INTERNAL – Authorized for SAP Customers and Partners
SAP NetWeaver Master Data Management 7.1
Document Version: 6.8 – August 2020

MDM Master Guide

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Document History

Before starting the installation, make sure you have the latest version of the *MDM Master Guide* by checking on the SAP Help Portal at help.sap.com/nwmdm71.

Version / Date	Important Changes
6.8 August 2020	• Guide updated for MDM 7.1 SP21 • Updated the following sections: • SAP Notes for Previous MDM 7.1 Releases [page 11] • Software Component Matrix [page 12] • Components Independent of SAP NetWeaver [page 12] • Components Dependent on SAP NetWeaver [page 14] • Business Content and Remote Systems [page 15] • Description of MDM Components [page 16] • Hardware and Software Requirements [page 19] • Software Requirements [page 20] • Supported Operating Systems for MDM Applications [page 21] • Integration System Landscape [page 22] • Securing Communication Channels Using Secure Sockets Layer (SSL) [page 23] • Scenario Approach of MDM [page 25] • Installation [page 25] • Minimal System Landscape for MDM 7.1 SP05 and Earlier [page 28]
6.7 May 2019	• Guide updated for MDM 7.1 SP20 • Updated section Supported Operating Systems for MDM Applications [page 21] • Updated section Hardware and Software Requirements [page 19]
6.6 December 2018	• Guide updated for MDM 7.1 SP19 • Updated section Components Independent of SAP NetWeaver [page 12] • Updated section Hardware and Software Requirements [page 19] • Updated section Supported Operating Systems for MDM Applications [page 21]
6.5 June 2017	• Guide updated for MDM 7.1 SP18 • Updated support for Microsoft Visio 2016 (Microsoft Office 2003, 2007, 2010, 2013; 2016 32-bit versions)
6.4 December 2016	• Guide updated for MDM 7.1 SP17 • Added Java API for NW 7.5 support as of MDM 7.1 SP16 • Updated support for IBM DB2 for z/OS (versions 10, 11, and 12), and MaxDB 7.7, 7.8, 7.9 • Updated support for SUSE Linux Enterprise Server 12 on x86_64
6.31 July 2016	• Updated supported SAP NetWeaver releases in section 2.1 • Updated support for SAP NetWeaver PI Adaptor in table 11

Version / Date	Important Changes

6.3
June 2016
	• Guide updated for MDM 7.1 SP16
	• Added new software support:
	  ○ SAP NetWeaver 7.5 and SAP NetWeaver 7.5a
	  ○ IBM i Version 7.2; DB2 for IBM i 7.2
	  ○ Microsoft Office Access 2013; Microsoft Office 2016 (Access and Excel); Microsoft Office 365 (Access, Excel, and Visio)
	  ○ Adobe InDesign CC 2015 for Windows

6.2 December 2015	• Guide updated for MDM 7.1 SP15 • Added support for Oracle 12 • Added support for Microsoft Office Visio 2013
6.1 May 2015	• Guide updated for MDM 7.1 SP14 • Added support for Microsoft Office Excel 2013 • Correction: MDM supports 32-bit versions of Microsoft Office Visio
6.0 December 2014	• Guide updated for MDM 7.1 SP13 • Added support for Windows Server 2012 R2 • Standardized format of guide
5.21 August 2014	Guide updated for MDM 7.1 support of SAP NetWeaver 7.4
5.2 March 2014	• Guide updated for MDM 7.1 SP12 • Additional database support
5.1 December 2013	• Guide updated for MDM 7.1 SP11 • Additional database support • Adobe InDesign version CS6 is supported as of MDM 7.1 SP11 • Additional operating systems supported for MDM applications • Support for NetWeaver 7.4 for NW ABAP 7.4 • Updated ABAP API support
5.01 April 2013	Adobe InDesign version CS5.5 is supported as of MDM 7.1 SP09.
5.00 March 2013	• Guide updated for MDM 7.1 SP10 • Support added for NW 7.31 • New ABAP API for NW 7.31 • The software component matrices in section 2.1 have been revised to simplify and clarify information about MDM components and their dependencies • Expanded details of operating system and database requirements
4.01 November 2012	Correction: The requirements for using MDM PI Adapter for SAP NetWeaver 7.1 were updated with the correct information.
4.0 August 2012	• Guide updated for MDM 7.1 SP09 • MDM applications on UNIX and Linux should not be configured to use secure connections to SAPStartSrv • DOTNET API and Java API components are independent of SAP NetWeaver.

Version / Date	Important Changes

3.90
October 2011
	• Guide updated for MDM 7.1 SP08:
	• Support added for MS Office 2010, MS Visio 2010, and Adobe Acrobat 9.
	• Added SAP NetWeaver 7.3 support for the following MDM components (supported as of MDM 7.1 SP07):
	  ○ MDM ADAPTER 7.1 7.1
	  ○ XI CONTENT MDM ADAPT. 7.1 7.10

3.82 July 2011	Correction: MDM PI Adapter currently (July 2011) not supported on SAP NetWeaver 7.3. Guide updated to reflect this.
3.81 June 2011	Added support for Microsoft Office Visio 2007 for all SPs of MDM 7.1.

3.80
May 2011
	• Guide updated for MDM 7.1 SP07
	• Support for secure communication using SSL protocol.
	• Added new software components: MDM_CONNECTOR 7.1 7.0 and MDM_CONNECTOR 7.1 7.11.
	• Renamed existing "Java API" instance to "Java API for NW 7.0"; now also includes the new MDM CONNECTOR 7.1 7.0 software component.
	• Added new "Java API for NW 7.11" instance created for SAP NetWeaver CE 7.11 and higher (including SAP NetWeaver 7.3). Contains the following software components:
	  ○ MDM JAVA API 7.1
	  ○ MDM JAVA API DOC 7.1
	  ○ MDM CONNECTOR 7.1 7.11
	• Added MDM EP 7.1 7.11 software component to "Java Web Dynpro for NW 7.11" instance.
	• Renamed existing "Portal Content" instance to "Portal Content for NW 7.0".
	• Added new "Portal Content for NW 7.3" instance for SAP NetWeaver 7.3. Contains the following software components:
	  ○ BP MDM APPLICATION 7.1 7.3
	  ○ BP MDM TECHNOLOGY 7.1 7.3
	  ○ MDM EP 7.1 7.11
	• In addition to the software components that are already mentioned in the list above, added SAP NetWeaver 7.3 support for:
	  ○ MDM TECHNOLOGY 7.10 710 (ABAP API for NW 7.1)
	  ○ MDM ENRICH. CONTROLLER 7.1 7.11
	  ○ MDM WEB SERVICES 7.1 7.11
	  ○ MDM WEB SERVICES_RT 7.1 7.11
	  ○ MDM JAVA WD FRAMEWORK 7.1 7.11
	  ○ MDM-CP-MAT 7.1 7.20
	  ○ MDM-CP-MAT-EP 7.1 7.20
	  ○ MDM-CP-MAT-PROCESSES 7.1 7.20
	• Support for Adobe InDesign plug-in versions updated.

Version / Date	Important Changes

3.70
January 2011
	• Guide updated for MDM 7.1 SP06
	• References to new SAP NetWeaver 7.1 Checklist Guide added.
	• Throughout the entire guide, corrected terminology relating to MDM server naming. For example, Master Data Server to MDM Servers, MDM Server to Master Data Server, and MDM Import Server to Master Data Import Server.
	• Note added to Minimal System Landscape section stating that the section can be ignored as of MDM 7.1 SP06
	• Clarification added (in several places within guide) that the use of MDM UOM Manager requires the installation of COM API
	• Support for following releases added:
	  ○ SAP enhancement package 2 for SAP NetWeaver 7.0 (7.02)
	  ○ SAP NetWeaver 7.3 (only for the MDM JAVA API 7.1 and MDM CHANGE TRACKER 7.1 7.1 software components)
	• New software component added: MDM ENRICH. CONTROLLER 7.1 7.11 (Enrichment Controller NW 7.11). As of MDM 7.1 SP06, this component is supported on SAP NetWeaver CE 7.11 (SAP enhancement package 1 for SAP NetWeaver CE 7.1) and SAP NetWeaver CE 7.2)
	• The names of the following components were corrected in the documentation:
	  ○ MDM WEB SERVICES_RUNTIME 7.1 (was MDM Web Services _RT 7.1 7.0)
	  ○ MDM CHANGE TRACKER 7.1 (was MDM Change Tracker 7.1 7.0)
	  ○ MDM CHANGE TRACKER 7.1 7.1 (was MDM Change Tracker 7.1 7.11)

3.40 July 2010	New software component added: MDM Collaborative Processes for Material.
3.30 June 2010	• Guide updated MDM 7.1 SP05 • Updated supported CS versions of Adobe Photoshop
3.20 February 2010	• Guide updated for MDM 7.1 SP04 • New SW component, MDM Web Dynpro Components • Changed names for Java Applications • Updated validity for Java Applications • Link to Business Content page on SDN added • Office 2007 supported
3.10 August 2009	• Guide updated for MDM 7.1 SP03 • TREX: Supported version changed • MDM Web Services: Supported SAP NetWeaver release changed • MDM Change Tracker: Supported SAP NetWeaver release changed • MDM Portal Content: Footnote with SAP note added • MDM Business Content: Requirement added • MDM Business Content: New SAP notes for Material and Vendor
3.00 May 2009	• Guide updated for MDM 7.1 SP02 • Section on System Landscape added • CCMS integrated into SAPinst installation tool • Updated footnote for MDM Web Services added • Support for SAP enhancement package 1 for SAP NetWeaver 7.0 (7.01) added

Version / Date	Important Changes
2.20 March 2009	Support for Adobe Photoshop (version CS2)
2.10 March 2009	• Updated footnote for MDIS in section on Components Independent of SAP NetWeaver • Added statement about COM API in section on Components Independent of SAP Net-Weaver • Minor updates
2.00 January 2009	Guide updated for MDM 7.1 SP01
1.00 November 2008	First version for MDM 7.1

1 Getting Started

This Master Guide for SAP NetWeaver Master Data Management (MDM) 7.1 provides a starting point for the technical implementation and upgrade of SAP NetWeaver MDM 7.1. It describes all activities for the installation and configuration of SAP NetWeaver MDM 7.1.

SAP NetWeaver MDM 7.1 consists of the following scenarios:

- Master data management
- Rich product-content management

To facilitate the implementation and upgrade process, all information in this document is organized by scenario. You can choose from several generic scenario variants and find all the information that is relevant for the technical implementation of a specific scenario in that section.

The *MDM Master Guide* provides information about which components and which guides are required during this process:

- This section, Getting Started, contains valuable information about using this document and related information (documentation and SAP Notes) that is crucial to the installation and upgrade.
- Overview of MDM [page 12] contains the following information:
  - The software component matrix that provides information about which scenario uses which component and if the corresponding component is mandatory or optional.
  - A short description of MDM componenets.
  - A minimal system landscape.
- Scenario Approach of MDM [page 25] contains the following information for every scenario:
  - An overview of the scenarios.
  - An example of how the different components interact. Depending on the actual processes that have to be implemented and other aspects (such as security and performance), the real infrastructure might be different.
  - Information about the overall installation sequence and subsequent steps.
  - References to related installation and configuration guides.

  Depending on the specific scenario and the number of processes to be implemented, different installation and configuration guides are required during the scenario implementation process.

> **i Note**
>
> You can find the most recent information about the technical implementation of SAP NetWeaver MDM 7.1 and the latest installation and configuration guides on the SAP Help Portal at help.sap.com/nwmdm71. We strongly recommend that you use the documents available. The guides are updated regularly.

1.1 Links to Related Information

The following list contains links to information crucial for implementing SAP NetWeaver MDM 7.1.

Content	Available at
Checklists for project preparation and business blueprints. We recommend that you use the checklists in the early stages of project planning to avoid having to make major changes in the later part of the implementation phases.	help.sap.com/nwmdm71: *MDM Checklists Guide*
Installation and upgrade documentation	help.sap.com/nwmdm71: *MDM Installation Guide* *MDM Upgrade Guide*
Configuration documentation	help.sap.com/nwmdm71: MDM Reference Guides
Information about released platforms	service.sap.com/pam Search for **`SAP NetWeaver MDM 7.1`**
Information about network security	help.sap.com/nwmdm71: *MDM Security Guide*
Information about hardware sizing, calculation of hardware requirements	help.sap.com/nwmdm71: *MDM Sizing Guide*
Information and documentation about high availability issues for a multitude of areas, such as SAP systems, databases, tools, high availability, and network	help.sap.com/nwmdm71: *MDM Solution Operation Guide*

1.2 SAP NetWeaver MDM 7.1 Checklists

As of SAP NetWeaver MDM 7.1 SP06, you can use the *SAP NetWeaver MDM 7.1 Checklists Guide*.

This guide consists of two checklists:

- Project Preparation Checklist
- Business Blueprint Checklist

The checklists highlight the most critical tasks required by an MDM implementation owner prior to the installation process and throughout the implementation phases. We recommend that you use the checklists already in the early stages of project planning to avoid having to make major changes in the later part of the implementation phases. The checklists are not intended to replace MDM documentation and do not give a full explanation of each task. This information is already published in various forms of documentation; reference guides, SAP Notes, How-to Guides, and so on. Links to the various sources of documentation have been provided for each task to make referencing of the relative documents easier.

1.3 Required Documentation for Installing MDM

The following sections list the documentation needed for the installation:

- Information on the SAP Help Portal

- SAP Installation Notes

Information on SAP Help Portal

The SAP NetWeaver MDM 7.1 Documentation Center on the SAP Help Portal at help.sap.com/nwmdm71 provides useful information and access to the complete MDM documentation set, including all the MDM installation and planning guides.

SAP Installation Notes

It is essential that you read the following SAP Notes before starting the installation. These SAP Notes contain the most recent information about the installation as well as corrections to the installation documentation.

SAP Note Number	Title	Description
2867976	SAP NetWeaver MDM 7.1 SP21 Release	This note contains information about the current MDM 7.1 support package.
2740024	SAP NetWeaver MDM 7.1 SP20 Release	This note contains information about the current MDM 7.1 support package.
2751450	SAP Systems on Windows Server 2019	This note contains information about deploying and using SAP systems on Windows Server 2019.
2462918	SAP NetWeaver MDM 7.1 SP19 Release	This note contains information about the current MDM 7.1 support package.
2382656	SAP NetWeaver MDM 7.1 SP18 Release	This note contains information about the current MDM 7.1 support package.
2367941	MDM Servers Installation Moved to SWPM	SAP NetWeaver MDM 7.1 SP17 and above installation/update processes are now part of the Software Logistics Toolset 1.0 (Software Provisioning Manager 1.0 SP18 and higher when available).
1680045	MDM Servers Installation with SWPM SP19	The SAP NetWeaver MDM 7.1 SP18 installation/update processes are now part of the Software Logistics Toolset 1.0 (Software Provisioning Manager 1.0 SP19 and higher when available).
1249503	MDM Installation Note	Most recent information and best practices about the MDM installation procedure. *The MDM Installation Note* complements this *MDM Installation Guide*.
2224122	SAP NetWeaver MDM 7.1 SP16 Release	This note contains information about the current MDM 7.1 support package.

SAP Note Number	Title	Description
1244358	MDM 7.1 Release Restriction Note	This note contains the restrictions of the current MDM 7.1 support package.

1.3.1 SAP Notes for Previous MDM 7.1 Releases

SAP Note Number	Title
1070163	SAP NetWeaver MDM 7.1 Release (for the first MDM 7.1 release)
1295253	SAP NetWeaver MDM 7.1 SP01 Release
1329424	SAP NetWeaver MDM 7.1 SP02 Release
1342611	SAP NetWeaver MDM 7.1 SP03 Release
1385073	SAP NetWeaver MDM 7.1 SP04 Release
1422355	SAP NetWeaver MDM 7.1 SP05 Release
1471203	SAP NetWeaver MDM 7.1 SP06 Release
1487853	SAP NetWeaver MDM 7.1 SP07 Release
1573045	SAP NetWeaver MDM 7.1 SP08 Release
1628176	SAP NetWeaver MDM 7.1 SP09 Release
1754181	SAP NetWeaver MDM 7.1 SP10 Release
1813437	SAP NetWeaver MDM 7.1 SP11 Release
1938462	SAP NetWeaver MDM 7.1 SP12 Release
1987088	SAP NetWeaver MDM 7.1 SP13 Release
2093266	SAP NetWeaver MDM 7.1 SP14 Release
2157672	SAP NetWeaver MDM 7.1 SP15 Release
2224122	SAP NetWeaver MDM 7.1 SP16 Release
2317713	SAP NetWeaver MDM 7.1 SP17 Release
2382656	SAP NetWeaver MDM 7.1 SP18 Release
2462918	SAP NetWeaver MDM 7.1 SP19 Release
2740024	SAP NetWeaver MDM 7.1 SP20 Release
2867976	SAP NetWeaver MDM 7.1 SP21 Release

2 Overview of MDM

This section contains the following information:

- The software component matrix, which provides information about which scenario uses which component and whether the corresponding component is mandatory or optional
- A short description of each MDM component
- System requirements
- A description of the integration system landscape

2.1 Software Component Matrix

This section lists the various components used with SAP NetWeaver MDM 7.1.

MDM 7.1 supports SAP NetWeaver 7.5 where specified in this document.

Some components may have certain restrictions for specific support packages or releases, as stated per component in the following sections. Unless stated otherwise, all SAP enhancement packages of their respective SAP NetWeaver releases are supported; for example SAP enhancement package 1 and 2 of SAP NetWeaver 7.0.

For a description of the MDM components, see Description of MDM Components [page 16].

> **i Note**
>
> - If you have an MDM or GDS license, you will receive the standard MDM delivery package. Your license determines the specific use of the software.
> - The SRM-MDM Catalog is included in the SRM product and requires no separate licensing. This delivery package is different from the MDM standard delivery package.
>
> For more information about SRM-MDM catalog or GDS components, refer to the respective Master Guides for these products.

2.1.1 Components Independent of SAP NetWeaver

The MDM components listed in the following tables can be installed and used without installing or running SAP NetWeaver.

- **X** denotes a mandatory component
- **(X)** denotes an optional component

> **i Note**
>
> Rich product-content management with SAP NetWeaver MDM specifically targets centralized product-content management and multi-channel publishing. For more information about the MDM scenarios, see Scenario Approach of MDM [page 25].

MDM Servers

Installable Software Unit	Master Data Management	Rich Product-Content Management	Notes
MDM SERVER 7.1 (Master Data Server)	X	X	
MDM IMPORT SERVER 7.1 (Import Server)	(X)	(X)	To import data from Microsoft Access or Excel source files, use the MDM Import Manager, or convert the files to XML or text formats (see *File Formats Compatible With MDIS* in the *MDM Console Reference Guide*)
MDM SHARED INSTALL CONTENT 7.1	X	X	Cannot be installed individually. These components contain the installation files used by the SAPinst installation tool to install the MDM servers.

MDM Clients

Installable Software Unit	Master Data Management	Rich Product-Content Management	Notes
MDM CONSOLE 7.1 (Administration Clients)	X	X	
MDM CLIX 7.1 (Administration Clients)	(X)	(X)	
MDM LANGUAGE SELECTOR 7.1 (Configuration Clients)	(X)	(X)	

Installable Software Unit	Master Data Management	Rich Product-Content Management	Notes
MDM DATA MANAGER 7.1 (Data Management Clients)	X	X	
MDM IMAGE MANAGER 7.1 (Data Management Clients)	(X)	(X)	
MDM IMPORT MANAGER 7.1 (Import Clients)	X	X	
MDM SYNDICATOR 7.1 (Syndication Clients)	X	X	

API

Installable Software Unit	MDM 7.1	Notes
MDM JAVA API 7.1 MDM JAVA API DOC 7.1	(X)	Java API for NW 7.0 supported as of MDM 7.1 SP06. Java API for NW 7.11, NW 7.2, and NW 7.3 supported as of MDM 7.1 SP07. Java API for NW 7.4 supported as of MDM 7.1 SP12. Java API for NW 7.5 supported as of MDM 7.1 SP16.

2.1.2 Components Dependent on SAP NetWeaver

The MDM components listed in the following tables require that the specified SAP NetWeaver version is installed and running..

- **X** denotes a mandatory component
- **(X)** denotes an optional component

If an MDM component contains **one** release number only, it is the MDM release (for example MDM COM API 7.1).

If an MDM component contains **two** release numbers, the first number is the MDM release and the second is the SAP NetWeaver release (for example, MDM Web Services 7.1 7.0, meaning MDM 7.1 for NW 7.0).

MDM 7.1 with SAP NetWeaver 7.5

Installable Software Unit	Master Data Management	Rich Product-Content Management
SAP NetWeaver 7.5	X	(X)

Java API

Installable Software Unit	NW 7.5
SAP NetWeaver 7.5	(X)
MDM CONNECTOR 7.1 7.5	(X)

MDM Technology

Installable Software Unit	NW PI 7.1	NW 7.3 NW 7.4 NW 7.5
MDM TECHNOLOGY 7.10 731 (ABAP API for NW 7.31 – includes MDM ABAP API)		(X)
MDM TECHNOLOGY 7.10 710 (ABAP API for NW 7.1 – includes MDM ABAP API)	(X)	(X)

2.1.3 Business Content and Remote Systems

File Server

Installable Software Unit	MDM 7.1	Notes
File Server	(X)	

Remote Systems

The MDM 7.1 business content supports these remote systems.

Installable Software Unit	MDM 7.1	Notes
R/3 and ERP Remote Systems: • SAP ERP 2005 (ECC 6.0)	(X)	Must contain plug-in PI_BASIS 2005.1 (620, 640 or 700) SP10 (or higher) or PI_BASIS 2006.1 (620, 640, 700). R/3 and ERP systems must also contain PI 2004.1 (620, 640) SP14 (or higher). SP08 is required for ERP 2005.
CRM Remote Systems: • SAP CRM 7.0	(X)	Must contain plug-in PI_BASIS 2005.1 (620, 640 or 700) SP10 (or higher) or PI_BASIS 2006.1 (620, 640, 700). R/3 and ERP systems must also contain PI 2004.1 (620, 640) SP14 (or higher). SP08 is required for ERP 2005.
SRM Remote Systems: • SAP SRM 7.02	(X)	Must contain plug-in PI_BASIS 2005.1 (620, 640 or 700) SP10 (or higher) or PI_BASIS 2006.1 (620, 640, 700). R/3 and ERP systems must also contain PI 2004.1 (620, 640) SP14 (or higher). SP08 is required for ERP 2005.

2.2 Description of MDM Components

MDM Servers

Master Data Server (MDS)	Manages access through the DBMS to one or more MDM repositories containing master data. The Master Data Server passes this information to various client components across a network.
Master Data Import Server (MDIS)	Allows you to export data automatically in conjunction with predefined inbound ports and import maps.

MDM Administration Components

MDM Console	Allows you to administer and monitor MDM servers. It also allows you to create and maintain the structure of MDM repositories as well as to control access to them.

MDM CLIX	Allows you to manage the MDM software and MDM repositories using a command line interface instead of the MDM Console.

MDM Client Components

MDM Data Manager (Client)	The primary client of the Master Data Server. It allows users to store, manage and update master data consisting of text, images, and other rich content, and to create taxonomies, families, and relationships. In the MDM Data Manager you can create workflows to orchestrate a series of operations that include user tasks, validations, and approvals, automating business processes at the data management level.
MDM Import Manager	Allows you to import master data from most types of flat or relational electronic source files (such as Excel, delimited text, SQL, XML, and any ODBC-compliant source), and to restructure, cleanse, and normalize master data as part of the import process.
MDM Syndicator	Allows you to map and export master data to various remote systems (such as ERP master data clients, Web catalogs) and files with flat or relational formats.
MDM Image Manager	Allows you to create image variants for different publication channels and connect them to master data objects or object families.
MDM CCMS components	• Central Monitoring System (CEN): A central ABAP stack that is used to collect the MDM CCMS monitoring data and provides alerting functionality. • SAP CCMS Agent: Registers to the CEN and transports CCMS monitoring data from the MDM host to the CEN. The MDM servers are connected with a plug-in. • MDM CCMS Agent Plug-In: Allows communication between the CCMS agent monitoring provider and the Master Data Server for heartbeat and performance monitoring.
Enhanced Change and Transport System (CTS+)	The integration of MDM change transport to CTS+ allows you to transport all development changes made in the development system to the quality system and then to the production system in a system controlled way.

MDM SMD Root Cause Analysis Components	• Central Solution Manager Diagnostics System (SMD): Based on a two-stack Web AS installation (Solution Manager 7.0), the SMD collects root cause analysis data from SMD Agents on MDM hosts. • SMD Agent: To be installed on each MDM host to be monitored. Responsible for management and data transport of SMD data and applications. One of these applications is the SAP Hostagent. • SAP Hostagent: Installed using SMD. Receives Wily Introscope performance metrics and transfers these to the Wily Introscope Manager connected to the SMD. • Wily Introscope Enterprise Manager: Collects the performance metrics provided by MDM servers on MDM hosts. This data can be displayed with the Wily Introscope Workstation or in the E2E Workload Analysis in SMD.
MDM Administration Cockpit	An application that is provided with the Work Center System Administration in the Solution Manager 7.0. With this application you can perform administrative tasks like starting and stopping the Master Data Server. It provides a subset of the administrative tasks that can be performed in the MDM Console.
MDM UOM Manager	Supports the conversion of different units of measurement. From MDM 7.1 SP09, you can manage units of measurement in the MDM Console (recommended).

MDM Development Components

MDM Java API	Provides Java interfaces to assist Web and software developers in building custom applications that call MDM functions.
MDM Connector	Provides connectivity capabilities between the MDS and Java EE applications. You can use the connector within SAP NetWeaver Portal to configure connections to MDM repositories in the portal system landscape or in Java EE applications to establish physical connections to MDS.
MDM Portal Content	Provides MDM content for SAP NetWeaver Portal that allows you to edit records and to search a repository in multiple dimensions. You can enable an open catalog interface (OCI) for the search results.
MDM ABAP API	Provides access to repositories and data on a Master Data Server from an AS ABAP.

MDM Java Applications

MDM Change Tracker	Provides viewing possibility for the change information requested in the MDM Console.

Remote Systems

To use the extractors, you have to implement the corresponding plug-in on your remote system. If you do not have the plug-in, see the relevant SAP notes to implement the extractors.

File Server

Transfers data from the remote system to the port directory.

2.3 Hardware and Software Requirements

The host machines must meet the following requirements:

Requirement Type	Requirements
Hardware Requirements	See the *MDM Installation Guide* for your platform and the *MDM Sizing Guide* at help.sap.com/nwmdm71
Software Requirements	See Software Requirements [page 20].
Operating Systems	See Supported Operating Systems for MDM Applications [page 21]. For information about platforms for supported databases, see the Product Availability Matrix (PAM). Go to service.sap.com/pam and search for **`SAP NetWeaver MDM 7.1`**.
DBMS/ Database Requirements	For more information about *Operating Systems and DBMS Availability for SAP NetWeaver MDM 7.1 SP21*, see SAP Note 2882432. For information about platforms for supported databases, see the Product Availability Matrix (PAM). Go to service.sap.com/pam and search for **`SAP NetWeaver MDM 7.1`**.

Requirement Type	Requirements
CCMS Monitoring	To perform CCMS monitoring on MDM components, it is necessary to: • install a local CCMS agent and a SAPOSCOL executable on the host machine • configure a central monitoring system based on Web AS that is the central access point for monitoring your complete system landscape **i Note** In most customer installations the Solution Manager contains the CEN for CCMS monitoring and the SMD for root cause analysis by default.
Solution Manager Integration - *Monitoring*	To perform Root Cause Analysis with the Solution Manager Diagnostics (SMD) monitoring, it is necessary to: • install a local SMD agent on the host machine • install and configure a (two-stack) Solution Manager 7.0 system including a Solution Manager Diagnostics application • install a Wily Introscope Enterprise Manager that stores metrics data delivered from MDM servers
Solution Manager Integration - *Administration*	To perform administrative tasks you can use the MDM Administration Cockpit which integrated into the Solution Manager Workcenters. To use the MDM Administration Cockpit, it is necessary to • install a local SMD agent on the host machine • install and configure a (two-stack) Solution Manager 7.0 EHP1 system including a Solution Manager Diagnostics application
Enhanced Change and Transport System (CTS +)	A CTS system (AS ABAP and AS Java), running under at least SAP enhancement package 1 for SAP NetWeaver 7.0, which supports the transport of MDM objects.

2.3.1 Software Requirements

The following table describes software requirements for:

- Client software for the DBMS you want to use
- External software required for specific tasks

Software	Tasks	Installation with these MDM Components
Microsoft XML Parser 4.0 with SP 2 or higher (available for free download from Microsoft)	Comparison view, Import Server viewing of log and report files	Import Server (Windows only), Data Manager, Syndicator, Import Manager, Console
Microsoft MDAC - Version 2.7 or higher (available for free download from Microsoft)	Export and import files to and from the catalog	Import Server (Windows only), Data Manager

Software	Tasks	Installation with these MDM Components
Microsoft Access, Microsoft Office 2013, Microsoft Office 2016, Microsoft Office 365) and/or Microsoft Excel, Microsoft Office 2013, Microsoft Office 2016, Microsoft Office 365) For more information about *SAP NetWeaver Master Data Management 7.1 and Microsoft Office 365*, see SAP Note 2887407 .	Import and/or export Excel or Access files to and from the catalog	Import Manager, Syndicator, Data Manager
Oracle Provider for OLEDB	Import data directly from an Oracle database	Import Manager
Microsoft Visio 2013, 2016; 32-bit versions) Microsoft Visio (Microsoft Office 365) For more information about *MDM Workflow Add-On and Visio SAP Notes Summary*, see SAP Note 2687554 .	Model MDM workflows For Microsoft Visio 2013, you need to install the Microsoft security update for Visio 2013: https://support.microsoft.com/en-gb/kb/3101365 .	Data Manager

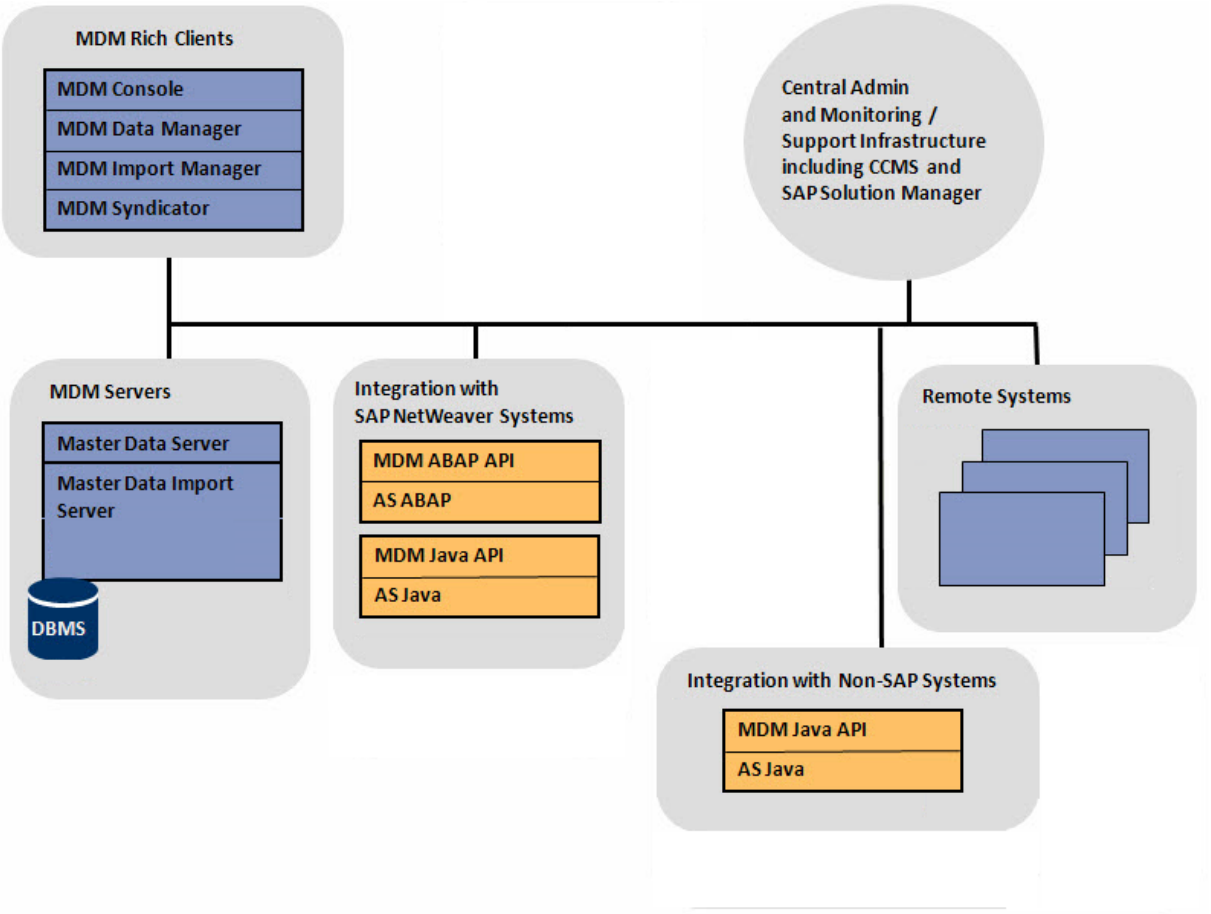
2.3.2 Supported Operating Systems for MDM Applications

All the supported operating systems are 64-bit operating systems. For more information about *Operating Systems and DBMS Availability for SAP NetWeaver MDM 7.1 SP21*, see SAP Note 2882432.

* See SAP Note 1811881 and the *MDM Installation Guide for UNIX* when installing MDM on Linux Red Hat 6.2 or later 6.x version.

2.4 Integration System Landscape

The following figure shows an integration system landscape:



> **i** Note
>
> It is not practical to give general guidelines for the development of your system landscape since this greatly depends on your requirements.

There are several sources for the sizing of each system.

- For information about sizing and recommendations for the setup of MDM system/components, see the *MDM Sizing Guide* on the SAP Help Portal at help.sap.com/nwmdm71.
- For information about Operating Systems and DBMS requirements, see Hardware and Software Requirements [page 19], and the Product Availability Matrix (PAM) for MDM on SAP Service Marketplace at service.sap.com/pam.

2.5 Securing Communication Channels Using Secure Sockets Layer (SSL)

As of SAP NetWeaver MDM 7.1 SP07, you can optionally secure communication between MDM servers and clients using the Internet standard protocol Secure Sockets Layer (SSL).

> **i** Note
>
> MDM supports SSL for communication between MDM applications only. Communications established between third party applications and MDM components, including—but not limited to—the DBMS, are not affected by MDM security settings, but the third party applications may provide their own form of communication security.

For detailed information about securing communications in MDM 7.1 using SSL, see the *MDM Security Guide* on the SAP Help Portal at help.sap.com/nwmdm71.

SSL Support for MDM Servers, Clients, Administration, and Development Components

Secure communications by SSL between MDM servers, clients, and administration components are supported as follows:

- MDM servers MDS, MDIS to MDS
- MDM Console to all MDM servers
- MDM Data Manager to MDS
- MDM Image Manager to MDS
- MDM Import Manager to MDS
- MDM Syndicator to MDS
- MDM Java API to MDM servers
- MDM Connector to MDM servers
- MDM ABAP API applications to MDS
- MDM CLIX to MDS
- MDM Workflow Add-In to MDS

SSL Support for Non-MDM Components

The following MDM components support SSL-based secure communications with the non-MDM component, SAP Instance Framework (`SAPStartSrv`):

- MDM CLIX on Windows only to SAPStartSrv
- MDM Console to SAPStartSrv

> **i** Note
>
> MDM applications on UNIX and Linux should **not** be configured to use secure connections to `SAPStartSrv`. The `.ini` file setting `Service Control Security Enabled` should be set to `False`.

Limitations

The following MDM components do not support SSL-based communications:

- CCMS Plug-in (connections to MDM servers)

The following does not use SSL as they do not connect to the MDS:

- MDM Change Tracker (communicates directly with the database and not with the MDS)

The MDM components, RCCodes and Language Selector, do not communicate with any MDM components and therefore have no communication channels that need to be encrypted.

In addition, the following connections will not work in a secure mode nor carry encrypted data, even if MDS is configured to work in SSL mode:

- Connection from MDS to DBMS Servers
- Connection from MDS to LDAP Servers
- Connection from SLD/Wily to MDS
- Connection from Workflow Sendmail to MDS
- Connection from SMTP server to MDS

Note that for some of these components, secure communications may already be possible. Security of communications between MDM and other software components, if any, must be configured independently from securing communications between MDM components. The only exception to this statement is `SAPStartSrv`, which has already been mentioned earlier.

3 Scenario Approach of MDM

3.1 Installation

The following tables describe the workflow for installing MDM.

When planning an upgrade from MDM 5.5, or from any previous MDM 7.1 support package (SP) release, refer to the *MDM Upgrade Guide* on the SAP Help Portal at help.sap.com/nwmdm71 before you begin the upgrade process.

The Upgrade Guide provides the following information:

- Preparatory and pre-installation tasks
- Post-installation setup and configuration tasks required to complete the upgrade process.

Master Data Servers

No.	Action	Corresponding Documentation
1a	Install the Master Data Servers: • Master Data Server 7.1 • (Optional) Master Data Import Server 7.1	*MDM Installation Guide* at help.sap.com/nwmdm71

MDM Clients

No.	Action	Corresponding Documentation
2a	Install the MDM clients: • MDM Console 7.1 7.5 • MDM Data Manager 7.1 7.5 • MDM Import Manager 7.1 7.5 • MDM Syndicator 7.1 7.5 • (Optional) MDM CLIX 7.1 7.5 • (Optional) MDM Language Selector 7.1 7.5 • (Optional) MDM Image Manager 7.1 7.5	*MDM Installation Guide* at help.sap.com/nwmdm71

MDM 7.1 with SAP NW 7.5

No.	Action	Corresponding Documentation
5a	Install: • SAP NetWeaver 7.5	For more information, see the *Guide Finder for SAP NetWeaver and ABAP Platform* at service.sap.com/instguidesnw73

Java API 7.1 7.5

No.	Action	Corresponding Documentation
9a	For SAP NetWeaver 7.5, install: • SAP NetWeaver 7.5 (optional)	
9b	For SAP NetWeaver 7.5, install: • MDM CONNECTOR 7.10 7.50 (optional) (as of MDM 7.1 SP07) • MDM JAVA API 7.10 7.50 (optional) • MDM JAVA API DOC 7.10 7.50 (optional)	*MDM Installation Guide* at help.sap.com/nwmdm71

Java Applications

No.	Action	Corresponding Documentation
11d	For SAP NetWeaver 7.5, install: • MDM CHANGE TRACKER 7.1 7.5 (optional)	*MDM Change Tracker Application Guide* at help.sap.com/nwmdm71

MDM Technology

No.	Action	Corresponding Documentation
12a	Install as SAP add-on (transaction SAINT): • MDM TECHNOLOGY 7.10 700 (optional) • MDM TECHNOLOGY 7.10 710 (optional) • MDM TECHNOLOGY 7.10 730 (optional)	See the application help.
12b	Configure the CCMS (optional).	*MDM Solution Operations Guide*and MDM 7.1 Monitoring guides (ZIP file) at help.sap.com/nwmdm71

No.	Action	Corresponding Documentation
12c	Configure and install the local CCMS agent and SAPOSCOL on the Master Data Server host machine (optional).	*MDM Solution Operations Guide*and MDM 7.1 Monitoring guides (ZIP file) at help.sap.com/nwmdm71
12d	Configure the MDM CCMS agent plug-in and the LogMon and ConfMon Monitoring (optional).	MDM 7.1 Monitoring guides (ZIP file) at help.sap.com/nwmdm71
12e	Install and configure the Solution Manager Diagnostics systems (SMD) / Wily Introscope Enterprise Manager (optional).	See the online documentation of the Solution Manager Diagnostics (SAP Note 987835). SAP Solution Manager Guide
12f	Install and configure the SMD agent on the Master Data Server host machine (optional).	MDM 7.1 Monitoring guides (ZIP file) at help.sap.com/nwmdm71
12g	Install or select a system for Enhanced Change and Transport System (CTS+). Configure CTS+ (optional).	*MDM Solution Operations Guide* at help.sap.com/nwmdm71
12h	Install and configure Solution Manager 7.0 EHP1 (MDM Administration Cockpit) (optional).	SAP Solution Manager Guide

3.2 Configuration

See the following guides on the SAP Help Portal at help.sap.com/nwmdm71:

- *MDM Console Reference Guide*
- *MDM Scenario Configuration Guide*

A Appendix

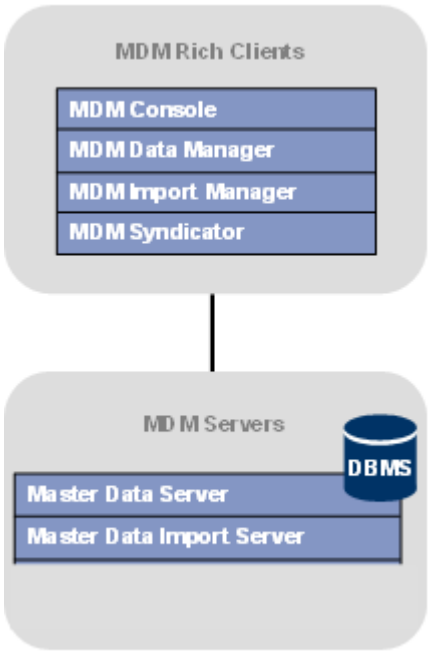
A.1 SAP Solution Manager

The SAP Solution Manager is the recommended platform to efficiently support the implementation of your solution. Using SAP Solution Manager will significantly accelerate the implementation process and help you to achieve your business goals. At the same time, SAP delivers support services based on the business scenarios designed and documented in the SAP Solution Manager. Implementation content for your solution may further accelerate the implementation process.

For information about availability of content specifically tailored to your solution, see support.sap.com/solutionmanager.

A.2 Minimal System Landscape for MDM 7.1 SP05 and Earlier

The following figure shows a minimal system landscape for SAP NetWeaver MDM 7.1 SP05 and earlier (before MDM supported running all MDM server components including DBMS on a single machine):



→ Recommendation

We strongly recommend that you use a minimal system landscape for test and demo purposes only. For performance, scalability, high availability, and security reasons, do **not** use a minimal system landscape as your production landscape.

There are several sources for the sizing of each system.

- For information about sizing and recommendations for the setup of MDM system/components, see the *MDM Sizing Guide* on the SAP Help Portal at help.sap.com/nwmdm71.
- For information about Operating Systems and DBMS requirements, see the Product Availability Matrix (PAM) for MDM on SAP Service Marketplace at service.sap.com/pam.

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