



GROUP REPORT

Securing Artificial Intelligence (SAI); Proofs of Concepts Framework

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Reference

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Foreword

This Group Report (GR) has been produced by ETSI Industry Specification Group (ISG) Securing Artificial Intelligence (SAI).

Modal verbs terminology

In the present document "**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 provides information about the "lightweight" framework to be used by ETSI ISG SAI to create multi-partner Proofs of Concepts (PoCs).

2 References

2.1 Normative references

Normative references are not applicable in the present document.

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 SAI 004 (V.1.1.1): "Securing Artificial Intelligence (SAI); Problem Statement".

3 Definition of terms, symbols and abbreviations

3.1 Terms

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

PoC proposal: initial description of a PoC, submitted as a contribution for review and acceptance

NOTE: See clause 4.2.

PoC team: organizations actively contributing to PoC

NOTE: See clause 4.3.

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI GR SAI 004 [i.1] and the following apply:

| | |
|-----|----------------------------------|
| AI | Artificial Intelligence |
| ISG | Industry Specification Group |
| PoC | Proof of Concept |
| SAI | Securing Artificial Intelligence |
| WI | Work Item |

4 ETSI SAI PoC Framework

4.1 Rationale

AI-based solutions are being implemented in various systems, fulfilling critical functions related to data analysis, infrastructures management and (cyber)security, just to name a few. In theory, an AI-based system can become a target on its own, and detection of these type of attacks can pose a significant challenge. However, real-world examples of such attacks are less common. Understanding of the practical aspects to - on one hand conduct an impactful attack against an AI-based system and on the other - to defend against and respond to such a threat is still limited.

Proofs of Concepts are vital tools to demonstrate that the problems ISG SAI focuses on are of great practical importance, showing both the applicability of ideas and technology. Multi-party PoCs strengthen collaboration between ISG members and participants and can bring new partners to the group. The results help to put ISG's work into perspective, as well as create external visibility and build awareness of the AI security problems.

4.2 Process

ISG SAI calls for PoCs during the life of the ISG. The process is intended to be lightweight and 'bottom-up', i.e. originating from the members and participants of the ISG SAI community:

- 1) The interested organizations form the PoC Team, which consists of at least two organizations, and at least one of them is the ISG SAI member or participant.
- 2) The PoC Team prepares the PoC Proposal, which should relate to current or proposed ISG SAI WIs, use cases, test cases, problems, etc., considered therein.
- 3) The PoC Team sends the PoC Proposal in the format specified in clause 4.3 to the mailing list ISG_SAI@LIST.ETSI.ORG to inform the community and gather feedback.
- 4) Based on the community feedback and the criteria mentioned above in bullets 1) to 3), if the consensus is reached, the ISG SAI approves the PoC Proposal and the SAI officials assign it a number.
- 5) The PoC Team updates the ISG SAI about the progress and presents the final results during ISG SAI meetings. If possible, the PoC Team also presents the results in public venues (conferences, exhibitions) and promotes the PoC in (social) media.

4.3 PoC Proposal Format

| PoC title: <title_here> | | | | |
|---|-------------------|-----------------|-------------------------------------|-----------------------|
| Abstract: <abstract_here, incl. topics, goals> | | | | |
| Related WIs: <WIs> | | | | |
| PoC Team members | | | | |
| # | Organization name | Envisioned role | ISG SAI member/participant (yes/no) | Contact (name; email) |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| ... | | | | |

History

| Document history | | |
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