User Interface is displayed in the language that you have set. Please contact Teradata Product Management if you need the application localized for any language other than US English.

Model Builder

Model Builder provides ability to model tables and views using web UI. A MDM based table can be modelled and generated at runtime without server restart which can take part in all MDM processes. Any EDW table can be imported into Model Builder using the Import capability. The imported tables can take part in MDM processes as non-MDM tables.

Approval Management

Approval Management framework allows to manage approval of master data and metadata of certain features before it moves to target tables. The data moved for approval can be reviewed and approved by approvers from their approval inbox.

Configurable UI

Configurable UI feature enables to create User Interface on both MDM and non-MDM based tables at runtime. All kind of data manipulation actions (Create, Edit, Delete, Mass Update and Excel Upload) can be performed using configurable UI. Configurable UI can be created on more than one table linked by join condition. The design of configurable UIs can be also easily altered using design time web UI.

Excel Upload

The Excel Upload framework provides ability to upload master data into master tables of MDM. The framework takes care of all data integrity related issues of handling duplicates, valid values for any column, orphan records and all action types (Insert, Update, Delete). The data upload goes through data validation framework which moves the error records to error tables. An error correction workflow integrated with Excel Upload allows the error records to be edited and re-submitted. Excel upload framework is also supported on non-MDM based tables.

Audit Trail

An Audit Trail enables changes to the document instance (database table) to be tracked. You can construct the document change history from the Audit Trail information. Every operation performed by a user is logged into the corresponding Audit Trail Table and provides comprehensive details about that operation.

Hierarchy Management

A Hierarchy is defined as a logical grouping of objects/components in the system. Instances of any arbitrary object/component in the system can be grouped together to form a tree structure, thus constituting a hierarchy. A Dimension is an object on which the entire hierarchy is based. For example, if you can create hierarchies based on Time, Product, or Location, these objects are termed as Dimensions. You can create multiple hierarchies for a single Dimension.

Business Rules

The business rules allow you to define custom rules on the relevant input and master staging tables. You can add data filter, validation,

auto fill and autocorrect rules through the user interface. These rules, except the filter rules, are invoked through Do_Db_Persist. Since Table Editor on the master tables and excel upload use Do_Db_Persist to persist data, these rules will be invoked automatically while using these features. For E2E, if the default PERSIST_TYPE (i.e. DO_DB_PERSIST) is used to persist data from net change to the master area, then the update and validation rules will be invoked automatically. Filter rules are defined on the input staging tables and are invoked during E2E.

Web Services

The Web Service framework provides support of SOAP based and RESTful web services in MDM Server. MDM APIs, workflows and table data can be accessed using web service calls with valid credentials. MDM server can also make calls to external web service.

Matching & Survivorship

The Matching process allows matching source and target records based on key attributes. Based on matching results, records can be persisted to target tables with Survivorship process. Survivorship process allows data manipulation/transformation operations on data to be persisted.

Data Authorization

Data Authorization allows users of different user groups to have access to different subsets of data. For example, as a planner managing items in MDM, you may be required to access only items you have authority for. Users can be authorized at the user group level by assigning appropriate nodes from the authorizing hierarchies. MDM applies this authorization against the authorization information recorded in the database for different entities.

Manage Queries

This functionality allows you to create custom database-specific SQL queries that can be executed against the MDM database. A user can search queries, create, edit or delete queries, execute queries and inspect query execution history.

Profile Migration

The Profile Migration facility allows migrating profiles of different features of MDM from one environment to the other (For example: Development to QA) taking care of all data integrity related issues.

Data Quality

Data Quality dashboard is the front end to monitor data quality of enterprise data based on predefined set of business and data rules.

Metadata Management

Metadata Management implemented along with Master Data Management enables an enterprise to have an enterprise wide thesaurus and an execution environment for a consistent data management strategy.

There are independent CRM applications, ERP, Procurement, Supply Chain, etc. These are either sourced from different vendors or developed on dissimilar platforms. They are often multiple instances of the same application. The metadata (data about data) across these systems are quite different from each other. CRM, ERP and Supply Chain all have customer data, but their definition format (metadata) is often very different.

New Features Introduced with Teradata MDM Platform release 4.9.0

1. Vault Integration with MDM:

Hashicorp Vault addresses the problem of managing sensitive information – a secret in Vault's parlance. Vault encrypts all data with an encryption key before writing it to the store. This encryption key is encrypted by yet another key – the master key, used only at startup. A key point in Vault's implementation is that it doesn't store the master key in the server. This means that not even Vault can access its saved data after startup. At this point, a Vault instance is said to be in a “sealed” state. Once unsealed, Vault will be ready to accept API requests.

To access secrets in Vault a client needs to authenticate itself using the following supported methods. The simplest method uses Tokens, which are just strings sent on every API request using a special HTTP header. We also provide support for SSL certificate-based authentication.

Credentials such as database passwords and encryption keys are securely stored within Vault. By default, the MDM setup does not include Vault integration. However, when Vault is enabled, users are given the choice to

authenticate themselves for access using either tokens or SSL certificates. The latter option is considered more secure compared to the former. Kindly find more details in MDM 4.9 Installation Guide.

2. Support Unicode in MDM tables through Installer

Unicode is supported for fresh/new installation of MDM. If user wants Out-of-box Master tables to support Unicode, during installation they can specify the character set in mdm.properties file.

CHARACTER_SET=UNICODE

Key points:

- Table name will not be changed to Unicode characters. Changes will be made as such data residing in these OOTB Master tables supports Unicode (Japanese) type string.
 - DB name, table name, column name will not be changed. It will not be in the form of Japanese character.
 - Only OOTB MASTER and its corresponding staging tables will be modified.
- Kindly find more details in MDM 4.9 Server Guide.

3. TD 20.x Certification

Certified MDM 4.9 on latest TD 20.0.0.9 Database. Kindly find more details in MDM 4.9 Configuration Matrix.

4. Manage Scheduler UI Improvements:

- Tabular view instead of calendar view: Configurable
- New Trigger Datetime column and Sorting
- Filter on status column
- Export to Excel

5. Deprecation of Weblogic

The WSDL-based web service has been deprecated and removed from the MDM 4.9 release due to the following reasons.

AXIS2 based web services are currently experiencing lower popularity compared to Rest-based web services, resulting in reduced development activity for AXIS2.

The AXIS2 webservice dependent jars have been identified as vulnerable by our internal security scanning tool, and unfortunately, there are no fixes available at the present time.

MDM customers are encouraged to make use of REST-based web services, which are lightweight, efficient, and support a wide range of authentication mechanisms. REST is straightforward and easy to grasp and learn. It operates on the basis of the HTTP(s) protocol and also supports JSON in addition to XML. Furthermore, it is stateless.

Vulnerability CVE:

CVE Record | CVE

<https://security.snyk.io/vuln/SNYK-JAVA-ORGOWASPESAPI-6091110>

<https://security.snyk.io/vuln/SNYK-JAVA-ORGOWASPESAPI-6038553>

<https://security.snyk.io/vuln/SNYK-JAVA-ORGOWASPESAPI-2803305>

6. Certification of MDM on RHEL 8.6 on AWS

MDM 4.9 is certified with Red Hat 8.6 version on AWS.

7. Japanese localisation Issue fixes

118nization Japanese issues fixed in C&S, Matching and Survivorship UIs

New Features Introduced with Teradata MDM Platform release 4.8.0

Global Metadata Search:

In this release, we have added a new feature to search across the metadata of MDM/RDM repository. This will be a global search. User will be able to search for any keyword from browser and the system will fetch all the related models that matched. There will be next level of drill down to check the related metadata of MDM features where the selected model is used. User will also be able to view the underlying data of the selected model. For details, please review MDM 4.8 Server guide.

Single place for master and audit records view:

This release adds capability to view the related audit records of any master record without navigating away to a separate audit table. User will be able to select a record in the master table and click on view audit button to see the related audit records. There will be “export to excel” option for audit records.

RDM Usability enhancements:

- Menu Builder sequencing improvement with drag and drop capability to sequence the links is added in this release. This will be helpful when a project has lot of links to be sequenced. Also, there

are some useful usability improvements done in menu builder to make it more user friendly

- Inline search is enabled in Business rule UI to make it more user friendly. Also, ability to perform wild card search of the business rules SQL is added in this release.

For details, please refer to MDM server guide.

Simplified matching capability

We have simplified MDM matching feature in this release. The existing process to provide agree/disagree percentages and calculation of scores based on that is very technical. So, an alternate matching option is provided where user can select the columns to match, optionally select the functions and weightage. Based on this info, system will provide matching scores. This new process can be effectively used for exact and fuzzy matching use cases. For details, please refer to MDM server guide.

NOS improvement to support CDC loads

We have introduced CDC data loads for loading data from cloud data store. From Model Builder UI, user will be able to configure CDC data loads for any object. The data load process expects a pre-defined folder structure to be created in the source so that it can effectively detect the fresh and CDC loads. There is an API available for the data load process which can be triggered from runtime workflow. For details, please check MDM server guide.

New Features Introduced with Teradata MDM Platform Release 4.7.0

Simplified Cloud Deployment using AMI (Amazon Machine Image)

AMIs for MDM & CI will allow customers to seamlessly deploy these packages at their own environment following a runbook. The AMIs will include all product dependencies which will enhance our cloud DIY capabilities. Customers can focus on infrastructure & customizations rather than deployment-related complexities.

NOS Integration for MDM

MDM will use Native Object Store (NOS) through Model Builder to integrate data from any cloud data store. Currently the supported data file formats of cloud data store objects are CSV and excel. A NOS view

is created utilizing the APIs or UIs of model builder which can be further used in MDM application.

Currently MDM 4.7 supports NOS integration with AWS but we are targeting to integrate with GCP and azure in next MDM release.

Script Based Installation

MDM software which is currently installed and deployed via an Installer that is built using InstallAnywhere(IA) software .This will be replaced by Script-based Installer for the ease of automated Deployment. We will now have a **single installer for both Unix and windows**. All the new micro-services including metadata, connected identity and customer-360 will be initiated by the script-based Installer. The Script Based installation enables an installer to run without any user interaction using a properties file (usually available at <MDM_Install_Directory>\install\mdm.properties).

Below are the newly introduced pre-requisites for the installation of MDM. Please refer to installation guide and system configuration details for the pre-requisites:

1. **Git Bash:** Required for Windows Installation
2. **Vault Installation-** Hashi Corp Vault is used for secret management and secure the sensitive information like application database details etc.

User can enable this by changing Secret_Management_mode in properties files and can use below options:

- DEV_MODE: Dev mode of installation will be available for quick dev set-ups
- VAULT: Scripts with instructions will be available for users to configure Vault

Note: Shared Services will use Vault for secret management, MDM server will continue to use existing secret management mechanism in 4.7

Vault Modes: Two modes for Vault set-up will be available:

- a) Token based
- b) Certificate based: recommended for production like set-up

3. **Nginx-** Used for Reverse proxy server for installation of MDM. NGINX takes care of all communication between the MDM server and services with the client.

OAuth 2 Support

OAuth (Open Authentication) server will be used as an Authentication mechanism for MDM setup . It uses Authorisation tokens to delegate API calls. OAuth Server is packaged withing MDM Installer to generate the tokens.

Enhanced Architecture for Micro Service Deployment:

We have enhanced the architecture of MDM to allow deployment of micro-services along with the current monolith. Following are the details of the services that are included in MDM 4.9 release. These services will replace existing PGL based features in MDM.

Service Name	Purpose	Features
Data Harmonization	Harmonize data from different sources on Vantage	Cleansing & Standardization Matching Survivorship, ALCR, Trust Source management Data Load Summary Dashboard
Customer 360	Store and manage Customer Data	Customer 360 profile view Dashboards
Metadata	Manage Database connections for Services	Connection

Benefits:

- Spring Boot based framework
- All the existing PGL UIs for these services are converted to Angular UIs for better user experience
- Created APIs for all the existing Key features
- Ease of Maintenance and Upgrade

UI Improvements

- All service UIs including matching, C&S, survivorship, trust and Source Management are now converted to Angular for better user experience.
- Redesigned and converted Angular Inbox , Maker's inbox and Monitor Approval UIs to Angular for enhanced usability.
- Form level Buttons of PGL form is moved to header same as grids to standardize the look and feel
- In-Line Edit Grid Improvements: Width of Data fields is reduced since they occupy a lot of space and Date picker is moved inside data field

Simplified Source Management

1. Simplified integration of sources:

This feature will simplify CI process that will allow the Data Harmonization of any number of sources with same profile as opposed to individual profiles that we had to create for each source. It is supported for C&S, matching and Survivorship profiles where data of all sources land on single set of source tables with Source identifier.

2. New Sources UI

A New Sources UI is created to manage all your data harmonization source configurations

Below are the high-level configurations which User needs to do to introduce a new Source:

- *Source Details*: Register your Source with basic details like Source Name, Source Intake ID, Description
- *Job Group details*: User can have multiple execution groups within a single source, Group can be created with basic details like Group Name, Description, Notification Email
- *Configuring Jobs*: An execution group can be configured to execute the required C&S, matching, survivorship profiles and any custom process.
- *Sequencing of Jobs*: Profiles and custom jobs within a group can be sequenced as required

3. New CI Node in Workflow

A new CI node is introduced in Workflow to execute profiles configured within the execution group of a source. We require below two parameters to configure a CI node:

- CI Source
- CI Group

New Restart Enabler is introduced which will allow CI nodes to be restarted from the point of failure

4. Data Load Summary Dashboard

A new data Load Summary Dashboard is added in MDM 4.7 which displays the entire Data Loads for any source. This Dashboard can enable drilling down and review detail results of data load steps.

5. Menu Builder Enhancements

Menu Builder Module in MDM is enhanced to include drag and drop functionality for rearranging the links in a sequence. Earlier User has to click many times if a link is to be moved up and down, making it

difficult to perform sequencing for projects with multiple Navigation links. Below changes are done to enhance the User Experience:

- Provide a drag-drop functionality for Menu Builder links
- Height of the container is increased to display more links and adjust dynamically
- When the user clicks on the "Add Link/Manage pages" button, the main Menu will collapse
- The selected folder/subfolder is highlighted on the left navigation tree for easier tracking

Enhanced customer phone number validation capability

New OOB functions added to validate phone numbers.

- Phone Area exchange validation: Add valid area exchange numbers @ CL_TLPN_AREA_EXCHANGE_CD to make sure on the valid area exchange numbers are allowed.
- Blacklist Phone Number: Add numbers to be blacklisted @ CL_TLPN_EXCLUDE to make sure invalid phone numbers are not allowed to save.

Trust enhancement to support valid value evaluation

A new column named “Valid Column” is introduced under Manage Trust to support the Valid value evaluation for any attributes while merging. If existing value in target is not valid, even if it is populated from higher trust source can be replaced by a valid value from lower priority trust

Interactive Merge Improvement

An enhanced interactive merge process is introduced for data stewards to review potential match records and take appropriate action. Data Stewards will be able to compare multiple source rows with matched target row and select attributes for the final merge into target.

Profile Migration

- For the features (As mentioned above) of Data Harmonization services, import/export option is provided and this replaces the existing profile migration capability for these features. In the process of migration, in case the profile already exists at target environment, it will be override.
- A new feature is introduced to enable Profile Migration for Data Models which will allow migrating changes of models across environments. It will ask user for an option to override the profile or skip the changes.

New Features Introduced with Teradata MDM Platform Release 4.6.0

MDM/RDM/CI web UI style improvement

With MDM 4.6 release, the UI styles of MDM web UIs are enhanced to material design style. This is a huge step towards modernizing the UIs of the product. With the modernization of the web UIs, look & feel wise they will be like any covalent based angular UIs.

- Following UI components are improved from style and usability point of view:
 1. Data Grid: The overall style of data grid is enhanced to material design which includes design changes for icons, buttons, check boxes/radio buttons etc. A support of tool bar is added for data grids. All icons and buttons are provisioned to move to the tool bar. An option to provide on demand search is also added.
 2. Entry field, dropdown, text area: These components are enhanced to floating label style.
 3. UI Forms: All UI forms are enhanced to a uniform look & feel. The sizes of the form components are made uniform in size. White spaces in the forms are removed. Support of a new form of type Focused is supported.
- 4. Dark theme support for web UIs: The dark theme mode in MDM web UI is supported now. Easy switching between dark and light themes can be done.

A new PGL UI version (4) is introduced for the material design added in this release. By default, all new PGLs from MDM 4.6 onwards will utilize the new version of PGL. Custom PGL may need minor java script changes for the UIs to render properly with new styles on upgrade. If any customer doesn't want to utilize new styles, they can choose to stay in existing version (3). Please refer to MDM Server Guide of 4.6 release for details.

MDM/RDM/CI feature re-design

With MDM 4.6 release, minor UI flow modifications of key features are done. The re-design of these features is intended to enhance the user experience. Following are the key principles of this redesign:

- Keep most relevant options visible to user by default

- Hide the less frequently used options to advanced settings
- Usability improvements like set default values in dropdowns, reduce number of clicks & navigations etc.
- Consistent behaviour of similar action across all features

The UI flow design of following features is improved in this release:

- Configurable UI
- Approval
- Business rules
- Reference data management
- Hierarchy
- Secondary connection

Please refer to MDM Server Guide of 4.6 release for details.

In-line edit support added in data grids (Configurable UI)

Ability to view and manage business data (customer, product, vendor, supplier, reference data etc) or metadata on any Teradata vantage table or view via UI data grid with in-line edit support is added in MDM 4.6 release. The configurable UI feature is enhanced with additional support of in-line edit template to manage any type of data. This will provide excel like experience to business users and data can be saved without navigating away from main grid UI. Please refer to MDM Server Guide of 4.6 release for details.

Enhancements based on customer requests

- **Read only access for C&S, Matching & Survivorship profiles**
With MDM 4.6 release, a provision to provide read only access to profiles of C&S, Matching & Survivorship profiles is provided. This will allow enhanced data governance for these features. A new activity to provide read-only access is added. When this activity is added to a user, create, and edit access are removed and only view access is provided. Please refer to MDM Server Guide of 4.6 release for details.
- **Auto generation of Approval rules**
With MDM 4.6 release, a provision to automatically generate all combinations of approval rules based on the user defined criteria is added. The automatic generation of these rules will help to reduce human error & effort while defining all combinations of rules. Please refer to MDM Server Guide of 4.6 release for details.
- **Skip validation post approval accept**

With MDM 4.6 release, ability to skip execution of validation rules post approval of records is provided. This is an optional configuration which can be enabled based on requirement. Please refer to MDM Server Guide of 4.6 release.

Framework Enhancements

- **Easy deployment of custom angular UIs**
With MDM 4.6 release, ability to deploy custom angular UIs on MDM server is provided. This will enable field to seamlessly build and deploy custom angular UIs in MDM server without having access to OOB angular UI code. Please refer to MDM Server Guide of 4.6 release for details.
- **Metadata management capabilities for SPs, View, Join Indexes**
With MDM 4.6 release, ability to manage metadata of SPs, Views and Join Indexes are added in model builder. The SPs, Views & Join indexes can be deployed in any Teradata database based on configurations defined. This is a huge step to enhance metadata management capabilities of the product. Please refer to MDM Server Guide of 4.6 release for details.

New Features Introduced with Teradata MDM Platform Release 4.5.0

Approval monitor/inbox improvements:

With MDM 4.5 release, the user experience of approval inbox/monitor/maker's inbox are improved to make it easier for business users to search for particular records that they want to review. Also, ability to sort records in inbox/monitor/maker's inbox is provided. The layout of approval inbox/monitor are improved for better readability and comparison. Please refer to MDM Server Guide of 4.5 release.

Cross reference solution for data stewards:

With MDM 4.5 release, a new cross reference solution is developed for data steward to review the existing cross reference relations. The solution has capability to search for cross reference relations from both source & target perspective. Data steward will also be able to manually

un-link relations and re-link to a new record. The cleanse, match & merge processes have seamless integration with this cross reference solution. The potential match records can also be reviewed and merged using this solution. Please refer to MDM Server Guide of 4.5 release.

External table support for MDM operations:

With MDM 4.5 release, MDM data governance operations are fully supported on external tables. The dependency to add system columns in external tables in order to support MDM operations is removed from this release. Please refer to MDM Server Guide of 4.5 release.

Optimization of upgrade:

With MDM 4.5 release, MDM single click leapfrog upgrade process is enhanced to automatically merge and create leapfrog upgrade scripts to upgrade from any source to target version. The overall upgrade process is optimized to make it more efficient. Please refer to MDM Server Guide of 4.5 release.

Left navigation load optimization:

The left navigation load time when user logs into application is improved. This will be beneficial where there are large number of links to be loaded. Please refer to MDM Server Guide of 4.5 release.

Componentized angular UI framework:

Angular UI framework is developed to create separate components for each feature UIs. All these components will share common library. This framework is developed to fulfil future requirements to build custom angular UIs on top of MDM framework which can seamlessly be integrated in MDM left navigation. Also, this framework will help to integrate standalone shared microservices with the product.

Match & Survivorship dashboard:

An angular UI based dashboard is developed for logs of executions of match and survivorship processes. The idea behind this dashboard is such that a data steward can have comprehensive view of the matching and survivorship process executions with details of source, target, match, potential match, new, created and merged records. Drill down into each of the record categories will be available to view the details of

records. On drill down, data steward will be able to work on the unresolved match records using the linked survivorship process. The dashboard will also provide capability to filter logs of executions of match & survivorship profiles based on the source they belong to. For details, please refer to MDM Server Guide of 4.5 release.

Match profile improvements:

- One of the drawbacks with existing match profile capability was to provide more granular scores to accurately identify probable potential match candidates. Though the matching algorithm can generate discrete scores based on some specific functions used, the user interface was not designed to assign that. So, the option to choose match and bypass threshold score is improved to provide those values manually instead of using the slider, which will allow data architects to provide any granular score they would wish to assign. For details, please refer to MDM Server Guide of 4.5 release.
- History table for match source: The ability to choose a history table for source of match profile is added. This will help to show the history results of matching for use cases where actual linked source table of matching is cleared after each execution and data from source table are archived into an archive table. For details, please refer to MDM Server Guide of 4.5 release.

New Features Introduced with Teradata MDM Platform Release 4.4.0

MDM Upgrade Enhancement

- With MDM 4.4 release, upgrade process of MDM is simplified and enhanced to support
 - Single click to upgrade: There will be single batch file which needs to be executed to upgrade MDM from previous to current version. Previously, this was a set of manual configurations and multiple executions of batch files.
 - Leap frog upgrade from MDM 4.0.1, MDM 4.1 & MDM 4.2 versions in addition to MDM 4.3 version: In 4.4 release, upgrades from 4.0.1, 4.1 & 4.2 versions to current versions is available via leap frog upgrade.

Earlier upgrading from each of these versions involved multiple hops. This will save significant time for leaf frog upgrades.

- **Detail Error Logging and Restart ability of upgrade:**
Each steps of upgrade are logged in single log file. This will help to easily track any issue encountered in upgrade. Also, upgrade script can be re-started from the step it failed in the previous run.

For details on the entire upgrade process, please refer to Upgrade Chapter in installation guide.

Configure non-MDM table for MDM operations

With MDM 4.4 release, the non-MDM tables configured can be used in all MDM processes (Eg: Validation, Approval etc.). In this option, a reference to the actual tables in external database will be made in MDM server & database so that the tables can seamlessly be used in all MDM processes. The advantage of this process is that the underlying data of the table can be managed using MDM processes similar to master tables of MDM. The Database of the external table needs to be within same Database server as that of MDM user. The non-MDM tables need to be configured for MDM operations from Manage Metadata Import UI of Model Builder. For details, please refer to MDM Server Guide of 4.4 release.

Handling of Un-Assigned Hierarchy Nodes

With MDM 4.4 release, the un-assigned (Orphan) nodes in Hierarchy can be viewed and managed from Hierarchy Viewer. You can use this option to display orphan nodes (Nodes that don't have a parent) in Hierarchy Viewer. The orphan nodes will be displayed under a dummy parent node called Unassigned_<HierarchyObjectName> in viewer. The orphan nodes then can be dragged to valid parent. You will be able to enable this option from Create/Edit Hierarchy screen. For details, please refer to MDM Server Guide of 4.4 release.

Collect MDM Database Stats from Model Builder UI

With MDM 4.4 release, the Model Builder provides UI to manage Collect Statistics on MDM database user. All tables within MDM DB will be available for Collect Stats. The Collect Stats UI is available in Tasks dropdown of Model Builder UI. For details, please refer to MDM Server Guide of 4.4 release.

MDM Matching & Survivorship Enhancements

- **Consider History Runs in Survivorship:** The previous matching run results can be used in Survivorship. You can define separate

history table for source records as well. This can be configured from Create/Edit Survivorship UI.

- **Authorization of Matching Profiles:** The authorization of Matching profiles can be defined from Create/Edit Match profile UI. Based on the authorization defined, user will be able to access profiles and results of executions.
- **Cross Reference Templates:** Separate Cross Reference template tables can be assigned to capture cross reference details of Survivorship profiles. The template tables can be defined from Model Builder manage template option.
- **Manual Match Override:** APIs are developed to perform manual match resolution using survivorship.

For details, please refer to MDM Server Guide of 4.4 release.

CI Enhancements

- **Performance Improvement:** The Customer Load time is significantly reduced to improve the performance.
- **Data Lineage Tab:** The ability to view data lineage of Street, Telephone and Email addresses of a customer is provided in MDM 4.4 release
- **Sync-up JSON structure as per TIO:** The JSON structure of underlying APIs are changed as per TIO. A new JSON framework is defined to produce JSON response for all APIs.

oAuth2 support for REST APIs

oAuth2 authentication support for REST web service APIs is provided in MDM 4.4 release.

OOB MTT Deprecation

All OOB MTTs of MDM are deprecated and moved to model builder in this release. The Custom MTTs would continue to work as is for now however we would recommend all MTT to be migrated to Model Builder moving ahead. For details on using custom MTT, please refer to Installation Guide(Upgrade chapter).

New Features Introduced with Teradata MDM Platform Release 4.3.0

Excel Upload Enhancements

- **Ability to upload related data and approve together (MDM-I-343/ MDM-27310)**

Prior to 4.3 release, Child records were not allowed to upload even when their parents are in pending approval stage. Business wants to upload parent and children separately but approve them as a group.

In 4.3 release we have allowed uploading child data even when parent records are in pending approval state. New Default rules will be added as part of Incremental Schema Generation process to handle this. For details, please refer to MDM Server Guide of 4.3 release.

- **Excel Upload does not show excel row number of errors (MDM-I-308/MDM-21321)**
Business Users upload thousands of records in single excel. The lack of excel row numbers in error report makes it difficult to track the rows in excel that got errored out.

In 4.3 release, we have added provision to display row number of excel in error report of excel. A new facet for models added which can be enabled to report excel row numbers in upload process. For details, please refer to MDM Server Guide of 4.3 release.

- **Ability to upload data into Input tables (MDM-I-344/MDM-27785)**
Currently implementation need to use ETL process to load data into input staging. Excel upload will eliminate need of ETL. Also, it becomes friendly for business users to load data.

In 4.3 release support to upload data into input staging tables is added. Error Correction is also supported. For details, please refer to MDM Server Guide of 4.3 release.

- **Export to Excel File Name - Add time stamp to the file in addition to the Table Name. (MDM-I-447/MDM-27038)**
When multiple exported excel copies are maintained for same table data over time, it is difficult to maintain the copies when exported excel name is only the name of the table.

In 4.3 release, we have modified the naming convention of exported file name. The exported file name will have Table name with timestamp as suffix. For details, please refer to MDM Server Guide of 4.3 release.

- **User friendly Excel Upload exception handling & reporting. (MDM-I-442/ MDM-27041)**

In some scenarios, data load exception handlings are not proper which makes it difficult for user to infer the root cause of issue.

In 4.3 release, we have handled the following:

- Uploads with status Aborted will have valid exception message (Not null check)
- Uploads with status Completed with gaps will have proper message
- Status Reserve Report id is replaced with initializing
- Wrong/Empty template validation

Approval Enhancements

- **Daily reminder emails for all in-process approval workflow items (MDM-I-441/ MDM-27051)**

Daily reminder for in process approval requests is enhanced to support the following behaviours:

- Pending daily Approval notifications of all in process requests to most recent approvers from day of approval requests till due date
- Overdue reminder of Approval to admin and maker of approval

For details, please refer to MDM Server Guide of 4.3 release.

- **Approvers should be able to unassign a record (MDM-I-439)**

When approval inbox has a lot of items and user accidentally assigns the wrong record, there was no facility to unassign the record from Approval Inbox. In MDM4.3 release, we have provided a button in Approval Inbox to unassign a record. On unassign, the record will be available for all approvers. This facility will be applicable only for Group based approval. For details, please refer to MDM Server Guide of 4.3 release.

- **Enable grouping related Approval Requests into one group so that they are approved or rejected together (MDM-I-340/MDM-21311)**

Many times, for data integrity issues and for specific business requirements, there is need to group & approve related approval requests on different tables (Related or independent) together. In MDM 4.3 release, we have provided ability to group and approve related approval requests together. Approval Admins

will be able to group the approval requests from monitor UI. Grouped requests would be shown to the approvers in Inbox where they will be able to review all records grouped for approval and Accept/Reject as a group. For details, please refer to MDM Server Guide of 4.3 release.

- **Interested Party Notifications only support individual emails. This should be enhanced to support User Groups (MDM-I-342/ MDM-27295)**

In MDM 4.3 release, we have provided support for interested party as User Group. If a User Group is assigned as interested party, all users of the group will be notified. For details, please refer to MDM Server Guide of 4.3 release.

- **Ability to view and manage in stage approval data (MDM-I-438/ MDM-27370)**

In MDM 4.3 release, ability to View and Edit bulk records uploaded from Approval Inbox is provided from Approval Inbox. All pending approval records staged in load tables will be exposed by a config UI like view from where users with valid access will be able to edit or mass update data. For details, please refer to MDM Server Guide of 4.3 release.

Profile Migration Enhancements

- **Improvement of Profile Migration Logging (MDM-I-295/ MDM-20957)**

In MDM 4.3 release, we have done a few enhancements in Profile Migration. Following are highlights:

- The Profile Migration Upload process is made be asynchronous in nature.
- A unique report ID will be generated to track the progress and status of upload.
- A profile upload status review page is added where the profiles that will be uploaded can be reviewed before the actual upload is triggered.
- A detail profile wise upload log will be generated for each upload process. An email will be sent to the uploader with details

For details, please refer to MDM Server Guide of 4.3 release.

- **Support Change of Database Name for non-MDM table profile migration (MDM-27502)**

In MDM 4.3 release, while profile migrating source registered non-MDM tables, a provision to change the non-MDM DB name is provided from Upload Profile Migration UI. The

upload UI will have a button to configure DB name mapping where you will be able to configure mapping of DB names. For details, please refer to MDM Server Guide of 4.3 release.

Model Builder Enhancements

- **Support of CASESPECIFIC keyword in Model Builder (MDM-I-327/MDM-22643)**
In MDM 4.3 release, ability to define a column as CASESPECIFIC in Model Builder is provided. The same will be supported for import & upload of model definition. For details, please refer to MDM Server Guide of 4.3 release.
- **Model Progress Dashboard / Model Builder Wizard (MDM-I-258/MDM-19718)**
In MDM 4.3 release, ability to configure a table to track its usage in selected modules is provided. You will be able to configure a table for specific modules. Once configured, system will track for the use of the table in selected modules. The tracking results will be displayed in a Dashboard.
A new model builder Dashboard is introduced which will show model states, model groups, recent 5 ISG logs and model configuration tracker. For details, please refer to MDM Server Guide of 4.3 release.
- **Provide audit log of all the commands successfully run via the "run ISG" (MDM-I-375/MDM-24276)**
In MDM 4.3 release the logs of Model Builder ISG is enhanced to display all SQL queries triggered for Model Builder schema generation process. An option to export the entire logs into an excel for review and analysis is also provided. For details, please refer to MDM Server Guide of 4.3 release.

Version Management Enhancements

- **Ability to Compare Two versions of Code Sets (MDM-I-452/MDM-27328)**
In MDM 4.3 release, provision to compare two versions of Code Sets is provided. The feature will display differences in Code Sets and Its values, mappings including their attributes. The difference can also be exported to an excel. For details, please refer to MDM Server Guide of 4.3 release.

Hierarchy Enhancements

- **Flatten View representation of Hierarchy (MDM-I-408/MDM-26955) UOB**

The ability to view the data of a Hierarchy in flattened structure is provided in MDM 4.3 release. The flattened structure will also show orphan nodes at any level of the hierarchy. The entire flattened structure can be exported to an excel. For details, please refer to MDM Server Guide of 4.3 release.

- **Support Creating Version from existing Hierarchy Version (MDM-I-409/ MDM-27125)**
Ability to create Hierarchy version from existing version is provided in 4.3 release. For details, please refer to MDM Server Guide of 4.3 release.
- **Allow ignoring deletes during Hierarchy Merging (MDM-I-407/ MDM-27132)**
Ability to ignore deletes during merge of Hierarchy Nodes & Relations is provided in MDM 4.3 release. By default, Insert, Update and Delete of Nodes/Relations will be allowed. Optionally delete of nodes/relation can be skipped. For details, please refer to MDM Server Guide of 4.3 release.

Framework Enhancements

- **Valid time column in Temporal Table should be editable (MDM-I-377)**
Ability to Add/Edit values of Temporal Validtime column from configurable UI/Excel Upload/Do DB Persist command is supported in MDM 4.3 release. For details, please refer to MDM Server Guide of 4.3 release.
- **E-signature/Re-authentication functionality for approval workflows (MDM-I-324/ MDM-24832)**
In MDM 4.3 release, the Approval Accept/Reject actions will be re-authenticated by MDM Server. On successful re-authentication, these operations will be allowed. For details, please refer to MDM Server Guide of 4.3 release.
- **Enable MDM/RDM Authorization through Active Directory. (MDM-I-455/ MDM-27787)**
In MDM 4.3 release, ability to provide Authorization of AD group users to MDM application User Groups from AD without logging into MDM application is provided. The User Groups in MDM application and AD needs to be synced up for this to be supported. For details, please refer to MDM Server Guide of 4.3 release.

- **User Management Web Service APIs to create, update and delete users and groups from external system (MDM-I-456/MDM-27300)**

In MDM 4.3 release, a set of User Management related APIs are exposed for consumption of External systems by Web Service calls. For details on the list of APIs, please refer to MDM Server Guide of 4.3 release.

- **Support View based Publication (MDM-I-312/ MDM-21326)**

In MDM 4.3 release, support to publish views (both MDM & non-MDM based) from MDM server is provided. For details, please refer to MDM Server Guide of 4.3 release.

UI Usability

- **Advanced Configurable UI needs to support date range-based search (MDM-I-449/ MDM-26265)**

In MDM 4.3 release, date range-based search is supported in Advanced Configurable UI. For details, please refer to MDM Server Guide of 4.3 release.

- **For Columns with Valid Values, in Config UI - Allow Adding of New Values to the List on the Fly (MDM-I-261/MDM-19807)**

In MDM 4.3 release, ability to add new code values for from configurable UI is supported. Users with valid access will be able to create new code values from configurable UI by clicking on an icon next to the code set dropdown. Required setting in configurable UI design needs to be done to avail this facility. For details, please refer to MDM 4.3 release Server Guide.

Cleansing & Standardization(C&S) Enhancements

- **OOB Name, Phone & Email Standardization (MDM-I-414/MDM-I-415/MDM-I-416)**

In MDM 4.3 release, support of OOB Name, Telephone standardization & Email Validation functions is provided. You will be able to create a C&S profile with Source and Target tables to take part in C&S process. In the profile you can configure OOB functions or custom rules for column values. There is a provision to Preview the outcome of C&S execution while configuring the profile. The configured profiles can be executed. For details, please refer to MDM Server Guide of 4.3 release.

Matching Enhancements

- **Provide ability to create a Reconciled Match Profile (MDM-I-418, MDM-I-419)**

In MDM 4.3 release, we have provided ability to consolidate results of multiple match profiles in a new match profile of type Reconciled Match Profile. The output of Reconciled match profile can be used as input for another match profile as partition. This will allow optimizing matching process.

Reconciled Matching profiles has a provision to define Rules for Match/Potential Match/New Record conditions. For details, please refer to MDM Server Guide of 4.3 release.

- **Provide ability to support output result of a match profile as input for another profile (MDM-I-417)**

In MDM 4.3 release, we have provided option to use results of Reconciled Match profile as input for another match profile as Partition. This will help to optimize the matching process by reducing the scope of matching. For details, please refer to MDM Server Guide of 4.3 release.

- **Improved User-Friendly Match Workflow (MDM-28096)**

Current Match Workflow has many page-navigations/Clicks which makes it complex & time consuming for user to define/Edit a match workflow. In MDM 4.3 release we have simplified the Match Workflow. The new workflow has:

- Single Page form with multiple containers
- Reduced number of steps & Clicks
- Sliders for Bypass & Match threshold
- User friendly key attribute mapping

Survivorship Enhancements

- **Survivorship Workflow UI should have Handler to Run Premaster & Postmaster steps**

Implementations need Separate Buttons to execute Premaster & Master steps of Survivorship profiles. This will help business to control these operations separately. In MDM 4.3 release Separate buttons for Execute, Master & Pre-Master processes are added. For details, please refer to MDM Server Guide of 4.3 release.

- **Survivorship Workflow should have Custom Handler to pre and post survivorship Process (MDM-I-424)**

Survivorship workflow needs pre and post custom handler for Pre-Master and Master executions of Survivorship to integrate custom steps specific to implementations. These hooks are added in 4.3

release. For details, please refer to MDM Server Guide of 4.3 release.

- **One MDM Match Profile should be able to support Multiple Survivorship profiles (MDM-I-426)**

Currently one Match profile could be linked to only one Survivorship profile. In MDM 4.3 release we have provided support for using same match profile in multiple Survivorship profiles. For details, please refer to MDM Server Guide of 4.3 release.

- **Integration of DDP with Survivorship (MDM-I-430)**

Currently Survivorship profile execution process is not invoking the business rules defined on specific tables. In MDM 4.3, we have integrated Survivorship with DDP. After this integration, optionally Survivorship can be executed via DDP process which will execute all business rules defined on the particular table. For details, please refer to MDM Server Guide of 4.3 release.

- **Split the survivorship source data across multiple tables based on condition driven approach (MDM-I-431)**

In the current Survivorship process, there was no way to split the incoming Source records of survivorship into two different tables based on a condition. In MDM 4.3, we have supported defining a condition in Survivorship which will work like a WHERE clause to split incoming source records into two different tables. For details, please refer to MDM Server Guide of 4.3 release.

- **Provide mechanism to configure row level Trust with only one survivorship profile handling multiple sources data (MDM-I-434)**

In MDM 4.3, we have supported defining Row Level Trust which will allow providing highest priority to an entire source. The source having highest priority will override all column values in target. For details, please refer to MDM Server Guide of 4.3 release.

- **Ability to support Not NULL values as part of Survivorship rules (MDM-I-389)**

In MDM 4.3 release support for survivorship to prevent not null values from being overridden with NULL incoming values from source record is provided. An option to Ignore NULL values coming in from Trusted source is provided in Survivorship process. If such scenario exists, system will look for a not NULL value in the next available trusted source. For details, please refer to MDM Server Guide of 4.3 release.

- **Ability to merge Golden Master records that matches with single source record (MDM-I-282)**

If an incoming consumer is matched to multiple golden consumers (case of duplicates in golden), ability to mark one as master and other as duplicate (or inactive) is provided in 4.3 release. The cross reference between golden active customer and deleted customer records will be maintained for reference. For details, please refer to MDM Server Guide of 4.3 release.

CI Solution

MDM framework has been extensively used to create custom Customer Data Integration (CDI) Solutions at different implementations. Based on implementation experience at different customer solutions, we have come up with an OOB Customer Data Integration solution in 4.3 release which we call as Connected Identity (CI) Solution. This can be used as a starting kit for any Connected Identity implementation. The solution can be easily customized based on specific customer requirements. This will drastically reduce implementation time of CDI solution at customer site.

Key Points of the solution:

- It provides End to end solution of Customer Data Integration & Management
- MDM CI solution captures entire life cycle of customers
- Identity Resolution uses Cleanse, Match, Merge & Household process to match and merge customer data coming in from different sources
- Cross References between Golden Customer & Source systems associated with it are maintained by the solution
- Click streams & social media interactions associated with customers are collected and associated with customer data for better analysis and visibility
- It exposes a set of Search & Admin related APIs for consumption of External systems by Web Service calls
- The solution has a set of UIs & Dashboards to view details related to customers
- It also has a set of UIs that provides statistics of user interactions on customer websites and social media platforms

The CI solution is available as a Custom Application which can be installed on top of base MDM. Please refer to CI User Guide for details on installations and different features available.

Chapter 2

Release Information

About This Chapter

This chapter discusses the Release Information for Master Data Management.

Packaging Overview

MDM product packaging currently is delivered in two different packaging types; 1) Reference Data Manager (RDM) and 2) Enterprise MDM.

The *RDM* package provides a development tool and infrastructure runtime platform that enables the development of applications that address customer-specific Reference Data Management solutions. In addition to LRDM, the Configuration Utility allows for data model definitions that enable additional more Out of the Box features for the management Extended Reference Data Management, and Hierarchy Management.

The *Enterprise MDM* package provides a development tool and infrastructure runtime platform that enables the development of applications that address customer-specific Master Data Management solution workflows. *Enterprise MDM* licenses apply to the support of packaged solutions, for single, dual or unlimited programs (one program-use license associated with each additional packaged solution).

The MDM Platform is made up of the MDM Studio (the development tool), and the MDM Server (the deployment framework). Optional solution packages (e.g. CDH), may be licensed separately.

The *MDM Solution Packages*, such as Customer Data Hub (CDH) is an add-on component for an *Enterprise MDM* license.

The *RDM* package allows for both analytical and operational use including: use of Reference Data within the warehouse for analytical applications or BI reporting usage and the ability to publish and use the Reference Data in external operational applications outside of the warehouse.

The *Enterprise MDM* package allows for both analytical and operational use including: use of Master Data within the warehouse for analytical applications or BI reporting usage and the ability to publish and use the Master Data in external operational applications outside of the warehouse.

Release Media and Documentation

This Release Definition Document is applicable to this feature release of the Master Data Management 4.9.0 software.

The following table describes the associated release media and documentation for this software:

Applicable PIDs	Associated Release Media						
G880-9000-T000 G880-9300-T000 G894-9000-2000 BCD0-3045-0000	<p>DVD-ROM: Reference Data Manager, Release 04.09.00</p> <p>This DVD-ROM contains the RDM installable software packages, 3rd Party and Open Source license files, to be used for Reference Data Management.</p> <p>RDM and 3rd Party software installation packages are located in the DVD-ROM “\Install” directory. 3rd Party Software license files are located in the DVD-ROM “\Licenses” directory.</p> <table> <tr> <th>Package</th><th>Description</th></tr> <tr> <td></td><td> <p>This installation package includes the <u>MDM Studio Plug-in for Eclipse</u>; a Java, Eclipse-based plug-in used for <u>design-time</u> solution development and maintenance.</p> </td></tr> <tr> <td>RDM__indep_noarch.04.09.00.00.tar.gz</td><td> <p>This installation package also includes the Java, J2EE-based MDM Client and MDM Server, including all MDM platform services and all the necessary <u>run-time</u> components that can be installed on the same Windows workstation as Eclipse and the MDM Studio Plug-in for Eclipse, or on a separate Windows, Linux or AIX platform.</p> <p>The MDM installation packages are provided in a gun zip format for both Unix and windows.</p> </td></tr> </table>	Package	Description		<p>This installation package includes the <u>MDM Studio Plug-in for Eclipse</u>; a Java, Eclipse-based plug-in used for <u>design-time</u> solution development and maintenance.</p>	RDM__indep_noarch.04.09.00.00.tar.gz	<p>This installation package also includes the Java, J2EE-based MDM Client and MDM Server, including all MDM platform services and all the necessary <u>run-time</u> components that can be installed on the same Windows workstation as Eclipse and the MDM Studio Plug-in for Eclipse, or on a separate Windows, Linux or AIX platform.</p> <p>The MDM installation packages are provided in a gun zip format for both Unix and windows.</p>
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G880-5011-T000	<p>DVD-ROM: Master Data Management, Enterprise MDM, Release 04.09.00</p>						

<p>G880-5311-T000 G894-5011-2000 G880-5012-T000 G880-5312-T000 G894-5012-2000 G880-5013-T000 G880-5313-T000 G894-5013-2000 BCD0-3046-0000</p>	<p>This DVD-ROM contains the MDM Platform installable software packages, 3rd Party and Open Source license files, to be used for Enterprise MDM.</p> <p>MDM Platform and 3rd Party software installation packages are located in the DVD-ROM “\Install” directory. 3rd Party Software license files are located in the DVD-ROM “\Licenses” directory.</p> <table border="1"> <thead> <tr> <th>Package</th><th>Description</th></tr> </thead> <tbody> <tr> <td></td><td>This installation package includes the <u>MDM Studio Plug-in for Eclipse</u>; a Java, Eclipse-based plug-in used for <u>design-time</u> solution development and maintenance.</td></tr> <tr> <td>MDM_indep_noarc h.04.09.00.00.tar.gz</td><td>This installation package also includes the Java, J2EE-based MDM Client and MDM Server, including all MDM platform services and all the necessary <u>run-time</u> components that can be installed on the same Windows workstation as Eclipse and the MDM Studio Plug-in for Eclipse, or on a separate Windows, Linux or AIX platform.</td></tr> <tr> <td></td><td>The MDM installation packages are provided in a gunzip format for both Unix and windows.</td></tr> </tbody> </table>	Package	Description		This installation package includes the <u>MDM Studio Plug-in for Eclipse</u> ; a Java, Eclipse-based plug-in used for <u>design-time</u> solution development and maintenance.	MDM_indep_noarc h.04.09.00.00.tar.gz	This installation package also includes the Java, J2EE-based MDM Client and MDM Server, including all MDM platform services and all the necessary <u>run-time</u> components that can be installed on the same Windows workstation as Eclipse and the MDM Studio Plug-in for Eclipse, or on a separate Windows, Linux or AIX platform.		The MDM installation packages are provided in a gunzip format for both Unix and windows.
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<p>G880-5080-T000 G880-5380-T000 G894-5080-2000</p> <p>BCD0-3047-0000</p>	<p>DVD-ROM: Master Data Management, MDM CI – Solution Package, Release 04.09.00</p> <p>This DVD-ROM contains the MDM Runtime installable CI software solution packages. Once installed in the selected deployment database repository, it can be deployed into the MDM Platform or Runtime environment of choice by the MDM Deployment Manager.</p> <p>The MDM CRDM Solution package is located in the DVD-ROM “\Install” directory.</p> <table border="1"> <thead> <tr> <th>Package</th><th>Description</th></tr> </thead> <tbody> <tr> <td>CI_indep_noarch.04.09.00.00.tar.gz</td><td>This installation package includes the CI Solution and all the necessary <u>run-time</u> components that can be installed on a Windows, Linux or AIX platform.</td></tr> </tbody> </table>	Package	Description	CI_indep_noarch.04.09.00.00.tar.gz	This installation package includes the CI Solution and all the necessary <u>run-time</u> components that can be installed on a Windows, Linux or AIX platform.				
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Applicable PIDs	Associated Documentation
<p>G308-501x-0000 G308-900x-0000 G308-507x-0000 G884-501x-0000 G884-900x-2000 G884-507x-0000</p>	<p>Documentation: Master Data Management, Release 4.9.0</p> <p>The following user documents have been updated for MDM 4.9.0:</p> <ul style="list-style-type: none"> • B035-0000-9700: Master Data Management 4.9.0 Release Definition • B035-0000-9701: Master Data Management 4.9.0 Installation Guide • B035-0000-9702: Master Data Management 4.9.0 Studio User Guide • B035-0000-9703: Master Data Management 4.9.0 Developer Guide • B035-0000-9707: Master Data Management 4.9.0 Server Guide • B035-0000-9709: Master Data Management 4.9.0 Reference Guide • Reference Data Management 4.9.0 Server User Guide • Connected Identity 4.9.0 User Guide <p>The Installation Guide covers Installation and Upgrade procedure information.</p> <p>The Studio User Guide covers user information for the MDM Studio Plug-in for Eclipse.</p> <p>The Developer Guide covers Developer and Sample Application User Guide information.</p> <p>The Server Guide covers Server Administration and Server User information.</p> <p>The Reference Guide covers Services and UI interface information.</p> <p>The RDM User Guide covers features and use cases related to reference data management.</p> <p>The CI User Guide covers features and instructions for use of CI solution.</p> <p>The user documents are available for customers from Teradata@YourService via the Teradata Information Products website at www.info.teradata.com. Refer to the Installation section of this document for instructions on how to install the online documents.</p> <p><i>Please check for any up to date additions to the Teradata MDM Documentation, including the Release Definition, on the Teradata Information Products website.</i></p>

Release Content

Bugs fixed in this Release

Issue key	Summary
MDM-4487	MDM Version 4.8 - Issue with showClob function on pgl framework
MDM-4476	Tables cache flag behavior in MDM product framework [UHG]
MDM-4460	MDM Version 4.8.0.1 - Issue with Tasks - screens.
MDM-4445	MDM Version 4.8 - Issue with export to excel on view business rules UI
MDM-4442	MDM Version 4.8.0.1 - Issue with Tab space on Popup PGL UI
MDM-4433	MDM 4.8.0.1 - Issue with ISG Primary Key column on external tables
MDM-4368	OOB Compile procedures issue MDM 4.6
MDM-4325	MDM version 4.8 Issue with PGL UI table export to excel
MDM-4305	MDM 4.9 /Localization : The link "EXTEND" in Model Builder UI is not getting i18nized for Japanese locale ,when the user is trying to add a new column using + sign in Model Builder UI.
MDM-4287	MDM 4.8 - Issue with new Audit trail view functionality from config UI
MDM-4282	Add Code Value ParentID Bug in JS [UHG]
MDM-4197	MDM 4.6.0.5 Issue with scroll bar on pgl screen. Happening in prod and reproducible in dev, uat
MDM-4172	MolsonCoors Dev MDM Cloud Migration: Query on SSO Implementation [JARS Upgrade]
MDM-4152	MDM Upgrade 4.0 to 4.1 : Issue while Executing ISG
MDM-4089	Excel Upload Failing
MDM-4082	Configuration of MDM 4.5 on TD 17.20 DB -DGT
MDM-4030	MDM version 4.6.0.5. Issue is target.jsp redirecting to http mdm login url instead of https mdm url when user is not in session
MDM-3990	Issue in Schedule Excel Upload
MDM-3987	MDM Version 4.6.0.5 Issue with configuring angular screen as default landing page for logged in user
MDM-3986	MDM Version 4.6.0.5. Issue with left navigation when using target.jsp links
MDM-3983	View Record Screen and Export in Approval Inbox and E-mail shows incorrect current values for UPDATES for Tables with More than 1 PK Column
MDM-3979	RDM Error handling
MDM-3942	Stored Procedure version compile issue
MDM-3866	Reduction of SQLs during login-Permanent fix

Known Issues in this Release

Issue key	Summary
MDM-4624	Date time column shows an error on the E2E error correction page and Boolean column becomes empty
MDM-4628	Records added through E2E fail to move to master table post approval
MDM-4648	Tomcat console is showing warning related to slf4j-api and log4j-slf4j-impl-2.17.2.jar compatibility

Enhancements in this Release

Summary
Support Unicode in MDM tables through Installer
Vault Integration with MDM for Security
Localization issue fixes
Manage scheduler UI Improvements
MDM 4.6 certification on Redhat 8.6 in AWS
Eclipse support for SLES 15 SP4 on AWS cloud
MDM 4.9 certification with TD 20.x DB and TTU
Deprecation of Axis2 Based Webservice

Snyk Security Fixes: Critical & Medium
Artifactory migration from Gitlab to Github
Authentication Bypass Vulnerability Fix

Chapter 3

System Requirements

About This Chapter

This chapter discusses the detailed system and installation requirements for the Master Data Management 4.9.0 software.

Development Configurations

Hardware requirements for a typical development workstation are:

- Processor: 1 CPU
- Memory: 8GB
- Disk Space: 500GB

Deployment Configurations

Hardware requirements for a typical deployment server are:

- Processor: 2 CPUs
- Memory: 16GB
- Disk Space: 500GB

System Requirements

MDM can be installed on any of the following supported operating systems:

- Windows 10, Windows Server 2019, 2022
- SUSE Linux (SLES 12.3/15.2)
- Red Hat Linux (RHEL) 8.x

The below table lists other system requirements for MDM Studio and MDM Server on any of the above operating systems.

Components	Software Version	Required For
Development Environment	Eclipse IDE for Java EE (IDE v2018-09) and Teradata Plug-in for Eclipse 15.10 works with JDK 8 only.	MDM Studio
Application Server	Apache Tomcat 9.0.31 or above and below 10.x Or IBM Liberty WebSphere Application 22.0.0.8	MDM Server
JDK	Oracle JDK 11.x, 15.x, 18.x & Zulu JDK 11.x and 15.x only	Application Server and MDM Server
Database Server	TD 17.0, TD 17.10, TD 17.20, TD 20.x, Vantage 2.0	Database Host
Database Client	Teradata JDBC 20.x TTU 17.0, 17.10, TTU 17.20, 20.x BTEQ	MDM Server
Browser	Microsoft Edge 120.x or Firefox 120.x or Chrome 120.x	User Machine

Web Servers	Nginx version 1.20.1, 1.23.x Apache httpd server version 2.4.48 Hashicorp Vault 1.11.3 and above and below 1.15.1	Web Servers
Git Client	Git Bash 2.16.2(Only for Windows) Linux Bash: Greater than 4.x+	MDM Server

Installation

Installation Overview

Full instructions for installation, upgrade, reverting to an older MDM version, and migrating a custom application to the MDM 4.9.0 packages are described in the following Guide:

B035-0000-9701 Master Data Management 4.9.0 Installation Guide

The "Master Data Management 4.09.00 Install.log" will contain a full listing of all changes made. *(The actual file name will vary depending on the specific package installer that is used.)*

Installing Online Documents

The MDM User Guides (pdf) are not included with the MDM installer. Follow the steps below to install the guides so that they are available from MDM web UI or MDM Studio:

1. Copy the documents from Teradata@YourService via the Teradata Information Products website at www.info.teradata.com
2. Copy the pdfs as given below (overwrite the existing 'dummy' pdfs):
 - a. Master Data Management 4.09.00 Server Guide.pdf to <Install_Directory>\web\mdmclient\bcm\help\OnlineDocs
 - b. Master Data Management 4.09.00 Developer Guide.pdf to <Install_Directory>\studio\resources\help
 - c. Master Data Management 4.09.00 Studio User Guide.pdf to <Install_Directory>\studio\resources\help
 - d. Master Data Management 4.09.00 Reference Guide.pdf to <Install_Directory>\studio\resources\help

Note: If WebSphere is used as the web application server, before copying the Server guide, extract the war, complete the steps as explained above and recreate the war.