



**Vix Technology UK Limited**

5th Floor,  
3 Piccadilly Place,  
Manchester,  
M1 3BN

15th April 2026

**ITSO POST Compliance Certificate**

Certificate Number: C00228-1 (PT)

Product/Service Name: VIX Assure Adept and Rugged Platform Validator

Product Version No.: 214.12

ITSO Specification: Phase 2 of ITSO Specification version 2.1.5

Dear Craig,

ITSO received a request submitted by Vix Technology UK Limited, for the certification of the VIX Assure Adept and Rugged Platform Validator (version 214.12). ITSO has found reasonable evidence that the submitted product/service complies to **Phase 2 of ITSO Specification version 2.1.5**, as indicated in the certification test report:

Test Report:
POST-1761589727 - VIX Assure Adept and Rugged PVAL Certification

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 and Compliance Policy, with its validity specified on the certificate page. For a product or service that utilises a valid ITSO certified sub-assembly, the certificate's validity will correspond to the sub-assembly's expiry date.
- ii. If the product is changed, Vix Technology UK 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 2.1.5 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 Vix Technology UK Limited for the above referenced product is non-transferable to any other vendor.

Certificate Number C00228-1 (PT)  
VIX Assure Adept and Rugged Platform Validator

Registered address 302 Witan Gate West, Milton Keynes, MK9 1EJ



- iv. When requested by an ITSO Licenced Operator, the ITSO Registered Supplier must supply a copy of the test report.

## Schedule A

The VIX Assure Adept and Rugged Platform Validator is certified for the following functions of the Phase 2 of ITSO Specification version 2.1.5, as indicated in the table below:

Phase 2 Functions									
IPE Features		Media Features					ISAM Features		HOPS
TYP14 IFR2	TYP16 IFR2	CMD7 SFR2	CMD9 <sup>1</sup>	CMD10 <sup>1</sup>	CMD11	CMD12	ISAM Query Function	EPOCH	HOPS to HOPS Seq#
–	–	✓	–	–	–	✓	–	✓	–

<sup>1</sup> Support for this media is optional.

The Vix Assure range of validators is used in platform validators and gatelines to provide ITSO POST functionality. The internal hardware and application software running on the ADEPT, RUGGED, and GADEPT devices are consistent across the range. However, the Assure Rugged variant is designed to be weather-resistant, making it suitable for outdoor environments, while the GADEPT variant is specifically configured for integration within Vix Smart Gates.

The CMs supported by this device is shown in the following table:

CMD2	CMD4	CMD7 SFR1 <sup>2</sup>	CMD7 SFR2	CMD9 <sup>1</sup>	CMD10 <sup>1</sup>	CMD11	CMD12
✓		✓	✓				✓

<sup>1</sup> Support for this media is optional.

<sup>2</sup> Support for backwards compatibility.

The IPEs supported by this device is shown in the following table:

IPE TYP	Create	Accept	Modify	Delete
TYP0 - Private Entity	–	–	–	–
TYP2 IFR1 - Stored Travel Rights	✓	✓	✓	–
TYP2 IFR1 VGXRef1 – Stored Travel Rights	–	–	–	–
TYP2 IFR1 VGXRef2 – Stored Travel Rights	–	–	–	–
TYP3 - Loyalty Type 1	–	–	–	–
TYP4 - Charge to Account (CTA) Mode 1	–	–	–	–
TYP5 - Charge to Account (CTA) Mode 2	–	–	–	–
TYP14 IFR1 – Entitlement	–	✓	✓	–
TYP14 IFR2 – Entitlement	–	–	–	–

Certificate Number C00228-1 (PT)  
VIX Assure Adept and Rugged Platform Validator

Registered address 302 Witan Gate West, Milton Keynes, MK9 1EJ



IPE TYP	Create	Accept	Modify	Delete
TYP16 IFR1 – ITSO ID & Entitlement	–	✓	✓	–
TYP16 IFR2 – ITSO ID & Entitlement	–	–	–	–
TYP17 IFR1 – Loyalty Type 2 (Centrally Accounted)	–	–	–	–
TYP22 IFR1 – Area Based Ticket	✓	✓	✓	✓
TYP22 IFR2 – Area Based Ticket	✓	✓	✓	✓
TYP22 IFR3 – Area Based Ticket	–	–	–	–
TYP23 IFR1 – Journey Ticket	✓	✓	✓	✓
TYP23 IFR2 – Journey Ticket	✓	✓	✓	✓
TYP23 IFR3 – Journey Ticket	–	–	–	–
TYP24 IFR2 - Journey Ticket with Reservation and Special Restriction	✓	✓	✓	✓
TYP25 - Travel Related Voucher	–	–	–	–
TYP26 - Open System Tolling	–	–	–	–
TYP27 - Period (Space Saving)	–	–	–	N/A
TYP28 - Carnet (Space Saving)	–	–	–	N/A
TYP29 IFR1 - Multi Journey Ticket (Space Saving)	–	–	–	N/A
TYP29 IFR2 - Multi Journey Ticket (Space Saving)	–	–	–	N/A
Transient Ticket Log FR 1	–	✓	N/A	N/A
Transient Ticket Log FR 2	–	✓	N/A	N/A
Transient Ticket Log FR 4	✓	✓	N/A	N/A



## Schedule A (cont.)

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

Actionlist ActionToTake (ATT) Supported															
1	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	-

LocDefType Supported														
202	203	204	205	206	207	208	209	210	211	212	255	216	217	218
-	✓	✓	✓	-	✓	✓	-	-	-	-	✓	-	-	-

Hotlist Support				Storage			
Manually Block 0315		Manually Unblock 0314		Hotlist		Actionlist	
				100000 items		30000 items	

Optional Messaging and Data Features					
List FR1 Receive 0Bxx	List FR2 Receive 0Bxx	UD Frames Generate 0Exx	UD Frames Receive 0Exx	UD Frames Generate 0Fxx	UD Frames Receive 0Fxx

Miscellaneous					
ISAM Query Function 080A/080B	Supp. Data Message 0801	Additional Shell Data 0807	POST SET Notification 0809	Passback Violation Reporting 35	Auto-Renew Before Expiry



## Schedule A (cont.)

### Benchmarking Times

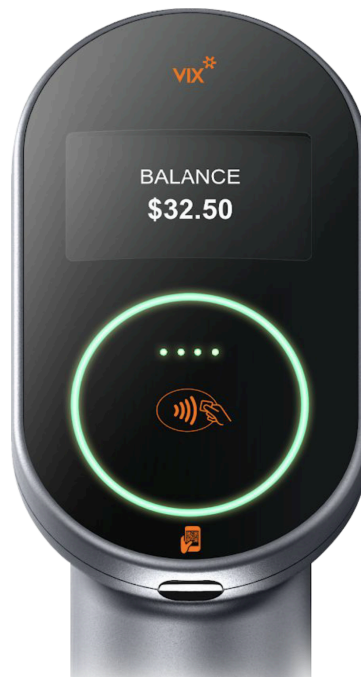
ITSO Test Ref and Title	Benchmark Time in ms
POST.0781 - Benchmark Test CMD2: IPE with Value Record Data Group Modification	248.4
POST.0085 - Benchmark Test CMD2: IPE with Transient Ticket Record Creation	286.6
POST.0783 - Benchmark Test CMD7: IPE with Value Record Data Group Modification	162.0
POST.0117 - Benchmark Test CMD7: IPE with Transient Ticket Record Creation	277.0
POST.1482 - Benchmark Test CMD12 Non-Pseudo Profile 6: IPE with Value Record Data Group Modification	212.9
POST.1483 - Benchmark Test CMD12 Non-Pseudo Profile 6: IPE with Transient Ticket Record Creation	259.2
POST.1486 - Benchmark Test CMD12 Pseudo Profile 6: IPE with Value Record Data Group Modification	250.5
POST.1487 - Benchmark Test CMD12 Pseudo Profile 6: IPE with Transient Ticket Record Creation	292.5
POST.1502 - Benchmark Test CMD12 Non-Pseudo Profile 1: IPE with Value Record Data Group Modification	246.5
POST.1503 - Benchmark Test CMD12 Non-Pseudo Profile 1: IPE with Transient Ticket Record Creation	277.8
POST.1504 - Benchmark Test CMD12 Pseudo Profile 1: IPE with Value Record Data Group Modification	276.8
POST.1505 - Benchmark Test CMD12 Pseudo Profile 1: IPE with Transient Ticket Record Creation	319.2
POST.1508 - Benchmark Test CMD12 Pseudo Profile 1: IPE with Value Record Data Group Modification - Mobile CMD12	321.2
POST.1509 - Benchmark Test CMD12 Pseudo Profile 1: IPE with Transient Ticket Record Creation - Mobile CMD12	337.2

## **Schedule B**

List of conditions and/or constraints applied by ITSO:

- The certified Partial Phase 2 features EPOCH, CMD7 SFR2 and CMD12.
- The POST supports Auto-renew and Transaction Reversal.

**Image of VIX Assure Adept and Rugged Platform Validator**



Certificate Number C00228-1 (PT)  
VIX Assure Adept and Rugged Platform Validator

Registered address 302 Witan Gate West, Milton Keynes, MK9 1EJ



Certificate No. C00228-1 (PT)

---

# ITSO Certificate of Compliance

---

Supplier: **Vix Technology UK Limited**

Product/service: **VIX Assure Adept and Rugged Platform Validator**

Version: **214.12**

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

**ITSO Specification: Phase 2 of ITSO Specification version 2.1.5**

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:** \_\_\_\_\_

**Name:** Darren Marshall-Sewell

**Title:** Technology Manager

**Dated:** 15th April 2026

**Certificate Valid until:** 14th April 2028