



Certificate No. C – 000140

ITSO Certificate of Compliance

To: **Applied Card Technologies Ltd**
Langley Gate, Kington Langley,
Chippenham, Wiltshire SN15 5SE, UK

For: **ACT Remote POST Service (v2.6.13)**

This is to certify that the above product has been tested as required by ITSO for compliance against ITSO TS 1000 Specification Version: 2.1.4 Corrigendum 5

Test Report Ref: **101213 – ACT Remote POST- P_2.1.4_DR – V.1.0**
Dated 10 December 2013

This product supports the functions: ITSO POST and communicates within an ITSO environment as listed in Schedule A of this Certificate.

This product may only be used by ITSO Licensed Members complying with the conditions and constraints listed in Schedule B.

Signed for and on behalf of ITSO :

Title: GOVERNANCE MANAGER

Dated : 7 JANUARY 2014

Certificate Valid until : 6 JANUARY 2021



Schedule A

The ACT Remote POST service provides an ITSO POST implementation where the customer media and supporting ISAMs are separated over a secure wide area network compliant to Part 11 of the ITSO specification. Multiple ISAMs from different operators are supported. ACT host and manage the Remote POST service from its secure data centres.

A client component is responsible for communicating with the customer media and the Remote POST service. This client component can take many forms, including, but not limited to:

- Embedded payment terminal with contactless reader.
- Ticket Vending Machine (TVM) with contactless reader.
- Information Kiosk with contactless reader.
- Android mobile phone with NFC capability.
- Web browser plug-in with access to PC/SC contactless reader.

All communication with the Remote POST service takes place over an encrypted HTTPS protocol. The Remote POST server component is designed to handle requests from many clients. It handles business logic, POST logic, ISAM management and HOPS communications. The Remote POST server component automatically routes messages to different operator HOPS as required.

The Remote POST server component has a user interface for purposes of certification and operational management. A business interface (API) is provided to allow external systems to drive the Remote POST service. This POST communicates with CMD7 only. The IPEs supported are represented by the following table.

IPE	Create	Modify	Accept	Delete
TYP 0 – Private IPE	✓	N/A	N/A	
TYP 2 – Stored Travel Rights	✓	✓	✓	✓
TYP 14 – Entitlement	✓	✓	✓	✓
TYP 16 – ITSO ID and Entitlement	✓	✓	✓	✓
TYP 22 – Area based ticket (FR1 and FR2)	✓	✓		✓
TYP 23 – Journey Ticket (FR1 and FR2)	✓	✓		✓

Hot-lists and hot-listing is supported. Action-lists and action listing is supported with the following “Action to take” codes supported:

- 1 Create IPE
- 2 Update IPE: change expiry date
- 3 Update Shell
- 4 Disable STR Auto-Top-Up
- 5 Add STR Auto-Top-Up
- 6 Un-Hotlist shell
- 7 Un-Hotlist IPE
- 8 Disable Auto-Renew
- 9 Enable Auto-Renew and set associated IPE parameters.
- 10 Update IPE: Add Stored Rides or Journeys
- 11 Update IPE: Add Stored Rides or Journeys, and amend expiry date
- 12 Update IPE: Add STR
- 14 Update IPE: Amend IPE iteration number
- 15 Update Shell contents: IPE Fulfilment



Schedule B

The service has been tested with the following contactless readers:

- Omnikey Cardman 5321
- SCM SCL011
- ACS ACR122U

Other alternative contactless readers may work acceptably, but are not endorsed by ITS0.

List of the conditions and/or constraints applied by ITS0:

- 0801 message supplementary data is not supported by the Remote-POST as this is expected to be generated by the local device attached as the customer media interface.