



# openMDM® Working Group charter

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## Definitions

### ASAM ODS application model

The ASAM e.V. (see <http://www.asam.net>) defines a standard for measured data management (ASAM ODS), including means for the definition of an domain specific data model, an physical storage model and interfaces for handling measured data and their context. The domain specific data model is referred to as “ASAM ODS application model”.

### Bodies

Gremia, Working Groups etc.

### BSD- like



Similar to the definitions taken by the BSD (Berkeley Systems Distribution) licensing conditions

### **WG quality kit**

openMDM® deliverables / results as well as Requirement Packages have to meet quality requirements and are to be delivered under defined conditions. The WG quality kit defines quality criteria and methods for their delivery and evaluation to provide a secure means to determine if the openMDM® deliverables / results can be accepted by the client or the service providers.

### **LGPL**

Lesser GNU public license

### **Eclipse Members**

Eclipse Members have signed the Eclipse Membership Agreement and have paid their membership fees. For a complete overview over the Eclipse Membership process and the current Eclipse members refer to the Eclipse Home Page.

### **openMDM® Members**

openMDM® members have signed the openMDM® Working Group participation agreement and have paid the working group participation fee.

### **openMDM® deliverables and results**

As part of their collaboration, the members of the openMDM® Eclipse Working Group agree on the delivery of services and goods (software, documents). Those are referred to in this document as openMDM® deliverables / results.

### **openMDM® Eclipse projects**

The Eclipse foundation provides a framework for defining, driving and executing projects. As “openMDM® Eclipse projects” the Eclipse projects defined and driven by the openMDM® Eclipse Working Group referred to.

### **openMDM® integration environment**

As a testing reference as well as for demonstration purposes, the openMDM® Eclipse Working Group defines and maintains an environment of components, configurations and test data.

### **openMDM® WG participation agreement**

Eclipse members have to sign the openMDM® WG participation agreement to participate in the openMDM® Eclipse Working Group.

### **openMDM® WG Operational rules**

The operational rules define the details for the collaboration for the WG members. They are defined and published by corresponding bodies of the openMDM® WG.

### **Requirements package**

As part of their collaboration, the members of the openMDM® Eclipse Working Group agree on the delivery of services and goods (software, documents). Those are referred to in this document as openMDM® deliverables / results (see above). The corresponding

specification provided by the client is referred to as “Requirements Package”. Requirements packages are subject to the WG quality kit (see above).

### **Result package**

See openMDM® deliverables / results

### **Service package**

See openMDM® deliverables / results

## **Goals and Vision**

The automotive and other engineering industries are driven by continuous product development processes where several partners collaborate in different steps of the process. Almost every development phase contains testing of components, subsystems or final products. Usually testing is done by computer assistance via automatic measurement and automation systems.

The bulks of test results which are created are tremendous and are growing constantly due to a growing variance of products, a rising number of functions and advancements in measurement techniques. The management of the generated measurement data is a big challenge and must meet several important requirements:

**Innovation:** Product development is driven by a constant innovative progress which cover not only the product features but also the development methods and tools. Measurement data management solutions must ensure to cope with innovative methods and environments.

**Process integrity and Data Exchange:** According to the distributed product development exchange of data is a crucial issue for collaboration. Test results have to be passed seamlessly along the process flows between organizations (internal departments or external organizations) and between engineering disciplines. It is therefore a matter of the tools used to use open and standardized interfaces with respect to measured data management.

**Long Term Availability:** Test results and measured data document the features and functions of products and are the basis for legal approval. They are for that reason precious for the manufacturer and have to be stored carefully throughout the whole product lifecycle and beyond. Periods of 30 years are therefore not unusual.

**Reusability and Traceability:** Secure and safe storage is not sufficient on the long run. Beyond that test results must be ready for reuse. That means not only the used data formats have to be readable but also the context of the data acquisition has to be meaningful for future use to be able to aggregate or compare test results under variable aspects. Traceability has to be ensured as it is postulated by quality assurance. Finally, reuse of test results helps save testing costs.

**Legal requirements:** Legal and regulatory requirements are changing from time to time and from country to country for the automotive industry. Changes have to be covered by measurement data management over periods of even 30 years.

**Security:** As the recent product development and testing processes take place in an environment of various organizations with a dynamic distribution of tasks and



responsibilities, measured data management solutions have to meet versatile security requirements to protect data from unauthorized access and modification not affecting the efficient flow of data within the product processes. At the same time, “dangling” data (e.g. data, which has lost its relevance or correctness of which is in doubt) represents a risk for the owner and has to be identified and eliminated.

**Resource economy:** Test results consume huge amounts of storage resources. Even for the performing operation and maintenance of the storage systems, but also for cost control it is crucial to be able to take lifecycle decisions (migration, deletion). This is possible only on the base of a data management methodology.

## Scope and Core Domains

The open MDM Working group (openMDM® WG) wants to foster and support an open and innovative eco-system providing tools and systems, qualification kits and adapters for standardized and vendor independent management of measurement data in accordance with the ASAM ODS standard.

In particular, the openMDM® WG will

- Define requirements for the development of the openMDM® core system and its related components
- Develop and maintain a standardized, generic business object model detailed by the ASAM ODS application model and the corresponding interface definitions
- Help to create, fund and oversee Eclipse projects that provide the necessary software components
- Provide the resources for managing the quality and the maturity of these components throughout the life-cycle
- Ensure open innovation through the sharing of the research, development, and maintenance efforts as far as possible
- Foster exchanges between academics, standardization organizations, industry partners and community
- Provide and maintain methods and best practices for standardized and vendor independent measurement data management

## Governance and Precedence

### Applicable Documents and Processes

- Eclipse Bylaws
- Working Group Process Document
- Eclipse Membership Agreement
- Eclipse Development Process
- Eclipse Public License (EPL)

All openMDM® members must be parties to the Eclipse Membership Agreement, including the requirement set forth in this document to follow the Bylaws and then-current policies of the Eclipse Foundation. In the event of any conflict between the terms



set forth in this openMDM® Working Group Charter and the Eclipse Foundation Bylaws, Membership Agreement, Eclipse Development Process, Eclipse Working Group Process, or any policies of the Eclipse Foundation, the terms of the Eclipse Foundation Bylaws, Membership Agreement, processes, or policies shall take precedence.

The openMDM® Working Group will enforce the use of the Eclipse Foundation processes where applicable. In particular, the following processes shall be applied for projects related to the openMDM® WG and to the work of the WG itself:

- Eclipse Working Group Process
- Eclipse Development Process
- Eclipse IP Process

## Collaboration

Collaboration of the members is crucial for the success of a vital openMDM® Working Group. The WG commits itself to cooperation applying principles of openness, transparency and meritocracy. Every member will fulfill its commitment to best knowledge and conscience.

The collaboration duties of the openMDM® WG include, but are not limited to

- Annual Plan containing themes, marketing, outreach
- Definition of requirement packages and services modules
- Valuation of the defined packages with respect to estimated man power units, content and quality for their delivery
- Assignment of requirement packages and / or service modules to the WG members according to their openMDM® WG membership fees
- If there are no open membership fees left, voluntary donations of man power units by the openMDM® WG members are welcome as well. Otherwise the required packages won't be processed.
- The execution or delivery of the assigned packages are fulfilled independently by the respective member under its full responsibility and on its own expenses. The openMDM® WG will not act on behalf of its members.
- Acceptance of the corresponding services or results delivered by the openMDM® WG members.
- Monitoring the quality of the deliverables

The collaboration process is pointed out for better understanding in annex 1 (chart).

## Working Group Participation

In order to participate in openMDM®, an entity must be at least a Solutions Member of the Eclipse Foundation, have executed the openMDM® WG Participation Agreement, and adhere to the requirements set forth in this charter. The Eclipse Solutions Member fees are determined as described in the Eclipse Bylaws and detailed in the Eclipse Membership Agreement.

The openMDM® WG is open at any time to all new members which meet this conditions.



## **Classes of Membership**

The membership classes of the openMDM® WG are established to reflect the different interest situations of the members. The membership class has to be declared by the potential member in his openMDM® WG participation agreement. The membership class of each openMDM® WG member is checked once a year.

### ***Driver Members***

Driver Members want to influence the definition and further development of openMDM® and all its deliverables. They are members of the Steering Committee and invest an essential amount of resources to sustain the WG activities. Typical Driver members include industry users of the technologies and results provided by openMDM®. Most of them operate testing processes as part of their core business.

### ***User Members***

User Members use the technologies and results provided by openMDM®. They want to keep track of the openMDM® development but do not want to influence in an essential way. Most User Members operate testing processes as part of their core business.

### ***Application Vendor Members***

Application Vendor Members view openMDM® as an important part of their corporate and product strategy and mainly offer products based on, or with openMDM®. Typical Application Vendor Members provide applications to the market that implement or use technologies and results provided by openMDM®.

### ***Service Provider Members***

Service Provider Members view openMDM® as an important part of their corporate and product strategy and offer services for deployment, development or maintenance of openMDM® components or systems.

### ***Guests Members***

Guest members are organizations who have been invited for one year by the Steering Committee of openMDM® to participate in some aspects of the activities of the Working Group. Typical Guest Members include R&D partners, academic entities, and potential future full-fledged members who want to have a closer look before deciding on their strategy. When Guest Members are invited to an openMDM® body for meetings, they have no right to vote. Invitations may be renewed by the Steering Committee. Guests Guest Members are required to sign the participation agreement.

## **openMDM® WG Participation Fees**

To operate properly, the openMDM® WG will request additional services from the Eclipse Management Organization (EMO) or execute certain tasks with resources from the WG participants. Participation fees are due in addition to the Eclipse membership fees and are outlined in the participation agreement.

On an annual basis, participation fees will be decided and published in the WG participation document by the Steering Committee to allow for the execution of these



services. While the EMO services are payable in USD, the services for internal deliverables can only be provided as

- Delivery of result packages
- Delivery of service packages

The amount for these fees will be expressed as an equivalent of manpower units (employee service days). The corresponding packages or services have to be offered in advance to and committed by the steering committee.

The initial annual participation fee after the foundation for openMDM® driver member is the equivalent of 60 employee service days. The initial annual participation fee after the foundation for all other openMDM® members is the equivalent of 10 employee service days or free for non-profit organizations.

### Case of Violation

Membership is checked annually by the Steering Committee and can be terminated, suspended or changed to a different membership class by the openMDM® steering committee if the member fails to deliver participation fees or previously committed results or acts against the goals of the openMDM® WG in any other way. Those decisions have to be taken by unanimous vote with exception of the affected member.

### Termination

On observing a 4 (four) weeks period of notice each member shall be entitled to terminate its participation by giving written notice to the Steering Committee. Delivered contributions are not refundable. After termination the respective member is not in charge of any further deliveries.

## Services

### Collaboration Infrastructure

The openMDM® WG leverages the standard Eclipse open source collaboration infrastructure. As such, source code repositories, Bugzilla, wikis, forums, project mailing lists, and other services provided as the open source collaboration infrastructure are publicly visible. Committers of openMDM® related Eclipse projects have write access to this infrastructure, and as such have the rights and obligations as set forth in the Eclipse Development Process and the various Eclipse committer agreements.

All openMDM® deliverables and results are published to the Eclipse open source infrastructure. The standard license shall be the Eclipse Public License (EPL). Exceptions to this rule need to be proposed by the Steering Committee and approved by the board of directors of the Eclipse Foundation.

### Requirements Management

The requirements on openMDM® packages will be collected, consolidated and assigned to packages, which can be handled by Eclipse projects. This task is fulfilled by the requirements management service of the openMDM® WG based on the Eclipse collaboration infrastructure services.





## Quality Assurance (QA)

openMDM® packages have to be tested with respect to their functional, non-functional requirements and their seamless interoperability with the openMDM® integration environment. This environment is maintained by the openMDM® QA service and represents a superset of all components available to the users. The QA reports are the basis for the acceptance of the contributed packages by the Steering committee.

## Architecture Compliance

openMDM® concepts and components have to be evaluated with respect to their architectural compliance with the openMDM® business object model and the software architecture. The openMDM® WG provides such a service.

## Marketing and Branding

One major success factor for the openMDM® WG is the adoption of openMDM® technology and a flourishing ecosystem for many. Good marketing and outreach activities are one of the keys to achieve this goal.

Creating and protecting a good brand aims at rewarding the skills and investment of service providers. Having the right to use the brand recognizes that service providers are able to extend or provide quality services to the openMDM® ecosystem.

Additional services or service extensions provided by Eclipse can be contracted on demand if necessary.

## Governance

The following governance bodies are defined:

- The Steering Committee
- The General Assembly
- The Architecture Committee
- The Quality Committee
- Project patrons

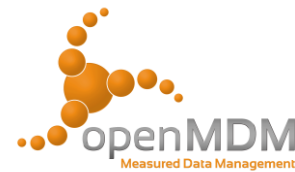
## Common Dispositions

The dispositions below apply to all openMDM® bodies, unless otherwise specified. For all matters related to membership action, including without limitation meetings, quorum, voting, electronic voting action without meeting, vacancy, resignation, or removal, the terms set forth in Section 6 of the Eclipse Foundation Bylaws apply.

## Good Standing

A representative shall be deemed to be in good standing, and thus eligible to vote on issues coming before the body in which he participates, if the representative has attended (in person or telephonically) a minimum of three (3) of the last four (4) body meetings (if there have been at least four meetings).

Appointed representatives on the body may be replaced by the member organization they are representing at any time by providing written notice to the Steering Committee.



In the event a body member is unavailable to attend or participate in a meeting of the body, he or she may send a representative and may vote by proxy, which shall be included in determining whether the representative is in good standing. As per the Eclipse Foundation Bylaws, a representative shall be immediately removed from the body upon the termination of the membership of such representative's member organization.

### **Term and Dates of Elections**

All representatives shall hold office until their respective successors are appointed or elected, as applicable. There shall be no prohibition on re-election or re-designation of any representative following the completion of that representative's term of office.

Steering Committee member representatives shall serve in such capacity until their removal by their respective appointing member organization or as otherwise provided for in this charter.

### **Elected Representatives**

Elected representatives shall each serve one-year terms and shall be elected to serve from April 1 to March 31 of each calendar year, or until their respective successors are elected and qualified, or as otherwise provided for in this charter. Procedures governing elections of representatives may be established pursuant to resolutions of the Steering Committee provided that such resolutions are not inconsistent with any provision of this charter.

Elected representatives are now entitled to act for or on behalf of any member of the openMDM® WG or represent the openMDM® WG or any of its members.

### **Meeting Management**

#### **Place of Meetings**

All meetings may be held at any place that has been designated from time-to-time by resolution of the corresponding body. The corresponding body has to inform the representatives about the place of meeting thirty (30) calendar days prior to the meeting. All meetings may be held remotely using phone calls, video calls, or any other means as designated from time-to-time by resolution of the corresponding body.

#### **Regular Meetings**

No body meeting will be deemed to have been validly held unless a notice of same has been provided to each of the representative in good standing at least thirty (30) calendar days prior to such meeting, which notice will identify all potential actions to be undertaken by the body at the body meeting. No representative will be intentionally excluded from body meetings and all representatives shall receive notice of the meeting as specified above; however, body meetings need not be delayed or rescheduled merely because one or more of the representatives cannot attend or participate so long as at least a quorum of the body (as defined in the Common Dispositions section above) is represented at the body meeting. Electronic voting shall be permitted in conjunction with any and all meetings of the body, the subject matter of which requires a vote of the body to be delayed until each such representative in attendance has conferred with his or her respective member organization as set forth in the voting section above.

## Actions

The body may undertake an action only if it was identified in a body meeting notice or otherwise identified in a notice of special meeting.

## Invitations

The body may invite any openMDM® member to any of its meetings. These invited attendees have no right of vote. The corresponding body has to inform the invited attendees about the agenda and the place of meeting thirty (30) calendar days prior to the meeting.

## Decisions

Decisions shall be taken by simple majority vote, unless specified otherwise. The body has a quorum if all representatives have properly been invited. Decisions shall be reported in writing. Guests do not have any voting rights.

## General Assembly

### Powers and Duties

Approve changing the name of openMDM® by unanimous vote of the present openMDM® WG members.

Decide on dissolution of the openMDM® WG by unanimous vote of the present openMDM® WG members.

### Composition

Each member of the WG has a seat on the General Assembly.

### Votes

Each Working Group has one vote.

### Meeting Management

The General Assembly meets at least once every year. The meetings of the General Assembly are organized by the Steering Committee.

## Steering Committee

### Powers and Duties

The Steering Committee is required to

- Define the strategy of the WG
- Discuss and amend the charter and the participation agreement
- Define and follow marketing and communication activities
- Popularize and defend the openMDM® brand
- Initiate and execute an annual membership checkup
- Define and execute a marketing and branding plan
- Maintain a list of the current members of the openMDM® WG
- Negotiate the annual working group participation fees towards the Eclipse Foundation with the EMO

- WP Assignment, Delivery and Accounting as defined in the section “Collaboration”. Decisions on this topic have to be made with a two third majority vote.

## Composition

Persons occupying seats within the steering committee must be empowered by their home organizations to drive and make decisions as representatives for their home organization concerning its relation with the openMDM® community.

Each Driver Member of the WG has a seat in the Steering Committee.

At least one seat is allocated to each class of members different to Driver Members. An additional seat on the committee shall be allocated to the each class of members different to Driver Members for every additional five (5) seats beyond one (1) allocated to Driver Members. Participant Member seats are allocated following the Eclipse "single transferable vote", as defined in the Eclipse Bylaws.

The Steering Committee elects among its members a chairman who will represent the WG.

The Steering Committee will serve for a period of one calendar year, or until respective successors are elected and qualified, or as otherwise provided for in this charter.

## Votes

- Each Driver member on the Steering Committee has three votes.
- Other Steering Committee members have a single vote.

## Meeting Management

The Steering Committee meets at least twice a year.

## Architecture Committee

### Powers and Duties

Architecture Committee members are required to

- Ensure the functional consistency of openMDM® projects
- Ensure the non-functional consistency of openMDM® projects
- Ensure the technical consistency of openMDM® projects
- Evaluate and define technologies to be applied
- Establish technical guidelines
- Validate new project proposals and concepts
- Establish the openMDM® architecture compliance service and ensure its availability to the openMDM® projects

## Composition

- Each Driver Member of the WG has a seat on the Architecture Committee.
- Each project lead has a seat on the Architecture Committee.

- The Architecture Committee elects a chairman who reports to the Steering Committee. This chairman is elected among the members of the Architecture Committee.

### Votes

Each member on the Architecture Committee has one vote.

### Meeting Management and Availability

The Architecture Committee meets at least twice a year. The Architecture Committee can be contacted through its chairman and shall provide answers on related questions within a reasonable response time.

### The Quality Committee

#### Powers and Duties

The Quality Committee members are required to

- Define the WG quality kit and maturity process
- Establish and maintain the openMDM® integration environment
- Establish the openMDM® quality assurance service and ensure its availability to the openMDM® projects
- Provide in-time information to the steering committee on the maturity of the components and results delivered to the community to enable it to decide on the acceptance of a deliverable as valid contribution
- Validate that the projects conform to the WG quality kit.
- Validate that the projects conform to the guidelines established by the architecture committee
- Validate that the projects apply the IP process

#### Composition

- Each Driver member of the WG has a seat on the Quality Committee.
- Each project lead has a seat on the Quality Committee.
- At least one seat is allocated to each class of members different to Driver members. An additional seat on the committee shall be allocated to the each class of members different to Driver members for every additional five (5) seats beyond one (1) allocated to Driver members. Participant member seats are allocated following the Eclipse "single transferable vote", as defined in the Eclipse Bylaws.
- The Quality Committee elects a chairman who reports to the Steering Committee. This chairman is elected among the members of the Quality Committee.

### Votes

Each member on the quality Committee has one vote.

### Meeting Management

The Quality Committee meets at least twice a year.

## openMDM® sponsored Projects

Each openMDM® sponsored Eclipse project has a steering committee member as a patron chosen by the Steering Committee. The patron can be considered the stakeholder representative of the project, working closely with the project lead to

- ensure that the requirements for the project are well defined and understood
- ensure that the funding for the project is suitable from the perspective of the openMDM® WG
- ensure that the quality goals of the openMDM® WG are met by the project team

## Membership Summary

	openMDM® driver Member	openMDM® strategic user	openMDM® application vendor	openMDM® service provider	openMDM® project manager
Steering Committee	X	Elected	Elected	Elected	-
Architecture Committee	X	-	-	-	X
Quality Committee	X	Elected	Elected	Elected	X
General Assembly	X	X	X	X	X

## Document history

Date	Author	Remark
08-10/2013	<a href="mailto:Reinhard.hallermayer@bmw.de">Reinhard.hallermayer@bmw.de</a>	Initial draft
08-10/2013	<a href="mailto:Sven.bleckmann@audi.de">Sven.bleckmann@audi.de</a>	Initial draft
08-10/2013	<a href="mailto:Reinhard.hallermayer@bmw.de">Reinhard.hallermayer@bmw.de</a>	Released V1.0
6.11.2013	<a href="mailto:Sven.bleckmann@audi.de">Sven.bleckmann@audi.de</a>	Released V1.0
6.11.2013	<a href="mailto:Gerwin.mathwig@daimler.com">Gerwin.mathwig@daimler.com</a>	Released V1.0

6.11.2013	<a href="mailto:Christian.krenner@audi.de">Christian.krenner@audi.de</a>	Released V1.0
6.11.2013	<a href="mailto:Christian.rechner@audi.de">Christian.rechner@audi.de</a>	Released V1.0
6.11.2013	<a href="mailto:Ulrich.bleicher@bmw.de">Ulrich.bleicher@bmw.de</a>	Released V1.0
25.3.2014	<a href="mailto:Jessica.huk@audi.de">Jessica.huk@audi.de</a>	Updated V1.2
25.3.2014	<a href="mailto:Sven.bleckmann@audi.de">Sven.bleckmann@audi.de</a>	Updated V1.2
10.4.2014	<a href="mailto:Sven.bleckmann@audi.de">Sven.bleckmann@audi.de</a>	Updated V1.2
19.5.2014	<a href="mailto:Ralph.mueller@eclipse.org">Ralph.mueller@eclipse.org</a>	Consolidate, rework layout ,updates V 1.3
20.5.2014	<a href="mailto:Ralph.mueller@eclipse.org">Ralph.mueller@eclipse.org</a>	Consolidate, rework layout ,updates V 1.3.1
3.6.2014	<a href="mailto:Sven.bleckmann@audi.de">Sven.bleckmann@audi.de</a>	Consolidate, resolve remarks, formatting
6.6.2014	<a href="mailto:Claudia.scheuenpflug@audi.de">Claudia.scheuenpflug@audi.de</a> <a href="mailto:Sven.bleckmann@audi.de">Sven.bleckmann@audi.de</a>	Consolidate open issues, V1.3.3
6.6.2014	<a href="mailto:Sven.bleckmann@audi.de">Sven.bleckmann@audi.de</a>	Removed Markups and comments, V1.4
26.11.2014	<a href="mailto:Sven.wittig@audi.de">Sven.wittig@audi.de</a>	Removed inconsistency in gremia composition table for architecture committee, V1.5
27.11.2014	Steering committee	Released V1.5