



Certificate No. C – 00071-3

ITSO Certificate of Compliance

To: VIX Technology
Nautica House, Waters Meeting Road, BOLTON, BL1 8SW. UK

For: H440 / H450 Hand Held verifier (release 1.4.24)

This is to certify that the above product has been tested as required by ITSO for compliance against ITSO TS 1000-0 Specification Version: 2.1.4

Final Test Report Ref: *041011 –Vix Technology – Hand Held Rail
Validator P_2.1.4_ FR – v.1.0*

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 Licenced Members complying with the conditions and constraints listed in Schedule B.

Signed for and on behalf of ITSO : 

Title: GOVERNANCE MANAGER

Dated : 21 MARCH 2012

Certificate Valid until : 20 MARCH 2019



Schedule A

This POST communicates with CMD1-8.

The POST consists of a hand held unit and PC with cradle.

The POST supports all optional elements in the normal log. Hot Listing and Action Lists are supported. The POST will delete expired IPEs (but does not allow manual deletion). The POST supports check in – check out.

The IPEs supported are represented by the following table.

IPE	Create	Modify	Accept	Delete
TYP 2 – Stored Travel Rights			✓	
TYP 14 – Entitlement	✓		✓	✓
TYP 16 – ITSO ID and Entitlement			✓	✓
TYP 22 – Area based ticket	✓		✓	✓
TYP 23 – Journey Ticket	✓		✓	✓
TYP 24 – Journey Ticket	✓	✓	✓	✓*
Transient Ticket	✓		✓	

*TYP24 Deletion will occur when there is insufficient space for a new ticket and an expired one will be deleted



Schedule B

List of the conditions and/or constraints applied by ITSO.

This POST meets the off-line bus ETM benchmark timing standards for CMD1 and 7:

This POST achieved ITSO benchmark timing as follows:

	Average over tests
CMD1	509ms
CMD2	914ms
CMD3	694ms
CMD4	n/s
CMD5	n/s
CMD7	542ms
CMD8	643ms