SCION Association

Charter of the Technical Committee Standardisation

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Overview

The SCION Association defines and maintains SCION specifications and collaborates with external standardisation organisations for the standardisation of SCION. The Technical Committee (TC) Standardisation of the SCION Association overlooks the evolution of the SCION protocol and manages the overall direction of the SCION specifications.

SCION Association Specification or External Standardisation

The TC Standardisation specifies what SCION components need to be described in which order. In this context, a difference must be made between the own SCION Association specification and external standards. A **SCION Association specification** has successfully passed the *SCION Association* specification process (see further below). The TC decides whether a SCION Association specification procedure has been successful, by majority vote. An approved SCION Association specification is then frozen and can be referred to as such in SCION implementations. If the SCION community wants to modify an established SCION Association specification or protocol, it must submit a Specification Proposal to the TC Standardisation, which then decides on the further procedure (see below).

To ensure that a SCION Association specification becomes a globally accepted **external standard**, the TC may decide to take it to one or more external standards organisations (i.e, the IETF, ITU, or ENIS A, …). From this moment onwards, the governance policy and processes of the external standards development organisation come into effect. As a consequence of the external standardisation process, the final external standard might include major/fundamental changes in comparison with the SCION Association specification. The TC decides, on a case-by-case basis, how to reconcile such divergence. See External Standardisation Process for more details.

Main Responsibilities of the TC Standardisation

The main responsibilities of the TC Standardisation are:
- Decide on the specification process:
  - What SCION components to specify in which order.
  - Whether these components must only be specified by the SCION Association or should also be standardised externally.
  - In case of an external standardisation: Where to present the work (which standards organisation).
  - The format of the specification document for the SCION Association specification[1].
- Final review of SCION Association specification documents.
- Managing specification technical teams (creating and dissolving technical teams, appointing and dismissing members).

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[1] The external standards organisations have their own document formats.

- Coordination with the TC Implementation and other bodies of the SCION Association, in particular the Advisory Board (AB), to synchronise the evolution of the SCION Association specifications as well as possible external standards, and their implementations. This also includes deciding on specification proposals proposed by the TC Implementation.
- Actively communicate with the SCION community if required.

Members of the TC Standardisation

The members of the TC Standardisation are responsible for establishing and maintaining the SCION specifications and protocols. They steer and control the SCION specification process accordingly.

The TC members are formally appointed by the SCION Association Board. The TC and/or members propose new members based on expertise. Ideally, representatives of a SCION-based (implementation) software provider, a SCION service provider, and a SCION customer are part of the TC, as well as one or two SCION developers. Membership of the SCION Association is not required. In addition, the SCION Association *founding* members are also entitled to appoint a representative to the technical committee. The number of committee members is left open, but should be at least 4 and at most 10.

Governance

To prevent the hijacking of the SCION protocol and specification process, all decisions of the TC Standardisation require a majority vote of the members of the TC. Membership is initially for two years and can be renewed repeatedly by the Association Board. A membership in the association is not a prerequisite.

Organisation and Division of Work

The TC Standardisation constitutes itself and appoints from among its members its Chairperson and a vice Chairperson. The Chairperson organises the meetings of the committee, coordinates and oversees the work of the TC and maintains the contact with the Advisory Board and the other TCs. Once a year, the TC Standardisation reports to the Association Board about the work of the TC.

Technical teams (standardisation). The technical teams are responsible for specific subjects within the SCION suite. Examples of such subjects are: authentication, control plane, data plane, availability guarantees (e.g., COLIBRI), additional security systems (e.g., F-PKI, RHINE, PILA). The members of a technical team support/help the SCION technical writer(s) and engineer(s) with the writing of the specification documents related to the team's subject, and review the documents' content. Technical teams are created and resolved, and their members appointed (ad personam) and dismissed by the TC Standardisation, by majority vote. Membership is initially for two years and can be renewed repeatedly by the TC. A membership in the association is not a prerequisite.

Working groups. Working groups are temporary organisations to work on specific topics, for instance, to prepare the submission of a standardisation document to an external standardisation body. Working groups can be created by the TC or a technical team.

Meetings and Meeting Agenda

The frequency of meetings and the meeting agenda is determined by and depending on the specification or external standardisation process. The Chairperson of the TC decides on the meeting schedule and agenda.

Voting and Decisions

Each member of the TC Standardisation has one (1) vote. All decisions of the TC Standardisation require a majority of the votes of its members. In the unlikely event that the TC is unable to reach a majority decision on a topic after three voting rounds, the Advisory Board shall be called for advice to overcome the stalled situation. The result of each vote shall be documented in writing (electronic form sufficient).

Specification Process

As an initial task, the TC Standardisation must decide on the general specification process. This includes defining the following elements:
- What SCION components to specify in which order.
- Per component: whether to only perform a SCION Association specification, or to also standardise the component externally. In the latter case: Where to submit the standardisation documents (that is, to which external standards bodies).
- The format of the SCION Association specification document.

All decisions require a majority vote of the members of the TC.

SCION Association Specification Process

- The SCION technical writer(s) and engineer(s) draft the specification documents in the specified order and with the specified SCION Association document format.
- The first drafts of each SCION Association specification document are reviewed by the relevant technical team (and adjusted by the responsible technical writer/ engineer). This step is repeated until the members of the technical team agree upon the content and quality of the document. The SCION Association specification document can then be shown to the TC for a final review.
- The TC reviews the specification document. This may include consulting the SCION community if desired. The respective technical writer/engineer is responsible for reviewing all feedback and coordinating the review process. The step may be repeated if required.
- The SCION Association specification document is accepted and frozen when **most members of the TC** are satisfied with the content and quality of the document. The document is issued a version number and published, marking the end of the SCION Association specification process.

- Further changes to an existing SCION Association specification require a new iteration of the SCION Association standardisation process, and a new version number.

External Standardisation Process

- If the SCION Association specification must also become an external standard or protocol, the corresponding specification document is now submitted to the relevant standards organisation, according to the organisation's submission procedure.
- In order to keep the SCION Association specification and external standardisation processes aligned, the member(s) of the team working on the corresponding SCION Association specification document also carry out the external standardisation procedure, if possible. This includes actively interacting with the relevant external standards organisation, coordinating the feedback of the external body and adjusting the documents, if necessary.
- The responsible technical writer/engineer actively informs the TC Standardisation about the progress of the external standardisation procedure. The TC as well as the relevant technical team(s) support the technical writer/engineer during the entire process, especially regarding technical content questions. They also decide on minor changes to the specification or protocol, should the external standardisation body require such changes. The community may be involved, too, if desired.
- An explicit decision of the TC Standardisation is needed if the external standardisation body wishes the protocol or specification to be changed fundamentally as opposed to the corresponding SCION Association specification. The TC decides, on a case-by-case basis, how to reconcile such divergence:
    - The SCION Association specification is declared superseded by the corresponding external standard, once approved by the external standards organisation.
    - The external standardisation process is stopped and the SCION Association specification prevails.
    - The divergence cannot be resolved, and both the existing SCION Association specification and the external standard remain in effect.
  This requires a majority vote of the members of the TC.

Process to Change Existing Specification

The TC Standardisation discusses and decides on proposals submitted by the TC Implementation to change an existing specification. The TC can ask the relevant technical team for advice and support.
The decision whether to change an existing specification requires a majority vote of the members of the TC.

General Provisions

Confidentiality

The engagement of members of the TC Standardisation may require the Association to disclose confidential information and data of any kind concerning any matters affecting or relating to the Association not generally known or available outside of the SCION Association (**the "Confidential Information"**). Each TC Standardisation member will hold the Confidential Information received from the Association in strict confidence and will exercise a reasonable degree of care to prevent disclosure to others. A member of the TC Standardisation shall not reproduce the Confidential Information nor use this information commercially or for any purpose other than the performance of his/her duties for the SCION Association.

Intellectual Property

The ownership of any intellectual property created by a member of the TC Standardisation through the performance of his/her role shall remain with the member of the TC Standardisation. Notwithstanding the foregoing, each member of the TC Standardisation hereby grants to the SCION Association a non-exclusive, irrevocable, fully paid-up, royalty-free, sub-licensable licence to all intellectual property and related intellectual property rights created through the performance of his/her role as a member of the TC Standardisation.

Final Provisions

In cases not provided for by law, the Association's bylaws or this Charter, decisions are taken by the chairperson of the SCION Association Board. In case of disputes, the competencies and the place of jurisdiction in accordance to the articles of the Association in force shall apply.