



Zero-touch network and Service Management (ZSM); Proof of Concept Framework (standards.iteh.ai)

ETSI GS ZSM 006 V1.2.1 (2022-02)
<https://standards.iteh.ai/catalog/standards/sist/02145f00-764b-4fb1-a560-0cafe5e0b31e/etsi-gs-zsm-006-v1-2-1-2022-02>

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Reference

RGS/ZSM-006ed121_PoC_Fwk

Keywords

automation, proof of concept

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Foreword

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This Group Specification (GS) has been produced by ETSI Industry Specification Group (ISG) Zero-touch network and Service Management (ZSM).

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Modal verbs terminology

2022-02

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 ZSM to coordinate and promote multi stakeholder Proof of Concept (PoC) projects illustrating key aspects of ZSM. Proofs of Concept are an important tool to demonstrate the viability of a new technology during its early days and or pre-standardization phase.

The main objectives of the ZSM PoC framework are:

- to ensure the PoC projects are scoped around relevant topics for ISG ZSM that require from-the-field input;
- to ensure that the PoC results, lessons learnt and identified gaps are feedback to ISG ZSM;
- to build confidence on the viability of ZSM;
- 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 ZSM.

This framework describes:

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

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2 References

2.1 Normative references

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

Not applicable.

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Not applicable.

3 Definition of terms, symbols and abbreviations

3.1 Terms

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

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

network provider: 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 management team: team that manages the PoC activity process and promotes the PoC framework

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

PoC proposal: initial description of a multiparty 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: organization 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 ZSM, where some from-the-field input or feedback is required from the PoCs

service provider: organization that provides a service; a network service is excluded

supplier: organization that provides things such as hardware, software or application

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 Specification Group
PoC	Proof of Concept
ZSM	Zero-touch network and Service Management

4 PoC framework

4.0 Rationale

ZSM strives to enable network and service management in an automated way, ideally with 100 % automation, which is expected to transform the way telecommunication networks and services are managed.

Proof of Concepts are an important tool to demonstrate ZSM as a viable solution to achieve automation of Service and Management. Results and feedback from the PoCs can inform the industry about the work of the ISG ZSM on specific topics. The public demonstration of ZSM concepts helps to build commercial awareness and confidence in related solutions, and helps to develop a diverse, open, ZSM ecosystem.

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

4.1 Roles and responsibilities

ISG ZSM: The ISG ZSM 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 Management 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 ZSM;
- monitoring the PoC project timelines, and sending the appropriate reminders to the PoC teams (for expected contributions, PoC report, etc.).

Composition of the PoC Management Team: at least 1 representative of a network provider or service provider, 1 representative of a supplier, and 1 representative of ETSI Secretariat. The various groups of shareholders should be represented in balance.

The PoC Management Team members shall be active participants of ISG ZSM.

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 ZSM;
- providing PoC Demo;
- writing the PoC report.

4.2 PoC activity process

Figure 1 provides a description of the PoC activity process.

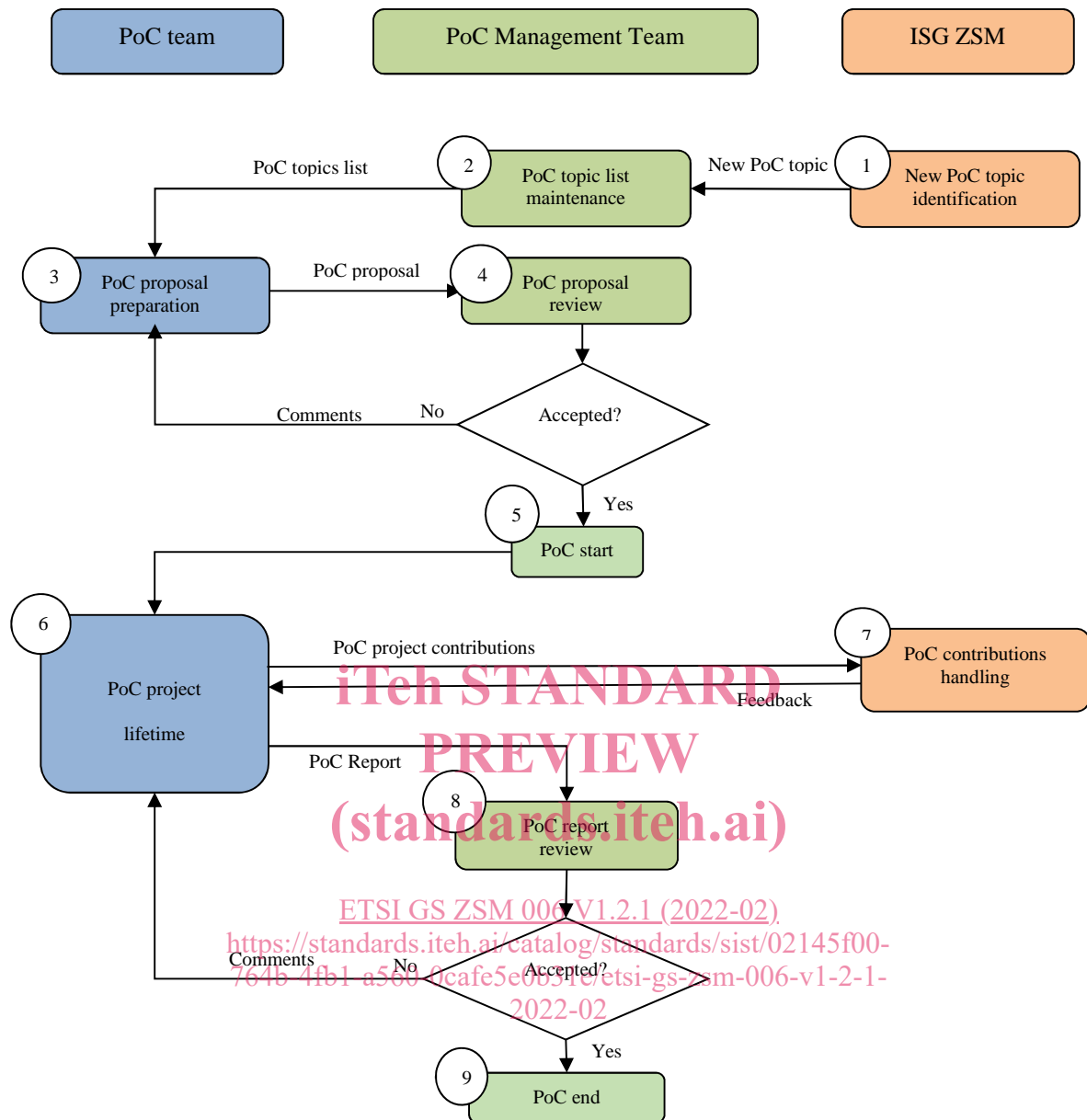


Figure 1

It includes 9 stages:

1) Stage 1: New PoC topic identification:

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

Responsibility: ISG ZSM.

Input: None.

Output: New PoC topic.

Duration: Any.

Description: The ISG ZSM identifies the topics and contributions expected from the PoC projects. This information is sent to the PoC Management Team to feed the PoC topics list. For each PoC topic, ISG ZSM 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 Management Team.

Input: New PoC topics.

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

Duration: Any.

Description: The PoC Management Team maintains and gives visibility to the PoC topics list in the ZSM 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 ZSM. 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 ZSM 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 ZSM. The PoC team prepares a PoC proposal according to the PoC proposal template available in the ZSM WIKI, in compliance with the PoC proposal acceptance criteria. The PoC proposal will be uploaded on the ETSI Portal as a contribution to ISG ZSM and a link to the contribution sent to the ISG_ZSM@LIST.etsi.org mailing list with [ISG ZSM 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 Management Team.

Input: PoC proposal, PoC proposal acceptance criteria.

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

Duration: 14 calendar days.

Description: The PoC Management 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 ZSM.
- The PoC Team informs of the PoC proposal re-submission by emailing the revised contribution link to ISG_ZSM@LIST.etsi.org.

5) Stage 5: PoC Start:

Main task: To announce and create awareness of the new PoC project. To monitor the new PoC project milestones and to send the appropriate reminders to the PoC team.

Responsibility: PoC Management Team.

Input: PoC proposal.

Output: New PoC project announcement.

Duration: Any.

Description: Once the PoC Management Team has declared a new PoC proposal accepted, a number of actions are taken to create awareness among the wider community. These actions include, but are not restricted to:

- Send an announcement email to the ISG ZSM.
- Update the ZSM WIKI.

Note that all accepted PoC proposals are expected to be executed, to submit the expected contributions to the ISG ZSM and to produce and submit a PoC report. The PoC Management Team monitors and makes available to the community the status of these PoC project milestones. Appropriate reminders are sent to the PoC teams when required.

6) Stage 6: PoC Project Lifetime:

Main task: To run the PoC project, to produce and submit the expected contribution(s) to the ISG ZSM. To produce and submit the PoC report.

Responsibility: PoC team.

Input: PoC proposal, Feedback from the ISG ZSM.

Output: PoC project contribution(s), PoC report(s).

Duration: typically 3-9 months, can be more.

Description: During the PoC project lifetime, the PoC team shall provide public demonstrations of their PoC (PoC demo). These public demos can happen at industry events, on-line webinars, open-doors day at the lab, etc. The public demo date and venue shall be specified in the PoC proposal and/or announced at least 4 weeks before the demo date.

In addition, the following output is expected from the PoC project:

- **Contribution(s) to the ISG ZSM** - During the PoC project lifetime, the PoC team prepares and submits contributions to the ISG ZSM. PoC project contributions include the expected Contributions identified in the PoC topic. PoC teams will be expected to provide regular contributions to ISG ZSM (at least a status update every 3 months).
- **PoC Report** - Once the PoC project is completed, and all the expected contributions have been submitted to the ISG ZSM, the PoC team compiles the PoC results and lessons learnt in a final PoC report. PoC reports are submitted as follows:
 - PoC reports are uploaded to the ETSI portal as regular contributions to ISG ZSM.
 - The PoC team sends the link to the PoC report contribution to ISG_ZSM@LIST.etsi.org.

7) Stage 7: PoC contributions handling:

Main task: To process the contributions received from the PoC team. To provide feedback.

Responsibility: ISG ZSM.

Input: PoC project contributions.

Output: Feedback.

Duration: 4 weeks.

Description: ISG ZSM is expected to process the contributions and to provide feedback to the PoC team.