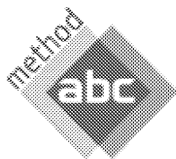Impact Programme:
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IMPACT PROGRAMME:

POL FS TO SAPADS

APPLICATION INTERFACE SPECIFICATION

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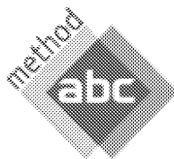
Document Control

Authorisations

Role	Name	Signed	Date
Programme Manager	**Tony Brain**		

Reviewers

Name Reviewer(s)	Role & Review Responsibilities
Torstein Godeseth	PO Ltd Design Authority
Peter Jones	PO Ltd Test Manager
Jacqui Cave	PO Ltd Test Team

Distribution List

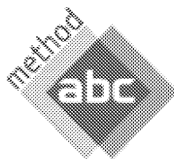| Name	Organisation
Jill Hollindale (for Prism distribution)	Prism IMPACT Programme Office
Debbie Shirley (for PO Ltd distribution)	Post Office Ltd IMPACT Programme Office

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1. Change Control

1.1 Change Process

Any changes to the draft version of this document will be made, controlled and distributed by:

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1.2 Change History

Issue	Author	Date	History
0.1 (draft)	Steve Greenaway	11th August 2004	Initial draft of document
0.2	Steve Greenaway	16th August 2004	Updated to reflect: ▪ File format changed to match existing interfaces. ▪ Clarification of required data records.

Table 1 Change History

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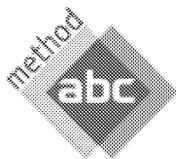
2. Introduction

2.1 Purpose

The purpose of this document is to define the Cash Account Payments interface required from the POL Finance System (POLFS) to the SAP Advanced Distribution System (SAPADS). This interface handles the transfer of Cash Account Payment information from POLFS for subsequent upload into SAPADS.

2.2 Scope

The scope of this document is restricted to electronic data, which is both computer-generated and computer-consumed and relates specifically to the transfer of data from the POL Finance System to the SAP Advanced Distribution System.

The specification describes the format and volumes of the data files to be passed across the interface. The data to be interfaced will be described and backed up with diagrams and appendices when thought necessary. The structure of the interface in terms of file and record layouts is also given.

This document, once signed off, will be subject to change control procedures.

2.3 Background

Flexible planning uses Payment information as part of the calculation for outward remittances. The Payments information it uses is Pension & Allowance, Green Giros, Giro Payments and Working Family Tax Credits. "Universal Bank" payments are also used. Universal Bank data is considered to be made up of Card Account withdrawals, Card Account emergency payments, Alliance and Leicester withdrawals and Link withdrawals.

Currently, SAPADS receives the Payment information on a weekly basis from CBDB in a flat file format. The CBDB system is due to be replaced by the new POL Finance System, POLFS. Therefore a new interface is required to obtain the Cash Account Payment information from POLFS.

The required data will be extracted daily from POLFS in a flat file format and will be placed onto a UNIX directory from where it will be interfaced into SAPADS via FTP.

The file will contain Payment information for the following Cash Account lines:

- 1028 Alliance and Leicester Withdrawals
- 1031 Working Family Tax Credit
- 1033 Link Withdrawals
- 1034 Card Account Withdrawal
- 1040 Card Account Emergency Payments
- 1066 Pensions and Allowances
- 1071 Green Giros
- 1072 Giro Payments
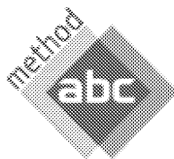
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2.4 Terms & Abbreviations

Term or Abbreviation	Meaning
AIS	Application Interface Specification
CBDB	Counters Business Database
FAD	Financial Accounting Description – a code which identifies the PO branch
FTP	File Transfer Protocol
IMPACT	Improved Accounting programme, a PO Ltd initiative to rationalise back-end systems and processes.
POL	Post Office Limited
POLFS	POL Finance System
SAPADS	SAP Advanced Distribution System
SAP R/3	SAP applications, built around their latest R/3 system, provide the capability to manage financial, asset, and cost accounting, production operations and materials, personnel, plants, and archived documents.

Table 2 Terms and Abbreviations

2.5 Field Formats

SYMBOL	MEANING
9	Numeric digit
X	Alphanumeric character
-	Floating minus sign
Y	Digit of year
M	Digit of month
D	Digit of day
.	Explicit decimal point

Table 3 Field Formats

2.6 Reference Documentation

Ref	Title	Version	Date
A	PO Ltd Financial Systems Release 3 Conceptual Design	1.0	01/06/2004

Table 4 Reference Documentation
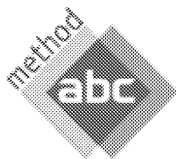
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2.7 Contacts

Organisation	Name	Contact
Xansa	Philip Godden	
Xansa	Lee Sherwood	GRO
Xansa	Catherine Pierce	
CSC	Robin Marsh	

Table 5 Contacts and Contributors

2.8 Audience

- PO Ltd IMPACT Programme Design Authority and Test Team
- Prism Alliance

3. Interface Details

3.1 Interface Diagram

The diagram shows the high level systems infrastructure involved with the interface.

The extracted data is initially dropped onto the POLFS server and an automated FTP pulls it across to the SAPADS server whereby the data is uploaded into the system.
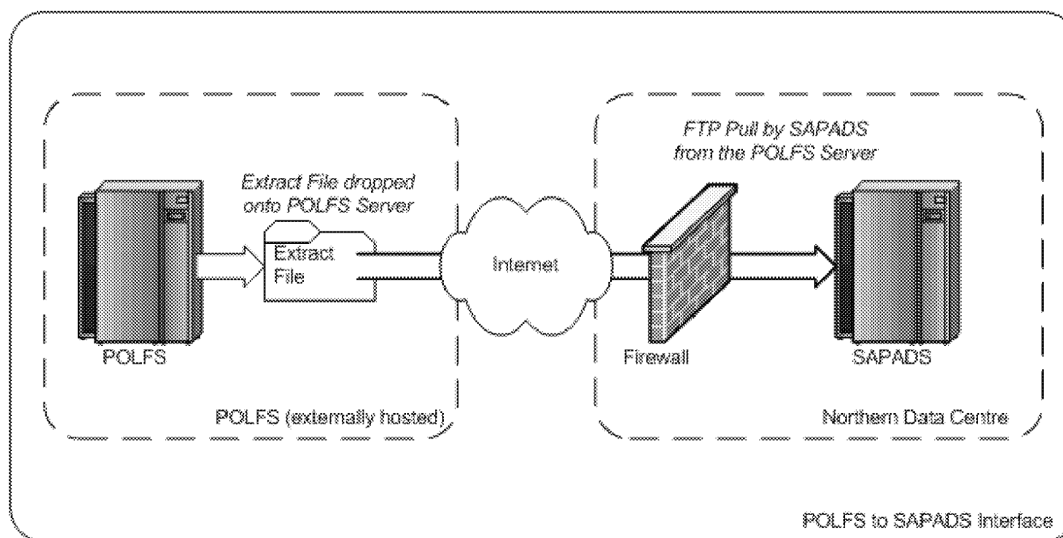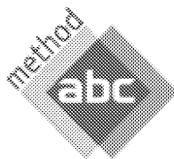

Figure 1 Interface Diagram

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3.2 Data Flow

The following schematic illustrates the data flow from POLFS to SAPADS.
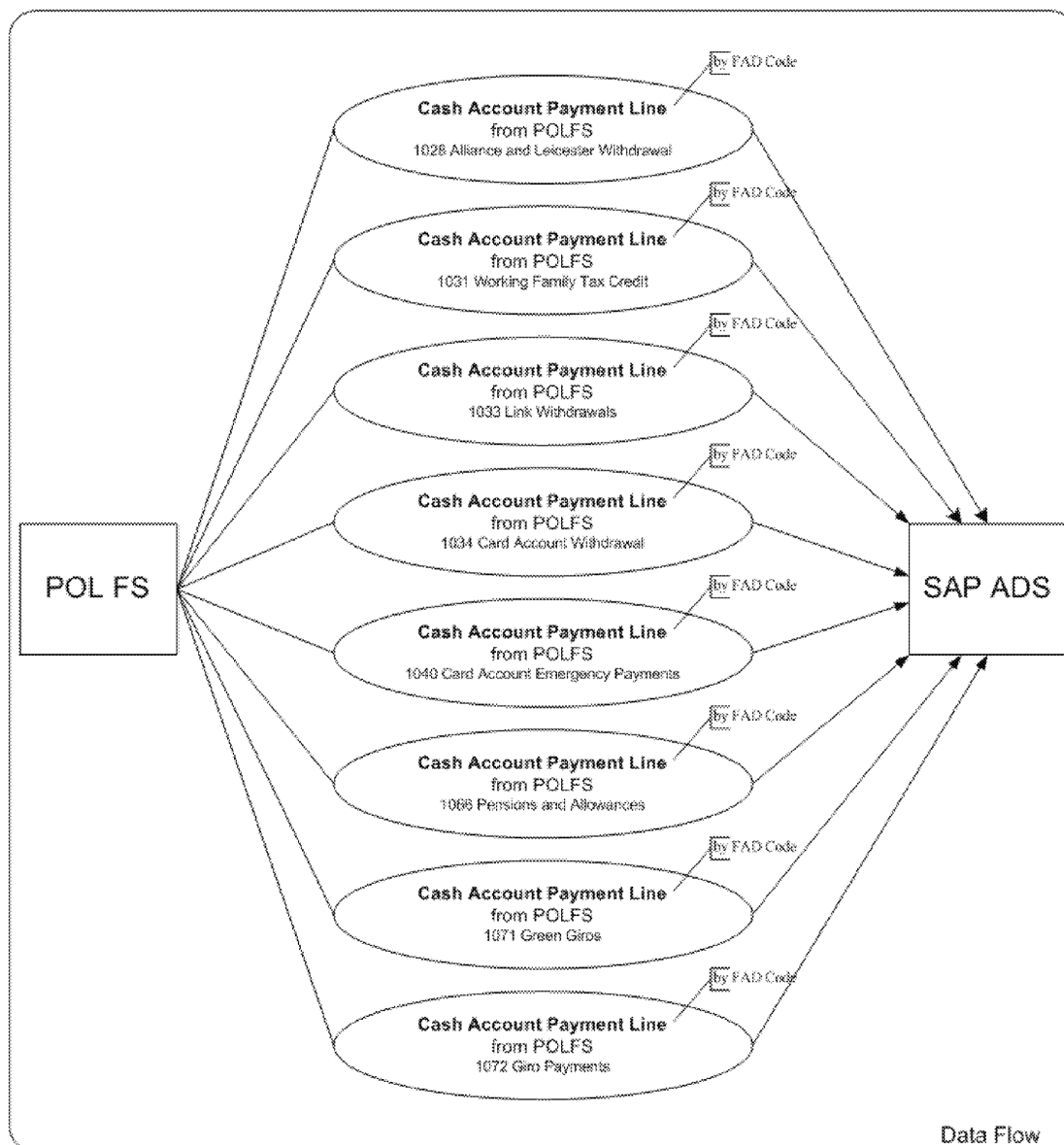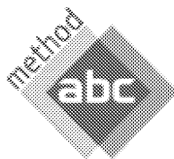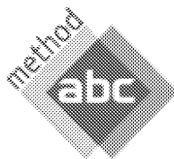

Figure 2 Data Flow Diagram

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3.3 POLFS to SAPADS Cash Account Payments Mapping

The following table identifies the POLFS source of data mapped to the SAPADS Cash Account Payment lines.
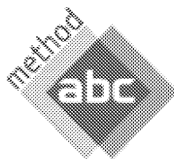
POLFS Item Id	POLFS Item Description	SAPADS Cash A/C Line Type Code	SAPADS Cash Account Line Description
4908	A&L Commercial Account Cash Withdrawal	1028	Alliance & Leicester Withdrawal
5563	A&L BBA Cash Withdrawal	1028	Alliance & Leicester Withdrawal
5568	A&L Savings Account Cash Withdrawal	1028	Alliance & Leicester Withdrawal
5001	Inland Revenue Child Benefit - Order Book System (OBCS)	1031	Working Family Tax Credit
4911	Abbey National BBA Cash Withdrawal	1033	Link Withdrawals
4913	Bank of Ireland BBA Cash Withdrawal	1033	Link Withdrawals
4915	First Trust Bank BBA Cash Withdrawal	1033	Link Withdrawals
4917	Barclays Bank Plc BBA Cash Withdrawal	1033	Link Withdrawals
4918	Lloyds TSB BBA Cash Withdrawal With Balance	1033	Link Withdrawals
4920	Nationwide Building Society BBA Cash Withdrawal	1033	Link Withdrawals
4922	HSBC BBA Cash Withdrawal With Balance	1033	Link Withdrawals
4923	The Co-Operative Bank BBA Cash Withdrawal	1033	Link Withdrawals
5032	Clydesdale Bank Plc BBA Cash Withdrawal	1033	Link Withdrawals
5033	Halifax BBA Cash Withdrawal	1033	Link Withdrawals
5035	NatWest BBA Cash Withdrawal	1033	Link Withdrawals
5037	Northern Bank BBA Cash Withdrawal	1033	Link Withdrawals
5039	Royal Bank of Scotland BBA Cash Withdrawal	1033	Link Withdrawals
5041	Ulster Bank BBA Cash Withdrawal	1033	Link Withdrawals
5043	Yorkshire Bank Plc BBA Cash Withdrawal	1033	Link Withdrawals
5054	Barclays Bank Plc Commercial Accounts Cash Withdrawal	1033	Link Withdrawals
5055	Lloyds TSB Commercial Account Cash Withdrawal	1033	Link Withdrawals
5393	Bank of Scotland BBA Cash Withdrawal	1033	Link Withdrawals

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POLFS Item Id	POLFS Item Description	SAPADS Cash A/C Line Type Code	SAPADS Cash Account Line Description
5585	NS&I EASA Cash Withdrawal	1033	Link Withdrawals
5789	smile Debit Card Cash Withdrawal	1033	Link Withdrawals
5790	The Co-operative Bank Current Account Cash Withdrawal	1033	Link Withdrawals
4925	card account at Post Office Cash Withdrawal	1034	Card Account Withdrawal
4927	card account at Post Office Withdraw Limit	1034	Card Account Withdrawal
4907	Card account at Post Office emergency payments	1040	Card Account Emergency Payments
177	P&A Group 5 Child Benefit - Order Book System (OBCS)	1066	Pensions and Allowances
178	P&A Group 6 War Pension - Order Book System (OBCS)	1066	Pensions and Allowances
179	P&A Group 7 Disability - Order Book System (OBCS)	1066	Pensions and Allowances
181	P&A Group 10 Comb Benefit - Order Book System (OBCS)	1066	Pensions and Allowances
182	P&A Group 11 Income Sup - Order Book System (OBCS)	1066	Pensions and Allowances
183	P&A Group 12 Industrial Injury - Order Book System (OBCS)	1066	Pensions and Allowances
184	P&A Group 13 Retirement Pension - Order Book System (OBCS)	1066	Pensions and Allowances
185	P&A Group 14 Invalidity Benefit - Order Book System (OBCS)	1066	Pensions and Allowances
291	Grp 05 - Child Benefit - (NI)	1066	Pensions and Allowances
292	Grp 06 - War Pens/Mobility Allowance (NI)	1066	Pensions and Allowances
293	Grp 11 - Income Support (NI)	1066	Pensions and Allowances
294	Grp 12 - Industrial Injury/Death Benefit (NI)	1066	Pensions and Allowances
295	Grp 13 - Retirement Pension (NI)	1066	Pensions and Allowances
296	Grp 14 - Invalidity Pension (NI)	1066	Pensions and Allowances
297	Grp 09 - Prescrip. Refund (NI)	1066	Pensions and Allowances
299	Grp 07 - Disability Allowance (NI)	1066	Pensions and Allowances
306	Grp 09 - Prescription Refund	1066	Pensions and Allowances

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POLFS Item Id	POLFS Item Description	SAPADS Cash A/C Line Type Code	SAPADS Cash Account Line Description
192	Green Girocheque	1071	Green Giros
300	Violet Girocheque Cashed (NI)	1071	Green Giros
235	Giro Personal Withdrawal	1072	Giro Payments
237	Giro Linksave Withdrawal	1072	Giro Payments
240	Giro Business Withdrawal > œ 1000	1072	Giro Payments
4565	Girobank Business Withdrawals Less Than œ1000	1072	Giro Payments

Table 6 POLFS to SAPADS Cash Accounts Payments Mapping

3.4 Data Overview

The interface will be in flat file, fixed length format. All data will be transferred in one or more files and each file has a header record, content records and a trailer record.

The interface file will contain the following:

3.4.1 Header Record

Identifier	Source System	Date	File Name

3.4.2 Content Record(s)

Identifier	Date	Branch Id	Item Id	Cash Account Line Type Code	Value

3.4.3 Trailer Record

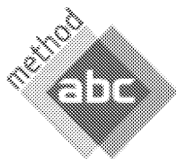| Identifier	Record Count

3.4.4 Delimiters

Fields will be fixed length.

If a Character field is empty it will be populated by spaces.

If a Numeric field is empty it will be populated by zeros.

Each line will be ended with the character return of ASCII 10.

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3.4.5 Data Types

The format of each of the data types is defined using the Oracle SQL Server convention.

The character set used is ASCII.

Type	Size & Description
CHAR(n)	Fixed length character string of n bytes. Left justified and space filled.
VARCHAR(n)	Variable length character string of n bytes. Left justified.
NUMBER(n)	An integer with a total of n ASCII digits (this is not binary). Right justified and zero filled.
DATETIME	Fixed length character string with the format ccyymmdd999999 where the time uses the GMT 24 hour clock and includes seconds. Leading zeros will be used. Time format = HHMMSS.
DATE	Fixed length character string with the format ccyymmyy. Leading zeros will be used.

3.5 File Structure Overview

The file structure for Cash Payments is CSV, as illustrated below:

"Identifier""20040804""123456""1234""1234567890""99999999999.99"

For example:

PAYHRPOLFS20040804pf20040804001.pay

PAYCR2004080400492549081028230.00

PAYCR2004080400492555631028510.00

PAYCR2004080400492555681028231.07

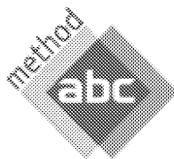PAYCR20040804004925500110316914.25

PAYCR20040804004925491110331202.20

ETC.....

PAYTR000000028

3.6 File Format

POLFS will provide a single original file per day (so the number reference will be 001). However, if subsequent files are sent on the same day then the number will increase sequentially. Given that the fact that the file will be always be generated for the day before, the filename date (and the trading date on content records) will be "yesterday" i.e. relate to the day of trading within the Branch.

- POLFS will provide a flat fixed length file.

- All fields are fixed and will include leading zeroes where necessary.

- All values are positive (no signs).

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3.6.1 File Name

The transfer filename structure is based upon the header record details:

xxyyyymmddnnn.pay

Where **xx** is the identifier for the source system and is fixed, **yyyymmdd** is the current date and nnn is the unique incremental number for the file.

File Type (Logical Name)	File Name
Cash Account Payments	pf20040804001.pay

3.6.2 Header Record File Format

The format of the header record is specified as follows:

Field name	Description	Format	Comments
Identifier	A unique identifier for the header	CHAR(5)	The Header Record type. Value = "PAYHR"
Source System	The name of the system sourcing the data	CHAR(5)	e.g. POLFS
Date	The current date	CHAR(8)	e.g. 20040804
File Name	A unique file name for that day	VARCHAR(17)	Must be the same as the terminal name of the Physical file. e.g. pf20040804001.pay

3.6.3 Content Record File Format

The format of the content record is specified as follows:

Field name	Description	Format	Comments
Identifier	A unique identifier for the content records	CHAR(5)	The Content Record type. Value = "PAYCR"
Date	The date of trading day	DATE(8)	e.g. 20040804
Branch	The unique branch identification number	CHAR(6)	Six digit (FAD) code excluding the check digit
Group Code	The Horizon Item Id	CHAR(4)	e.g. 4908
Article	The Cash Account Line Type Code	CHAR(10)	e.g. 1028
Value	The value for the item	CURR(13)	e.g. 99999999999.99

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3.6.4 Trailer Record File Format

The format of the trailer record is specified as follows:

Field name	Description	Format	Comments
Identifier	A unique identifier for the trailer	CHAR(14)	The Trailer Record type. Value = "PAYTR"
Record Count	The number of records in the file	NUM(10)	The count of all data records i.e. the count of all header, content and trailer records in the file e.g. 0000000028.

3.7 File Types

- All fields are mandatory unless otherwise stated.
- Records should be sorted as follows
  - Detail records in Branch Identifier order

3.8 Delivery Details

The proposed file transmission window is advised as follows:

The data must be available to SAPADS by 8.00am on Day B, where day A = trading day. A file is expected every day, Monday to Saturday.

3.9 Volumes Anticipated

POLFS will supply 1 file per day.

All current Cash Account Payment lines will be included in the file (currently 8, but will be reduced by 1 at some point in the future).

If each branch sends details for all current Cash Account Payment lines, then the total number of records would be approximately 128,000 records.
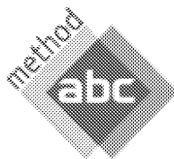
3.10 Interface Availability

The interface will be provided on a daily basis, overnight. A file is expected each day and all daily files should be received by SAPADS prior to 01:00 on the Sunday ready for the SAP ADS Weekly Planning run.

3.11 File Transfer

FTMS should be used in line with the existing file transfer mechanism.

Acknowledgement processing in line with the current file transmissions should also be used.

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3.12 Fallback & Exception Processing

SAPADS is to poll for the interface file on a daily basis. In the event that a file is not located, the system is to assume that there is a fault and consequently an alert will be raised to systems management.

In the event of a file being detected but upload or processing fails, an error is also logged and an alert should be raised through systems management. It is assumed that any faults will be resolved in accordance with agreed service level agreements. File generation is the responsibility of POLFS.

Standard Error Messaging will also be used.

3.13 Interface Security

File transfer from the POLFS server to SAPADS is though an FTP Pull by the SAPADS system using standard FTP account and passwords.

3.14 Extract Rules

3.14.1 Data Validation

The following main data validation rules should be used.

Header Data:

- Ensure the Identifier is correct
- Ensure Source System is valid
- Ensure Date is valid
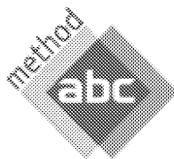- Ensure File Name is valid

Content Records:

- Ensure the Identifier is correct
- Trading Date should be valid (i.e. a valid date that is not after the date when the file is created)
- Branch FAD is valid
- Item Id is valid
- Cash Account Line Type is correct
- The Item Value is correct

Trailer Data:

- Ensure the Identifier is correct
- Ensure the Record Count is correct

3.14.2 Transmission Validation

There should be 1 file to be sent per transmission and a file is expected each day.

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3.15 Load Rules

A file is to be completely rejected if any of the above is found not to be correct. In all cases of exceptions, the reason for failure should be captured, an alert raised and all contained within a report for systems management and end user use where applicable.

In addition, the following rules apply:

- When the data is received into SAPADS:
    - It will be processed.
    - The SAPADS flexible planning calculations should be applied per individual outlet.
- Leading zeros (0) on the Branch Id is the norm.
- Re-sends should be accommodated.

3.16 Issues

Issue no.	Issue description	Action	Owner
001	Grouping of Products in the extract file by relevant Payment Line	Decision to be made if Products are to be grouped or not	POLFS