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Document Title: Direct Interface Testing Specification - Pathway to HAPS

Document Type: Specification

Abstract: The purpose of this document is to define the Direct Interface Test Specification for the Pathway/HAPS interface.

Status: Issued

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0 Document control

0.1 Document history

Version	Date	Reason
0.1	21/04/97	Initial draft for comment
0.2	23/05/97	Comments included from PDA review meeting.
1.0	12/06/97	Comments included from PDA/POCL/Pathway meeting.
1.1	19/06/97	Comments included from PDA QA Review.
2.0	17/07/97	The Document version number has been changed to 2.0.
3.0	18/12/97	Document has been re-visited and updated to the New Release 2 plan.
3.1	16/01/98	Comments included from Pathway - HAPS Direct Interface Testing meeting.
4.0	03/02/98	Comments included from PDA QA Review.

0.2 Approval authorities

Name	Position	Signature	Date
Simon Palladino	Testing & Integration Manager (Pathway)		
John Robson	POCL		
John Bruce	PDA		

0.3 Associated documents

	Reference	Vers	Date	Title	Source
1	AP/IFS/001	2.0	30/10/97	Pathway to HAPS Interface Specification	
2	T.Peppin	1.0	7/2/97	Requirements Letter (iT Concept 2000)	
3	PDA/TAS/HAPS/ WP/001	1.0		Pathway - HAPS DIT Requirements	

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0.4 Abbreviations

AIS	Application Interface Specification
AP	Automated Payments
APS	Automated Payments Service
DIT	Direct Interface Testing
FT	File Transfer
HAPS	(POCL) Host Automated Payments Service
PDA	Programme Delivery Authority
POCL	Post Office Counters Ltd
RDP	Reference Data Project
RDS	Reference Data System
TIP	Transaction Information Processing

0.5 Changes in this version

Version 0.2 - Included details from 'Pathway - HAPS Requirements'.

Version 1.0 - Included comments from meeting held at PDA Office, Feltham on the 9th June 1997.

Version 1.1 - Tidied the last bullet point in Section 3.5.1 and removed Section 8 HAPS Tests.

Version 2.0 - Change of Version Number (2) only, to conform to Pathway Standards for 'Issued' Documents.

Version 3.0 - Changes from a review for New Release 2.

Version 3.1 - Included comments from meeting held at Concept 2000, Farnborough on the 16th January 1998.

Version 4.0 - Included comments from PDA review.

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0.6 Table of content

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Introduction

This document details the Direct Interface Test Specification between Pathway AP System and POCL HAPS System. It identifies the requirements that will be used to accomplish direct interface testing between POCL and Pathway, as such this document must be owned and approved by POCL, Pathway and the PDA.

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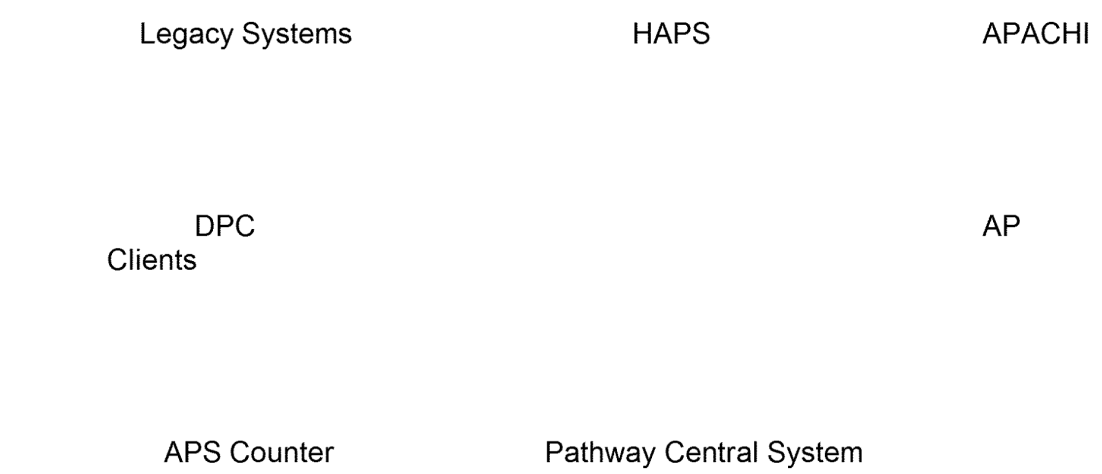
2 Scope

The scope of Direct Interface Testing is to ensure that the system interface between Pathway APS and POCL HAPS works at both the technical and application level. It excludes end-to-end, model office rehearsal and model office test.

Direct Interface Testing only covers the transition of transaction data, captured at the APS counter, from Pathway Central Systems to HAPS (shown within dotted lines).



Key:

Legacy Systems	represents the provision of the Automated Payments Service using Automated Payments Terminals, ECCO equipment or ALPS equipment.
HAPS	is the Host Automated Payments System operated by IT SERVICES on behalf of POCL.
APACHI	is the Automated Payments at Chesterfield Interface, the link to POCL's client accounting and settlement processes.
DPC	is the Document Processing Centre, the location at which paper Automated Payments sales vouchers are converted into electronic format.
AP Clients	is the base of Automated Payments Clients on behalf of whom business is conducted at Post Office outlets.
APS Counter	is the Pathway Automated Payments Service at Post Office outlets.
Pathway Central Systems	represents the systems, located outside Post Office outlets, that process APS transactions and present them to the Pathway to HAPS interface.

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3 Requirements

3.1 Overview

Direct interface testing is to ensure that the Pathway AP System and the POCL HAPS System operate in accordance with the 'Pathway to HAPS Interface Specification'. Interface testing must satisfy a successful file transfer taking place and ensure the contents of the files includes data to support the Interface Specification. Thus the DIT objective is to prove the interface only.

Direct Interface Testing is broken down into three stages, Pre-DIT, DIT-1 and DIT-2. Each DIT stage is progressive in it's testing, ending with the DIT-2. By this time all external parties, i.e. RDP, TIP etc., should be operating with an agreed set of data for all the Pathway Direct Interface Testing activities.

3.2 Architecture

Pathway will have a system test configuration consisting of a Sequent Server (the Host) and a Correspondence Server supporting several outlets, at least one outlet having more than one counter position. All testing will be carried out by Pathway testers under the direction of the Pathway System Test Manager. It will encompass operation at a variety of outlets & counter positions. The full architecture solution will be tested as soon as it is available but may be deferred until Model Office rehearsal.

3.3 FAD Codes.

The valid FAD Code to be used in the testing interface file header record is 9990771.

FAD codes to be used in the construction of the test counters for Direct Interface Testing.

FAD Code	Name of Post Office
504770	Portadown
501680	Newport
004038	Chelsea
505038	Tottenham
007261	Aston Villa
506880	Hearts
500470	Manchester United
500660	Real Madrid

3.4 Steps

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The tests encompass the following steps.

- Perform counter transactions on the Pathway test cells.
- Harvest the transactions on to the Oracle Host and generate a transmission file.
- Send the transmission file from the Gateway PC at Feltham to the Gateway PC at Farnborough, making the AP transmission file available to POCL HAPS.
- POCL HAPS rename the files to notify Pathway that the files have been transferred successfully.
- Check the integrity and content of the file conforms to the AIS.

3.5 Testing Requirements

3.5.1 Counter Level Tests

The following tests can only be executed if they are supported by drop 1 of the RDS supplied DIT reference data.

- A swiped magnetic card transaction, paid by cash.
- A keyed magnetic card transaction, paid by cash.
- A swiped magnetic card transaction, paid by cheque.
- A keyed magnetic card transaction, paid by cheque.
- A swiped magnetic card transaction, paid by cash, that has been reversed.
- A reversal of the above transaction.
- A keyed magnetic card transaction, paid by cheque, that has been reversed.
- Reversal of the above transaction.
- A scanned bar code transaction, paid by cash.
- A keyed bar code transaction, paid by cash.
- A scanned bar code transaction, paid by cheque.
- A keyed bar code transaction, paid by cheque.
- A scanned bar code transaction, paid by cheque, that has been reversed.
- Reversal of the above transaction.
- A keyed bar code transaction, paid by cash, that has been reversed.
- Reversal of the above transaction.

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- A magnetic card recovery transaction.
- A magnetic card fall back recovery transaction.
- A bar coded bill recovery transaction.
- A bar coded bill fall back recovery transaction.

The above transactions will be captured from more than one Post Office outlet. Transactions will be for more than one client including multiple schemes for a client that has many schemes. Counter transactions will performed on different days although included in the same file. Additionally some transactions will be captured at a Post Office outlet that has not had its end of day marker set for seven days.

The Client list to be used is contained within Section 8. (The Magnetic Cards and Bar Coded Bills are to be supplied by POCL.)

3.5.2 File Level Tests

- Large transfer file (i.e. maximum size as defined in the interface specification [ref. 1]), this file test will be covered in Pathway System Test. It can be made available to HAPS, but it does not form part of the test conditions required for Direct Interface Testing.
- Null transfer file (i.e. header and trailer only).
- File of magnetic card transactions only. (Including reversed and reversal transactions.)
- File of bar code transactions only. (Including reversed and reversal transactions.)
- File of mixed magnetic card and bar code transactions. (Including reversed and reversal transactions.)
- More than one transfer file.
- Duplicate transmission i.e. same file sent twice with the same file name.
- Transfer file sent out of sequence.
- Break in transmission of transfer file.
- Re-transmission of above file to same gateway PC.
- Re-transmission of above file to alternative PC. (Technical test which does not form part of Direct Interface Test.)

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3.5.3 Infrastructure Tests

- Hardware failures of encryption box, router, hub and gateway PC.
- Password failure at the gateway PC.
- Operation with and without encryption devices.
- Digital signature verification.

3.5.4 Documentation Required To Support The Tests

- Detailed transaction report per office per test day. (Receipt copies from the counter printer.)
- APS reconciliation reports.
- Test timetable showing the days on which HAPS is required for Direct Interface Testing.
- The logical testing window will be March 13th to April 16th, as such all transactions in the interface file will relate to these dates.
- Test schedule showing the tests that will be performed on each day, their sequence and their duration.
- Specific Automated Payments Clients lists to be provided by POCL. (Contained in Section 8)

4 Reporting

Each party will use its own fault reporting system. Pathway will log any incidents using the fault reporting system PinICL. The incident number will be passed back for future progression and clearance.

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IT SERVICES will fax details of incidents raised to Pathway, if any incidents are found to be software or hardware faults these will be entered into PinICL. A copy of the PinICL report will be faxed to HAPS.

A weekly testing progress meeting to be held during DIT, additionally daily progress positive or otherwise will also be communicated to all concerned by the DIT testing teams at Pathway and HAPS.

5 Entry Criteria

The criteria for entry to DIT are:

- Test scripts produced for review.
- Test schedule produced for review.

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- Test timetable produced for review.

6 Success Criteria

The criteria for successful completion of DIT are:

- Conformance to Interface Specification Reference [ref. 1]
- Successful transaction validation by HAPS.
- Technical performance of link.
- Test results are as expected and any differences successfully resolved.
- No critical or severe incidents outstanding, as agreed by PDA, Pathway and POCL outlet systems.
- All scheduled tests completed successfully or agreement reached on any tests not performed.

7 Responsibilities

7.1 Test Sign off

This will be via a hand over meeting at which the interfacing systems will give their approvals as follows:

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- POCL - John Robson
- PDA - John Bruce
- Pathway - Simon Palladino

7.2 Test Execution

A. IT Services - Testing Support:

Linda Vel and Ian Cullington (Tel: GRO)

B. IT Services- Fault Fixing and Technical Support:

Linda Vel (Tel: GRO)

C. IT Services- Fault Reporting:

Linda Vel (Tel: GRO , Fax: GRO)

D. ICL Pathway

Glynne Rogers, Peter Morgan and Steve Bansal (Tel: GRO , Fax: GRO)

8 Client List for Direct Interface Testing

The following is a proposed client list for DIT; tests will only be performed for schemes where the relevant reference data has been RDS supplied by POCL. Client tests can only be performed on the schemes if they are supported by reference data delivered by POCL for DIT testing. If the following are not supported by POCL reference data they may be substituted for alternative client schemes which are supported.

Client	Mag/Bar	Giro	IIN	Service	Services	Comments

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				Code Position		
British Gas	M	Y	98261028 98261030-1040 98269041-1042 98261099	9	0-6	M&B in separate files, barcode 20 char in file (drops 1st four)
British Gas	B	Y	98269050-9057	9	9	M&B in separate files, barcode 20 char in file (drops 1st four)
Eastern Electricity	M	Y	633159	28	1-4	M&B in same file
Eastern Electricity	B	Y	633159	20	8 9	M&B in same file
British Telecom	M	N	894400 98269006 98269018 98269020	9	1	Multiple IINs
Northern Ireland Electricity	M	N	98269003 98269062	8	2 3	Sorted file
South Wales Electricity	M	Y	633129	28	0	Sorted file, Service code in Discretionary data
South Wales Electricity	B	Y	633129	18	1 2	Sorted file
South Wales Electricity	B	Y	19633129	20	1 2	Sorted file
Yorkshire Electricity	M	N	63314100 63314101 63314104 63314115 63314116	7-8	00 01 04 15 16	Multi services

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Yorkshire Electricity	M	N	98261130	5-6	11	Multi services
			98261230		12	
			98261330		13	
Stroud District Council		Y	6331811	7	1	Multi services, separate CDV for each service
			6331812		2	