

Use Cases

Table of Contents

- 1. Roles 1
- 2. Phases 2
 - 2.1. Preparation 2
 - 2.2. Planning 2
 - 2.3. Execution 2
 - 2.4. Evaluation 2
 - 2.5. Administration 3
 - 2.6. Templating 3
 - 2.7. Data Import/Export 3
 - 2.8. Data Access Rights 4
 - 2.9. Login & Authentication 4
 - 2.10. Audit 4
 - 2.11. Statistics 5

Chapter 1. Roles

The following roles have been identified as per the OpenMDM5 Specification:

- MDMPTestPlanner
- MDMPTestObjectPreparator
- MDMPTestPreparator
- MDMPTestOperator
- MDMPTestReviewer
- MDMPDataCustomer
- MDMPDataProcessor
- MDMPMethodsAdministrator
- MDMPDataOwner
- MDMPSystemAdministrator

Additional roles to consider

- Background processes
- Auditor
- Statistics

Chapter 2. Phases

NOTE

Notifications will happen at every time data is changed/transformed and/or a user performs an action.

2.1. Preparation

The MDMTestPlanner consults a calendar and schedules a test benchmark for usage. He may get in touch with a particular MDMTestOperator to arrange the schedule.

- Calendar entries (Outlook or other).
- Scheduled entry for test benchmark/MDMTestOperator.

2.2. Planning

The MDMTestPlanner creates a test order based on a new or existing test template. He has the choice to commission the newly created test order right away or save for further refinement.

- Test template.
- Configured test order.
- Configured test order.
- Commissioned test order.

2.3. Execution

The MDMTestOperator (along with MDMTestObjectPreparator and MDMTestPreparator) reviews a test order, prepares the test benchmark and part to be tested, and executes the test order. Test measurements and results are then inserted into the system. Data insertion can be manual or partly automatic. If possible the data can be extracted directly from the measurement devices. Additional inputs such as images and files can be registered too.

Test execution may also happen in a simulated environment, thus the results may be obtained directly from the simulator (program) or read from the outputs of said program.

- Commissioned test order.
- Test results.

2.4. Evaluation

The MDMTestReviewer (or MDMDDataCustomer) searches, queries and evaluates the test results. He can

search for recently added results or old/archived records. He may use analytical/statistical tools integrated within the OpenMDM applications or export the data to an external tool. He writes down his assessment of the data as a test evaluation. Evaluations can be queried too.

Background processes may transform the data automatically before the MDMTestReviewer has a chance to look at it.

- Test results.
- Archived test results.
- Test evaluations.
- Archived test evaluations.
- Test evaluations.
- Data processable by other tools.

2.5. Administration

This is a new phase not described in the OpenMDM5 Specification. The responsibility of archiving a set of test results/evaluations may fall into the MDMDataOwner and/or MDMSystemAdministrator. This operation enables the archiving of data in order to speed up searches and queries of recent data. It also makes sure that archived data is preserved for long term purposes.

- Test results.
- Test evaluations.
- Archived test results.
- Archived test evaluations.

2.6. Templating

The MDMMethodsAdministrator creates test templates from scratch or derived from existing test templates.

- Test template.
- Test template.

2.7. Data Import/Export

The MDMDataOwner (also MDMDataCustomer and/or MDMTestReviewer) may import data from an external resource that may or may not be OpenMDM compatible. A data conversion operation will be

executed, either on the local device/machine or at a remote location. Likewise, an export feature can also be invoked, where data conversion may need to be executed too.

- Data in proprietary format (import).
- Data in OpenMDM compatible format (export).
- Data in proprietary format (export).
- Data in OpenMDM compatible format (import).

2.8. Data Access Rights

MDMDataCustomer may require access to test data for which he is not the MDMDataOwner. He may request access to this data, thus the MDMDataOwner receives a request for access approval, either granting or denying such access. Access grants can be escalated up the command chain in the case the current MDMDataOwner is not available. Access grants could also be automated given the organization's authentication mechanism and a configured set of rules.

- Access request.
- Roles.
- Access rules.
- Access request (granted | | denied).

2.9. Login & Authentication

All interactions with OpenMDM applications requires that the user has the proper access (authentication and roles). The authentication process can leverage the organization's access controls (LDAP, Active Directory, other). Roles can also be stored in such controls or stored at the OpenMDM side.

- Access to authorization controls.
- Roles and permissions.
- User data.
- Roles and permissions.

2.10. Audit

Keep track of all data interactions within the application/system.

- Any operation performed by a user.

- An audit record of the operation.

2.11. Statistics

Compute statistical data such as test results generated per day/week/user and such. Other operations can also be aggregated. Different categories may be configured.

- A set of operations/inputs/outputs recorded in the system.
- Graphs.
- Statistical data in an exportable format (CVS, XLS, etc).