Annex B – Accreditation

B.1   This Annex sets out further detail regarding the three relevant accreditation processes for the TVM market. The purpose of this Annex is, firstly, to describe the underlying purpose of each form of accreditation and, secondly, summarise key aspects of the processes that this entails.

RDG Accreditation

B.2   RDG accreditation applies to suppliers delivering TVMs that will be used to retail tickets for the mainline network.

Purpose of RDG accreditation

B.3   The purpose of RDG accreditation is:

- To ensure that the payments settlement process happens correctly, for example, ensuring the correct allocation of the fare where a passenger has purchased a ticket covering travel on two or more train services;

- To ensure that the central industry systems are not damaged; and

- To check that the standards have been implemented[1].

B.4   RDG is responsible for setting standards that must be met in order to gain accreditation and ongoing obligations on the retailers of rail products. There are two categories of standards: informative, which provide background and context on TIS design; and normative, which set out the requirements that must be met in order to gain accreditation.[2] The majority of standards fall into this second category.

B.5   There are currently 61 standards. Since 2014, these standards have been subject to revision around 250 times.

RDG accreditation process

B.6   The TIS[3] supplier (or TVM supplier if offering a vertically integrated product) is responsible for undertaking accreditation.

B.7   There are two ways of accessing RSP accreditation services. Suppliers can either enter into an RSP accreditation contract in which slots for accreditation are set in advance. If these set days are not used, they are lost. Alternatively, suppliers can

---

[1] https://www.raildeliverygroup.com/files/Publications/services/rsp/rspa2000_tis_accreditation_guide.pdf

[2] https://www.raildeliverygroup.com/files/Publications/services/rsp/rspa2000_tis_accreditation_guide.pdf

[3] For a definition of TIS, please see paragraph 2.21

undertake accreditation on a non-contractual basis where slot booking is on a 'first come first served' basis.

B.8 There is also 'delegated authority', whereby a TIS supplier allows a ticket retailer access to their accredited TIS. The TIS supplier is responsible for the accreditation of the retail channel.

B.9 There are two types of RDG accreditation: full and interim accreditation.

B.10 For 'full' accreditation, the RSP[4] team reviews a TIS for compliance with all applicable standards. Full RDG accreditation lasts for three years from approval. At the end of the three years, TIS suppliers are required to go through the full accreditation process to renew their accreditation certificate.

B.11 Interim accreditation applies to any changes introduced to previously accredited TIS. Interim accreditation follows the same process as full accreditation but focuses on new or changed functionality of the TIS and ensuring RDG standards that have changed since the previous accreditation have been implemented.

B.12 The time it takes to become fully accredited can vary from 2-3 months to two years.

Oyster accreditation

B.13 Oyster accreditation applies to suppliers using Pearl readers on TVMs to offer Oyster top up functionality.

Pearl reader

B.14 A Pearl Reader is a device which connects a TVM to the Oyster Network to allow it provide Oyster functionality.[5] The process for obtaining a Pearl reader is as follows:

- A TOC runs a procurement exercise and contracts with a TVM supplier in order to supply its requirement of TVMs.

- TOC/TTL Agreement: TOCs wishing to use Pearl software to retail travel products via TVMs must first enter into an agreement with Transport Trading Limited (TTL), a subsidiary of TfL which owns Pearl and Oyster software;

- TTL written consent: If a TOC wishes to make TVMs Pearl compatible, it must obtain TTL's written consent for TVMs to be Pearl enabled;

- TVM/Cubic integrate Pearl software: A TVM supplier then enters into an agreement with Cubic to integrate Pearl software into its TVM and obtain accreditation from TTL;

---

[4] A subsidiary of RDG

[5] Note this functionality is limited to topping up Oyster cards

- Authorisation of enablement: Once the TVM supplier has integrated Pearl Software and obtained accreditation from TTL, the TOC may then request authorisation from TTL for the enablement of further TVM devices; and

- TVM/Cubic agreement: The TVM supplier then enters into an agreement with Cubic for the supply of Pearl add-onto TVM machines.

Purpose of Oyster accreditation

B.15 Oyster accreditation is a TfL requirement. It is carried out by TfL's revenue collection supplier, currently Cubic. TVM suppliers develop software to integrate Oyster Pearl into their TVM solutions allowing them to retail Oyster products.

B.16 The purpose of Oyster accreditation is primarily to ensure that TVM software that connects to the Oyster network through the Pearl Reader does not disrupt the Oyster system.

B.17 There are three specifications: Pearl Software Interface Specification; Pearl 1 Hardware Interface Specification; and, Pearl 2 Hardware Interface Specification.

B.18 The specifications were written by Cubic as the original equipment manufacturer of the Oyster Pearl device and the system integrator for the Oyster system. The specification only needs to change if new functionality is added and/or an issue was found in live operation of the Pearl device that required a change to the interface to resolve it. The specifications were last updated between 5 and 9 years ago.

Oyster accreditation process

B.19 While the Oyster accreditation process is managed by Cubic, TfL has involvement in various aspects including assurance of the process. Oyster accreditation is only required once unless a change to the software is made. Namely, re-accreditation is triggered by:

- A change made by suppliers to a previously accredited TVM equipment, which is judged likely to cause, or is at risk of causing, a change in the interface between the Third Party TVM system, the Pearl device and/or the Oyster Back Office; or

- Any updates introduced by Cubic. However, suppliers only need to make changes to their interface if the update affects the functionality of the Pearl software.

B.20 The extent of the re-accreditation process will be determined by the nature of the change. If the change is not directly Oyster related a minor subset of tests need to be performed in order to assure that no Oyster related functionality has been

inadvertently affected. Otherwise, if the change directly impacts upon Oyster retailing, then full accreditation will be required.

B.21 Re-accreditation costs are the responsibility of the party initiating the change, be it TfL, Cubic or the TVM supplier.

B.22 The Oyster accreditation process is indicatively six months long from initial engagement of a new supplier to completion of Pilot accreditation. However, this could be shorter depending on the time taken for development.

ITSO accreditation

B.23 ITSO is the Integrated Transport Smartcard Organisation. It provides for interoperable public transport ticketing using contactless smart customer media.[6]

B.24 ITSO smart-ticketing is a system that electronically stores a rail ticket on a microchip which is fixed onto a smartcard. This ITSO smartcard allows passengers to travel seamlessly on different transport modes (buses, trams and/or trains) without having to purchase tickets by cash or use a paper ticket. For example, Great Western Railway has recently launched a pilot of ITSO smartcard for their Severn Beach Line, combining bus and rail travel into a single ticket.[7]

B.25 Suppliers are required to go through ITSO accreditation to offer ITSO-compliant smart ticketing schemes.

Purpose of ITSO accreditation

B.26 ITSO Ltd has four primary functions:

- To test and certify smart ticketing equipment and systems to ensure they meet the ITSO Specification;

- To ensure the ITSO Specification is up to date with any business and technical requirements;

- To provide security for all ITSO products and transactions;

- To provide guidance and support for ITSO members.

B.27 The ITSO Specification defines how to implement a smart ticketing system (e.g. smart cards, point of service terminals and back office systems) and is applicable to any mode of transport including rail.

---

[6] ITSO Specification was developed in the UK under Crown Copyright.

[7] https://www.itso.org.uk/news/news/great-western-railway-to-launch-smartcard/

B.28 The ITSO Specification is reviewed regularly by ITSO Ltd. Changes to the Specification can be driven by technical or functional requirements. Any ITSO member can request a change to the ITSO Specification.

ITSO accreditation process

B.29 Any company wishing to use ITSO products and systems can do so by becoming either an ITSO member or an ITSO supplier (non-member). Non-members face a single one-off charge for testing and certification, which typically entails a higher overall cost than member fees. While there are currently more non-members than members, over 80% of ITSO – certified equipment are registered by ITSO members.

B.30 It is the responsibility of the supplier to ensure that any equipment falling under the ITSO Specification is tested and certified by ITSO before it can be adopted and used by a train operator.

B.31 The ITSO Certificate lasts for seven years after which, ITSO tells us that there is a risk that the smart ticketing equipment and systems will become outdated. When the certificate expires, suppliers are required to go through re-accreditation.

B.32 The length of time it takes to become fully compliant with ITSO will depend on the complexity of the equipment. Smart media cards can take up to two days to become ITSO certified, with point of service terminals and back office systems taking up to several weeks.