



## Multi-access Edge Computing (MEC); Proof of Concept Framework

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**ETSI**650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

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Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
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# Foreword

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

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# 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).

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# 1 Scope

The present document defines a framework to be used by ETSI ISG MEC to coordinate and promote multivendor Proofs of Concept (PoC) projects and MEC Deployment Trial (MDT) projects illustrating key aspects of MEC technology. Proofs of Concept are an important tool to demonstrate the viability of a new technology during its early days and or pre-standardization phase. MDTs are seen as the next step of PoC to demonstrate the viability of MEC in a commercial trial/deployment and to provide feedback to the standardization work.

The main objectives of the MEC PoC/MDT framework are:

- to ensure the PoC/MDT projects are scoped around relevant topics for ISG MEC that require from-the-field input;
- to ensure that the PoC/MDT results, lessons learnt and identified gaps are feedback to ISG MEC;
- to build confidence on the viability of MEC technology;
- to encourage the development of a diverse and open ecosystem by fostering the integration of components from different players;
- to support standardization and industry promotion activities of ISG MEC.

This framework describes:

- The different roles and responsibilities in the PoC/MDT activity process.
- The PoC/MDT activity process.
- The acceptance criteria for PoC/MDT proposals and reports.

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# 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 <http://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: "Multi-access Edge Computing (MEC); Terminology".

## 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] MEC WIKI.

NOTE: Available at <http://mecwiki.etsi.org>.

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## 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:

**application provider:** entity that manages and distributes software-based services and solutions to customers

**content provider:** entity (e.g. a web server, or a content distribution network) that provides content to consumers

**expected contribution:** input/feedback expected from the PoC team on a specific PoC topic

**infrastructure provider:** entity that provides components into the network infrastructure ranging from compute elements and/or platforms to a software component (i.e. software component examples include security, virtualization, controller, etc.)

**network operator:** organization that provides a network for the provision of telecommunications services

NOTE: If the same organization also offers services it also becomes the service provider.

**PoC demo:** public demonstration of a PoC project

**PoC project:** multi-party endeavour targeting to prove some concepts in the context of a given technology

**PoC proposal:** initial description of a multivendor PoC project, and the feedback it will provide

**PoC report:** compilation of test results, lessons learned, contributions and recommendations provided by a PoC team during or at the end of a PoC project

**PoC team:** organizations participating in the PoC project

**PoC test plan:** description of the test objectives of each targeted scenario

**PoC topic:** specific topic identified by the ISG MEC, where some from-the-field input or feedback is required from the PoCs

### 3.2 Symbols

Void.

### 3.3 Abbreviations

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

CTI	Centre for Testing and Interoperability
ISG	Industry Standardization Group
PoC	Proof of Concept
MDT	MEC Deployment Trial

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## 4 PoC framework

### 4.1 Rationale

MEC proposes a new edge based service and computation platform, which may inspire the development and of new types of applications and services. Proof of Concepts are an important tool to demonstrate MEC as a viable technology. Results and feedback from the PoCs can guide the work in the ISG MEC on interoperability and other technical challenges. The public demonstration of MEC concepts helps to build commercial awareness and confidence in this technology, and helps to develop a diverse, open, MEC ecosystem.

The PoCs are scoped around the PoC Topics identified by the ISG MEC (i.e. service scenarios, use cases, etc.).

### 4.2 Roles and responsibilities

**ISG MEC:** The ISG MEC is interested in the outcome of the PoC projects. In the context of the PoC framework, it is in charge of:

- identifying PoC topics;
- identifying expected contributions and timelines for PoC topics;
- processing the contributions made by the PoC teams on those topics.

**PoC Support Team:** Entity in charge of administering the PoC activity process. It is in charge of:

- maintaining and making available the PoC topics;
- reviewing PoC proposals and PoC reports against the acceptance criteria;
- declaring the acceptance and end of each PoC;
- compiling the accepted PoC Proposals and Reports and making them available to the ISG MEC;
- monitoring the PoC project timelines, and sending the appropriate reminders to the PoC teams (for expected contributions, PoC report, etc.).

**PoC Team:** Group of organizations participating in a PoC project. The PoC team is in charge of:

- writing the PoC proposal;
- submitting the expected contributions to the ISG MEC;
- writing the PoC report.

## 4.3 PoC activity process

Figure 4.3-1 provides a description of the PoC activity process.

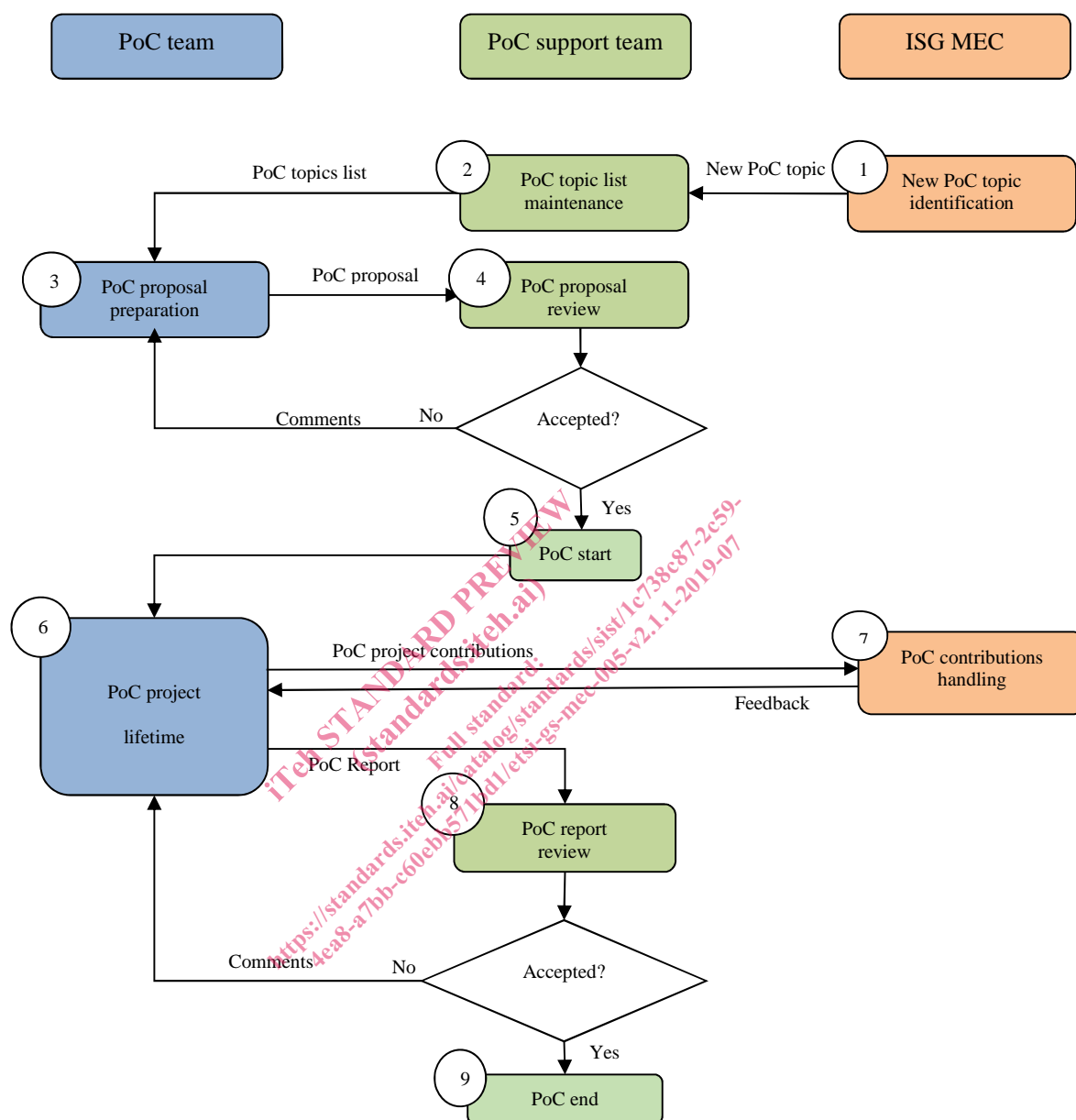


Figure 4.3-1: The PoC activity process

It includes 9 stages:

1) **Stage 1: New PoC topic identification**

**Main task:** To identify and describe a new PoC topics.

**Responsibility:** ISG MEC.

**Input:** None.

**Output:** New PoC topic.

**Duration:** Any.



**Description:** The ISG MEC identify the topics and contributions expected from the PoC projects. This information is sent to the PoC support team to feed the PoC topics list. For each PoC topic, ISG MEC provides detailed information on:

- the contribution(s) expected from the PoC;
- the expected timing for the contributions.

## 2) Stage 2: PoC topics list maintenance

**Main task:** To maintain and make available the PoC topics list. To notify the community when there is a change in the list.

**Responsibility:** PoC support team.

**Input:** New PoC topics.

**Output:** PoC topics list, notifications (e.g. New PoC topic).

**Duration:** Any.

**Description:** The PoC support team maintains and gives visibility to the PoC topics list in the MEC WIKI. The PoC topics and the description of the specific contributions expected for each of them helps PoC teams to concentrate their efforts on the most valuable topics for the ISG MEC. The PoC topics list is made widely available among the community, and appropriate notifications are sent to the community when it is updated.

## 3) Stage 3: PoC proposal preparation

**Main task:** To prepare and submit the PoC proposal.

**Responsibility:** PoC team.

**Input:** Previous ISG MEC publications, PoC topics, PoC proposal template.

**Output:** PoC proposal.

**Duration:** Any.

**Description:** During this stage, the PoC team is formed. PoC team formation is beyond the scope of the ISG MEC. The PoC team prepares a PoC proposal according to the PoC proposal template available in the MEC WIKI, in compliance with the PoC proposal acceptance criteria. The PoC proposal will be uploaded on the ETSI Portal as a contribution to ISG MEC and a link to the contribution sent to the [ISG\\_MEC@LIST.etsi.org](mailto:ISG_MEC@LIST.etsi.org) mailing list with [ISG MEC PoC proposal] in the subject line.

## 4) Stage 4: PoC proposal review

**Main task:** To review the PoC proposal according to the PoC proposal acceptance criteria.

**Responsibility:** PoC support team.

**Input:** PoC proposal, PoC proposal acceptance criteria.

**Output:** Response (Accepted/Not accepted), Comments.

**Duration:** 14 calendar days.

**Description:** The PoC support team reviews the PoC proposal against the PoC proposal acceptance criteria identified in clause 4.3. Comments are sent back to the PoC Team with the response: Accepted/Not accepted.

The PoC Team can incorporate the comments received to the PoC proposal and re-submit it as follows:

- The updated PoC proposal is uploaded to the ETSI portal as a revision of the original PoC proposal contribution to ISG MEC.
- The PoC Team informs of the PoC proposal re-submission by emailing the revised contribution link to [ISG\\_MEC@LIST.etsi.org](mailto:ISG_MEC@LIST.etsi.org).