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SCHEDULE B4.2

EXISTING APPLICATIONS

Version History

Version No.	Date	Comments
1.0	31/08/06	Agreed version as at date of signature of CCN 1200
2.0	25/01/07	Baseline copy of 1.4
4.0	14/04/08	Baseline copy of v2.1
5.0	23/02/09	Baseline copy of 4.1
6.0	15/06/09	Moving all schedules to V6.0 as agreed with Fujitsu
7.0	26/04/10	Moving all Schedules to v7.0 as agreed with Fujitsu
8.0	21/02/12	Moving all Schedules to v8.0 in accordance with CCN 1294d
9.0	13/01/14	Moving all Schedules to v9.0 in accordance with CCN1349
10.0	10/09/15	CCD reference updates and moving all Schedules to v10.0 in accordance with CCN1506
11.0	31/03/16	Applying changes as per CCN 1427 and moving all Schedules to V11.0 as per CCN1604
12.0	03/07/17	Moving all schedules to V12.0
13.0		Updating as per CCN1616b, CCN1617a and moving all Schedules to v13.0

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SCHEDULE B4.2

EXISTING APPLICATIONS

1. INTRODUCTION

1.1 This Schedule records and specifies the existing Horizon Applications used by Fujitsu Services to provide the Services to Post Office from the Amendment Date until Trigger Point T5 (Data Centre Ready for HNG-X).

1.2 Fujitsu Services shall operate and maintain each Horizon Application listed in paragraphs 2 and 4 in accordance with the terms of this Agreement, the relevant specifications for each Horizon Application as set out in this Schedule, all CCDs relevant to an Horizon Application as referred to in this Schedule and all Service Levels relevant to an Horizon Application as set out in Schedule B4.4 and Schedule C1 to this Agreement.

1.3 Fujitsu Services will be invited to bid for future developments to Horizon Applications in accordance with the terms of Schedule B1.1.

1.4 The functionality and interfaces of each Horizon Application are defined in the CCDs indicated to relate to an Horizon Application in the column headed "Horizon Application" in Table A below and the CCDs indicated to relate to that Horizon Application in the CCD entitled "Post Office Contract Controlled and Contract Referenced Document List" (COM/CUS/SPE/0001).

1.5 Horizon Application software installed in those Branches and Admin Positions which do not have a network connection point shall not be kept up to date with new Releases other than in accordance with paragraph 7.4 of Schedule D1.

2. HIGH LEVEL DESCRIPTION OF EXISTING APPLICATIONS

2.1 EPOSS

2.1.1 EPOSS is an electronic point of sale service application which provides the following functions:

(a) on all Counter Positions in all Branches and Other Authorised Locations:

(i) facilities to Counter Clerks in support of Transactions with Customers;

(ii) a "till" function; and

(iii) a framework within which other applications can be invoked to support specialised Transactions within a Customer Session;

(b) to Users within Branches including:

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(i)   stock balancing;

(ii)   Branch cash accounting;

(iii)   production of Client summaries; and

(iv)   User administration tasks;

(c)   transfer of data to Post Office systems and services outside the Horizon Service Infrastructure; and

(d)   management information reporting.

2.1.2   EPOSS is implemented with the following major functional components:

(a)   EPOSS running on every Counter Position;

(b)   TMS Agent applications running on the Data Centre servers; and

(c)   host database applications running in the Data Centres.

2.1.3   EPOSS records Transactions to the Riposte message store. These are replicated by Riposte to the message stores on file servers at the Data Centres. The TMS Agents extract and reformat Transaction data and present it for further analysis, summarisation and forwarding by the host database application.

2.1.4   Cash, cheque and voucher methods of payment are handled by EPOSS. For payment using a debit card, EPOSS (from the settlement menu) initiates Debit Card to obtain authorisation of payment.

2.2   <u>APS</u>

2.2.1   APS is a generic application that enables Post Office to provide a range of bill payment and pre-payment services to the customers of many Post Office Clients. APS provides transaction facilities at the counter, integrated into Customer Sessions using facilities provided by EPOSS. APS also supports transfer of data to and from Post Office Client systems and Post Office systems. APS is available at all Counter Positions in all Branches.

2.2.2   APS supports a range of advanced data capture facilities (the "AP-ADC Facility") which are controlled and constrained by Post Office Reference Data. These facilities extend the capabilities of APS and provide support for:

(a)   product selection mechanisms using picklists;

(b)   a range of data capture and validation routines;

(c)   access to the PAF Facility, APOP Facility, DVLA POME and such other specific external applications as the Parties may agree under the Change Control Procedure; and

(d)   the use of print templates in support of customised receipt and slip print layouts.

The production of Reference Data by Post Office to make use of the AP-ADC Facility shall be in accordance with and subject to the provisions of the CCD entitled "AP-ADC Reference Manual" (DES/GEN/MAN/0002)).

2.2.3   APS supports the following range of Tokens conforming to the standards in the relevant CCDs:

(a)   magnetic stripe cards;

(b)   bar coded documents; and

(c)   Smart Tokens comprising:

(i)   Quantum token;

(ii)   Watercard token; and

(iii)   Talexus (developed but not deployed in accordance with the terms of CCN 798).

2.2.4   APS supports the use of desktop buttons, which may be specified as being equivalent to a manually entered AP barcode Token.

2.2.5   APS is implemented with the following major functional components:

(a)   APS running on every Counter Position;

(b)   APS agents running on Data Centre servers;

(c)   host database application in the Data Centre; and

(d)   file transfer capabilities provided by the Horizon Central Infrastructure.

2.2.6   As referred to in paragraph 2.2.2 (c), APS supports access to DVLA POME for the purpose of vehicle re-licensing Transactions only. DVLA POME is the Driver Vehicle and Licensing Agency (DVLA) and Post Office MOT enquiry service which is based on systems that are external to the Horizon Service Infrastructure. The AP-ADC Facility will perform online interactions with DVLA POME during a vehicle re-licensing Transaction. Such interaction will take place via the DVLA On-line Link. Information concerning MOT status and vehicle excise duty as well as other supporting data will be retrieved during the course of such on-line interaction, as specified by Post Office Reference Data for the purposes of the re-licensing Transaction. The interaction with DVLA POME may be configured to deal with scenarios where no response is received from DVLA POME within designated time periods.

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2.2.7 APS handles interaction with customer Tokens and records Transactions in the Riposte message store. It also passes Transaction details to EPOSS for incorporation into a Customer Session. Transaction data is replicated by Riposte to the message stores on file servers at the Data Centres. The APS agents extract and reformat transaction data and present it for further analysis, summarisation and forwarding by the host database application.

2.2.8 The clients and tokens supported by APS are referred to in the CCD entitled "Automated Payments System Client List" (BP/DOC/008). Specific payments and the AP Transactions which support them conform to the relevant AP Client Specification, which in turn references the CCD entitled "POCL Automated Payments Generic Rules" (BP/DOC/014) and appropriate Token Technology Specification(s). Data is transferred to AP Clients in accordance with the appropriate AIS. Such transfer will either be direct to the AP Client in accordance with the relevant automated payment client specification or via the EDG in accordance with the CCD entitled "Automated Payments Interface Specification - EDG / DES" (CR/IFS/002).

2.2.9 APS supports the receipt of data from Clients, typically comprising tariff data, as specified in the relevant AIS specified in the CCD entitled "Post Office Contract Controlled and Contract Referenced Document List" (COM/CUS/SPE/0001). This data will be distributed to APS.

2.2.10 Post Office will be responsible for:

(a) the design and development of new AP Transactions that use the AP-ADC Facility;

(b) (save to the extent that Fujitsu Services is required to facilitate testing of Post Office Reference Data in accordance with the CCD entitled "Fujitsu Services / Post Office Ltd Interface Agreement for Operational Business Change - Reference Data" (CS/PRD/058)) ensuring that Post Office Reference Data, intended to introduce those new Transactions, functions correctly within the Horizon Service Infrastructure (in accordance with any applicable Reference Data rules) and has the desired business effect; and

(c) defining receipts (for all AP Transactions that use the AP-ADC Facility) that contain sufficient information to allow manual recovery of a subset of the transaction data following a system failure, to the extent that such manual data recovery is required by Post Office.

2.3 APOP Facility

2.3.1 The APOP Facility is a set of components that support the creation of APOP Services. Each business application that makes use of the APOP Facility will be segmented into its own APOP Service.

2.3.2 The components of APOP are as follows:

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(a)   an APOP database which stores details of Transaction Vouchers and the actions that have been performed on a Transaction Voucher by each APOP transaction;

(b)   an APOP authorisation service which processes APOP transactions by applying the rules defined in the APOP Service Definition for the APOP Service;

(c)   an APOP branch service that processes APOP on-line transactions initiated from an AP-ADC counter Transaction using the APOP authorisation service referred to in paragraph 2.3.2 (b);

(d)   an APOP batch service which will send/receive batch files to/from the EDG/DES and process APOP batch transactions using the APOP authorisation service referred to in paragraph 2.3.2 (b);

(e)   an APOP administration service that will process APOP on-line transactions initiated from an APOP Administration Workstation using the APOP authorisation service referred to in paragraph 2.3.2 (b). Transactions will be routed to the APOP authorisation service by a web server;

(f)   an APOP reporting service that will process APOP transactions to extracts records from the APOP database using the APOP authorisation service referred to in paragraph 2.3.2 (b);

(g)   an APOP housekeeping service that will process time-driven event APOP transactions using the APOP authorisation service referred to in paragraph 2.3.2 (b);

(h)   an APOP archiving service that archives data from the APOP database;

(i)   a web service to route APOP on-line counter transactions to the APOP database for the APOP Service;

(j)   templates for the counter and branch receipts; and

(k)   templates for the office counter weekly and office weekly reports.

2.3.3   An APOP Service comprises at least the elements set out in paragraphs 2.3.2 (c), (i), (j), and (k).

2.3.4   The production of Reference Data by Post Office to make use of the APOP Facility shall be in accordance with and subject to the provisions of the CCD entitled "APOP Authorisation Service Reference Manual" (AP/MAN/004).

2.3.5   The CCDs entitled "APOP Definition" (BP/SPE/046) and "Fujitsu Services / Post Office Ltd Interface Agreement for Operational Business Change - Reference Data" (CS/PRD/058) set out the rules that shall apply in determining

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whether the Post Office is required to request a Work Package in respect of introducing additional APOP Services/AP Transactions using the APOP Facility and/or modifying an existing APOP Service. Where so required by the provisions of either of those CCDs, Post Office shall request a Work Package for the introduction and/or modification (as applicable) of such services/transactions.

2.3.6   Post Office shall be responsible for:

(a)   the design and development of new AP Transactions that use the APOP Facility;

(b)   (save to the extent that Fujitsu Services is required to facilitate testing of Post Office Reference Data in accordance with the CCD entitled "Fujitsu Services / Post Office Ltd Interface Agreement for Operational Business Change - Reference Data" (CS/PRD/058)) ensuring that Post Office Reference Data, intended to introduce those new Transactions, functions correctly within the Horizon Service Infrastructure (in accordance with any applicable Reference Data rules) and has the desired business effect;

(c)   defining receipts (for all AP Transactions that use the APOP Facility) that contain sufficient information to allow manual recovery of a subset of the Transaction data following a system failure, to the extent that such manual data recovery is required by Post Office;

(d)   transforming incoming data files into standard APOP format according to the APOP Interface Specifications for live purposes; and

(e)   generating required reports from extract files generated by APOP, according to the APOP Interface Specifications for live purposes.

2.4   LFS

2.4.1   The LFS application provides an interface between Branches and the Post Office's Advanced Distribution System (SAP/ADS) and is at all Branches.

2.4.2   LFS captures data from Branches for onward transmission to SAP/ADS. Such data includes cash, outward Remittances including confirmation of SAP/ADS pouch collection and confirmation of SAP/ADS pouch receipt at the Branch.

2.4.3   LFS transmits planned orders and replenishment deliveries, created by SAPADS, to Branches.

2.4.4   LFS includes the following functional components:

(a)   LFS Branch application. This is present on all Counter Positions at all Branches. It provides:

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(i)   screen dialogues for inputting relevant data which are written to the Riposte message store;

(ii)   facilities for scanning bar coded labels to monitor movement of cash and stock bags and pouches into and out of the Branch. Data captured from these bar codes are written to the Riposte message store; and

(iii)   a facility for viewing specialised messages originated by SAP/ADS and transmitted to the Branch; and

(b)   LFS Data Centre application provides an interface to SAP/ADS for the exchange of batch data, and manages the forwarding to, and receipt from, Branches of that data. Data created in Branches is extracted from the Riposte message stores by agent applications.

2.4.5   LFS is implemented with the following major functional components:

(a)   LFS running on every Counter Position;

(b)   LFS agents running on Data Centre servers;

(c)   host database application in the Data Centre; and

(d)   file transfer capabilities provided by the Horizon Central Infrastructure.

2.5   Message Broadcast

2.5.1   The Message Broadcast ("MBS") application provides a mechanism for transmitting plain text messages to all Branches or to Branches specified in a list.

2.5.2   MBS comprises:

(a)   MBS Branch application, which provides facilities for managing messages received, presenting available messages for selection by Users, displaying messages on the Counter Position screen and printing them to the back-office printer. This is available at all Counter Positions in all Branches (but messages can only be received at locations with a data communications link); and

(b)   MBS Data Centre application, which provides facilities for creating messages by text input (including copying text from other electronic documents including emails received by Fujitsu Services from Post Office) and distributing them to Branches.

2.5.3   MBS is implemented with the following major functional components:

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      (a)   MBS running on every Counter Position; and

      (b)   MBS agents running on Data Centre servers.

2.6   <u>NBS</u>

2.6.1   The NBS application supports transaction of banking business in Branches. It is installed at all Counter Positions in all Branches, but requires an operational data communications link in order to process Transactions. NBS is invoked from EPOSS either by:

      (a)   a card swipe (or input of card details) where EMV functionality is not supported in respect of that card; or

      (b)   a Customer inserting his or her card into the chip card reader in a PIN Pad where such card supports EMV functionality,

while in serve customer mode other than at the settlement menu. The following Transaction types are supported:

      (i)   cash deposit;

      (ii)   cash withdrawal;

      (iii)   balance enquiry;

      (iv)   withdraw limit;

      (v)   change of PIN at PIN Pad; and

      (vi)   cheque deposit.

2.6.2   NBS has the following functional components:

      (a)   NBS manages reading of data from magnetic stripe bank cards and EMV chip cards, presentation of screen dialogues to the User and User data input, input of PIN numbers by customers, and printing of receipts. It also integrates the banking Transactions into an EPOSS Customer Session. NBS writes data to a message store, including "immediate" messages to initiate message exchange with the Bank systems;

      (b)   NB Authorisation Agent applications run on servers at the Data Centres. Such servers harvest relevant "immediate" and standard messages. Messages between the Counter Position and the Bank systems are brokered by the agent application. Standard messages are harvested by the agents and summarised and forwarded to the Horizon Reconciliation Facility; and

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(c)   the Reconciliation Horizon Application as used by NBS receives data from the NB Authorisation Agents and from Bank systems and prepares reports reconciling these data streams and identifying reconciliation exceptions for investigation and corrective action.

2.6.3   NBS also supports the Transaction Enquiry Service by passing NB Requests, NB Authorisations, NB Confirmations and reversals (where applicable to NBS) from the persistent store to the Transaction Enquiry Service from where they are available for query using TESQA.

2.7   Reference Data Management Application

2.7.1   The Reference Data Management Application is a database application running in the Data Centre. It receives Reference Data from the Post Office Reference Data System in accordance with the CCD entitled "Application Interface Specification Reference Data to Pathway for CSR+" (BP/IFS/011). It also provides facilities for the manual input of data by Fujitsu Services' personnel and incorporation of system generated data from other parts of the Horizon Service Infrastructure.

2.7.2   Reference Data from Post Office Reference Data System is delivered in separately identifiable change instructions and loaded into Fujitsu Services' Reference Data Management Centre. These change instructions are then made available to a daily extract process when correct authorisation for each request is received from Post Office. Details regarding the delivery and authorisation of Reference Data are given in the following CCDs:

(a)   for products, "Fujitsu Services / Post Office Ltd Interface Agreement for Operational Business Change - Reference Data" (CS/PRD/058); and

(b)   for Branches, "Fujitsu Services/Post Office Ltd Operational Business Change – HNG-X Branch, Interface Agreement" (SVM/SDM/STD/0001) (formerly "Fujitsu Services/Post Office Ltd Operational Business Change – Branch, Interface Agreement" (CS/IFS/003)).

2.7.3   Reference Data Management Horizon Application is implemented with the following major functional components:

(a)   Reference Data management agents running on Data Centre servers;

(b)   host database application in the Data Centre; and

(c)   file transfer capabilities provided by the Horizon Central Infrastructure.

2.7.4   Reference Data Management Application provides facilities for version control of Reference Data including start and end dates for its validity. It manages distribution of Reference Data to Branches via the Horizon Service Infrastructure.

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2.7.5 Reference Data Management Application provides data used by all the other Initial Horizon Applications and has the potential to extend this to additional Horizon Applications running on the Horizon Service Infrastructure.

2.7.6 Reference Data Management Application shall check Reference Data consistency and report exceptions.

2.8 Horizon Audit Facilities

2.8.1 The Horizon Audit Facilities provide the mechanisms to record and maintain an audit trail of Transactions and events according to the CCD entitled "Audit Trail Functional Specification" (CR/FSP/006).

2.8.2 The Horizon Audit Facilities enable the recording of an operational audit trail and a commercial audit trail as such terms are referred to in the CCD entitled "Audit Trail Functional Specification" (CR/FSP/006). These comprise the audit trail associated with the operation of the Horizon Applications operated by Fujitsu Services, and the audit trail of that part of Fujitsu Services' internal commercial records to which Post Office's internal auditors or agents have access, as set out in Schedule D5.

2.8.3 Data within the operational audit trail will be retained for 18 months, although the set of records associated with a Transaction Voucher transacted by an APOP Service and transaction data in the TMS journal, including data relating to NBS and Debit Card will be retained for seven years.

2.8.4 Data within the commercial audit trail will be retained for seven years, although some data will be retained for the term of the Agreement which may be longer.

2.8.5 Access to audit trail data is provided to authorised Post Office personnel either by interactive access or through a set of standard reports.

2.9 Horizon Reconciliation Facilities

2.9.1 The Horizon Reconciliation Facilities comprise a set of applications which will support Post Office in effecting reconciliation between itself, its Clients and third parties. These facilities will also support the reconciliation of accounting transaction data processed at a Counter Position with the details passed to the Post Office.

2.9.2 The Horizon Reconciliation Facilities support the reconciliation of Transactions carried out using APS, EPOSS, NBS and Debit Card.

2.9.3 Reports will be produced and provided to Post Office and Horizon Reconciliation Facilities will be supported by the processes specified in the set of CCDs referenced under "Reconciliation" for a particular Horizon Application in the CCD entitled "Post Office Contract Controlled and Contract Referenced Document List" (COM/CUS/SPE/0001).

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2.10 Debit Card

2.10.1 The Debit Card application supports Transaction of Debit Card payments in Branches. It is installed at all Counter Positions in all Branches, but requires an operational data communications link in order to process Transactions. Debit Card can be invoked from EPOSS either by:

(a) a card swipe (or input of card details) if EMV functionality is not supported in respect of that card; or

(b) a Customer inserting his or her card into the chip card reader in a PIN Pad where such card supports EMV functionality,

when EPOSS is at the settlement menu. The following Transaction types are supported:

(i) Debit Card purchase;

(ii) Debit Card Refund; and

(iii) explicit Reversal (as defined in the CCD entitled "Mapping Schedule B3.2 to the HNG-X Solution" (REQ/GEN/REP/1091) (formerly "Debit Card MoP Functional Description" (EF/SER/001))).

2.10.2 Debit Card has the following functional components:

(a) Debit Card manages reading of data from magnetic stripe debit cards and EMV chip cards, presentation of screen dialogues to the User and User data input, and printing of receipts. It also integrates the DC Transactions into an EPOSS customer session. Debit Card writes data to a message store, including "immediate" messages to initiate message exchange with the Data Centre, and onwards to the Merchant Acquirer; and

(b) the DC Authorisation Agents run on servers at the Data Centres. Such servers harvest relevant "immediate" and standard messages. Messages between the Counter Position and the Merchant Acquirer are brokered by the agent application. Standard messages are harvested by the agents and summarised and forwarded to the Reconciliation Horizon Application.

3. ADDING NEW APPLICATIONS

3.1 When a new application is to be added under the Change Control Procedure, the following actions shall be completed:

3.1.1 a high-level description of the application shall be incorporated into paragraph 4 of this Schedule;

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3.1.2   the relevant Schedules to this Agreement shall be updated to record the new application, including:

(a)   Schedule 1 (Interpretation);

(b)   Schedule B4.4 and C1 (Service Levels and Remedies);

(c)   Schedule A5 (Post Office Responsibilities);

(d)   this Schedule B4.2 (Existing Applications), and

other Schedules to this Agreement as relevant.

3.1.3   the following CCDs shall be created and referenced from the table contained in paragraph 5 of this Schedule:

(a)   Horizon Application definition;

(b)   interface specifications;

(c)   HCI specifications;

(d)   Reference Data requirements (as relevant); and

(e)   Fujitsu Services and Post Office operational procedures (as relevant).

4.   ADDITIONAL APPLICATIONS

This paragraph will include brief descriptions of each new application.

4.1   <u>Mails Application</u>

4.1.1   Mails Application is a postal acceptance application designed to fully automate the service selection and pricing of mails items transacted at Counter Positions. Mails Application provides transaction facilities at each Counter Position, integrated into the Customer Session using facilities provided by EPOSS.

4.1.2   Mails Application is a standard cashier script application that has been customised for UK use by the addition / alteration of cashier scripts and the creation of specific Mails Reference Data. Mails Reference Data is unique to the Mails Application and is supplied by Post Office. Mails Reference Data contains Client data, typically comprising services, tariffs, rules and constraints.

4.1.3   Mails Application accepts manual input of data (weight, destination, service type) as well as automatic input from electronic weigh scales and barcode readers.

4.1.4   Mails Application is implemented with the following major functional components:

(a)   Mails Application running on every Counter Position;

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    (b)   Data Centre support for Reference Data subscription groups;

    (c)   Mails Application agents (for Reference Data distribution) running on the Data Centre servers; and

    (d) File transfer facilities supported by the existing Horizon Service Infrastructure.

4.1.5   Mails Application supports the following postal acceptance functionality:

    (a)   Mails Application includes the Clients, their products and services as defined by Mails Reference Data;

    (b)   Mails Application applies conformance to the business rules defined in Mails Reference Data and only permits users to select those services that are valid for a set of input variables (weight, destination, value of content, delivery urgency and signature required);

    (c)   Mails Application can be customised by Mails Reference Data;

    (d)   Mails Application prints postage labels and receipts as defined in the CCD entitled "Horizon OPS Reports and Receipts - Post Office Account Horizon Office Platform Service" (SD/DES/005);

    (e)   Mails Application includes on screen help and links to additional Mails Application help screens in the form of HTML pages which can be accessed by the Counter Clerk;

    (f)   Mails Application accesses the generic Postcode Address File ("PA File") to verify or complete a destination address on selected services;

    (g)   Mails Application captures track and trace barcode information during a mails acceptance transaction and passes this information along with associated PA File data to the EDG for onward transfer to Clients;

    (h)   Mails Application allows the capture of the track and trace barcode information and verification of price for pre- franked "bulk mail". The track and trace and item details are sent to the EDG for onward transfer to Clients; and

    (i)   Mails Application records complete postage related details including value, weight, destination, service(s), track and trace, postcode and label as well as all other standard transaction details to the message store.

4.2   <u>Mails Administration Application</u>

4.2.1   Mails Administration Application supports the following functions:

    (a)   mails despatch and exception handling;

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    (b)   local collect;

    (c)   return of undelivered priority mails items; and

    (d)   fast input of "bulk mail" (known as "speed bulk").

4.2.2   Mails despatch

    (a)   The despatch process allows the reconciliation between track and trace items scanned in as part of the acceptance process and those awaiting collection by the carrier.

    (b)   For mails items confirmed as available for despatch a record will be created and sent to the EDG for onward transfer to Clients.

    (c)   The despatch process will include a mechanism for recording if the despatch is the last for that day.

    (d)   The despatch process will allow reconciliation errors to be corrected or an exception report produced prior to the despatch of the remaining items.

4.2.3   Local collect

    (a)   The local collect function allows mails items delivered to the Branch for local collect to be scanned in using the track and trace barcode. A record of barcodes will be sent to the EDG for onward transfer to Clients.

    (b)   The local collect function allows mails items to be collected by Customers and will charge either an open or fixed fee. A record of each collected item will be sent to the EDG for onward transfer to Clients.

    (c)   The local collect function allows items that have not been collected after a defined period to be scanned out of the Branch. A record of each non collected item will be sent to the EDG for onward transfer to Clients along with a code indicating the reason for non collection.

4.2.4   Return of undelivered priority items

Priority mails items not delivered by the carriers delivery agent can be returned to any Post Office and recorded by scanning the track and trace barcode. A record of each collected item will be sent to the EDG for onward transfer to Clients along with a code indicating the reason for non delivery.

4.2.5   Speed Bulk

Pre-franked mails (bulk mails) can be scanned in without any weight / price checks. A record of each collected item will be sent to the EDG for onward transfer to Clients.

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4.3   ETU Application

4.3.1   The ETU Application supports the Customer purchase or refund of mobile phone related credits and associated content products (e.g. ring tones). It is installed at all Counter Positions in all Branches, but requires an operational data communications link in order to process Transactions. ETU credit products (known as Topup products or PIN products) are invoked by swiping a card (or input of card details). ETU content products (known as PIN/e-voucher products) are invoked by selecting an ETU desktop button. The following Transaction Types are supported:-

(a)   the purchase of a card based Topup product;

(b)   the purchase of card based PIN product;

(c)   the purchase of a PIN/e-voucher product;

(d)   the refund of a card based Transaction; and

(e)   the refund of a PIN/e-voucher Transaction.

4.3.2   The ETU Application has the following functional components:

(a)   the ETU Counter Application which manages reading of data from magnetic stripe cards, the selection of ETU products from menus, the presentation of screen dialogues to the User and User data input, and the printing of receipts. It also integrates the ETU Transactions into an EPOSS Customer session. ETU writes data to the Riposte message store, including "immediate" messages to initiate message exchange with the e-pay authorisation system;

(b)   ETU Agent applications run on NT servers at the Data Centres. Such servers harvest relevant "immediate" and standard messages. Messages between the Counter Position and e-pay are brokered by the ETU Agent applications. Standard messages are harvested by the ETU Agent and summarised and forwarded to the Reconciliation Application; and

(c)   the Reconciliation Application (as used by NBS) receives data from the ETU Agents and from e-pay and prepares reports reconciling these data streams and identifying reconciliation exceptions for investigation and corrective action.

4.4   Bureau Application

4.4.1   The Bureau Application provides the ability to trade foreign currencies and traveller's cheques at Counter Positions. The service provided in a particular Branch can range from none to full bureau de change facilities, depending on the Bureau Type defined in Reference Data for the Branch in question.

4.4.2   The Bureau Application has the following major features:

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(a) the ability to receive Spot Rates Files and Margins Files from the Post Office, and to use the data in these files to control the rates at which currencies and travellers' cheques are traded; and

(b) extension of EPOSS counter functionality to support, depending on Bureau Type, for:

    (i) buying currency and travellers' cheques;

    (ii) selling currency and travellers' cheques;

    (iii) remitting currency and travellers' cheques for sale (but not travellers' cheques redeemed) into and out of Branches;

    (iv) transferring currency and travellers' cheques for sale (but not travellers' cheques redeemed) between Stock Units;

    (v) revaluing currency to reflect changes in spot rates; and

    (vi) declaring the quantities of bureau stock on hand;and;

(c) The ability to receive payment for foreign currency by means of a variety of methods of payment, including credit cards and debit cards in addition to cash.

4.5 APOP Facility

4.5.1 The AP Out-Payments (APOP) Facility is a set of components that support the creation of APOP Services. Each business application that makes use of the APOP Facility will be segmented into its own APOP Service:

4.5.2 The components of APOP are as follows:

4.5.2.1 An APOP database which stores details of Transaction Vouchers and the actions that have been performed on a Transaction Voucher by each APOP transaction;

4.5.2.2 An APOP authorisation service which processes APOP transactions by applying the rules defined in the APOP Service Definition for the APOP Service;

4.5.2.3 An APOP branch service that processes APOP on-line transactions initiated from an AP-ADC counter Transaction using the APOP authorisation service referred to in paragraph 4.5.2.2;

4.5.2.4 An APOP batch service which will send/receive batch files to/from the EDG/DES and process APOP batch transactions using the APOP authorisation service referred to in paragraph 4.5.2.2;

4.5.2.5 An APOP administration service that will process APOP on-line transactions initiated from an APOP Administration Workstation using the APOP authorisation service referred to in paragraph 4.5.2.2.

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Transactions will be routed to the APOP authorisation service by a web server;

4.5.2.6 An APOP reporting service that will process APOP transactions to extracts records from the APOP database using the APOP authorisation service referred to in paragraph 4.5.2.2;

4.5.2.7 An APOP housekeeping service that will process time-driven event APOP transactions using the APOP authorisation service referred to in paragraph 4.5.2.2;

4.5.2.8 An APOP archiving service that archives data from the APOP database;

4.5.2.9 A web service to route APOP on-line counter transactions to the APOP database for the APOP Service;

4.5.2.10 Templates for the counter and branch receipts; a

4.5.2.11 Templates for the office counter weekly and office weekly reports.

4.5.3   An APOP Service comprises at least the elements set out in paragraphs 4.5.2.3, 4.5.2.9, 4.5.2.10 and 4.5.2.11.

4.5.4   The production of Reference Data by Post Office to make use of the APOP Facility shall be in accordance with and subject to the provisions of the CCD entitled "APOP Authorisation Service Reference Manual" (AP/MAN/004).

4.5.5   The CCD entitled "APOP Definition" (BP/SPE/046) sets out the rules that shall apply in determining whether the Post Office is required to request a Work Package in respect of introducing additional APOP Services/AP Transactions using the APOP Facility and/or modifying an existing APOP Service. Where so required by the provisions of that CCD, Post Office shall request a Work Package for the introduction and/or modification (as applicable) of such services/transactions;

4.5.6   Post Office shall be responsible for:

4.5.6.1   the design and development of new AP Transactions that use the APOP Facility;

4.5.6.2   (save to the extent that Fujitsu Services is required to facilitate testing of Post Office Reference Data in accordance with the CCD entitled "Fujitsu Services / Post Office Ltd Interface Agreement for Operational Business

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Change – Reference Data" (CS/PRD/058)) ensuring that Post Office Reference Data, intended to introduce those new Transactions, functions correctly within the Horizon Service Infrastructure (in accordance with any applicable Reference Data rules) and has the desired business effect;

4.5.6.3   defining receipts (for all AP Transactions that use the APOP Facility) that contain sufficient information to allow manual recovery of a subset of the Transaction data following a system failure, to the extent that such manual data recovery is required by Post Office;

4.5.6.4   transforming incoming data files into standard APOP format according to the APOP Interface Specifications for live purposes; and

4.5.6.5   generating required reports from extract files generated by APOP, according to the APOP Interface Specifications for live purposes.

5.   LIST OF RELATED DOCUMENTS

Table A below lists those CCDs which provide a high level technical/functional overview of each Horizon Application. The CCDs listed in Table B below supplement that Table and relate to more than one Horizon Application. Further details of each Horizon Application can be found in those CCDs which are indicated to relate to that Horizon Application in the CCD entitled "Post Office Contract Controlled and Contract Referenced Document List" (COM/CUS/SPE/0001).

6.   Not Used

7.   PAF FACILITY

7.1   The PAF Facility is a generic facility based on QAS Software. It is not an Horizon Application itself, but may be invoked by a PAF Calling Application.

7.2   The function of the PAF Facility is to:

7.2.1   allow Users to validate an address by entering the details of premises and postcode or premises, street and town of the address to be validated;

7.2.2   present Users with a validated postal address;

7.2.3   permit Users to enter a postal address manually; and

7.2.4   make available the manually entered postal address for use in the PAF Calling Application.

7.3   The PAF Facility comprises the following:

7.3.1   an application module installed at each Counter Position in all Branches;

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7.3.2   a data communications link to enable an address to be validated against the PAF Database held in the Data Centres;

7.3.3   an interface with the servers in the Data Centres that host the PAF Database and interface software;

7.3.4   a web service; and

7.3.5   the PAF Database.

7.4   Post Office acknowledges and agrees that:

7.4.1   it has mandated the use of the QAS Software as a key element of the PAF Facility and has satisfied itself that the QAS Software is capable of meeting its business requirements in that connection; and

7.4.2   notwithstanding anything to the contrary elsewhere in this Agreement (Clause 67.5 being subject to this provision in this instance):

(a)   a fault in the QAS Software; or

(b)   a failure of the PAF Facility or any PAF Calling Application caused by a fault in the QAS Software

A fault or failure referred to in paragraphs 7.4.2 (a) and 7.4.2 (b) shall not, of itself, constitute a Default by Fujitsu Services except to the extent that such fault or failure has been caused by an act or omission of Fujitsu Services.

7.5   Fujitsu Services shall notify QAS Limited as soon as reasonably practicable where it discovers that the PAF Database (or any update thereof) is not, without modification, compatible and capable of use with the PAF Facility. Where following such notification QAS Limited fails to resolve the issue of compatibility and/or use within a reasonable time, Fujitsu Services shall notify Post Office accordingly. Thereafter Post Office shall be responsible for resolving or procuring the resolution of the issue of compatibility and/or use.

7.6   Post Office shall be responsible for ensuring that reasonable access to and assistance from QAS Limited (its successors and assigns) is provided to Fujitsu Services to support the implementation of the PAF Facility.

8.   **FALLBACK**

EPOSS, APS and LFS, but not NBS (which has a process of recovery of incomplete transactions in the event of a counter failure) shall have fallback Transactions that minimise or negate the impact of failure in any of the Applicable Services which use those Horizon Applications.

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Table A

Horizon Application	Horizon Application Definition or Equivalent
EPOSS – Counter and Branch Administration	EPOSS Definition (BP/SPE/033)
EPOSS – Debit Card Method of Payment	Debit Card MoP Functional Description (Replaced) (EF/SER/001) (Replaced) Mapping Schedule B3.2 to the HNG-X Solution REQ/GEN/REP/1091
Bureau	Bureau Definition (BP/SPE/043)
APS	APS Definition (BP/SPE/038)
ETU	ETU Definition (BP/SPE/044)
LFS	LFS Definition (BP/SPE/037)
Mails Application	Mails Definition (BP/SPE/042)
Message Broadcast	Message Broadcast Definition (BP/SPE/036)
NBS	NBS Definition (BP/SPE/035)
Reference Data Management	Reference Data Definition (BP/SPE/040)
Reconciliation	Reconciliation Definition (BP/SPE/034)
Audit	Audit Trail Functional Specification

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	(CR/FSP/006)
APOP Facility	APOP Definition (BP/SPE/046)

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Table B

Document Title	Fujitsu Services Reference
Security Functional Specification (Replaced)	RS/FSP/001 (Replaced)
HNG-X Technical Security Architecture	ARC/SEC/ARC/0003
Horizon OPS Reports and Receipts - Post Office Account Horizon Office Platform Service	SD/DES/005

9. POL SERVICE TYPES

9.1 The POL Service Types applicable to the period between the Amendment Date and Acceptance Point Z3 are set out in Annex 1 to this Schedule.

9.2 If Post Office notifies Fujitsu Services in writing that it no longer requires use of a POL Service Type and requests that Fujitsu Services disable that POL Service Type in accordance with Clause 10.5, then where Post Office ceasing to use that POL Service Type may affect the use of any other POL Service Type(s), Fujitsu Services shall advise Post Office accordingly. Where Fujitsu Services so advises Post Office, the Parties will discuss and agree (acting reasonably) the appropriate steps to be taken to address the effect of disabling the POL Service Type on any other POL Service Type(s).

10. ASSOCIATED DOCUMENTS

10.1 The following CCDs are associated with this Schedule B4.2:

	Document Reference	Document Title
1	COM/CUS/SPE/0001	Post Office Contract Controlled and Contract Referenced Document List
2	DES/GEN/MAN/0002	AP-ADC Reference Manual
3	BP/DOC/008	Automated Payments System Client List
4	BP/DOC/014	POCL Automated Payments Generic Rules
5	CR/IFS/002	Automated Payments Interface Specification - EDG / DES

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	Document Reference	Document Title
7	CS/PRD/058	Fujitsu Services / Post Office Ltd Interface Agreement for Operational Business Change - Reference Data
8	AP/MAN/004	APOP Authorisation Service Reference Manual
9	BP/SPE/046	APOP Definition
10	BP/IFS/011	Application Interface Specification Reference Data to Pathway Type B Data for CSR+
11	SVM/SDM/STD/0001	Fujitsu Services/Post Office Ltd Operational Business Change – HNG-X Branch, Interface Agreement
12	CR/FSP/006	Audit Trail Functional Specification
13	BP/IFS/010	Application Interface Specification Reference Data to Fujitsu Services Limited
14	EF/SER/001 (Replaced) REQ/GEN/REP/1091	Debit Card MoP Functional Description (Replaced) Mapping Schedule B3.2 to the HNG-X Solution
15	SD/DES/005	Horizon OPS Reports and Receipts - Post Office Account Horizon Office Platform Service
16	RS/FSP/001 (Replaced) ARC/SEC/ARC/0003	Security Functional Specification (Replaced) HNG-X Technical Security Architecture
17	Not Used	
18	Not Used	
19	Not used	**[Duplicate of Row 15]**
20	BP/SPE/043	Bureau Definition
21	BP/SPE/038	APS Definition

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	Document Reference	Document Title
22	BP/SPE/044	ETU Definition
23	BP/SPE/042	Mails Definition
24	BP/SPE/036	Message Broadcast Definition
25	BP/SPE/035	NBS Definition
26	BP/SPE/040	Reference Data Definition
27	BP/SPE/034	Reconciliation Definition
28	SU/IFS/028	GEC Meters Ltd - "Watercard" Budget Prepayment System Transaction Terminal Outline Requirements
29	Not Used	
30	SU/IFS/027	Kent Meters/GEC Meters "Watercard" Payment System Card Data Encryption Specification
31	Not Used	
32	SU/IFS/024	A Point of Sale Supporting the Quantum Application Utilising the POCL Secure DLL
33	Not Used	
34	Not Used	
35	Not Used	
36	BP/DES/022	Post Office Ltd - Bar Code Control Document
37	Not Used	
38	Not Used	
39	Not Used	
40	BP/DES/023	LFS to SAPADS and SAPADS to LFS Application Interface Specification
41	CR/FSP/014	APS Client Connection Service Description [
42	Not Used	

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	Document Reference	Document Title
43	BP/PRD/023	LFS Business Process Diagrams
44	Not Used	
45	AP/IFS/056	Pathway to Client Type 'G' Magcard/Barcode Application Interface Specification
46	Not Used	
47	Not Used	
48	Not Used	
49	Not Used	
50	Not Used	
51	Not Used	
52	Not Used	
53	Not Used	
54	Not Used	
55	Not Used	
56	Not Used	
57	Not Used	
58	Not Used	
59	Not Used	
60	AP/IFS/060	Pathway to Client BT Application Interface Specification [
61	Not Used	
62	Not Used	
63	NB/SPE/003	Network Banking: Counter Dialogue - Activity & Screen Flows

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	Document Reference	Document Title
64	Not Used	
65	AP/IFS/059	Pathway to Client Type T Application Interface Specification
66	Not Used	
67	Not Used	
68	Not Used	
69	Not Used	
70	AP/SPE/001	APS Token Technology Specification (Bar Code)
71	AP/SPE/002	APS Token Technology Specification (APS Magnetic Stripe)
72	SU/IFS/034	POCL Token Technology Specification GEC Watercard
73	Not Used	
74	BP/SPE/033	EPOSS Definition
75	BP/SPE/037	LFS Definition
76	EF/IFS/002	Horizon – Streamline Application Interface Specification
77	ET/IFS/001	Application Interface Specification: Horizon to e-pay
78	Withdrawn in CCN1616b	
79	AS/REP/013	Rate Board Cables
80	RD/IFS/033	PO Ltd to Fujitsu Services Bureau de Change Rates Interface Specification
81	NB/IFS/012	Bureau de Change Transactions Feed for FRTS
82	AP/IFS/061	Horizon to Client Type 'X' Magcard/Barcode Application Interface Specification
83	Not Used	
84	Not Used	

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	Document Reference	Document Title
85	Withdrawn in CCN1616b	
86	DV/IFS/001	Horizon to DVLA Application Interface Specification
87	Not Used	
88	EA/IFS/003	AIS Branch Ledger Entry Interface – Horizon to POL Finance Systems Interface Specification
89	NB/IFS/024	EMV Banking and Retail: NBX – LINK Application Interface Specification
90	NB/IFS/025	EMV Banking and Retail: NBX - CAPO Application Interface Specification
91	NB/IFS/026	EMV Banking and Retail: NBX – A&L Application Interface Specification
92	NB/IFS/030	NBX - FI Reconciliation and Settlement File Format AIS
93	NB/IFS/031	Horizon - Card Account Mapping
94	NB/IFS/033	Horizon - LiNK Mapping
95	NB/IFS/034	Horizon Santander Mapping
96	NB/IFS/036	Transaction Enquiry Service (TES) Post Office Reports Specification
97	Not Used	
98	RD/IFS/038	Post Office Ltd. to Fujitsu Services EMV Banking PIN Pad Reference Data Interface Specification
99	NB/IFS/035	NBX Business Parameters
100	NB/PRP/004	EMV Banking: User Interface Design Proposal [CAT F]
101		
102	EA/IFS/006	Horizon to POL MIS AIS
103	AS/IFS/001	Horizon to EDG Feed for Track and Trace
104	EA/IFS/005	Horizon to POL Client Transaction Summaries AIS

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	Document Reference	Document Title
105	EA/IFS/003	Horizon to POL Finance Interface Specification
106	EA/IFS/028	Horizon to POL FS interface functional specification
107	EA/IFS/015	Horizon to HR SAP System Applications Interface Specifications
108	AP/IFS/062	Horizon to Client Type 'XO' Application Interface Specification
109	AP/IFS/063	Post Office Limited EDG to Horizon APOP Authorisation Service Application Interface Specification
110	AP/IFS/065	APOP Host System Reporting to EDG Application Interface Specification
111	DES/GEN/MAN/0002	AP-ADC Reference Manual
112	CR/IFS/002	Automated Payments Interface Specification - EDG / DES
113	Not Used	
114	BP/SPE/040	Reference Data Definition

10.2   There are no CRDs associated with this Schedule B4.2.

ANNEX 1

POL SERVICE TYPES

	Horizon	
1	EPOSS	
2	APS	
3	APS (AP-ADC)	
4	APS (APOP)	
5	NBS (supporting CAPO)	
6	NBS (supporting Santander)	
7	NBS (supporting LINK)	
8	APS (AP-ADC supporting DVLA)	
9	ETU Application	
10	Bureau Application	
11	Mails Application	
12	EPOSS (supporting basic MOPs)	
13	Debit Card	
14	LFS	
15	Transaction Management Service	
16	NBS (Supporting TES-QA)	
17	General capability within each of EPOSS, APS, NBS, LFS, ETU, Bureau, Mails.	
18	Reference Data Management Application	
19	PAF Facility	
20	Message Broadcast	

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	Horizon	
21	Audit	
22	Reconciliation (Banking)	
23	APS (Reconciliation)	