Testing & Certification Code of Conduct

Version 1.0 October 2016

Author:	Editor:
Smart Ticketing Alliance	ITSO & AFIMB

Table of Contents

1. Revision List

Version	Date	Author	Comments
V1.0	October 2016	STA CWG	

2. Contacting STA

If you have any queries concerning this document or STA generally, the following contact details apply:

Web: http://www.smart-ticketing.org/ e-mail: Secretary@smart-ticketing.org

3. Purpose of the document

This document is the Code of Conduct or Ethics document that Certification Bodies will follow in their dealings with Vendors who wish to avail themselves of STA certification.

4. Introduction

4.1 STA Testing and Certification Processes

The STA requires a range of Testing and Certification processes to enable STA operators to competitively procure and maintain devices within a STA designated scheme. This Code of Conduct identifies the requirements and standards to be followed by the STA certification body when it is certifying a vendor's product or systems.

When a device or system has been certified by a STA Certification Body, a dated Certificate is issued to the Supplier or Member with fixed validity. A copy of all valid Approvals and Compliance Certificates, and details of the media, device or systems to which they relate (including version numbers etc.) is made available on the STA website (as well as on the Certification Body's website). The STA member is required to ensure that any customer media, device or software used is STA compliant and, by reference to their Certificates and Schedules, provides the specific functionality required by STA designated standards and functionality. Compliance with this requirement may be subject to periodic review by the STA.

4.2 Accreditation of Test Laboratories

Certification is the inspection, evaluation and testing of the components and system against standards and other requirements and the awarding of a Certificate of Compliance.

To do this it is necessary for the STA to first evaluate the potential Test Tools that can be used in Certification, and the competence of Test Laboratory(ies) to carry out Tests against the relevant standards and functionality (ISO 10373-6 and CEN TS 16794 Part-2 for example). Their competence to perform the Testing required is recognised through Accreditation of the Test Tools and of the Test Laboratory.

Test Laboratories are required to use standardised procedures to ensure consistent replicability and reproducibility. The quality control principles and the competence required for device certification are set out in ISO/IEC 17025.

4.3 Certification

Certification provides formal recognition of a device's conformance to an industry standard specification, in this case ISO/IEC 14443, CEN TS16794 (plus other relevant functionality).

This allows:

- STA Certified Vendors to make and substantiate clear claims of conformance to the standard specifications.
- Buyers (STA operators) to specify and successfully procure conformant devices and systems that will interoperate, thus reducing (but not eliminating) systems integration.

Certificates are awarded by STA accredited Certification Bodies on the basis of successful completion of testing at accredited Test Laboratories using the accredited Test Tools.

STA Operators and Suppliers shall only make claims regarding Certification of their devices in respect of the scope for which Certification has been granted.

5. Certification Process

5.1 STA Certification Parties

The figure below gives an overview of the STA certification parties and of the interactions between them.

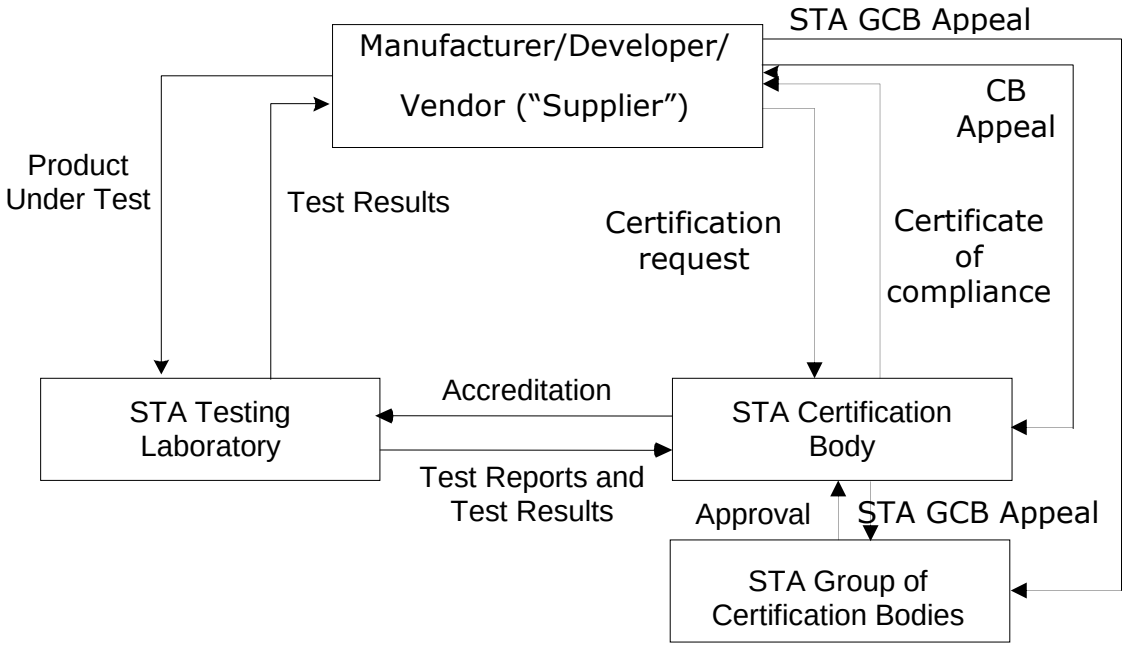

Figure 1 – STA Certification Parties Interactions

5.2 The STA Certification Organisation

The STA facilitates a secure interoperable environment for smart ticketing. It designates the relevant standards, other functionality, testing requirements and organises through its members' technical assistance to address any questions or queries related to the standards and specifications used in the process.

The STA accredited Test Laboratory executes a series of documented Tests on devices and systems designed to operate in the environments of STA members. Based on the results of these Tests on a device or system, the accredited STA Test Laboratory will produce a Test Report following which the STA Certification Body may issue a Test Certificate of Compliance to a Supplier.

5.2.1 Certification Body

The Certification Body is the organisation approved by the STA that is responsible for the management of the STA certification process for the Member Scheme(s) for which it is appointed. It is the body which manages the process and issues compliance certificates. It is also responsible for the governance and impartiality of the process and for compiling and publishing details of the process to be followed by suppliers wishing to certify their products.

5.2.2 Test Laboratory

The Test Laboratory is designated by STA (possibly through an STA member who has delegated authority to do so) as authorised to implement and execute the Tests identified in the relevant standards and other functionality as described. These Tests are based on the current functionality of the device, and the relevant standards as designated by the STA (and delegated to the Certification Body). The Test Report and Test Results will be used by the STA Test Laboratory and Certification Body to determine the suitability of the device to be given a Certificate.

Note that the Test Laboratory's independence is related to the methodology used in the Interoperability Tests. By applying 'Black Box' testing without explicit use of knowledge of the internal structure of the device, and only based on the relevant STA designated standards, the STA Test Laboratory does not disclose the Supplier's proprietary information and maintains its impartiality.

5.2.3 Supplier

The Manufacturer, Developer and/or Vendor of a device must be registered with the STA member responsible for the accredited test house to be used to be able to submit devices or systems for STA Testing and Certification.

6. Certification Body Requirements

The following sections define how a STA Certification Body shall act in its dealings with other parties, in particular an entity wishing to certify media, devices or systems as STA compliant.

A STA Certification Body must meet all of the following requirements.

6.1 Standards

Certification Bodies shall apply ISO 17065 standard (Conformity assessment - Requirements for bodies certifying products, processes and services) in its operations with an entity wishing to certify media, devices or systems.

Where Certification Bodies use external Laboratories and testing facilities the Certification Body shall require that their accredited Laboratories shall meet the applicable requirements of ISO/IEC 17025 related to the scope of certification.

Any internal Laboratories directly managed by the Certification Body shall meet the applicable requirements of ISO/IEC 17025 related to the scope of certification.

6.2 Methodology

The methodology, used by Certification bodies with their laboratories, to evaluate the compliance of solutions against the Implementation Specifications must be openly and publicly available. The conduct of any evaluations against this methodology shall be impartial and independent of any management direction from any specific Approval Body.

The Certification Bodies will make public

- List of specifications;
- Description of the certification process;
- The process by which the certifications may be obtained;
- List of approved [accredited] laboratories;
- Accreditation process (process on how to become an approved lab);
- Certificate lifecycle (if applicable);
- Maintenance process for laboratories;
- List of certified solutions;
- Governance principles.

The following principles shall be applied in order to give confidence in the certification activities:

- impartiality, in particular:
  The certification body shall ensure its certification activities are undertaken impartially; the top management shall commit to impartiality and ensure all certification body personnel act impartially.
  The certification body shall not allow commercial, financial or other pressures to compromise impartiality.
  The certification body's activities shall not be marketed or offered as linked with the activities of an organization that provides consultancy. A certification body shall not state or imply that certification would be simpler, easier, faster or less expensive if a specified consultancy organization were used.
  Within a period specified by the certification body, personnel shall not be used to review or make a certification decision for a product for which they have provided consultancy.
- confidentiality,
- non-discrimination in particular:
  The policies and procedures under which the Certification Body operates, and the administration of them, shall be non-discriminatory. Procedures shall not be used to impede or inhibit access by applicants,
  The Certification Body shall make its services accessible to all applicants whose activities fall within the scope of its operations.
- openness and fair treatment of complaints and appeals.

6.2.1 Separation

Where specification activities and the Certification Body are managed in the same organisation, separation should exist between the certification operation (the recognition and management of the laboratory and the awarding and delivery of the certificate) and specification activities. This can be achieved either by separating the organisations performing those tasks or by different groups within the same organisation. There should be a separate line management for each activity.

Thus the Certification Body shall confine its requirements, evaluation, review, decision and surveillance (if any) to those matters specifically related to the scope of certification.

Where the Specification Provider and the Certification Body are not managed in the same organisation, co-ordination shall be established in order to meet the requirements expressed below and the principles expressed in Section 6.2 above.

The Certification Body, independently or in co-operation with the Specification Provider, through their formal or informal relationship, provides or indicates:

- A sustainable Certification framework for Solution Providers developing solutions against the Implementation Specifications, which may include:
  - The definition of the different phases of the certification (e.g. Test with simulator, test by accredited laboratories, field test);
  - The test process and test plan requirements;
  - The list of deliverables to be provided by Solution Providers;
  - The list of deliverables produced during the certification process;
  - The establishment of testing laboratories accreditation, contractual and monitoring process (e.g. Technical scope, contractual agreement) and the publication of a list of accredited laboratories.
- The management of the Certification process which may include,
  - Ensuring the follow-up of each ongoing Certification process, within the time frames agreed in the service description;
  - Publishing, on a public website the list of certified solutions and the functionalities they are certified for;
  - Defining a validity period for the issued certificate as described in §9 of “Contactless Interface Certification for Public Transport Products Certification Procedure”.

In the same manner, the Certification Body shall ensure that activities of separate legal entities, with which the Certification Body or the legal entity of which it forms a part has relationships, do not compromise the impartiality of its certification activities.

6.3 Appeals Process

The Certification Body shall have a formal published appeals process, as required by ISO/IEC 17065.

STA membership requires that there should be an additional level of appeal directly to the STA should the local process not be able to resolve the complaint or appeal to the applicant’s satisfaction and this shall be explicitly contained in the published appeals and complaints procedure.

An applicant (or Certified Body) may formally request STA to reconsider any adverse decision related to the applicant's desired accreditation status, by submitting an Appeal in writing to the Secretary of the STA (or other nominated person in the STA) within one month of the date of the "local" decision.

If the complaint relating to the applicant's desired accreditation status is not upheld by the STA, the applicant may formally request that the STA reconsiders its decision and establishes a review by an independent appeal review panel.

7. Normative References

The following documents, in whole or in part, are referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

- ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories
- ISO/IEC 17065 General Requirements for bodies operating Certification Schemes