



Fifth Generation Fixed Network (F5G); Proof of Concept Framework (standards.iteh.ai)

[ETSI GS F5G 009 V1.1.1 \(2021-06\)](https://standards.iteh.ai/catalog/standards/sist/3402472f-a39d-4142-9b44-2b739694c354/etsi-gs-f5g-009-v1-1-1-2021-06)
<https://standards.iteh.ai/catalog/standards/sist/3402472f-a39d-4142-9b44-2b739694c354/etsi-gs-f5g-009-v1-1-1-2021-06>

Disclaimer

The present document has been produced and approved by the Fifth Generation Fixed Network ETSI Industry Specification Group (ISG) and represents the views of those members who participated in this ISG.
It does not necessarily represent the views of the entire ETSI membership.

Reference

DGS/F5G-009 PoC R1

Keywords

optical, proof of concept

ETSI

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

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

Siret N° 348 623 562 00017 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

Important notice

The present document can be downloaded from:

<http://www.etsi.org/standards-search>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at www.etsi.org/deliver.

Users of the present document should be aware that the document may be subject to revision or change of status.

Information on the current status of this and other ETSI documents is available at

<https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx>

If you find errors in the present document, please send your comment to one of the following services:

<https://portal.etsi.org/People/CommitteeSupportStaff.aspx>

Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.

No representation or warranty is made that this deliverable is technically accurate or sufficient or conforms to any law and/or governmental rule and/or regulation and further, no representation or warranty is made of merchantability or fitness for any particular purpose or against infringement of intellectual property rights.

In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2021.

All rights reserved.

Contents

Intellectual Property Rights	5
Foreword.....	5
Modal verbs terminology.....	5
1 Scope	6
2 References	6
2.1 Normative references	6
2.2 Informative references.....	6
3 Definition of terms, symbols and abbreviations.....	7
3.1 Terms.....	7
3.2 Symbols.....	7
3.3 Abbreviations	8
4 ISG F5G PoC Framework	8
4.1 Rationale.....	8
4.2 Roles and Responsibilities.....	8
4.2.1 General.....	8
4.2.2 PoC Team	8
4.2.3 ISG F5G.....	8
4.2.4 PoC Review Team	9
4.3 PoC Summary of Activity Process	9
4.4 Call for PoCs	10
4.5 ISG F5G PoC Proposal Submission	10
4.6 ISG F5G PoC Proposal Review	11
4.6.1 General.....	11
4.6.2 Accepted ISG F5G PoC Proposals	11
4.6.3 Rejected ISG F5G PoC Proposals.....	11
4.7 ISG F5G PoC Proposal Acceptance Criteria	11
4.8 ISG F5G PoC Report.....	12
5 ETSI CTI Role within PoCs	12
Annex A (normative): ISG F5G - PoC Proposal Template	13
A.1 PoC Project Details	13
A.1.1 PoC Project.....	13
A.1.2 PoC Team Members.....	13
A.1.3 PoC Project Scope.....	13
A.1.3.1 PoC Goals	13
A.1.3.2 PoC Topics.....	13
A.1.4 PoC Project Stages/Milestones.....	14
A.1.5 Additional Details.....	14
A.2 PoC Technical Details	14
A.2.1 PoC Overview	14
A.2.2 PoC Architecture	14
A.2.3 PoC Success Criteria and Definition of Done	14
A.2.4 Additional information	14
Annex B (normative): ISG F5G PoC Report Template	15
B.1 General	15
B.2 ISG F5G PoC Report.....	15
B.2.1 PoC Project Completion Status	15
B.2.2 F5G PoC Project Participants.....	15
B.2.3 Confirmation of PoC Event Occurrence.....	15
B.2.4 PoC Goals Status Report	16

B.2.5	PoC Feedback Received from Third Parties (Optional)	16
B.3	F5G PoC Technical Report (Optional).....	16
B.3.1	General	16
B.3.2	PoC Contribution to ISG F5G	16
B.3.3	Gaps identified in F5G standardization	16
B.3.4	PoC Suggested Action Items	16
B.3.5	Additional messages to F5G.....	17
B.3.6	Additional messages to Network Operators and Service Providers and Users.....	17
History	18

iTeh STANDARD PREVIEW (standards.iteh.ai)

ETSI GS F5G 009 V1.1.1 (2021-06)

<https://standards.iteh.ai/catalog/standards/sist/3402472f-a39d-4142-9b44-2b739694c354/etsi-gs-f5g-009-v1-1-1-2021-06>

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<https://ipr.etsi.org/>).

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™** and **LTE™** are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM®** and the GSM logo are trademarks registered and owned by the GSM Association.

ITh STANDARD PREVIEW
(standards.iteh.ai)

Foreword

This Group Specification (GS) has been produced by ETSI Industry Specification Group (ISG) Fifth Generation Fixed Network (F5G).

ETSI GS F5G 009 V1.1.1 (2021-06)

<https://standards.iteh.ai/catalog/standards/sist/b-42772f45-9d-4142-9044-2b739694c354/etsi-gs-f5g-009-v1-1-1-2021-06>

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.

1 Scope

The present document specifies a framework for use within ETSI ISG F5G to coordinate public demonstrations of Proof of Concepts (PoC) validating key technical components of F5G. The PoC is not an interoperability or conformance testing activity. The objective of the PoCs is to build awareness and confidence in the F5G standard. The primary goal of a PoC is to foster the development of an open ecosystem by integrating components from different players.

This framework outlines:

- Rational for ISG F5G PoCs
- ISG F5G PoC process
- Submission, format and criteria for ISG F5G PoC proposals
- Review and acceptance criteria of ISG F5G PoC proposals
- ISG F5G PoC Report format and requirements
- ETSI support for PoC Teams

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 Directives (November 2020).

NOTE: Available at https://docbox.etsi.org/Board/ETSI_Directives/42r1_ETSI_directives_30_nov_2020.pdf.

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 F5G 001: "Fifth Generation Fixed Network (F5G); F5G Generation Definition Release #1".

[i.2] ETSI GR F5G 002: "Fifth Generation Fixed Network (F5G); F5G Use Cases Release #1".

3 Definition of terms, symbols and abbreviations

3.1 Terms

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

ISG F5G PoC proposal: initial description of a PoC Project submitted as a contribution for review and acceptance by the ISG F5G before the PoC Project start

NOTE: See annex A for templates.

ISG F5G PoC report: detailed description of the results and findings of a PoC project submitted once the PoC Project has finished

NOTE: See annex B for templates.

manufacturer: Company having a substantial capacity to develop and/or produce and/or install and/or maintain products to be used in, or directly or indirectly connected to, an electronics communications network. An association or organization of such manufacturers also falls within this category.

NOTE: Member categories from Rules of procedure in ETSI Directives [1].

network operator: Operator of an electronics communications network or part thereof. An association or organization of such network operators also falls within this category.

NOTE: Member categories from Rules of procedure in ETSI Directives [1].

PoC demo objective: detailed description of one particular aspect that the PoC Team intends to demonstrate and how it will be achieved

PoC project: activity oriented to perform a PoC according to the framework described in the present document

PoC review team: entity in charge of administering the PoC activity process

PoC Team: set of organizations participating in the PoC Project

research body: Research Body is defined as any legally established research body concerned with electronics communications and related areas. A Public Research Body is a not-for-profit research organization whose main stakeholders are in the Public sector.

NOTE: Member categories from Rules of procedure in ETSI Directives [1].

service provider: Company or organization, making use of an electronics communications network or part thereof to provide a service or services on a commercial basis to third parties. An association or organization of such service providers also falls within this category.

NOTE: Member categories from Rules of procedure in ETSI Directives [1].

university: any not-for-profit institution for higher education or postgraduate training having the legal power to award first and/or higher degrees

NOTE: Member categories from Rules of procedure in ETSI Directives [1].

user: A User is an organization making use of services in the field of electronics communications and related areas, whose main interest in electronics communications standards is in that capacity. An association or organization of such Users also falls within this category.

NOTE: Member categories from Rules of procedure in ETSI Directives [1].

3.2 Symbols

Void.

3.3 Abbreviations

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

F5G	Fifth Generation Fixed Network
ISG	Industry Specification Group
PoC	Proof of Concept
URL	Universal Resource Location
WI	Work Item

4 ISG F5G PoC Framework

4.1 Rationale

The ISG F5G proposes an end-to-end ecosystem for the fixed network leveraging the fibre to everywhere paradigm. The ISG F5G targets a broad application area enabling new and/or enhanced services to residential and business users, to telecom operators and service providers, to industry digital transformation and any other areas that may be identified along F5G system development. Therefore, an F5G system has the flexibility and adaptability to be able to serve various applications and services with different traffic characteristics and cover a variety of performance and functional requirements needed for different deployment scenarios.

Proof of Concepts (PoC) are an important tool to demonstrate the F5G system as a viable technology. Results from PoCs may guide the work in the ISG F5G by providing feedback on interoperability and other technical challenges. The public demonstration of these ISG F5G concepts will help build commercial awareness and confidence in the ISG approach, and develop a diverse, open F5G ecosystem. A single PoC demonstration will impact its immediate audience, but a cumulative set of successful PoCs will provide industry momentum for ISG F5G concepts.

The PoCs shall be in scope of the ISG F5G and may adopt the ISG F5G use cases [i.2] as a working baseline, and address the technical challenges and approaches therein.

<https://standards.iteh.ai/catalog/standards/sist/3402472f-a39d-4142-9b44-2b739694c354/etsi-gs-f5g-009-v1-1-1-2021-06>

4.2 Roles and Responsibilities

4.2.1 General

The ISG F5G participants activities, when forming PoC Teams and executing PoC Projects are outside the scope of the ISG F5G and are subject to the PoC Teams agreements. The ISG F5G shall not manage individual PoC Projects nor get involved in forming PoC Teams or executing ISG F5G PoC projects.

4.2.2 PoC Team

Group of organizations participating in one PoC project. The PoC Team is in charge of:

- Writing the PoC proposal.
- Executing the PoC and collecting the relevant data.
- Eventually demo the PoC at any event of choice.
- Writing the PoC report.
- Submitting the expected contributions to the ISG F5G.

4.2.3 ISG F5G

The ISG F5G is interested in the outcome of the PoC projects. In the context of the PoC framework, it is in charge of:

- Call for PoCs.

- Eventually identifying PoC topics or discussing PoC ideas helpful for the standardization process.
- Processing the contributions made by the PoC Teams on topics learnt with the PoC project execution.

4.2.4 PoC Review Team

One entity in charge of administering the PoC activity process. It is in charge of:

- Providing guidance and support during the creation of PoC proposals.
- Evaluating PoC proposal conformance with the acceptance criteria Declaring the acceptance/refusal of each PoC.
- Notifying acceptance/refusal of each PoC in the 'ISG_F5G@list.etsi.org' mailing list and allow for 10 days for remote consensus approval (no objections received).
- Compiling the accepted PoC Proposals and Reports and making them available to the ISG F5G.
- Monitoring the PoC project timelines, and sending the appropriate reminders to the PoC Teams (for expected contributions, PoC report, etc.).

The PoC Review Team consists of persons from ETSI ISG F5G members. The members of the PoC Review Team will be approved by the ETSI ISG F5G.

4.3 PoC Summary of Activity Process

Figure 1 provides a visualization of the PoC activity process.



 ITeH STANDARD PREVIEW
 (standards.iteh.ai)
 ETSI GS F5G 009 V1.1.1 (2021-06)
<https://standards.iteh.ai/catalog/standards/sist/3402472f-a39d-4142-9b44-2b739694c354/etsi-gs-f5g-009-v1-1-1-2021-06>

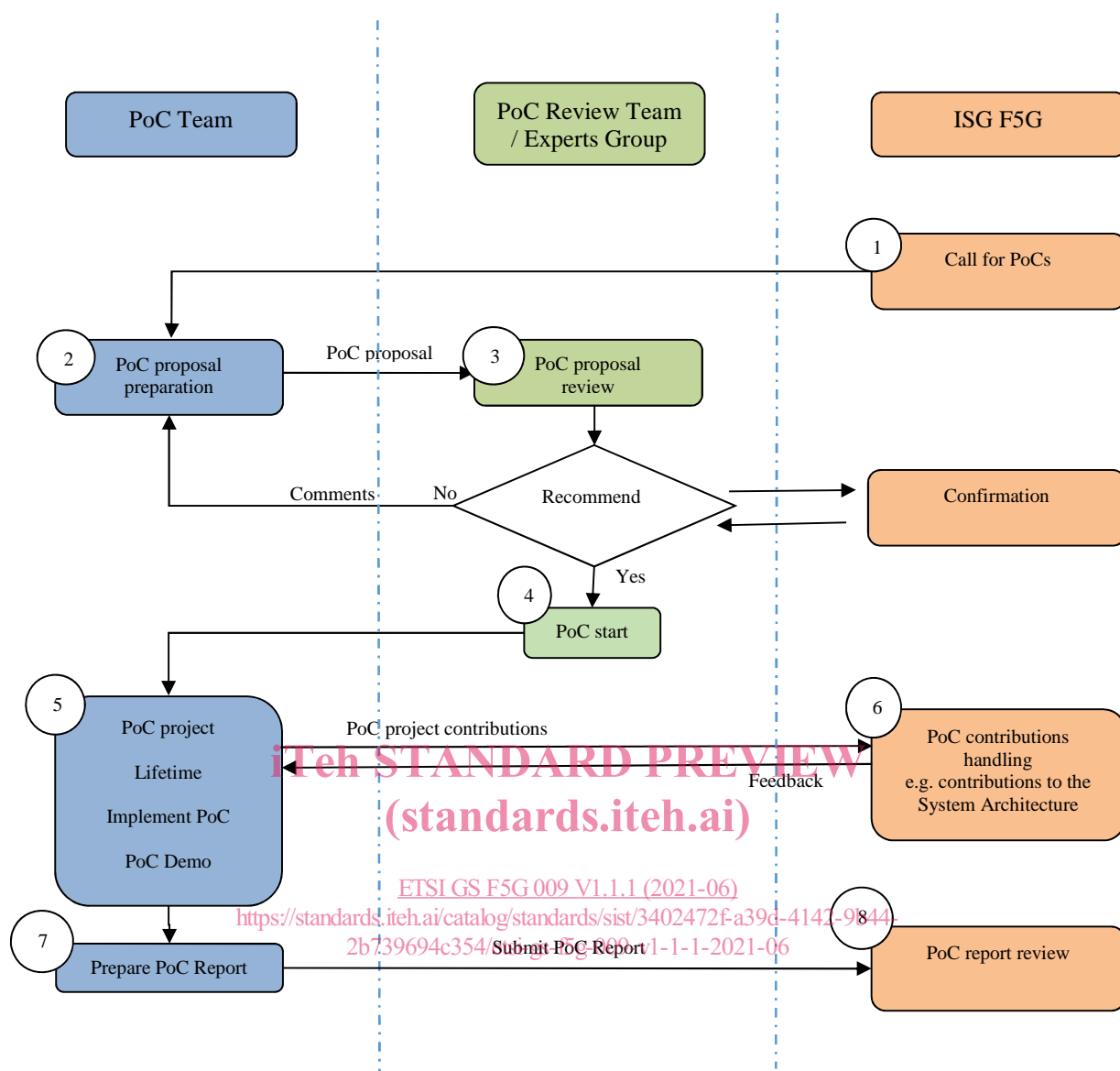


Figure 1: PoC Activity Process

4.4 Call for PoCs

The ETSI ISG F5G calls for PoC proposals during the life of the ISG. Details will be made publicly available on the ISG F5G pages on the ETSI ISG F5G portal and via the main ISG F5G e-mail list (step 1 in Figure 1).

4.5 ISG F5G PoC Proposal Submission

The PoC Team formation is beyond the scope of the ISG F5G. The PoC Team shall prepare an ISG F5G PoC Proposal (step 2 in Figure 1) according to the ISG F5G PoC Proposal template in clause A.1, and the PoC Review Team may be consulted in support of this effort. The PoC Proposal shall be submitted to the ISG F5G as a contribution uploaded on the ETSI Portal and a link to the contribution shall be sent by the PoC Review Team to the e-mail distribution list 'ISG_F5G@LIST.ETSI.ORG' with [ISG F5G PoC Proposal] in the subject line.