



Multi-access Edge Computing (MEC); API Conformance Test Specification; Part 1: Test Requirements and Implementation Conformance Statement (ICS)

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Foreword

This Group Specification (GS) has been produced by ETSI Industry Specification Group (ISG) Multi-access Edge Computing (MEC).

The present document is part 1 of a multi-part deliverable covering Conformance Test Specification for MEC APIs as identified below:

- Part 1: "**Test Requirements and Implementation Conformance Statement (ICS)**";
- Part 2: "Test Purposes (TP)";
- Part 3: "Abstract Test Suite (ATS)".

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Introduction

The development of standardized conformance test specifications is considered as a validation activity and is an integral part of the ETSI strategy for ensuring interoperability. The MEC Conformance Testing methodology consists of:

- Selection of Implementations Under Test (IUT).
- Identification of reference points.
- Development of test specifications, which includes:
 - Development of "Implementation Conformance Statements" (ICS).
 - Development of "Test Suite Structure and Test Purposes" (TSS&TP).
 - Development of "Abstract Test Suite" (ATS).

The present document focuses on ICS development.

1 Scope

Based on the testing methodology guidelines and framework specified in ETSI GR MEC-DEC 025 [i.1], the present document specifies part 1 of a multi-part deliverable test specification. Part 1 (the present document) provides the Test requirements and Implementation Conformance Statement (ICS) for: Application Package Management and Application Lifecycle Management as specified in ETSI GS MEC 10-2 [4]; MEC Application Enablement as specified in ETSI GS MEC 011 [5]; and the MEC service APIs. The MEC service APIs in scope of the present document are specified in:

- ETSI GS MEC 012 [6];
- ETSI GS MEC 013 [7];
- ETSI GS MEC 014 [8];
- ETSI GS MEC 015 [9];
- ETSI GS MEC 016 [10];
- ETSI GS MEC 021 [11];
- ETSI GS MEC 028 [12];
- ETSI GS MEC 029 [13]; and
- ETSI GS MEC 030 [14].

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <https://docbox.etsi.org/Reference>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

- [1] ETSI GS MEC 001 (V2.1.1) (01-2019): "Multi-access Edge Computing (MEC); Terminology".
- [2] ETSI GS MEC 002 (V2.1.1) (10-2018): "Multi-access Edge Computing (MEC); Phase 2: Use Cases and Requirements".

Editor's Note: Need to update MEC002 to the new version when it is available.

- [3] ETSI GS MEC 010-1 (V1.1.1) (10-2017): "Mobile Edge Computing (MEC); Mobile Edge Management; Part 1: System, host and platform management".
- [4] ETSI GS MEC 010-2 (V2.1.1) (11-2019): "Multi-access Edge Computing (MEC); MEC Management; Part 2: Application lifecycle, rules and requirements management".

Editor's Note: Aspects relating to MEC010-2 will potentially require significant update.

- [5] ETSI GS MEC 011 (V2.2.1) (11-2020): "Multi-access Edge Computing (MEC); Edge Platform Application Enablement".

- [6] ETSI GS MEC 012 (V2.1.1) (12-2019): "Multi-access Edge Computing (MEC); Radio Network Information API".
- [7] ETSI GS MEC 013 (V2.1.1) (09-2019): "Multi-access Edge Computing (MEC); Location API".
- [8] ETSI GS MEC 014 (V2.1.1) (03-2021): "Multi-access Edge Computing (MEC); UE Identity API".
- [9] ETSI GS MEC 015 (V2.1.1) (06-2020): "Multi-access Edge Computing (MEC); Traffic Management API".
- [10] ETSI GS MEC 016 (V2.2.1) (04-2020): "Multi-access Edge Computing (MEC); Device application interface".
- [11] ETSI GS MEC 021 (V2.1.1) (01-2020): "Multi-access Edge Computing (MEC); Application Mobility Service API".
- [12] ETSI GS MEC 028 (V2.1.1) (06-2020): "Multi-access Edge Computing (MEC); WLAN Information API".

Editor's Note: Need to update MEC028 to the new version when it is available.

- [13] ETSI GS MEC 029 (V2.1.1) (07-2019): "Multi-access Edge Computing (MEC); Fixed Access Information API".
- [14] ETSI GS MEC 030 (V2.1.1) (04-2020): "Multi-access Edge Computing (MEC); V2X Information Service API".

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] ETSI GR MEC-DEC 025 (V2.1.1) (06-2019): "Multi-access Edge Computing (MEC); MEC Testing Framework".

3 Definition of terms, symbols and abbreviations

3.1 Terms

For the purposes of the present document, the terms given in ETSI GS MEC 001 [1] and the following apply:

conformance testing: purpose of conformance testing is to determine to what extent a single implementation of a particular standard conforms to the individual requirements of that standard

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

AMS	MEC App Mobility Service
API	Application Programming Interface
ATS	Abstract Test Suite
DNS	Domain Name Service
FAI	Fixed Access Information
GR	Group Report
HTTP	HyperText Transfer Protocol
ICS	Implementation Conformance Statement
IUT	Implementation Under Test
LCM	Life Cycle Management
MEH	MEC Host
MEO	MEC Orchestrator
MEPM	MEC Platform Manager
NR	New Radio
OSS	Operations Support System
PLMN	Public Land Mobile Network
RNI	Radio Network Information
RNIS	Radio Network Information Service
SUT	System Under Test
TP	Test Purpose
UE	User Equipment
URI	Uniform Resource Identifier
WAIS	WLAN Access Information MEC Service
WLAN	Wireless Local Area Network

4 Conformance requirement concerning ICS

If it claims to conform to the present document, the actual ICS pro forma to be filled in by a supplier shall be technically equivalent to the text of the ICS pro forma given in annex A, and shall preserve the numbering, naming and ordering of the pro forma items.

An ICS which conforms to the present document shall be a conforming ICS pro forma completed in accordance with the instructions for completion given in clause A.1.

Annex A (normative): MEC ICS Pro forma

A.0 The right to copy

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the ICS pro forma in this annex so that it can be used for its intended purposes and may further publish the completed ICS.

A.1 Guidance for completing the ICS Pro forma

A.1.1 Purpose and structure

The purpose of this ICS pro forma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in ETSI MEC APIs specifications may provide information about the implementation in a standardized manner.

The ICS pro forma is subdivided into clauses for the following categories of information:

- guidance for completing the ICS pro forma;
- identification of the implementation;
- identification of the ETSI MEC API;
- global statement of conformance;
- requirements and ICS tables.

A.1.2 Instructions for completing the ICS pro forma

The supplier of the implementation shall complete the ICS pro forma in each of the spaces provided. In particular, an explicit answer shall be entered, in each of the support or supported column boxes provided.

If necessary, the supplier may provide additional comments in space at the bottom of the tables or separately.

More detailed instructions are given at the beginning of the different clauses of the ICS pro forma.

A.2 Identification of the implementation

A.2.1 Introduction

Identification of the Implementation Under Test (IUT) and the system in which it resides (the System Under Test (SUT)) should be communicated so as to provide as much detail as possible regarding version numbers and configuration options.

Clause A.2 provides a template to provide such information.

The product supplier information and client information should both be filled in if they are different. A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

A.2.2 Date of the statement

.....

A.2.3 Implementation Under Test (IUT) identification

IUT name:

.....

.....

IUT version:

.....

.....

A.2.4 System Under Test (SUT) identification

SUT name:

.....

.....

Hardware configuration:

.....

.....

A.2.5 Product supplier

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

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Additional information:

.....
.....
.....

A.2.6 Client (if different from product supplier)

Name:

.....

Address:

.....
.....
.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....
.....
.....

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A.2.7 ICS contact person

(A person to contact if there are any queries concerning the content of the ICS.)

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.3 Identification of the ETSI MEC APIs

This ICS pro forma applies to the following standards:

- ETSI GS MEC 010-2 (V2.1.1) (11-2019): "Multi-access Edge Computing (MEC); MEC Management; Part 2: Application lifecycle, rules and requirements management".
- ETSI GS MEC 011 (V2.2.1) (11-2020): "Multi-access Edge Computing (MEC); Edge Platform Application Enablement".
- ETSI GS MEC 012 (V2.1.1) (12-2019): "Multi-access Edge Computing (MEC); Radio Network Information API".
- ETSI GS MEC 013 (V2.1.1) (09-2019): "Multi-access Edge Computing (MEC); Location API".
- ETSI GS MEC 014 (V2.1.1) (03-2021): "Multi-access Edge Computing (MEC); UE Identity API".
- ETSI GS MEC 015 (V2.1.1) (06-2020): "Multi-access Edge Computing (MEC); Traffic Management API".
- ETSI GS MEC 016 (V2.2.1) (04-2020): "Multi-access Edge Computing (MEC); Device application interface".
- ETSI GS MEC 021 (V2.1.1) (01-2020): "Multi-access Edge Computing (MEC); Application Mobility Service API".
- ETSI GS MEC 028 (V2.1.1) (06-2020): "Multi-access Edge Computing (MEC); WLAN Information API".
- ETSI GS MEC 029 (V2.1.1) (07-2019): "Multi-access Edge Computing (MEC); Fixed Access Information API".
- ETSI GS MEC 030 (V2.1.1) (04-2020): "Multi-access Edge Computing (MEC); V2X Information Service API".

A.4 Global statement of conformance

A.4.1 Introduction

Clause A.4 provides a template for a global statement of conformance.

Are all mandatory capabilities implemented? (Yes/No)

NOTE: Answering "No" to this question indicates non-conformance to the MEC API standard specification.

Non-supported mandatory capabilities are to be identified in the ICS, with an explanation of why the implementation is non-conforming, on pages attached to the ICS pro forma.

A.4.2 Functional entities and Reference Points

Table A.4.2-1

Item	Entity type	Mnemonic	Reference	Condition	Support
1	MEC Platform	MEC_PLAT	ETSI GR MEC-DEC 025, clause 6.1.3	C.1	<input type="radio"/> Yes <input type="radio"/> No
2	Other component of the MEC System	MEC_SYSTEM	ETSI GR MEC-DEC 025, clause 6.1	C.1	<input type="radio"/> Yes <input type="radio"/> No
3	MEC Service provider	SERVICES		C.1	<input type="radio"/> Yes <input type="radio"/> No
C.1: At least one shall be supported.					

A.4.3 API Resources and Reference Points

The IUT provider shall fill table A.4.3-1 to express more specific capabilities of the IUT. By checking "Yes" in the support column, the IUT provider expresses the intention to be tested for conformance on all endpoints and operations defined in the related Table identified in the "Reference" column.

The mnemonic column contains an identifier for the group of capabilities, used in the definition of Test Purposes and Test Cases. The Mnemonic identifier is not provided for all groups, and when not defined the related cell shall contain "na" (not available).

Table A.4.3-1 specifies two types of items:

- Level 1 items, identified by a singular digit (e.g. 1), which identify base specification; and
- Level 2 items, identified by a two digits separated by a dot (e.g. 1.1), which identify sub elements of the base specification for more detailed statements.

To express that an IUT that does not support any of the Level 2 items for a certain certification, the IUT provider shall check "No" in the support column for the related Level 1 item. The related Level 2 items may be left unchecked and they will be assume not to be tested.

To express that an IUT does support some (or all) of the Level 2 items for a certain specification, the IUT provider shall check "Yes" in the support column for the related Level 1 item and mark all Level 2 items according to the IUT implementation capabilities.

Table A.4.3-1

Item	Entity type	Mnemonic	Reference	Condition	Support
1	ETSI GS MEC 010-2	na	Clause A.5.2	C.1	<input type="radio"/> Yes <input type="radio"/> No
>1.1	Application package management (Mm1)	APP_PACKAGE_MANAGEMENT	Table A.5.2.2-1	C.1	<input type="radio"/> Yes <input type="radio"/> No
>1.2	Application package management (Mm3)	APP_PACKAGE_NOTIFICATIONS	Table A.5.2.2-2	C.1	<input type="radio"/> Yes <input type="radio"/> No
>1.3	App Package Management notification callback	APP_PACKAGE_NOTIFICATIONS	Table A.5.2.2-3	C.1	<input type="radio"/> Yes <input type="radio"/> No
>1.4	Application life cycle management (Mm1 and Mm3)	APP_LCM_MANAGEMENT	Table A.5.2.2-4	C.1	<input type="radio"/> Yes <input type="radio"/> No
>1.5	Application life cycle management notification call-backs (Mm1)	APP_LCM_NOTIFICATIONS	Table A.5.2.2-5	C.1	<input type="radio"/> Yes <input type="radio"/> No
>1.6	Granting for application life cycle management operations (Mm3)	GRANTS_MANAGEMENT	Table A.5.2.2-6	C.1	<input type="radio"/> Yes <input type="radio"/> No
2	ETSI GS MEC 011	na	Clause A.5.3	C.1	<input type="radio"/> Yes <input type="radio"/> No
>2.1	Simple queries	na	Table A.5.3.2-1	C.1	<input type="radio"/> Yes <input type="radio"/> No
>2.2	Manage a specific item	na	Table A.5.3.2-2	C.1	<input type="radio"/> Yes <input type="radio"/> No

Item	Entity type	Mnemonic	Reference	Condition	Support
3	ETSI GS MEC 012	na	Clause A.5.4	C.1	O Yes O No
>3.1	RNIS simple queries	RNIS_QUERY	Table A.5.4.2-1	C.1	O Yes O No
>3.2	All subscriber's subscriptions	RNIS_ALL_SUBSCRIPTIONS	Table A.5.4.2-2	C.1	O Yes O No
>3.3	Individual subscriptions	RNIS_SPECIFIC_SUBSCRIPTION	Table A.5.4.2-3	C.1	O Yes O No
>3.4	Notification callback	RNIS_NOTIFICATIONS	Table A.5.4.2-4	C.1	O Yes O No
4	ETSI GS MEC 013	na	Clause A.5.5	C.1	O Yes O No
>4.1	Simple queries	na	Table A.5.5.2-1	C.1	O Yes O No
>4.2	Manage a specific item	na	Table A.5.5.2-2	C.1	O Yes O No
5	ETSI GS MEC 014	na	Clause A.5.6	C.1	O Yes O No
>5.1	Manage a specific item	na	Table A.5.6.2-1	C.1	O Yes O No
6	ETSI GS MEC 015	na	Clause A.5.7	C.1	O Yes O No
>6.1	Simple queries	na	Table A.5.7.2-1	C.1	O Yes O No
>6.2	Manage a specific item	na	Table A.5.7.2-2	C.1	O Yes O No
7	ETSI GS MEC 016	na	Clause A.5.8	C.1	O Yes O No
>7.1	Simple queries	na	Table A.5.8.2-1	C.1	O Yes O No
>7.2	Manage a specific item	na	Table A.5.8.2-2	C.1	O Yes O No
8	ETSI GS MEC 021	na	Clause A.5.9	C.1	O Yes O No
>8.1	AMS APIs	AMS	Table A.5.9.2-1	C.1	O Yes O No
>8.2	Notification callback	AMS_NOTIFICATIONS	Table A.5.9.2-2	C.1	O Yes O No
9	ETSI GS MEC 029	na	Clause A.5.11	C.1	O Yes O No
>9.1	Simple queries	na	Table A.5.11.2-1	C.1	O Yes O No
>9.2	Manage a specific item	na	Table A.5.11.2-2	C.1	O Yes O No

C.1: At least one shall be supported.

A.5 Requirements and ICS tables

A.5.1 ETSI GS MEC 010-1

A.5.1.1 Test Requirements

Table A.5.1.1-1 reports the functional requirements specified in ETSI GS MEC 010-1, classified per MEPM features.

Table A.5.1.1-1: Classification of MEPM requirements per MEPM features (Mm2)

Feature	Requirement ID	Requirement description	Reference
MEH configuration management (active)	REQ-MM2-MEH-CM-3	The Mm2 reference point shall support a capability allowing the OSS to configure the MEC host.	ETSI GS MEC 010-1, clause 5.1.1.1.1
	REQ-MM2-MEH-CM-4	The Mm2 reference point shall support a capability allowing the OSS to configure the DNS rules.	ETSI GS MEC 010-1, clause 5.1.1.1.1
	REQ-MM2-MEH-CM-5	The Mm2 reference point shall support a capability allowing the OSS to configure the traffic rules.	ETSI GS MEC 010-1, clause 5.1.1.1.1

Feature	Requirement ID	Requirement description	Reference
MEH configuration management (passive)	REQ-MM2-MEH-CM-1	The Mm2 reference point shall support a capability allowing the OSS to retrieve the information model of the MEC host, or parts thereof, from the MEC platform manager.	ETSI GS MEC 010-1, clause 5.1.1.1.1
	REQ-MM2-MEH-CM-2	The Mm2 reference point shall support a capability allowing the MEC platform manager to notify changes related to the information model of the MEC host to the OSS.	ETSI GS MEC 010-1, clause 5.1.1.1.1
MEH fault management	REQ-MM2-MEH-FM-1	The Mm2 reference point shall support a capability allowing the MEC platform manager to send MEC platform related alarms to the OSS.	ETSI GS MEC 010-1, clause 5.1.1.1.2
	REQ-MM2-MEH-FM-2	The Mm2 reference point shall support a capability allowing the OSS to retrieve and manage alarms from the MEC platform manager.	ETSI GS MEC 010-1, clause 5.1.1.1.2
MEC Applications configuration management (active)	REQ-MM2-MEA-CM-1	The Mm2 reference point shall support a capability allowing the OSS to create managed object instances representing MEC application instances in the MEC platform manager.	ETSI GS MEC 010-1, clause 5.1.1.2.1
	REQ-MM2-MEA-CM-2	The Mm2 reference point shall support a capability allowing the OSS to delete managed object instances representing MEC application instances in the MEC platform manager.	ETSI GS MEC 010-1, clause 5.1.1.2.1
	REQ-MM2-MEA-CM-3	The Mm2 reference point shall support a capability allowing the OSS to activate and deactivate the DNS rules related to a certain MEC application instance.	ETSI GS MEC 010-1, clause 5.1.1.2.1
	REQ-MM2-MEA-CM-4	The Mm2 reference point shall support a capability allowing the OSS to activate and deactivate the traffic rules related to a certain MEC application instance.	ETSI GS MEC 010-1, clause 5.1.1.2.1
MEC Applications configuration management (passive)	REQ-MM2-MEA-CM-5	The Mm2 reference point shall support a capability allowing the MEC platform manager to notify changes of managed object instances representing MEC application instances to the OSS.	ETSI GS MEC 010-1, clause 5.1.1.2.1
	REQ-MM2-MEA-CM-6	The Mm2 reference point shall support a capability allowing the MEC platform manager to notify object creation and deletion events of managed object instances representing MEC application instances to the OSS.	ETSI GS MEC 010-1, clause 5.1.1.2.1
MEC Applications state management	REQ-MM2-MEA-SM-1	The Mm2 reference point shall support a capability allowing the MEC platform manager to expose the operational state of instantiated MEC applications to the OSS.	ETSI GS MEC 010-1, clause 5.1.1.2.2

A.5.1.2 ICS

No Implementation Conformance Statements are reported or specified for ETSI GS MEC 010-1.

A.5.2 ETSI GS MEC 010-2

A.5.2.1 Test Requirements

This clause reports the functional requirements of the MEO and the MEC Platform Manager, as specified explicitly in ETSI GS MEC 010-2 or derived from the workflows and API definition, classified per features and focusing on Mm1 (see Table A.5.2.1-1 to Table A.5.2.1-4) and Mm3 (see Table A.5.2.1-5 to Table A.5.2.1-9).

**Table A.5.2.1-1: Classification of requirements per features (Mm1):
Application Package Management**

Requirement ID	Requirement description	Reference
Mm1.001	The Mm1 reference point shall support the application package management interface produced by the MEC Orchestrator.	ETSI GS MEC 010-2, clause 4.1.1.1
Mm1.AppPkgm.001	The Application Package Management interface produced by the MEO on the Mm1 reference point shall support on-boarding an Application Package.	ETSI GS MEC 010-2, clauses 4.1.1.2.1, 5.2.2 and 6.3.3.5
Mm1.AppPkgm.002	The Application Package Management interface produced by the MEO on the Mm1 reference point shall support querying Application Package information.	ETSI GS MEC 010-2, clauses 4.1.1.2.1, 5.2.3 and 6.3.3.8
Mm1.AppPkgm.003	The Application Package Management interface produced by the MEO on the Mm1 reference point shall support deleting an Application Package.	ETSI GS MEC 010-2, clauses 4.1.1.2.1, 5.2.6 and 6.3.3.9
Mm1.AppPkgm.004	The Application Package Management interface produced by the MEO on the Mm1 reference point shall support enabling an application package.	ETSI GS MEC 010-2, clauses 4.1.1.2.1, 5.2.5 and 6.3.3.6
Mm1.AppPkgm.005	The Application Package Management interface produced by the MEO on the Mm1 reference point shall support disabling an application package.	ETSI GS MEC 010-2, clauses 4.1.1.2.1, 5.2.4 and 6.3.3.7
MEC032.Mm1.AppPkgm.001	The Application Package Management interface produced by the MEO on the Mm1 reference point shall support aborting an Application Package deletion operation.	ETSI GS MEC 010-2, clause 6.3.3.10

**Table A.5.2.1-2: Classification of requirements per features (Mm1):
Application Package Management (Application Package format)**

Requirement ID	Requirement description	Reference
AppPkt.001	The application package shall contain software image(s) or link(s) to software image(s).	ETSI GS MEC 010-2, clause 4.1.3.1
AppPkt.002	The application package shall contain an application descriptor that describes the application requirements and rules which are required or preferred by the MEC application.	ETSI GS MEC 010-2, clause 4.1.3.1
AppPkt.003	The application package shall be signed by the application provider. The digest and the public key of the entity signing shall be included in the package along with the corresponding certificate.	ETSI GS MEC 010-2, clause 4.1.3.1
AppPkt.004	Files in the package may be individually signed. For each signed file, the corresponding public key, algorithm and certificate used shall be stored in a well-known location within the application package.	ETSI GS MEC 010-2, clause 4.1.3.1
AppPkt.005	The application package shall contain a manifest file which lists files that the package contains and a hash of their content.	ETSI GS MEC 010-2, clause 4.1.3.1

**Table A.5.2.1-3: Classification of requirements per features (Mm1):
Application Package Management (Application Descriptor)**

Requirement ID	Requirement description	Reference
AppDesc.001	The application descriptor shall contain a description of minimum computation resources required by the application, e.g. amount, characteristics and capabilities for virtual compute.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.002	The application descriptor shall contain a description of minimum virtual storage resources the required by application.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.003	The application descriptor shall contain a description of minimum virtual network resources required by the application.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.004	The application descriptor shall support describing a list of services a MEC application requires to run.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.005	The application descriptor shall support describing a list of additional services that a MEC application may use if available.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.006	The application descriptor shall support describing a list of features a MEC application requires to run.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.007	The application descriptor shall support describing a list of additional features a MEC application may use if available.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.008	The application descriptor shall support a description of Traffic Rules.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.009	The application descriptor shall support a description of DNS Rules which provide specific FQDNs to be registered into the MEC system (e.g. for redirection of traffic to local host).	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.010	The application descriptor shall support a description of latency required by the MEC application.	ETSI GS MEC 010-2, clause 4.1.3.2

**Table A.5.2.1-4: Classification of requirements per features (Mm1):
Application Lifecycle Management**

Requirement ID	Requirement description	Reference
Mm1.002	The Mm1 reference point shall support the application lifecycle management interface produced by the MEC Orchestrator.	ETSI GS MEC 010-2, clause 4.1.1.1
Mm1.AppLcm.001	The Application Lifecycle Management interface produced by the MEO on the Mm1 reference point shall support instantiating an Application instance.	ETSI GS MEC 010-2, clauses 4.1.1.2.2, 5.3 and 6.3.1.3
Mm1.AppLcm.002	The Application Lifecycle Management interface produced by the MEO on the Mm1 reference point shall support terminating an Application instance.	ETSI GS MEC 010-2, clauses 4.1.1.2.2, 5.4 and 6.3.1.7
Mm1.AppLcm.003	The Application Lifecycle Management interface produced by the MEO on the Mm1 reference point shall support requesting to change the state of an application instance. (Changing the state of an application instance refers to starting or stopping an application instance. These operations are complementary to instantiating or terminating an application.)	ETSI GS MEC 010-2, clauses 4.1.1.2.2 and 6.3.1.4
MEC032.Mm1.AppLcm.001	The Application Lifecycle Management interface produced by the MEO on the Mm1 reference point shall support creating an application instance identifier.	ETSI GS MEC 010-2, clause 6.3.1.2
MEC032.Mm1.AppLcm.002	The Application Lifecycle Management interface produced by the MEO on the Mm1 reference point shall support deleting an application instance identifier.	ETSI GS MEC 010-2, clause 6.3.1.8
MEC032.Mm1.AppLcm.003	The Application Lifecycle Management interface produced by the MEO on the Mm1 reference point shall support querying information about an application instance.	ETSI GS MEC 010-2, clause 6.3.1.5
MEC032.Mm1.AppLcm.004	The Application Lifecycle Management interface produced by the MEO on the Mm1 reference point shall support querying the status of a lifecycle operation.	ETSI GS MEC 010-2, clause 6.3.1.6

**Table A.5.2.1-5: Classification of requirements per features (Mm3):
Application Package Management**

Requirement ID	Requirement description	Reference
Mm3.001	The Mm3 reference point shall support the application package management interface produced by the MEC Orchestrator.	ETSI GS MEC 010-2, clause 4.1.2.1
Mm3.AppPkgm.001	The Application Package Management interface produced by the MEO on the Mm3 reference point shall support querying application package information.	ETSI GS MEC 010-2, clauses 4.1.2.2.1 and 6.3.3.2
Mm3.AppPkgm.002	The Application Package Management interface produced by the MEO on the Mm3 reference point shall support providing notifications as a result of changes on application package states.	ETSI GS MEC 010-2, clauses 4.1.2.2.1 and 6.3.3.4
Mm3.AppPkgm.003	The Application Package Management interface produced by the MEO on the Mm3 reference point shall support providing notifications about the on-boarding of application packages.	ETSI GS MEC 010-2, clauses 4.1.2.2.1 and 6.3.3.4
Mm3.AppPkgm.004	The Application Package Management interface produced by the MEO on the Mm3 reference point shall support fetching an application package, or selected files contained in a package.	ETSI GS MEC 010-2, clauses 4.1.2.2.1 and 6.3.3.1
MEC032.Mm3.AppPkgm.001	The MEPM shall be able to subscribe with a filter to the MEO for notifications related to events of application packages.	ETSI GS MEC 010-2, clause 6.3.3.3

**Table A.5.2.1-6: Classification of requirements per features (Mm3):
Application Package Management (Application Package format)**

Requirement ID	Requirement description	Reference
AppPkt.001	The application package shall contain software image(s) or link(s) to software image(s).	ETSI GS MEC 010-2, clause 4.1.3.1
AppPkt.002	The application package shall contain an application descriptor that describes the application requirements and rules which are required or preferred by the MEC application.	ETSI GS MEC 010-2, clause 4.1.3.1
AppPkt.003	The application package shall be signed by the application provider. The digest and the public key of the entity signing shall be included in the package along with the corresponding certificate.	ETSI GS MEC 010-2, clause 4.1.3.1
AppPkt.004	Files in the package may be individually signed. For each signed file, the corresponding public key, algorithm and certificate used shall be stored in a well-known location within the application package.	ETSI GS MEC 010-2, clause 4.1.3.1
AppPkt.005	The application package shall contain a manifest file which lists files that the package contains and a hash of their content.	ETSI GS MEC 010-2, clause 4.1.3.1

**Table A.5.2.1-7: Classification of requirements per features (Mm3):
Application Package Management (Application Descriptor)**

Requirement ID	Requirement description	Reference
AppDesc.001	The application descriptor shall contain a description of minimum computation resources required by the application, e.g. amount, characteristics and capabilities for virtual compute.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.002	The application descriptor shall contain a description of minimum virtual storage resources the required by application.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.003	The application descriptor shall contain a description of minimum virtual network resources required by the application.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.004	The application descriptor shall support describing a list of services a MEC application requires to run.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.005	The application descriptor shall support describing a list of additional services that a MEC application may use if available.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.006	The application descriptor shall support describing a list of features a MEC application requires to run.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.007	The application descriptor shall support describing a list of additional features a MEC application can may if available.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.008	The application descriptor shall support a description of Traffic Rules.	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.009	The application descriptor shall support a description of DNS Rules which provide specific FQDNs to be registered into the MEC system (e.g. for redirection of traffic to local host).	ETSI GS MEC 010-2, clause 4.1.3.2
AppDesc.010	The application descriptor shall support a description of latency required by the MEC application.	ETSI GS MEC 010-2, clause 4.1.3.2

**Table A.5.2.1-8: Classification of requirements per features (Mm3):
Application Lifecycle Management**

Requirement ID	Requirement description	Reference
Mm3.002	The Mm3 reference point shall support the application Lifecycle Management interface produced by the MEC Platform Manager.	ETSI GS MEC 010-2, clause 4.1.2.1
Mm3.AppLcm.001	The Application Lifecycle Management interface produced by the MEC Platform Manager on the Mm3 reference point shall support instantiating an Application.	ETSI GS MEC 010-2, clauses 4.1.2.2.2, 5.3.1 and 6.3.1.3
Mm3.AppLcm.002	The Application Lifecycle Management interface produced by the MEC Platform Manager on the Mm3 reference point shall support terminating an application instance.	ETSI GS MEC 010-2, clauses 4.1.2.2.2, 5.3.2 and 6.3.1.7
Mm3.AppLcm.003	The Application Lifecycle Management interface produced by the MEC Platform Manager on the Mm3 reference point shall support querying information about an application instance.	ETSI GS MEC 010-2, clauses 4.1.2.2.2 and 6.3.1.5
Mm3.AppLcm.004	The Application Lifecycle Management interface produced by the MEC Platform Manager on the Mm3 reference point shall support requesting to change the state of an application instance. (Changing the state of an application instance refers to starting or stopping an application instance. These operations are complementary to instantiating or terminating an application.)	ETSI GS MEC 010-2, clauses 4.1.2.2.2 and 6.3.1.4
Mm3.AppLcm.005	The Application Lifecycle Management interface produced by the MEC Platform Manager on the Mm3 reference point shall support querying the status of an ongoing application lifecycle management operation.	ETSI GS MEC 010-2, clauses 4.1.2.2.2 and 6.3.1.6
MEC032.Mm3.AppLcm.001	The Application Lifecycle Management interface produced by the MEC Platform Manager on the Mm3 reference point shall support creating an application instance identifier.	ETSI GS MEC 010-2, clause 6.3.1.2
MEC032.Mm3.AppLcm.002	The Application Lifecycle Management interface produced by the MEC Platform Manager on the Mm3 reference point shall support deleting an application instance identifier.	ETSI GS MEC 010-2, clause 6.3.1.8

**Table A.5.2.1-9: Classification of requirements per features (Mm3):
Application Lifecycle Change Notification**

Requirement ID	Requirement description	Reference
Mm3.003	The Mm3 reference point shall support the application Lifecycle Change Notification interface produced by the MEC Platform Manager.	ETSI GS MEC 010-2, clause 4.1.2.1
Mm3.AppLccn.001	The Application Lifecycle Change Notification interface produced by the MEC Platform Manager on the Mm3 reference point shall support providing to the MEO notifications about changes of an application instance that are related to application lifecycle management operations.	ETSI GS MEC 010-2, clauses 4.1.2.2.3 and 6.3.2.3
Mm3.AppLccn.002	Notifications provided on the Application Lifecycle Change Notification interface produced by the MEC Platform Manager on the Mm3 reference point shall contain information about the type of application lifecycle operation, the identification of the application instance.	ETSI GS MEC 010-2, clause 4.1.2.2.3
Mm3.AppLccn.003	Notifications provided on the Application Lifecycle Change Notification interface produced by the MEC Platform Manager on the Mm3 reference point shall support indicating the start of the lifecycle procedure, the end and the results of the lifecycle procedure including any error produced from the lifecycle procedure.	ETSI GS MEC 010-2, clause 4.1.2.2.3
Mm3.AppLccn.004	The Application Lifecycle Change Notification interface produced by the MEC Platform Manager on the Mm3 reference point shall support notifying the result (successful or failed) of application instantiation with indicating the application instance identifier, and the consumed, modified or released resources.	ETSI GS MEC 010-2, clause 4.1.2.2.3
MEC032.Mm3.AppLccn.001	The Application Lifecycle Change Notification interface produced by the MEC Platform Manager on the Mm3 reference point shall support notifying the creation of an application instance identified.	ETSI GS MEC 010-2, clause 6.3.2.3
MEC032.Mm3.AppLccn.002	The Application Lifecycle Change Notification interface produced by the MEC Platform Manager on the Mm3 reference point shall support notifying the deletion of an application instance identified.	ETSI GS MEC 010-2, clause 6.3.2.3
MEC032.Mm3.AppLccn.003	The MEO shall be able to subscribe with a filter to the MEPM for notifications about application lifecycle changes.	ETSI GS MEC 010-2, clause 6.3.2.2

A.5.2.2 ICS

Table A.5.2.2-1 defines the list of Implementation Conformance Statements for the features addressed in the MEC APIs for Application Package Management on Mm1 reference point.

Table A.5.2.2-1: Application package management (Mm1)

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	Application packages /app_packages	Table 7.2-1 in clause 7.2 of ETSI GS MEC 010-2	GET	M	Table 7.3.1.3.2-1	n/a	Table 7.3.1.3.2-2 OnboardedAppPkgInfo Table 6.2.3.3.2-1
2			POST	M	n/a	Table 7.3.1.3.1-2 AppPkg Table 6.2.3.2.2-1	Table 7.3.1.3.1-2 OnboardedAppPkgInfo Table 6.2.3.3.2-1
3			PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
4	Individual on-boarded application package /app_packages/{appPkgId}	Table 7.2-1 in clause 7.2 of ETSI GS MEC 010-2	GET	M	n/a	n/a	Table 7.3.2.3.2-2 OnboardedAppPkgInfo Table 6.2.3.3.2-1
5			PUT	M	appPkgOperation Table 7.3.2.3.3-1	n/a	n/a Table 7.3.2.3.3-2
6			DELETE	M	n/a	n/a	n/a Table 7.3.2.3.4-2
7			POST & PATCH	n/a	n/a	n/a	n/a
8	Application descriptor /app_packages/{appPkgId}/appDId	Table 7.2-1 (Mm1) in clause 7.2 of ETSI GS MEC 010-2	GET	M	Table 7.3.6.3.2-1	n/a	Table 7.3.6.3.2-2 AppD Table 6.2.1.2.2-1
9			POST & PUT & DELETE & PATCH	n/a	n/a	n/a	n/a

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
10	Subscriptions	Table 7.2-1 in clause 7.2 of ETSI GS MEC 010-2	POST	M	n/a	Table 7.3.3.3.1-1 AppPkgSubscription Table 6.2.3.7.2-1	Table 7.3.3.3.1-1 AppPkgSubscriptionInfo Table 6.2.3.4.2-1
11	/subscriptions		GET	M	n/a	n/a	Table 7.3.3.3.2-2 AppPkgSubscriptionLinkList Table 6.2.3.5.2-1
12			PUT & DELETE & PATCH	n/a	n/a	n/a	n/a
13	Individual subscription	Table 7.2-1 in clause 7.2 of ETSI GS MEC 010-2	GET	M	n/a	n/a	Table 7.3.4.3.2-2 AppPkgSubscriptionInfo Table 6.2.3.4.2-1
14	/subscriptions/{subscriptionId}		DELETE	M	n/a	n/a	n/a Table 7.3.4.3.4-2
15			POST & PUT & PATCH	n/a	n/a	n/a	n/a
NOTE: The payload body shall contain a copy of the file representing the AppD or a ZIP file that contains the file or multiple files representing the AppD. The "Content-Type" HTTP header shall be set according to the format of the returned file.							

Table A.5.2.2-2 defines the list of Implementation Conformance Statements for the features addressed in the MEC APIs for Application Package Management on Mm3 reference point.

Table A.5.2.2-2: Application package management (Mm3)

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	Application packages	Table 7.2-3 in clause 7.2 of ETSI GS MEC 010-2	GET	M	Table 7.4.1.3.2-1	n/a	Table 7.4.1.3.2-2 OnboardedAppPkgInfo Table 6.2.3.3.2-1
2	/app_packages		POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
3	Individual on-boarded application package	Table 7.2-3 in clause 7.2 of ETSI GS MEC 010-2	GET	M	n/a Table 7.4.2.3.2-1	n/a	Table 7.4.2.3.2-2 OnboardedAppPkgInfo Table 6.2.3.3.2-1
4	/app_packages/{appPkgId}		POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
5	Content of an individual on-boarded application package	Table 7.2-3 in clause 7.2 of ETSI GS MEC 010-2	GET	M	n/a Table 7.4.3.3.2-1	n/a	Table 7.4.3.3.2-2
6	/app_packages/{appPkgId}/appPkgContent		POST & PUT & DELETE & PATCH	n/a	n/a	n/a	n/a
7	Application descriptor	Table 7.2-3 in clause 7.2 of ETSI GS MEC 010-2	GET	M	n/a Table 7.4.4.3.2-1	n/a	Table 7.4.4.3.2-2
8	/app_packages/{appPkgId}/app_descriptor		POST & PUT & DELETE & PATCH	n/a	n/a	n/a	n/a
9	Subscriptions /subscriptions	Table 7.2-3 in clause 7.2 of ETSI GS MEC 010-2	POST	M	n/a	Table 7.4.5.3.1-1 AppPkgSubscription Table 6.2.3.7.2-1	Table 7.4.5.3.1-1 AppPkgSubscriptionInfo Table 6.2.3.4.2-1
10			GET	M	n/a Table 7.4.5.3.2-1	n/a	Table 7.4.5.2-2 AppPkgSubscriptionLinkList Table 6.2.3.5.2-1
11			PUT & DELETE & PATCH	n/a	n/a	n/a	n/a

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
12	Individual subscription	Table 7.2-3 in clause 7.2 of ETSI GS MEC 010-2	GET	M	n/a Table 7.4.6.3.2-1	n/a	Table 7.4.6.3.2-2 AppPkgSubscriptionInfo Table 6.2.3.4.2-1
13	/subscriptions/{subscriptionId}		DELETE	M	n/a Table 7.4.6.3.4-1	n/a	n/a Table 7.4.6.3.4-2
14			POST & PUT & PATCH	n/a	n/a	n/a	n/a

NOTE 1: On success, the response body should include a copy of the on-boarded application package. The "Content-Type" HTTP header shall be set according to the type of the file.

NOTE 2: On success, the response body should include the content of the application descriptor of the on-boarded application package.

The list of Implementation Conformance Statements for App Package Management notifications is defined in Table A.5.2.2-3 for both Mm1 and Mm3 reference points.

Table A.5.2.2-3: App Package Management notification callback

ID	Client provided callback reference	Reference	HTTP Method	Required according to GS	Request Body
1			GET, PUT, PATCH & DELETE	n/a	n/a
2	app_package_notification	Clauses 7.2 to 7.3.5 (Mm1) and 7.4.7 (Mm3) of ETSI GS MEC 010-2	POST	M	Table 7.3.5.3.1-2 (Mm1) Table 7.4.7.3.1-2 (Mm3) AppPkgNotification (clause 6.2.3.8 of ETSI GS MEC 010-2)

Table A.5.2.2-4 defines the list of Implementation Conformance Statements for the features addressed in the MEC APIs for Application Life Cycle Management on Mm1 and Mm3 reference point.

Table A.5.2.2-4: Application life cycle management (Mm1 and Mm3)

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	application instances /app_instances	Table 7.2-2 (Mm1) in clause 7.2 of ETSI GS MEC 010-2,	GET	M	Table 7.5.1.3.2-1 ETSI GS MEC 010-2 [4]	n/a	Table 7.5.1.3.2-2 ETSI GS MEC 010-2 AppInstanceInfo Table 6.2.2.4.2-1 ETSI GS MEC 010-2
2			POST	M	n/a	Table 7.5.1.3.1-2 CreateAppInstanceRequest Table 6.2.2.3.2-1	Table 7.5.1.3.1-2 AppInstanceInfo Table 6.2.2.4.2-1
3			PUT, PATCH & DELETE	n/a	n/a.	n/a	n/a
4	Individual application instance /app_instances/{appInstanceId}	Table 7.2-2 (Mm1) in clause 7.2 of ETSI GS MEC 010-2	GET	M	n/a Table 7.5.2.3.2-1	n/a	Table 7.5.2.3.2-2 AppInstanceInfo Table 6.2.2.4.2-1
5			DELETE	M	n/a	n/a Table 7.5.2.3.4-1	n/a Table 7.5.2.3.4-2
6			POST & PATCH	n/a	n/a	n/a	n/a
7	Instantiate application instance task /app_instances/{appInstanceId}/instantiate	Table 7.2-2 (Mm1) in clause 7.2 of ETSI GS MEC 010-2	POST	M	n/a	Table 7.5.6.3.1-2 InstantiateAppRequest (Table 6.2.2.7.2-1)	n/a Table 7.5.6.3.1-2
8			PUT & PATCH & GET & DELETE	n/a	n/a	n/a	n/a

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
9	Terminate application instance task /app_instances/{appInstanceId}/ terminate	Table 7.2-2 (Mm1) in clause 7.2 of ETSI GS MEC 010-2	POST	M	n/a	Table 7.5.7.3.1-2 TerminateAppRequest (Table 6.2.2.9.2-1)	n/a Table 7.5.7.3.1-2
10			PUT & PATCH & GET & DELETE	n/a	n/a	n/a	n/a
11	Operate application instance task /app_instances/{appInstanceId}/ operate	Table 7.2-2 (Mm1) in clause 7.2 of ETSI GS MEC 010-2	POST	M	n/a	Table 7.5.8.3.1-2 OperateAppInstanceRequest (Table 6.2.2.8.2-1)	n/a Table 7.5.8.3.1-2
12			PUT & PATCH & GET & DELETE	n/a	n/a	n/a	n/a
13	Application lifecycle operation occurrences /app_lcm_op_occs	Table 7.2-2 (Mm1) in clause 7.2 of ETSI GS MEC 010-2	GET	M	Table 7.5.9.1.3.2-1	n/a	Table 7.5.9.1.3.2-2 List<AppInstanceLcmOpOcc> Table 6.2.2.14.2-1
14			POST & PUT & PATCH & DELETE	n/a	n/a	n/a	n/a

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ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
15	Individual application lifecycle operation occurrence	Table 7.2-2 (Mm1) in clause 7.2 of ETSI GS MEC 010-2	GET	M	n/a Table 7.5.10.2.3.2-1	n/a	Table 7.5.10.2.3.2-2 AppInstanceLcmOpOcc (Table 6.2.2.14.2-1)
16	/app_lcm_op_occs/{appLcmOcclId}		POST & PUT & PATCH & DELETE	n/a	n/a	n/a	n/a
17	Subscriptions /subscriptions	Table 7.2-2 (Mm1) in clause 7.2 of ETSI GS MEC 010-2	POST	M	n/a	Table 7.5.3.3.1-2 AppInstSubscription Request (Table 6.2.2.13.2-1) Or AppLcmOpOccSubscriptionRequest (Table 6.2.2.15.2-1)	Table 7.5.3.3.1-2 AppInstSubscriptionInfo (Table 6.2.2.10.2-1) Or AppLcmOpOccSubscriptionInfo (Table 6.2.2.16.2-1)
18			GET	M	n/a	n/a Table 7.5.3.3.2-2	Table 7.5.3.3.2-2 SubscriptionLinkList
19			PUT & PATCH & DELETE	n/a	n/a	n/a	n/a

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ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
20	Individual subscription /subscriptions/{subscriptionId}	Table 7.2-2 (Mm1) in clause 7.2 of ETSI GS MEC 010-2	GET	M	Table 7.5.4.3.2-1	n/a Table 7.5.4.3.2-2	Table 7.5.4.3.2-2 AppInstSubscriptionInfo (Table 6.2.2.10.2-1) Or AppLcmOpOccSubscriptionInfo (Table 6.2.2.16.2-1)
21			DELETE	M	n/a	n/a Table 7.5.4.3.4-2	n/a Table 7.5.4.3.4-2
22				POST & PUT & PATCH	n/a	n/a	n/a

NOTE: The HTTP response shall include a "Location" HTTP header that contains the URI of the newly-created "application LCM operation occurrence" resource that corresponds to this application instance LCM operation.

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The list of Implementation Conformance Statements for App Lifecycle Management notifications is defined in Table A.5.2.2-5.

Table A.5.2.2-5: Application life cycle management notification call-backs (Mm1)

ID	Client provided callback reference	Reference	HTTP Method	Required according to GS	Request Body
1	app_lifecycle_notification	Clause 7.2 of ETSI GS MEC 010-2	GET, PUT, PATCH & DELETE	n/a	n/a
2			POST	M	Table 7.5.5.3.1-2 AppInstNotification (Table 6.2.2.12.2-1) Or AppLcmOpOccNotification (Table 6.2.2.18.2-1)

Table A.5.2.2-6 defines the list of Implementation Conformance Statements for the granting features addressed in the MEC APIs for Application Life Cycle Management on Mm3 reference point.

Table A.5.2.2-6: Granting for application life cycle management operations (Mm3)

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	Grants	Table 7.2-5 in clause 7.2 of ETSI GS MEC 010-2	POST	M	n/a	Table 7.6.1.3.1-2 GrantRequest Table 6.2.4.2.2-1	Table 7.6.1.3.1-2 Grant Table 6.2.4.4.2-1
2	/grants		GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
3	Individual grant	Table 7.2-5 in clause 7.2 of ETSI GS MEC 010-2	GET	M	n/a	n/a	Table 7.6.2.3.2-2 Grant Table 6.2.4.4.2-1
4	/grants/{grantId}		POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a

A.5.3 ETSI GS MEC 011

A.5.3.1 Test Requirements

ETSI GS MEC 002 [2], clause 6.2, defines the Platform essential MEC services. Upon analysis of such features, no specific test requirements were deemed necessary to improve the conformance and interoperability levels. Therefore Table A.5.3.1-1 contains no information.

Table A.5.3.1-1: Classification of requirements for the Platform services

Feature	Requirement ID	Requirement description	Reference
Platform	n/a	n/a	n/a

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A.5.3.2 ICS

Table A.5.3.2-1 defines the list of Implementation Conformance Statements for the features addressed in the MEC Application Support API.

Table A.5.3.2-1: Manage a specific item in MEC Application Support API

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	all mecAppSupportSub scrip tion of a subscriber	Clause 7.2.3 of ETSI GS MEC 011	GET	O	n/a	n/a	SubscriptionLinkList Table 6.2.2-1
2			POST	O	n/a	AppTerminationNotificati onSubscription Table 7.1.3.2-1	AppTerminationNotificati onSubscription Table 7.1.3.2-1
3			PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
4	Individual mecAppSupportSub scrip tion	Clause 7.2.4 of ETSI GS MEC 011	GET	O	n/a	n/a	AppTerminationNotification Subscription Table 7.1.3.2-1
5			DELETE	O	n/a	n/a	n/a
6			PUT, PATCH & POST	n/a	n/a	n/a	n/a
3	Application Notifications	Clause 5.2.3 of ETSI GS MEC 011	POST	O	n/a	AppTerminationNotification Table 7.1.4.2-1	n/a
4			GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
5	Timing capabilities	Clause 7.2.5 of ETSI GS MEC 011	GET	O	n/a	n/a	TimingCaps Table 7.1.2.4-1
6			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
7	Current time	Clause 7.2.6 of ETSI GS MEC 011	GET	O	n/a	n/a	CurrentTime Table 7.1.2.5-1
8			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
9	all mecTrafficRule of an application instance	Clause 7.2.7 of ETSI GS MEC 011	GET	O	n/a	n/a	TrafficRule Table 7.1.2.2-1
10			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
15	individual mecTrafficRule	Clause 7.2.8 of ETSI GS MEC 011	GET	O	n/a	n/a	TrafficRule Table 7.1.2.2-1
16			PUT	O	n/a	TrafficRule Table 7.1.2.2-1	TrafficRule Table 7.1.2.2-1
17			POST, PATCH & DELETE	n/a	n/a	n/a	n/a

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
18	all mecDnsRule of an application instance	Clause 7.2.9 of ETSI GS MEC 011	GET	O	n/a	n/a	DnsRule Table 7.1.2.3-1
19			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
20	individual mecDnsRule	Clause 7.2.10 of ETSI GS MEC 011	GET	O	n/a	n/a	DnsRule Table 7.1.2.3-1
21			PUT	O	n/a	DnsRule Table 7.1.2.3-1	DnsRule Table 7.1.2.3-1
22			POST, PATCH & DELETE	n/a	n/a	n/a	n/a
23	confirm termination	Clause 7.2.11 of ETSI GS MEC 011	POST	O	n/a	AppTerminationConfirmation Table 7.1.4.3-1	n/a
24			GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
25	confirm ready	Clause 7.2.12 of ETSI GS MEC 011	POST	O	n/a	AppReadyConfirmation Table 7.1.4.4-1	n/a
26			GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a

Table 5.3.2-2 defines the list of Implementation Conformance Statements for the features addressed in the MEC Service Management API.

Table 5.3.2-2: Manage a specific item in MEC Service Management API

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	a list of mecService	Clause 8.2.3 of ETSI GS MEC 011	GET	O	Table 8.2.3.3.1-1	n/a	ServiceInfo Table 8.1.2.2-1
2			POST, PATCH & DELETE	n/a	n/a	n/a	n/a
3	individual mecService	Clause 8.2.4 of ETSI GS MEC 011	GET	O	n/a	n/a	ServiceInfo Table 8.1.2.2-1
4			PUT, POST, PATCH & DELETE	n/a	n/a	n/a	n/a
5	a list of mecTransport	Clause 8.2.5 of ETSI GS MEC 011	GET	O	n/a	n/a	TransportInfo Table 8.1.2.3-1
6			PUT, POST, PATCH & DELETE	n/a	n/a	n/a	n/a

7			GET	O	Table 8.2.6.3.1-1	n/a	ServiceInfo Table 8.1.2.2-1
8	a list of mecService of an application instance	Clause 8.2.6 of ETSI GS MEC 011	POST	O	n/a	ServiceInfo Table 8.1.2.2-1	ServiceInfo Table 8.1.2.2-1
9			POST, PATCH & DELETE	n/a	n/a	n/a	n/a
10			GET	O	n/a	n/a	ServiceInfo Table 8.1.2.2-1
11	individual mecService of an application instance	Clause 8.2.7 of ETSI GS MEC 011	PUT	O	n/a	ServiceInfo Table 8.1.2.2-1	ServiceInfo Table 8.1.2.2-1
12			DELETE	O	n/a	n/a	n/a
13			PUT & PATCH	n/a	n/a	n/a	n/a
14			GET	O	n/a	n/a	SubscriptionLinkList Table 6.2.2-1
15	all mecSrvMgmtSubscription	Clause 8.2.8 of ETSI GS MEC 011	POST	O	n/a	SerAvailabilityNotificationSubscription Table 8.1.3.2-1	SerAvailabilityNotificationSubscription Table 8.1.3.2-1
16			DELETE, PUT & PATCH	n/a	n/a	n/a	n/a
17			GET	O	n/a	n/a	SerAvailabilityNotificationSubscription Table 8.1.3.2-1
18	individual mecSrvMgmtSubscription	Clause 8.2.9 of ETSI GS MEC 011	DELETE	O	n/a	n/a	n/a
19			POST, PATCH & DELETE	n/a	n/a	n/a	n/a
20			GET	O	n/a	n/a	ServiceLivenessInfo Table 8.1.2.4-1
21	individual mecServiceLiveness	Clause 8.2.10 of ETSI GS MEC 011	PATCH	O	n/a	ServiceLivenessUpdate Table 8.1.2.5-1	ServiceLivenessInfo Table 8.1.2.4-1
22			PUT, POST & DELETE	n/a	n/a	n/a	n/a

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A.5.4 ETSI GS MEC 012

A.5.4.1 Test Requirements

Table A.5.4.1-1 reports the functional requirements of the RNI service, as derived from the API definition in ETSI GS MEC 012 [6].

Table A.5.4.1-1: RNIS requirements

Requirement ID	Requirement description	Reference
Mec032.RNI.query.01	When the MEC system supports the feature RadioNetworkInformation, there shall be a RNI service that provides cell level Radio Access Bearer information on request.	ETSI GS MEC 012, clauses 5.2.2 and 7.3.3
Mec032.RNI.query.02	When the MEC system supports the feature RadioNetworkInformation, there shall be a RNI service that provides cell level Public Land Mobile Network (PLMN) information related to a specific MEC application instance on request.	ETSI GS MEC 012, clauses 5.2.3 and 7.4.3
Mec032.RNI.query.03	When the MEC system supports the feature RadioNetworkInformation, there shall be a RNI service that provides S1 bearer information on request.	ETSI GS MEC 012, clauses 5.2.4 and 7.5.3
Mec032.RNI.query.04	When the MEC system supports the feature RadioNetworkInformation, there shall be a RNI service that provides Layer 2 measurements information on request.	ETSI GS MEC 012, clauses 5.2.4a and 7.5a.3
Mec032.RNI.subscription.01	When the MEC system supports the feature RadioNetworkInformation, there shall be a RNI service that support requests for subscribing to RNI event notifications.	ETSI GS MEC 012, clauses 5.2.5.1 and 7.6.3.4
Mec032.RNI.subscription.02	When the MEC system supports the feature RadioNetworkInformation, the RNI service may trigger notifications about subscriptions expiration.	ETSI GS MEC 012, clauses 5.2.5.2 and 6.4.9
Mec032.RNI.subscription.03	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall support requests to modify the subscriptions to RNI event notifications.	ETSI GS MEC 012, clauses 5.2.5.3 and 7.8.3.2
Mec032.RNI.subscription.04	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall support requests to delete the subscriptions to RNI event notifications.	ETSI GS MEC 012, clauses 5.2.5.4 and 7.8.3.5
Mec032.RNI.subscription.05	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall support requests to query all the active subscriptions to RNI event notifications for the given requestor.	ETSI GS MEC 012, clause 7.6.3.1
Mec032.RNI.subscription.06	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall support requests to retrieve information about an existing subscription to RNI event notifications.	ETSI GS MEC 012, clauses 7.8.3.1
Mec032.RNI.notification.01	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall send RNI event notifications about cell changes to service consumers with active subscriptions.	ETSI GS MEC 012, clauses 5.2.6 and 6.4.2
Mec032.RNI.notification.02	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall send RNI event notifications about Radio Access Bearer establishment to service consumers with active subscriptions.	ETSI GS MEC 012, clauses 5.2.7 and 6.4.3
Mec032.RNI.notification.03	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall send RNI event notifications about Radio Access Bearer modification to service consumers with active subscriptions.	ETSI GS MEC 012, clauses 5.2.8 and 6.4.4
Mec032.RNI.notification.04	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall send RNI event notifications about Radio Access Bearer release to service consumers with active subscriptions.	ETSI GS MEC 012, clauses 5.2.9 and 6.4.5

Requirement ID	Requirement description	Reference
Mec032.RNI.notification.05	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall send RNI event notifications about UE measurement reports to service consumers with active subscriptions.	ETSI GS MEC 012, clauses 5.2.10 and 6.4.6
Mec032.RNI.notification.06	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall send RNI event notifications about UE timing advance to service consumers with active subscriptions.	ETSI GS MEC 012, clauses 5.2.11 and 6.4.7
Mec032.RNI.notification.07	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall send RNI event notifications about carrier aggregation reconfiguration to service consumers with active subscriptions.	ETSI GS MEC 012, clauses 5.2.12 and 6.4.8
Mec032.RNI.notification.08	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall send RNI event notifications about S1 bearer to service consumers with active subscriptions.	ETSI GS MEC 012, clauses 5.2.13 and 6.4.10
Mec032.RNI.notification.09	When the MEC system supports the feature RadioNetworkInformation, the RNI service shall send RNI event notifications about 5G NR UE measurement reports to service consumers with active subscriptions.	ETSI GS MEC 012, clauses 5.2.14 and 6.4.11

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A.5.4.2 ICS

The list of Implementation Conformance Statements for RNIS queries is defined in Table A.5.4.2-1.

Table A.5.4.2-1: RNIS simple queries

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	/queries/rab_info	Clause 7.3 ETSI GS MEC 012	GET	M	Table 7.3.3.1-1	n/a	Table 7.3.3.1-2 RabInfo (clause 6.2.3)
2			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
3	/queries/plmn_info	Clause 7.4 ETSI GS MEC 012	GET	M	Table 7.4.3.1-1	n/a	Table 7.4.3.1-2 PlmnInfo (clause 6.2.2)
4			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
5	/queries/s1_bearer_info	Clause 7.5 ETSI GS MEC 012	GET	M	Table 7.5.3.1-1	n/a	Table 7.5.3.1-2 S1BearerInfo (clause 6.2.4)
6			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
7	/queries/layer2_meas	Clause 7.5a ETSI GS MEC 012	GET	M	Table 7.5a.3.1-1	n/a	Table 7.5a.3.1-2 L2Meas (clause 6.4.2a)
8			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a

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The list of Implementation Conformance Statements for RNIS subscription is defined in Table A.5.4.2-2 (subscriptions list) and in Table A.5.4.2-3 (individual subscriptions).

Table A.5.4.2-2: All subscriber's subscriptions

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	/subscriptions	Clause 7.6 ETSI GS MEC 012	GET	M	Table 7.6.3.1-1	n/a	Table 7.6.3.1-2 SubscriptionLinkList (clause 6.3.10)
2			POST	M	n/a	Table 7.6.3.4-1 NotificationSubscription (clause 6.3.2-11)	Table 7.6.3.4-1 NotificationSubscription (clause 6.3.2-11)
3			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a

Table A.5.4.2-3: Individual subscriptions

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	subscriptions/{subscriptionId}	Clause 7.8 of ETSI GS MEC 012	GET	M	n/a	n/a	Table 7.8.3.1-2 NotificationSubscription (clause 6.3.2-11)
2			PUT	M	n/a	Table 7.8.3.2-2 NotificationSubscription (clause 6.3.2-11)	Table 7.8.3.2-2 NotificationSubscription (clause 6.3.2-11)
3			DELETE	M	n/a	n/a	n/a
4			POST & PATCH	n/a	n/a	n/a	n/a

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The list of Implementation Conformance Statements for RNIS notification is defined in Table A.5.4.2-4.

Table A.5.4.2-4: Notification callback

ID	Client provided callback reference	Reference	HTTP Method	Required according to GS	Request Body
1	cell_change	Clause 6.4.2 & Table 7.2-1 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
2			POST	M	CellChangeNotification (clause 6.4.2)
3	rab_est	Clause 6.4.3 & table 7.2-1 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
4			POST	M	RabEstNotification (clause 6.4.3)
5	rab_mod	Clause 6.4.4 & Table 7.2-1 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
6			POST	M	RabModNotification (clause 6.4.4)
7	rab_rel	Clause 6.4.5 & Table 7.2-1 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
8			POST	M	RabRelNotification (clause 6.4.5)
9	meas_rep_ue	Clause 6.4.6 & Table 7.2-1 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
10			POST	M	MeasRepUeNotification (clause 6.4.6)
11	ta	Clause 6.4.7 & Table 7.2-1 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
12			POST	M	MeasTaNotification (clause 6.4.7)
13	ca_reconf	Clause 6.4.8 & Table 7.2-1 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
14			POST	M	CaReConfNotification (clause 6.4.8)
15	s1_bearer	Clause 6.4.10 & Table 7.2-1 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
16			POST	M	S1BearerNotification (clause 6.4.10)
17	nr_meas_rep_ue	Clause 6.4.11 & Table 7.2-1 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
18			POST	M	NrMeasRepUeNotification (clause 6.4.11)
19	ExpiryNotification	Clause 6.4.9 of ETSI GS MEC 012	GET, PUT, PATCH & DELETE	n/a	n/a
20			POST	M	ExpiryNotification (clause 6.4.9)

A.5.5 ETSI GS MEC 013

A.5.5.1 Test Requirements

ETSI GS MEC 002 [2], clause 6.3.4, defines the features for the Location service. Upon analysis of such features, the following list of requirements was collected, including provisions that are not explicitly marked but which can be tested to improve conformance and interoperability levels. These requirements are defined in Table A.5.5.1-1.

Table A.5.5.1-1: Classification of requirements for the Feature "LocationService"

Requirement ID	Requirement description	Reference
MEC032.Mp1.Location.001	When the MEC system supports the feature LocationService, there shall be a MEC service that provides UE Information pertaining to one or more UEs in a particular location.	ETSI GS MEC 013, clauses 5.3.3 and 7.3.3
MEC032.Mp1.Location.002	When the MEC system supports the feature LocationService, there shall be a MEC service that allows the subscription of notifications about location information changes of a specific UE or a group of UEs.	ETSI GS MEC 013, clauses 5.3.4 and 7.3.4
MEC032.Mp1.Location.003	When the MEC system supports the feature LocationService, there shall be a MEC service that provides notifications on location information changes of a specific UE or a group of UEs. Such notifications will continue to report the subscribed information until the subscription is cancelled, or an optional specified time limit.	ETSI GS MEC 013, clauses 5.3.4 and 7.3.4
MEC032.Mp1.Location.004	When the MEC system supports the feature LocationService, there shall be a MEC service that allows to cancel the subscription on notifications for location information changes.	ETSI GS MEC 013, clauses 5.3.4 and 7.3.4
MEC032.Mp1.Location.005	When the MEC system supports the feature LocationService, there shall be a MEC service that allows the subscription of notifications about UE information updates for a specified UE.	ETSI GS MEC 013, clauses 5.3.5 and 7.3.5
MEC032.Mp1.Location.006	When the MEC system supports the feature LocationService, there shall be a MEC service that allows the subscription of notifications about UE information updates for the list of UEs in a particular location.	ETSI GS MEC 013, clauses 5.3.5 and 7.3.5
MEC032.Mp1.Location.007	When the MEC system supports the feature LocationService, there shall be a MEC service which provides notifications on UE information changes. Such notifications will continue to report the subscribed information until the subscription is cancelled.	ETSI GS MEC 013, clauses 5.3.5 and 7.3.5
MEC032.Mp1.Location.008	When the MEC system supports the feature LocationService, there shall be a MEC service that allows to cancel the subscription on notifications for UE information updates.	ETSI GS MEC 013, clauses 5.3.5 and 7.3.5
MEC032.Mp1.Location.009	When the MEC system supports the feature LocationService, there shall be a MEC service that provides the current distance of a specific UE to a geographical location, or another UE.	ETSI GS MEC 013, clause 5.3.9 and 7.3.9
MEC032.Mp1.Location.010	When the MEC system supports the feature LocationService, there shall be a MEC service that allows the subscription of notifications about the up-to-date distance for a specific UE to a geographical location, or another UE. Such notifications will continue to report the subscribed information until the subscription is cancelled.	ETSI GS MEC 013, clauses 5.3.10 and 7.3.10
MEC032.Mp1.Location.011	When the MEC system supports the feature LocationService, there shall be a MEC service that allows to cancel the subscription on notifications for UE distance updates.	ETSI GS MEC 013, clauses 5.3.10 and 7.3.10

Requirement ID	Requirement description	Reference
MEC032.Mp1.Location.012	When the MEC system supports the feature LocationService, there shall be a MEC service that allows the subscription of UE movement notifications in relation to a geographic area. Such notifications will continue to report the subscribed information until the subscription is cancelled.	ETSI GS MEC 013, clauses 5.3.11 and 7.3.11
MEC032.Mp1.Location.013	When the MEC system supports the feature LocationService, there shall be a MEC service that allows to cancel the subscription on notifications for UE movement updates.	ETSI GS MEC 013, clauses 5.3.11 and 7.3.11

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A.5.5.2 ICS

Table A.5.5.2-1 defines the list of Implementation Conformance Statements for the features addressed in the Location API.

Table A.5.5.2-1: Simple queries

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	UE Location Lookup	Clause 7.3.2 of ETSI GS MEC 013	GET	O	Table 7.3.2.1-1	n/a	UserInfo 6.2.2
2			POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
3	UE Information Lookup	Clause 7.3.3 of ETSI GS MEC 013	GET	O	Table 7.3.2.1-1	n/a	UserInfo 6.2.1
4			POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
5	Radio Node Location Lookup	Clause 7.3.7 of ETSI GS MEC 013	GET	O	Clause 6.3.3	n/a	AccessPointList (clause 6.2.1)
6			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
7	UE Distance Subscribe	Clause 7.3.10 of ETSI GS MEC 013	POST	O	n/a	DistanceNotificationSubscription (clause 6.3.2)	DistanceNotificationSubscription (clause 6.3.2)
8			GET, PUT, PATCH, & DELETE	n/a	n/a	n/a	n/a
9	UE Area Subscribe	Clause 7.3.11 of ETSI GS MEC 013	POST	O	n/a	CircleNotificationSubscription (clause 6.3.2)	CircleNotificationSubscription (clause 6.3.2)
10			GET, PUT, PATCH, & DELETE	n/a	n/a	n/a	n/a

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Table A.5.5.2-2 defines the list of Implementation Conformance Statements for the instances of every feature addressed in the Location API.

Table A.5.5.2-2: Manage a specific item

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	UE Location Subscription	Clause 7.3.4 of ETSI GS MEC 013	POST & PUT	O	n/a	UserTrackingSubscription (clause 6.3.1)	UserTrackingSubscription (clause 6.3.1)
2			GET, PATCH & DELETE	n/a	n/a	n/a	n/a
3	UE Information Subscription	Clause 7.3.5 of ETSI GS MEC 013	POST & PUT	O	n/a	zonalTrafficSubscription (clause 6.3.1)	zonalTrafficSubscription (clause 6.3.1)
4			GET, PATCH & DELETE	n/a	n/a	n/a	n/a
5	UE Location Unsubscribe	Clause 7.3.6 of ETSI GS MEC 013	DELETE	O	n/a	n/a	n/a
6			GET, POST, PUT & PATCH	n/a	n/a	n/a	n/a
7	UE Information Unsubscribe	Clause 7.3.6 of ETSI GS MEC 013	DELETE	O	n/a	n/a	n/a
8			GET, POST, PUT & PATCH	n/a	n/a	n/a	n/a
9	UE Tracking Unsubscribe	Clause 7.3.6 of ETSI GS MEC 013	DELETE	O	n/a	n/a	n/a
10			GET, POST, PUT & PATCH	n/a	n/a	n/a	n/a
11	UE Distance Unsubscribe	Clause 7.3.6 of ETSI GS MEC 013	DELETE	O	n/a	n/a	n/a
12			GET, POST, PUT & PATCH	n/a	n/a	n/a	n/a
13	UE Area Unsubscribe	Clause 7.3.6 of ETSI GS MEC 013	DELETE	O	n/a	n/a	n/a
14			GET, POST, PUT & PATCH	n/a	n/a	n/a	n/a
15	UE Tracking Subscription	Clause 7.3.8 of ETSI GS MEC 013	POST & PUT	O	n/a	PeriodicNotificationSubscription (clause 6.3.2)	PeriodicNotificationSubscription (clause 6.3.2)
16			GET, POST, PATCH & DELETE	n/a	n/a	n/a	n/a

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A.5.6 ETSI GS MEC 014

A.5.6.1 Test Requirements

ETSI GS MEC 002 [2], clause 6.3.6, defines the features for the UE Identity service. Upon analysis of such features, the following list of requirements was collected, including provisions that are not explicitly marked but which can be tested to improve conformance and interoperability levels. These requirements are defined in Table A.5.6.1-1.

Table A.5.6.1-1: Classification of requirements for the Feature "UEIdentity"

Requirement ID	Requirement description	Reference
MEC032.Mp1.UEIdentity.001	When the MEC system supports the feature UEIdentity, the MEC platform shall provide functionality for a MEC application to de-register a token (representing a UE) or a list of tokens.	ETSI GS MEC 014, clauses 5.2.3 and 7.3.3

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A.5.6.2 ICS

Table A.5.6.2-1 defines the list of Implementation Conformance Statements for the instances of every feature addressed in the UE Identity API.

Table A.5.6.2-1: Manage a specific item

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	UE Identity tag	Clause 7.3.6 of ETSI GS MEC 014	GET	O	Table 7.3.3.1-1	n/a	UeIdentityTagInfo Table 6.2.2-1
2			PUT	O	n/a	UeIdentityTagInfo Table 6.2.2-1	UeIdentityTagInfo Table 6.2.2-1
3			POST, PATCH & DELETE	n/a	n/a	n/a	n/a

A.5.7 ETSI GS MEC 015

A.5.7.1 Test Requirements

ETSI GS MEC 002 [2] clause 6.3.5 defines the features for the Bandwidth Management service, and clause 6.3.10 defines the features for the Multi-access Traffic Steering service. Upon analysis of such features, the following list of requirements was collected, including provisions that are not explicitly marked but which can be tested to improve conformance and interoperability levels. The requirements for the Bandwidth Management service are defined in Table A.5.7.1-1, and the requirements for the Multi-access Traffic Steering (MTS) service are defined in Table A.5.7.1-2.

Table A.5.7.1-1: Classification of requirements for the Feature "BandwidthManager"

Requirement ID	Requirement description	Reference
MEC032.Mp1.BandwidthManager.001	When the MEC system supports the feature BandwidthManager, the dedicated MEC application may update the requested bandwidth requirements and/or priority.	ETSI GS MEC 015, clauses 6.2.4 and 8.3
MEC032.Mp1.BandwidthManager.002	When the MEC system supports the feature BandwidthManager, the dedicated MEC application may cancel a previous request for bandwidth requirements and/or priority.	ETSI GS MEC 015, clauses 6.2.3 and 8.3
MEC032.Mp1.BandwidthManager.003	When the MEC system supports the feature BandwidthManager, the dedicated MEC application may query its configured bandwidth allocation.	ETSI GS MEC 015, clauses 6.2.5 and 8.3
MEC032.Mp1.BandwidthManager.004	When the MEC system supports the feature BandwidthManager, an MEC application may query all configured bandwidth allocations.	ETSI GS MEC 015, clauses 6.2.5 and 8.4
MEC032.Mp1.BandwidthManager.005	When the MEC system supports the feature BandwidthManager, the dedicated MEC application may request the bandwidth allocation.	ETSI GS MEC 015, clauses 6.2.2 and 8.3

Table A.5.7.1-2: Classification of requirements for the Feature "MultiaccessTrafficSteering"

Requirement ID	Requirement description	Reference
MEC032.Mp1. MultiaccessTrafficSteering.001	When the MEC system supports the feature MultiaccessTrafficSteering, an MEC application may query the available MTS service information.	ETSI GS MEC 015, clauses 6.2.6 and 9.3
MEC032.Mp1. MultiaccessTrafficSteering.002	When the MEC system supports the feature MultiaccessTrafficSteering, an MEC application may request to create an MTS session.	ETSI GS MEC 015, clauses 6.2.7 and 9.5
MEC032.Mp1. MultiaccessTrafficSteering.003	When the MEC system supports the feature MultiaccessTrafficSteering, the dedicated MEC application may cancel its MTS session.	ETSI GS MEC 015, clauses 6.2.8 and 9.4
MEC032.Mp1. MultiaccessTrafficSteering.004	When the MEC system supports the feature MultiaccessTrafficSteering, the dedicated MEC application may update its requested MTS session.	ETSI GS MEC 015, clauses 6.2.9 and 9.4
MEC032.Mp1. MultiaccessTrafficSteering.005	When the MEC system supports the feature MultiaccessTrafficSteering, the dedicated MEC application may query its configured MTS session.	ETSI GS MEC 015, clauses 6.2.10 and 9.4

A.5.7.2 ICS

Table A.5.7.2-1 defines the list of Implementation Conformance Statements for the instances of every feature addressed in the Bandwidth Management API.

Table A.5.7.2-1: Manage a specific item in Bandwidth Management API

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	Individual Bandwidth Allocation	Clause 8.3.3 of ETSI GS MEC 015	GET	O	n/a	n/a	BwInfo Table 7.2.2-1
2			PUT	O	n/a	BwInfo Table 7.2.2-1	BwInfo Table 7.2.2-1
3			PATCH	O	n/a	BwInfo Table 7.2.2-1	BwInfo Table 7.2.2-1
4			DELETE	O	n/a	n/a	n/a
5			POST	n/a	n/a	n/a	n/a
6	A list of Bandwidth Allocations	Clause 8.4.3 of ETSI GS MEC 015	GET	O	Table 8.4.3.1-1	n/a	BwInfo Table 7.2.2-1
7			POST	O	n/a	BwInfo Table 7.2.2-1	BwInfo Table 7.2.2-1
8			PUT, PATCH & DELETE	n/a	n/a	n/a	n/a

Table A.5.7.2-2 defines the list of Implementation Conformance Statements for the instances of every feature addressed in the Multi-access Traffic Steering API.

Table A.5.7.2-2: Manage a specific item in Multi-access Traffic Steering API

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	MTS information	Clause 9.3.3 of ETSI GS MEC 015	GET	O	n/a	n/a	MtsCapabilityInfo Table 7.2.4-1
2			PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
3	Individual MTS session	Clause 9.3.3 of ETSI GS MEC 015	GET	O	n/a	n/a	MtsSessionInfo Table 7.2.5-1
4			PUT	O	n/a	MtsSessionInfo Table 7.2.5-1	MtsSessionInfo Table 7.2.5-1
5			DELETE	O	n/a	n/a	n/a
6			PATCH & POST	n/a	n/a	n/a	n/a
7	A list of MTS sessions	Clause 9.3.3 of ETSI GS MEC 015	GET	O	Table 9.5.3.1-1	n/a	MtsSessionInfo Table 7.2.5-1
8			POST	O	n/a	MtsSessionInfo Table 7.2.5-1	MtsSessionInfo Table 7.2.5-1
9			PUT, PATCH & DELETE	n/a	n/a	n/a	n/a

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A.5.8 ETSI GS MEC 016

A.5.8.1 Test Requirements

ETSI GS MEC 002 [2], clause 6.3.1, defines the features for the Location service. Upon analysis of such features, the following list of requirements was collected, including provisions that are not explicitly marked but which can be tested to improve conformance and interoperability levels. These requirements are defined in Table A.5.8.1-1.

Table A.5.8.1-1: Classification of requirements for the Feature "UserApps"

Requirement ID	Requirement description	Reference
MEC032.Mx2.UserApps.001	When the MEC system supports the feature UserApps, the MEC management shall support querying information about the available MEC applications.	ETSI GS MEC 016, clauses 5.1.2 and 7.3
MEC032.Mx2.UserApps.002	When the MEC system supports the feature UserApps, the MEC management shall support storing the context data for a MEC application.	ETSI GS MEC 016, clauses 5.1.3 and 7.5
MEC032.Mx2.UserApps.003	When the MEC system supports the feature UserApps, the MEC management shall support updating and deleting the context data for an individual MEC application.	ETSI GS MEC 016, clauses 5.1.4, 5.1.5 and 7.5
MEC032.Mx2.UserApps.004	When the MEC system supports the feature UserApps, the MEC management shall support querying information about the locations available for instantiation of a specific user application in the MEC system.	ETSI GS MEC 016, clauses 5.1.7 and 7.6

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A.5.8.2 ICS

Table A.5.8.2-1 defines the list of Implementation Conformance Statements for the features addressed in the device application interface API.

Table A.5.8.2-1: Simple queries

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	Available application information	Clause 7.3.3 of ETSI GS MEC 016	GET	O	Table 7.3.3.1-1	n/a	ApplicationList Table 6.2.2-1
2			POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
3	Device Application Contexts	Clause 7.4.3 of ETSI GS MEC 016	POST	O	n/a	AppContext Table 6.2.3-1	AppContext Table 6.2.3-1
4			GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
5	Application location availability	Clause 7.6.3 of ETSI GS MEC 016	POST	O	n/a	ApplicationLocationAvailability Table 6.2.4-1	ApplicationLocationAvailability Table 6.2.3-1
6			GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a

Table A.5.8.2-2 defines the list of Implementation Conformance Statements for the instances of every feature addressed in the device application interface API.

Table A.5.8.2-2: Manage a specific item

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	Individual Device Application Context	Clause 7.5.3 of ETSI GS MEC 016	PUT	O	n/a	AppContext Table 6.2.3-1	n/a
2			DELETE	O	n/a	n/a	n/a
3			GET, POST & PATCH	n/a	n/a	n/a	n/a

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A.5.9 ETSI GS MEC 021

A.5.9.1 Test Requirements

Table A.5.9.1-1 reports the functional requirements of the MEC App Mobility Service (AMS), as derived from the API definition in ETSI GS MEC 021 [11].

Table A.5.9.1-1: MEC App Mobility Service (AMS) requirements

Requirement ID	Requirement description	Reference
AppMobility.01	The MEC system shall be able to maintain connectivity between a UE and an application instance when the UE performs a handover to another cell associated with the same MEC host.	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
AppMobility.02	The MEC system shall be able to maintain connectivity between a UE and an application instance when the UE performs a handover to another cell not associated with the same MEC host.	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
AppMobility.03	The MEC platform may use available radio network information to optimize the mobility procedures required to support service continuity.	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
AppMobility.04	The MEC platform may use available core network information to optimize the mobility procedures required to support service continuity.	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
AppMobility.05	The MEC system shall support two instances of a MEC application running on different MEC hosts to communicate with each other.	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
AppMobility.06	The MEC platform shall be able to allow an authorized MEC application to communicate with another MEC application located on another MEC host.	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
AppMobility.07	When the MEC system supports the feature SmartRelocation, the MEC management shall support the relocation of a MEC application instance from one MEC host to a different host within the system.	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
AppMobility.08	When the MEC system supports the feature SmartRelocation, a MEC host may support the relocation of a MEC application instance from a different host (within the system) to this particular host, and from this particular host to a different host (within the system).	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
AppMobility.09	When the MEC system supports the feature SmartRelocation, the system shall be able to move MEC application instances between MEC hosts in order to continue to satisfy the requirements of the MEC application.	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
AppMobility.10	When the MEC system supports the feature SmartRelocation, and based on a request from the UE, the system shall be able to relocate a MEC application running in a cloud environment to a MEC host fulfilling the requirements of the MEC application, and relocate a MEC application from a MEC host to a cloud environment outside the MEC system.	ETSI GS MEC 021, clause 4.2 - Table 4.2-1
Mec032.AMS.01	The AMS shall allow service consumers to register to the AMS offered by the MEC system.	ETSI GS MEC 021, clauses 6.1 and 6.2
Mec032.AMS.02	The AMS shall allow service consumers to un-register from the AMS offered by the MEC system.	ETSI GS MEC 021, clauses 6.1 and 6.3
Mec032.AMS.03	The AMS shall allow the service consumers to update user or other information of the registered AMS for a single or multiple devices.	ETSI GS MEC 021, clauses 6.1 and 6.4
Mec032.AMS.04	The AMS shall support queries from the service consumers about AMS information on endpoint of adjacent application instances with communication links.	ETSI GS MEC 021, clause 6.1
Mec032.AMS.05	The AMS shall support queries from the service consumers about AMS information on identification of application instances running on the target MEC host.	ETSI GS MEC 021, clause 6.1
Mec032.AMS.06	The AMS shall support queries from the service consumers about AMS information on communication link information between the source and target instances of the same application.	ETSI GS MEC 021, clause 6.1
Mec032.AMS.07	The AMS shall allow the service consumers to subscribe to the AMS for receiving notifications on particular AMS events.	ETSI GS MEC 021, clauses 6.1 and 6.6

Requirement ID	Requirement description	Reference
Mec032.AMS.08	The AMS shall allow the service consumers to unsubscribe to the notifications of AMS events.	ETSI GS MEC 021, clause 6.7
Mec032.AMS.09	The AMS shall allow the service consumers to update their subscriptions to AMS events.	ETSI GS MEC 021, clause 6.8
Mec032.AMS.10	The AMS shall be able to send notifications to subscribed service consumers when a target event occurs.	ETSI GS MEC 021, clause 6.1
Mec032.AMS.11	The AMS shall allow the service consumers to subscribe to the AMS for receiving notifications about application mobility status and shall be able to provide such notifications.	ETSI GS MEC 021, clauses 6.1, 7.3.2 and 7.4.2
Mec032.AMS.12	The AMS shall allow the service consumers to subscribe to the AMS for receiving notifications about adjacent application instances and shall be able to provide such notifications.	ETSI GS MEC 021, clause 7.3.3 and 7.4.3
Mec032.AMS.13	The AMS may be able to send notifications regarding to expiry of the existing subscription.	ETSI GS MEC 021, clause 7.4.4
Mec032.AMS.14	The AMS shall provide assistance to clean up the user information at the source application instance and MEC platform when the user context has been transferred to the target application instance.	ETSI GS MEC 021, clause 6.1

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A.5.9.2 ICS

The list of Implementation Conformance Statements for AMS APIs for registrations, queries and subscriptions is defined in Table A.5.9.2-1.

Table A.5.9.2-1: AMS APIs

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	Application mobility services /app_mobility_services	Table 8.2-2 in clause 8.2 of ETSI GS MEC 021	POST	O	n/a	Table 8.3.3.4-1 RegistrationInfo	Table 8.3.3.4-1 RegistrationInfo (clause 7.2.2)
2			GET	O	Table 8.3.3.1-1	n/a	Table 8.3.3.1-2 RegistrationInfo (clause 7.2.2)
3			PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
4	Individual application mobility services /app_mobility_services/ {appMobilityServiceId}	Table 8.2-2 in clause 8.2 of ETSI GS MEC 021	GET	O	Table 8.4.3.1-1	n/a	Table 8.4.3.1-2 RegistrationInfo (clause 7.2.2)
5			DELETE	O	n/a	n/a	n/a
6			PUT	O	n/a	RegistrationInfo (clause 7.2.2)	RegistrationInfo (clause 7.2.2)
7			PATCH POST & DELETE	n/a	n/a	n/a	n/a
8	Deregister application mobility service task	Table 8.2-2 in clause 8.2 of ETSI GS MEC 021	POST	O	n/a	n/a	Table 8.5.3.4-1
9	/app_mobility_services/ {appMobilityServiceId}/ deregister_task		GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a

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ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
10	Parent resource of all AMS subscriptions /subscriptions	Table 8.2-2 in clause 8.2 of ETSI GS MEC 021	POST	O	n/a	Table 8.6.3.4-1 Mobility Procedure Subscription (clause 7.3.2) Or Adjacent ApplInfo Subscription (clause 7.3.3)	Table 8.6.3.4-1 Mobility Procedure Subscription (clause 7.3.2) Or Adjacent ApplInfo Subscription (clause 7.3.3)
11			GET	O	Table 8.6.3.1-1	n/a	Table 8.6.3.1-2 Subscription LinkList (clause 7.3.4)
12			PUT, PATCH, & DELETE	n/a	n/a	n/a	n/a

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ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
13	Individual AMS subscription /subscriptions/ {subscriptionId}	Table 8.2-2 in clause 8.2 of ETSI GS MEC 021	GET	O	m/a	n/a	Table 8.7.3.1-2 Mobility Procedure Subscription (clause 7.3.2) Or Adjacent AppInfo Subscription (clause 7.3.3)
14			DELETE	O	n/a	n/a	n/a
15			PUT	O	n/a	Table 8.7.3.2-2 Mobility Procedure Subscription (clause 7.3.2) Or Adjacent AppInfo Subscription (clause 7.3.3)	Table 8.7.3.2-2 Mobility Procedure Subscription (clause 7.3.2) Or Adjacent AppInfo Subscription (clause 7.3.3)
16			POST & PATCH	n/a	n/a	n/a	n/a
17	Adjacent application instances /queries/adjacent_app_instances	Table 8.2-1 in clause 8.2 of ETSI GS MEC 021	GET	O	Table 8.8.3.1-1	n/a	Table 8.8.3.1-2 AdjacentAppInstan celInfo (clause 7.2.3)
18	PUT, PATCH, & DELETE		n/a	n/a	n/a	n/a	

The list of Implementation Conformance Statements for AMS notification is defined in Table A.5.9.2-2.

Table A.5.9.2-2: Notification callback

ID	Client provided callback reference	Reference	HTTP Method	Required according to GS	Request Body
1	MobilityProcedure Notification	Table 7.4.2-1 in clause 7.4.2 of ETSI GS MEC 021	GET, PUT, PATCH & DELETE	n/a	n/a
2			POST	M	MobilityProcedureNotification (clause 7.4.2)
3	AdjacentAppInfo Notification	Table 7.4.3-1 in clause 7.4.3 of ETSI GS MEC 021	GET, PUT, PATCH & DELETE	n/a	n/a
4			POST	M	AdjacentAppInfoNotification (clause 7.4.3)
5	ExpiryNotification	Table 7.4.4-1 in clause 7.4.4 of ETSI GS MEC 021	GET, PUT, PATCH & DELETE	n/a	n/a
6			POST	M	ExpiryNotification (clause 7.4.4)

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A.5.10 ETSI GS MEC 028

A.5.10.1 Test Requirements

Table A.5.10.1-1 reports the functional requirements of the WLAN Information Service (WAIS), as derived from the API definition in ETSI GS MEC 028.

Table A.5.10.1-1: WLAN Information MEC Service requirements

Requirement ID	Requirement description	Reference
Mec032.WAIS.01	The WAIS shall support queries from the service consumers about information on Access Points.	ETSI GS MEC 028, clause 5.2.2
Mec032.WAIS.02	The WAIS shall support queries from the service consumers about information on client stations.	ETSI GS MEC 028, clause 5.2.3
Mec032.WAIS.03	The WAIS shall allow the service consumers to subscribe to the WAIS for receiving notifications on particular WLAN events.	ETSI GS MEC 028, clause 5.2.4.1
Mec032.WAIS.04	The WAIS shall be able to notify service consumers about the expiry of WLAN event subscriptions.	ETSI GS MEC 028, clause 5.2.4.2
Mec032.WAIS.05	The WAIS shall allow the service consumers to update their subscriptions to WLAN events.	ETSI GS MEC 028, clause 5.2.4.3
Mec032.WAIS.06	The WAIS shall allow the service consumers to unsubscribe to the notifications of WLAN events.	ETSI GS MEC 028, clause 5.2.4.4
Mec032.WAIS.07	The WAIS shall be able to send notifications to subscribed service consumers about WLAN station physical rates.	ETSI GS MEC 028, clause 5.2.5
Mec032.WAIS.08	The WAIS shall be able to send notifications to subscribed service consumers about WLAN stations that are associated with a particular access point whose information is requested.	ETSI GS MEC 028, clause 5.2.6
Mec032.WAIS.09	The WAIS shall support requests from the service consumers for measurement configuration.	ETSI GS MEC 028, clause 5.2.7

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A.5.10.2 ICS

The list of Implementation Conformance Statements for the features addressed in the WLAN Information Service API is defined in Table A.5.10.2-1.

Table A.5.10.2-1: Simple queries

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	Access Point information	Clause 7.3.3 of ETSI GS MEC 028	GET	O	Table 7.3.3.1-1	n/a	ApInfo Table 6.2.2-1
2			POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
3	Station information	Clause 7.4.3 of ETSI GS MEC 028	GET	O	Table 7.4.3.1-1	n/a	StaInfo Table 6.2.3-1
4			POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a

Table A.5.10.2 2 defines the list of Implementation Conformance Statements for the instances of every feature addressed in the WLAN Information Service API.

Table A.5.10.2-2: Subscriptions and notifications

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	All subscriptions	Table 7.2-1 of ETSI GS MEC 028	GET	O	Table 7.5.3.1-1	n/a	SubscriptionLink List TBD
2			POST	O	n/a	AssocStaSubscription Table 6.3.2-1	AssocStaSubscription Table 6.3.2-1
3			PUT, PATCH, & DELETE	n/a	n/a	n/a	StaDataRateSubscription Table 6.3.3-1
4	Existing subscription	Table 7.2-1 Of ETSI GS MEC 028	GET	O	n/a	n/a	AssocStaSubscription Table 6.3.2-1
5			PUT	O	n/a	AssocStaSubscription Table 6.3.2-1	AssocStaSubscription Table 6.3.2-1
6			DELET	O	n/a	StaDataRateSubscription Table 6.3.3-1	StaDataRateSubscription Table 6.3.3-1

7			PATCH & POST	n/a	n/a	n/a	n/a
8	Notification callback	Clauses 5.2.5 and 5.2.6 Of ETSI GS MEC 028	POST	O	n/a	AssocStaNotification Table 6.4.2-1	n/a
9			GET, PUT, PATCH & DELETE	n/a	n/a	StaDataRateNotification Table 6.4.3-1	n/a

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A.5.11 ETSI GS MEC 029

A.5.11.1 Test Requirements

ETSI GS MEC 002 does not contemplate fixed access information features. As such, the following list of requirements was collected from ETSI GS MEC 029, including provisions that are not explicitly marked but which can be tested to improve conformance and interoperability levels. These requirements are defined in Table 5.11.1-1.

Table 5.11.1-1: Classification of requirements for the Feature "UserApps"

Requirement ID	Requirement description	Reference
MEC032.Mp1.FAI.001	When the MEC system supports the feature FAI, the MEC application shall support querying about the available fixed access information.	ETSI GS MEC 029, clauses 5.2.2 and 7.3
MEC032.Mp1.FAI.002	When the MEC system supports the feature FAI, the MEC platform shall support querying about the available fixed access information.	ETSI GS MEC 029, clauses 5.2.2 and 7.3
MEC032.Mp1.FAI.003	When the MEC system supports the feature FAI, the MEC application shall support querying information on the devices connected to a fixed access network.	ETSI GS MEC 029, clauses 5.2.3 and 7.4
MEC032.Mp1.FAI.004	When the MEC system supports the feature FAI, the MEC application shall support querying information of the available cable line of a fixed access network.	ETSI GS MEC 029, clauses 5.2.4 and 7.5
MEC032.Mp1.FAI.005	When the MEC system supports the feature FAI, the MEC application shall support querying about the available information of an optical network.	ETSI GS MEC 029, clauses 5.2.5 and 7.6
MEC032.Mp1.FAI.006	When the MEC system supports the feature FAI, the MEC application shall support the subscription for notifications to certain specific FAI event.	ETSI GS MEC 029, clauses 5.2.6 and 7.7
MEC032.Mp1.FAI.007	When the MEC system supports the feature FAI, the MEC application shall support querying information about its subscriptions.	ETSI GS MEC 029, clauses 5.2.6 and 7.7
MEC032.Mp1.FAI.008	When the MEC system supports the feature FAI, the MEC application shall support querying information about a specific subscription.	ETSI GS MEC 029, clauses 5.2.6 and 7.8
MEC032.Mp1.FAI.009	When the MEC system supports the feature FAI, the MEC application shall support replace information on an existing subscription.	ETSI GS MEC 029, clauses 5.2.6 and 7.8
MEC032.Mp1.FAI.0010	When the MEC system supports the feature FAI, the MEC application shall support cancelling an existing subscription.	ETSI GS MEC 029, clauses 5.2.6 and 7.8
MEC032.Mp1.FAI.0011	When the MEC system supports the feature FAI, the MEC application shall support sending FAI event notifications to the service consumer, using the provided callback URI.	ETSI GS MEC 029, clauses 5.2.7, 5.2.8, 5.2.9 and 5.2.10

A.5.11.2 ICS

Table 5.11.2-1 defines the list of Implementation Conformance Statements for the features addressed in the Fixed Access Information (FAI) API.

Table 5.11.2-1: Simple queries

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	fixed access information	Clause 7.3 of ETSI GS MEC 029	GET	O	Table 7.3.3.1-1	n/a	FaInfo Table 6.2.2-1
2			POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
3	device information	Clause 7.4 of ETSI GS MEC 029	GET	O	Table 7.4.3.1-1	n/a	DeviceInfo Table 6.2.3-1
4			POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
5	cable line information	Clause 7.5 of ETSI GS MEC 029	GET	O	Table 7.5.3.1-1	n/a	CableLineInfo Table 6.2.4-1
6			POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
7	optical network information	Clause 7.6 of ETSI GS MEC 029	GET	O	Table 7.6.3.1-1	n/a	PonInfo Table 6.2.5-1
8			POST, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
9	all subscriptions for a subscriber	Clause 7.7 of ETSI GS MEC 029	GET	O	Table 7.7.3.1-1	n/a	SubscriptionLinkList Table 6.3.5-1
10			POST	O	n/a	OnuAlarmSubscription Table 6.3.2-1 or DevInfoSubscription Table 6.3.3-1 or CmConnSubscription Table 6.3.4-1 or AniAlarmSubscription Table 6.3.6-1	OnuAlarmSubscription Table 6.3.2-1 or DevInfoSubscription Table 6.3.3-1 or CmConnSubscription Table 6.3.4-1 or AniAlarmSubscription Table 6.3.6-1
11			PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
12	notification callback	Clauses 5.2.7 to 5.2.10 of ETSI GS MEC 029	POST	O	n/a	OnuAlarmNotification Table 6.4.2-1 or DevInfoNotification Table 6.4.3-1 or CmConnNotification Table 6.4.4-1 or AniAlarmNotification Table 6.4.6-1	n/a
13			GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a

Table 5.11.2-2 defines the list of Implementation Conformance Statements for the instances of every feature addressed in the Fixed Access Information API.

Table 5.11.2-2: Manage a specific item

ID	Resource	Reference	HTTP Method	Required according to GS	Query Parameters	Request Body	Response Body
1	existing subscription	Clause 7.8 of ETSI MEC 029	GET	O	n/a	n/a	OnuAlarmSubscription Table 6.3.2-1 or DevInfoSubscription Table 6.3.3-1 or CmConnSubscription Table 6.3.4-1 or AniAlarmSubscription Table 6.3.6-1
2			PUT	O	n/a	OnuAlarmSubscription Table 6.3.2-1 or DevInfoSubscription Table 6.3.3-1 or CmConnSubscription Table 6.3.4-1 or AniAlarmSubscription Table 6.3.6-1	OnuAlarmSubscription Table 6.3.2-1 or DevInfoSubscription Table 6.3.3-1 or CmConnSubscription Table 6.3.4-1 or AniAlarmSubscription Table 6.3.6-1
3			DELETE	O	n/a	n/a	n/a
4			POST & PATCH	n/a	n/a	n/a	n/a

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A.5.12 ETSI GS MEC 030

A.5.12.1 Test Requirements

Table A.5.9.1-1 reports the functional requirements of the MEC V2X Information Service (VIS), as derived from the API definition in ETSI GS MEC 030 [14].

Table A.5.12.1-1: MEC V2X Information Service (VIS) requirements

Requirement ID	Requirement description	Reference
Mec032.VIS.01	The VIS shall support queries from the service consumers about provisioning information for V2X communication over Uu unicast.	ETSI GS MEC 030 [124] Clause 5.5.1
Mec032.VIS.02	The VIS shall support queries from the service consumers about provisioning information for V2X communication over Uu MBMS.	ETSI GS MEC 030 [14] Clause 5.5.2
Mec032.VIS.03	The VIS shall support queries from the service consumers about provisioning information for V2X communication over PC5.	ETSI GS MEC 030 [124] Clause 5.5.3
Mec032.VIS.04	The VIS shall support queries from the service consumers about journey-specific QoS predictions.	ETSI GS MEC 030 [124] Clause 5.5.4
Mec032.VIS.05	The VIS shall allow the service consumers to subscribe to the VIS for receiving notifications on particular V2X information events.	ETSI GS MEC 030 [14] Clause 5.5.5.1
Mec032.VIS.06	The VIS shall be able to notify service consumers about the expiry of V2X information event subscriptions.	ETSI GS MEC 030 [124] Clause 5.5.5.2
Mec032.VIS.07	The VIS shall allow the service consumers to update their subscriptions to V2X information events.	ETSI GS MEC 030 [124] Clause 5.5.5.3
Mec032.VIS.08	The VIS shall allow the service consumers to unsubscribe to the notifications of V2X information events.	ETSI GS MEC 030 [124] Clause 5.5.5.4
Mec032.VIS.09	The VIS shall be able to send notifications to subscribed service consumers about the provisioning information changes for V2X communication over Uu unicast.	ETSI GS MEC 030 [124] Clause 5.5.6
Mec032.VIS.10	The VIS shall be able to send notifications to subscribed service consumers about the provisioning information changes for V2X communication over Uu MBMS.	ETSI GS MEC 030 [124] Clause 5.5.7
Mec032.VIS.11	The VIS shall be able to send notifications to subscribed service consumers about the provisioning information changes for V2X communication over PC5.	ETSI GS MEC 030 [124] Clause 5.5.8
Mec032.VIS.12	The VIS shall allow the service consumers to subscribe the V2X messages which come from different vehicle OEMs or operators.	ETSI GS MEC 030 [14] Clause 5.5.9.1
Mec032.VIS.13	The VIS shall allow the service consumers to publish a V2X message to VIS who will then notify the subscribed service consumers.	ETSI GS MEC 030 [124] Clause 5.5.9.2
Mec032.VIS.14	The VIS shall be able to send notifications to subscribed service consumers.	ETSI GS MEC 030 [124] Clause 5.5.9.3

A.5.12.2 ICS

The list of Implementation Conformance Statements for the features addressed in the MEC V2X Information Service is defined in Table A.5.9.2-1.

Table A.5.12.2-1: VIS APIs

ID	Resource	Reference	HTTP Method	Required according to GS	Query parameters	Request Body	Response Body
1	Uu unicast provisioning Information	Table 7.2-1 in clause 7.2	GET	O	Table 7.3.3.1-1	n/a	Table 7.3.3.1-2 UuUnicastProvisioningInfo (clause 6.2.2)
2	/queries/uu_unicast_provisioning_info	Of ETSI GS MEC 030 [14]	PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
3	Uu MBMS provisioning information	Table 7.2-1 in clause 7.2	GET	O	Table 7.4.3.1-1	n/a	Table 7.4.3.1-2 UuMbmsProvisioningInfo (clause 6.2.3)
4	/queries/uu_mbms_provisioning_info	Of ETSI GS MEC 030 [14]	PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
5	PC5 provisioning information	Table 7.2-1 in clause 7.2	GET	O	Table 7.5.3.1-1	n/a	Table 7.5.3.1-2 Pc5ProvisioningInfo (clause 6.2.4)
6	/queries/pc5_provisioning_info	Of ETSI GS MEC 030 [14]	PUT, PATCH, POST & DELETE	n/a	n/a	n/a	n/a
7	Provide predicted QoS task	Table 7.2-1 in clause 7.2	POST	O	n/a	Table 7.6.3.4-2 PredictedQos (clause 6.2.5)	Table 7.6.3.4-2 PredictedQos (clause 6.2.5)
8	/provide_predicted_qos	Of ETSI GS MEC 030 [14]	GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
9	Publish V2X message task	Table 7.2-1 in clause 7.2	POST	O	n/a	Table 7.7.3.4-2 V2xMsgPublication (clause 6.2.6)	Table 7.7.3.4-2
10	/publish_v2x_message	Of ETSI GS MEC 030 [14]	GET, PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
11	All subscriptions for a subscriber	Table 7.2-1 in clause 7.2	POST	O	n/a	Table 7.8.3.4-1	Table 7.8.3.4-1

	/subscriptions	Of ETSI GS MEC 030 [14]				{NotificationSubscription} (clause 6.3)	{NotificationSubscription} (clause 6.3)
12			GET	O	Table 7.8.3.1-1	n/a	Table 7.8.3.1-2 Subscription LinkList (clause 6.3.6)
13			PUT, PATCH & DELETE	n/a	n/a	n/a	n/a
14			GET	O	n/a	n/a	Table 7.9.3.1-2 {NotificationSubscription} (clause 6.3)
15	Existing subscription	Table 7.2-1 in clause 7.2 of ETSI GS MEC 030 [14]	DELETE	O	n/a	n/a	Table 7.9.3.5-2
16	/subscriptions/{subscriptionId}		PUT	O	n/a	Table 7.9.3.2-2 {NotificationSubscription} (clause 6.3)	Table 7.9.3.2-2 {NotificationSubscription} (clause 6.3)
17			POST & PATCH	n/a	n/a	n/a	n/a

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The list of Implementation Conformance Statements for VIS notification is defined in Table A.5.9.2-2.

Table A.5.12.2-2: Notification callback

ID	Client provided callback reference	Reference	HTTP Method	Required according to GS	Request Body
1	ProvChgUuUniNotification	Table 7.2-1 in clause 7.2 of ETSI GS MEC 030 [14]	GET, PUT, PATCH & DELETE	n/a	n/a
2			POST	O	ProvChgUuUniNotification (clause 6.4.2)
3	ProvChgUuMbmsNotification	Table 7.2-1 in clause 7.2 of ETSI GS MEC 030 [14]	GET, PUT, PATCH & DELETE	n/a	n/a
4			POST	O	ProvChgUuMbmsNotification (clause 6.4.3)
5	ProvChgPc5Notification	Table 7.2-1 in clause 7.2 of ETSI GS MEC 030 [14]	GET, PUT, PATCH & DELETE	n/a	n/a
6			POST	O	ProvChgPc5Notification (clause 6.4.4)
7	V2xMsgNotification	Table 7.2-1 in clause 7.2 of ETSI GS MEC 030 [14]	GET, PUT, PATCH & DELETE	n/a	n/a
8			POST	O	V2xMsgNotification (clause 6.4.5)

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Annex B (informative): Change History

Date	Version	Information about changes
July 2019	0.0.1	Initial proposal: MECDECODE(19)000013r1
July 2019	0.0.2	Included changes approved in contributions: - MECDECODE(19)000016 - MECDECODE(19)000017 - MECDECODE(19)000018 - MECDECODE(19)000019 - MECDECODE(19)000020 - MECDECODE(19)000021 - MECDECODE(19)000022 - MECDECODE(19)000023 - MECDECODE(19)000024 - MECDECODE(19)000025 - MECDECODE(19)000026 - MECDECODE(19)000027
Aug 2019	0.0.3	Moved to Stable Draft having incorporated feedback from editHelp.
Oct 2020	0.0.4	MECDECODE(20)000025 MECDECODE(20)000026 MECDECODE(20)000027 MECDECODE(20)000033r1 MECDECODE(20)000034r1 MECDECODE(20)000036 MECDECODE(20)000037 MECDECODE(20)000038 MECDECODE(20)000039 MECDECODE(20)000040 MECDECODE(20)000041 MECDECODE(20)000042 MECDECODE(20)000061r2
Dec 2020	0.0.5	Removed hanging paragraphs in clause A.5.2 & A.5.4.
Jan 2021	3.0.1	MECDECODE(20)000075r1

History

Document history		
V2.1.1	December 2020	Publication
V3.0.1	January 2021	Updated with the agreements in MECDECODE(20)000075r1.
V3.0.2	February 2021	Updated with the agreements in MECDECODE(21)000004r1.
V3.0.3	March 2021	Updated with the agreements in MECDECODE(21)000010, MECDECODE(21)000012 and MECDECODE(21)000013. Added Editor's note with regards to MEC010-2.
V3.0.4	April 2021	Updated with the agreements in MECDECODE(21)000033.
V3.0.5	April 2021	Clean-up done by <i>editHelp!</i> E-mail: mailto:edithelp@etsi.org

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