

**Unicard Limited**

Peartree Business Centre
Cobham Road
Wimborne, Dorset
BH21 7PT

6th January 2023

ITSO Remote POST Client Compliance Certificate

Certificate Number: C00227
Product/Service name: Unicard Mobile SDK
Version: 1.0.7 for iOS and 1.0.14 for Android
Compliant with: ITSO TS 1000 Specification Version 2.1.4 Corrigendum 9

Dear Michael,

ITSO received a request submitted by Unicard Limited, for the new certification of Unicard Mobile SDK (version 1.0.7 for iOS and 1.0.14 for Android). As indicated in Certification Test Report (ref. RPC-1654081792 – Unicard Mobile SDK – New Certification), ITSO has found reasonable evidence that the submitted product/service complies to ITSO TS 1000 Specification Version 2.1.4 Corrigendum 9.

Your product/service will be included in the certified products list, published on ITSO website.

Please note that the present Certification is subject to the following general terms and conditions along with conditions/constraints as detailed in Schedule B:

- i. The present Certification is granted on the basis of the ITSO Certification & Compliance Policy and therefore is valid as of today and will expire 7 years from issue, however if the Product/service contains a sub-assembly, the above referenced product will only be valid if the sub-assembly holds a valid ITSO certificate.
- ii. If the Product version number is changed, Unicard Limited must notify ITSO of this fact in writing by supplying the release notes. Any change in the Product that may generate a different behaviour with respect to the ITSO TS 1000 Specification version 2.1.4 corrigendum 9 standards may be considered a major modification subject to a new evaluation in order to maintain the present Certification.
- iii. The present Certification granted to Unicard Limited for the above referenced Product is non-transferable to any other vendor.
- iv. When request by an ITSO Licenced Operator, the ITSO Registered Supplier must supply a copy of the Test Report.

Certificate Number C00227 Unicard Mobile SDK

Registered Address: 302 Witan Gate West, Milton Keynes, MK9 1EJ

Schedule A

The Unicard Mobile SDK has been tested with a range iOS and Android mobile phones (listed in Section 5.1 in the test report).

The Part 11 Client end-point client running on iOS and Android phones using the Unicard Mobile SDK to connect to the Unicard Remote POST Server version 4.0.0.1 (C00177-1).

The CM supported is shown in the following table:

CMD	CMD2	CMD4	CMD7	mCMD2
Customer Media Definition	✓		✓	✓

The IPEs supported are represented in the following table:

IPE	Accept	Create	Modify	Delete*
TYP 0 – Private Application				
TYP 2 – Stored Travel Rights				
TYP 3 – Loyalty (Type 1)				
TYP 4 – CTA (Mode 1)				
TYP 5 – CTA (Mode 2)				
TYP 14 – Entitlement				
TYP 16 – ITSO ID & Entitlement				
TYP 17 – Loyalty (Type 2)				
TYP 22 FR1 – Area Based Ticket		✓	✓	✓
TYP 22 FR2 – Area Based Ticket		✓	✓	✓
TYP 23 FR1 – Journey Ticket		✓	✓	✓
TYP 23 FR2 – Journey Ticket		✓	✓	✓
TYP 24 – Journey Ticket with Reservations and Special Restrictions		✓	✓	✓
TYP 25 – Travel Voucher				
TYP 26 – Open System Tolling				
TYP 27 – Period Pass (space saving)				N/A
TYP 28 – Carnet (space saving)				N/A
TYP 29 – Multi Journey Ticket (space saving) – FR1				N/A
TYP 29 – Multi Journey Ticket (space saving) – FR2				N/A
Transient Ticket Log FR 1				N/A
Transient Ticket Log FR 2				N/A
Transient Ticket Log FR 3				N/A
Transient Ticket Log FR 4				N/A

*Deletion of IPE is via ActionToTake15 (0xF)

Schedule A (cont.)

The optional functionality supported by this device is shown in the following tables:

Hot listing support			
Multi (0602)	Manually Block	Manually Unblock	Storage
✓			

Action list support		
Single (OC03)	Multi (0603)	Storage
✓	✓	

Action list Action to Take (ATT) support															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
✓	✓	✓			✓	✓	✓	✓	✓	✓			✓	✓	

Interoperability/parameter list support/multi record receipt of multiple types				
ListFR1 Receive 0Axx	List FR1 Receive 0Bxx	List FR2 Receive 0Axx	List FR2 Receive 0Bxx	Receive multiple types 0600

Miscellaneous						
POST HOPS queries	Additional Shell Data 0807	Log 1	UD Frames Generate 0Exx	UD Frames Receive 0Exx	UD Frames Generate 0Fxx	UD Frames Receive 0Fxx

RSPS3002 Rail Supplementary Functions							
Check in	Check out	Undo Check in	Break of Journey	Inter- change	Pass Activation	Lists	Inspection

Schedule B

List of conditions and/or constraints applied by ITSO:

- CMD7 DESFire EV2 and EV3 not supported on iOS phones.
- The app does not support Android version lower than 8.
- The Unicaud Mobile SDK has been tested with a range of iPhones and Android phones (listed in Section 5.1 in the test report).
- Deletion of IPE is via ActionToTake15 (0xF) and also via automatic removal of Expired IPEs (if IPE Expiry and RemoveDate are in the past, and RemoveDate ≠ 0xFF). Exceptions are if IPE is TYP2 and OID = 8000, and if TYP16 and TYP14 present.
- For Pass Activation to succeed, the TYP22 needs to be in Stored Pass mode (TYP22ValueFlags Bit1=1) with AutoRenew disabled (TYP22ValueFlags Bit0=0) and at least 1 stored pass remaining.

The Unicaud Mobile SDK does not support the following:

- The reversal of TrxReversal.
- Auto renew before the expiry of IPE.
- Auto renew before all stored tickets are consumed.

The original expiry date, 5th January 2030, of this certificate has been amended to 23rd November 2028 due to the device not being verified with the new extended DTS EPOCH.



Certificate No. C00227

ITSO Certificate of Compliance

Supplier: **Unicard Limited**

Product/service: **Unicard Mobile SDK**

Version: **1.0.7 for iOS and 1.0.14 for Android**

This is to certify that the above product/service has been tested as required by ITSO for compliance against:

ITSO TS 1000 Specification Version: 2.1.4 Corrigendum 9

Test Report Ref: RPC-1654081792 – Unicard Mobile SDK – New Certification

This product supports the functions: ITSO Remote POST Client 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: _____

Name: **Darren Marshall-Sewell**

Title: **Technology Manager**

Dated: **6th January 2023**

Certificate Valid until: **23rd November 2028**

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