Sparrow Configuration Extract

Version 1.13

VERSION CONTROL PAGE

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Version History

VERSION	DATE	MAIN CHANGES	AUTHOR
1.0	01/04/2016	Initial - Sparrow V81.12	Zusanne Calvelo
1.1	05/04/2016	Amendments	Domenic Strano
1.2	06/04/2016	Added ENI details	Zusanne Calvelo
1.3	13/06/2016	Additional fields in IMD Table extracts	Zusanne Calvelo
1.4	17/10/2016	Added and retired certain fields from IMD Table extracts for Sparrow 82+ versions.	Andrew Calkin
1.5	16/12/2016	Retired the Exponent field from IMD Table extracts for Sparrow 82+ versions.	Domenic Strano
1.6	23/05/2017	Added configuration information. Travellers Cheques retired. Offline Mode Removed from IMD Table Extract	Domenic Strano
1.7	16/08/2017	Added POS Terminal Export/Import for POSISO03	Domenic Strano
1.8	23/11/2017	Additional fields in IMD Table extracts used for card production and eCommerce card services restrictions	Jaco Greyvenstein
1.9	22/01/2018	From V82.04+ the POS terminal record will no longer contain the POS product type. This field has been deprecated from V82.04.	Domenic Strano
1.10	22/02/2018	Added POS Merchant Export/Import for POSISO03	Ross Bennett
1.11	16/10/2018	Added Network IMD-BIN mapping	Ross Bennett
1.12	31/10/2018	Updated section 2.5.4 with Merchant Maintenance option	Domenic Strano
1.13	24/09/2019	POSISO05 Merchant Import/Export new fields for multi acquirer support.	Angus Boyd

CR2

TABLE OF CONTENTS

01 Introduction

The Sparrow Configuration Extract tool allows many of the configuration parameters required in Sparrow, SparrowPOS , SparrowHUB and associated External Network Interfaces to be managed externally to Sparrow.

The tool allows records to be extracted and manipulated by third party packages such as Excel for review and audit purposes. Records can be modified and new entries made with the data then imported into Sparrow for update.

Automated processing is supported for most options where the Automation Module is licensed.

Export and Import files will be in the JSON format.

02 Supported Options

2.1   Sparrow Options

The following Sparrow options are supported by the Configuration Extract tool.

- Network Maintenance
- Services Maintenance
- IMD Table Maintenance

2.2   SparrowHUB Options

The following SparrowHUB options are supported by the Configuration Extract tool.

- Subscriber Maintenance
- Interface Maintenance
- Mapping Maintenance
- Routing Maintenance

2.3   External Network Interface Options

The following ENI options are supported by the Configuration Extract tool.

- Terminal Data Maintenance
- IMD-BIN Mapping Maitenance

2.4   SparrowPOS Options

The following SparrowPOS (*) options are supported by the Configuration Extract tool.

- Terminal Maintenance
- Merchant Maintenance

(*) POS version posiso05

2.5　　Configuration

Add the following Menu functions to setup the Configuration Extract tool.

2.5.1　　Sparrow

- Network Maintenance Extract – Function code 161
- ATM Services Extract　　　 – Function Code 162
- IMD Table Extract　　　　 – Function Code 163

2.5.2　　SparrowHUB

- Subscriber Data Extract – Function Code 61
- Interface Maintenance Data Extract – Function Code 62
- Routing Maintenance Data Extract – Function Code 63
- Mapping Maintenance Data Extract – Function Code 64

2.5.3　　External Network Interfaces

- Terminal Data Maintenance Data Extract – Function Code 97
- IMD-BIN Mapping Maintenance Data Extract – Function Code 98

2.5.4　　SparrowPOS

- Terminal Data Export – Function Code 100
- Terminal Data Import – Function Code 101
- Merchant Data Export – Function Code 107
- Merchant Data Import – Function Code 108

2.6　　Automation

Each Extract option may be automated using the Sparrow Automation module.

Importing of record may also be automated however only the Insertion of new records will be allowed through automation.   Amendments of already existing records must be imported manually.

03 File Format Description

The JSON data extract files are formatted and validated in accordance to JSON specifications as specified in the ECMA-404 The JSON Data Interchange Standard.

The filename adheres to the following convention below,

dbx_<product name>_<option identifier>.json

Where "product name" is a 3-character identifier of the system, which can be,

spa	Sparrow System
hub	SparrowHUB System
net	ENI TLA eg. pls, mds, upi is the 'System Identity' configured in the ENI foreground's Installation Parameters
pos	SparrowPOS System

And, where "option identifier" is a 3-character identifier of the type of extract or option, which can be,

atm	ATM records extracted via Sparrow Network Maintenance
imd	IMD records extracted via Sparrow IMD Table Maintenance
svc	Service Restriction records extracted via Services Maintenance
sub	Subscriber records extracted via SparrowHUB Subscriber Maintenance
hi	Interface records extracted via SparrowHUB Interface Maintenance
rte	Routing records extracted via SparrowHUB Routing Maintenance
map	Mapping records extracted via SparrowHUB Mapping Maintenance
trm	Terminal Data records extracted via ENI's Terminal Data Maintenance
bim	IMD-BIN Mapping records extracted via ENI's IMD-BIN Mapping Maintenance
ptd	POS Terminal Data records extracted as available in Terminal Maintenance

For instance, a data extract for *Sparrow Network Maintenance* is named as,
dbx_spa_atm.json

For a data extract of MasterCard Network's Terminal Data Maintenance,
dbx_mds_trm.json

A data extract exported from system can be found in the `~/extracts` directory.
A data extract imported to the system will be read from the `~/floppy` directory.

3.1　Conventions

The following conventions can be referenced for understanding the data extracts field definitions in the succeeding sections.

Data Extract Field Requirement:

M　　field is mandatory
O　　field is optional and processed when available
C　　field is conditional (may be required if certain fields are licensed or enabled)
I　　field is ignored when available
N　　field is not supported

Data Extract Field Format:

a　　alpha character(s)
an　　alpha or numeric character(s)
ans　　alpha, numeric, or special character(s)
b　　string of boolean value (true|TRUE, false|FALSE)
c　　single ascii character
dt　　string of date and time value
h　　hex integer value
n　　numeric integer
ns　　string of numeric characters
s　　string of ascii characters

Data Extract JSON Object Name:

This can be referenced as the root JSON object name at the beginning of every extracted data. It is the combined system name and extract option name to identify the extract data.

System Names are as follows,

Sparrow　　　　　　Sparrow System
SparrowHUB　　　　Sparrow HUB System
SparrowPOS　　　　SparrowPOS System
ExternalNetwork　　The formatted 'Network Name' configured in the ENI foreground's General Parameters

Whereas, Extract Option Names are as follows,

NetworkMaintenance
IMDTableMaintenance
ServiceMaintenance
SubscriberMaintenance
InterfaceMaintenance
RoutingMaintenance
MappingMaintenance
TerminalDataMaintenance
IMDBINMappingMaintenance
POSTerminalMaintenance

For instance, the object name of a MasterCard ENI's Terminal Data Maintenance extract may be as below, which would only change according to the configured 'Network Name' for MasterCard ENI.

MasterCardNetwork_TerminalDataMaintenance

The data extracts implement strict data typing (i.e. strings must be delimited by double quotes). Also, refer to ECMA-404 The JSON Data Interchange Standard for standard data type definitions supported in JSON format.

04 Data Extract Formats

The following sections lists the foreground functions with available data extracts. Each table defines the supported fields for each file or function.

4.1 Sparrow

4.1.1 Network Maintenance Data Extract

| Function: | 161 | Network Maintenance Data Export or *Import |
| | | *Import of existing records not supported in automation mode |

Field name	Format	Max	Export	Import	Description
Index	n		M	M	Record index
ID	ns	4	M	M	ATM ID
Name	ans	15	M	O	ATM Name
Name_Lang_2	ans	15	M	O	ATM Name (in second language)
IMD	ns	6	M	I	IMD associated with the ATM
Branch	ns	4	M	M	ATM Branch
Protocol	n	1	M	M	Selected Communications Protocol 0 : uses comports.dat 1 : TCP/IP Socket 2 : ISO Async (Legacy) 3 : SSL + TCP/IP Socket
Protocol_Config	ans	51	C	C	Communications Protocol configuration details
Poll_Code	ns	4	C	C	Polling code required when protocol is '0' or '2'
Port_Number	ns	4	M	M	Port number assigned to the communications driver
BNA_Device	a	1	C	C	Required when BNA device is licensed Y : ATM Has BNA device enabled N : ATM Has BNA device disabled
BNA_FX_Device	a	1	C	C	Required when BNA FX device is licensed Y : BNA FX is configured for ATM N : BNA FX is not configured for ATM
Anonymous_BNA	a	1	C	C	Required when BNA device is licensed Y : ATM is allowed anonymous service on BNA N : ATM is not allowed anonymous service on BNA device
ATM_Group	ns	2	M	M	ATM Group
ATM_Fee_Group	ns	2	C	C	ATM's Acquirer Fee Group, required when Acquirer Fee module is licensed
Model_ID	ns	2	M	I	ATM Model Identifier e.g. 14 : Interbold 478x 16 : Siemens - Nixdorf 19 : NCR 5688
Model_Desc	ans		M	I	ATM Model Description
Model_Last_Notified	dt		M	I	ATM Model Last Update Notification
Application_ID	ns	2	M	I	ATM Application Identifier e.g. 6 : BW ATM Client 8 : EMV BW ATM Client
Application_Desc	ans		M	I	ATM Application Description
EMV_Capable	a	1	M	I	Y : ATM has EMV capabilities N : ATM has no EMV capabilities
COPAC_Capable	a	1	M	I	Y : ATM has COPAC capabilities N : ATM has no COPAC capabilities
CEPS_Capable	a	1	M	I	Y : ATM has CEPS capabilities N : ATM has no CEPS capabilities
Chip_IFD_Serial	h	8	M	I	Chip Interface Device Serial Code
Dynamic_KEK	a	1	M	M	Y : Dynamic ATM KEK can be downloaded to the ATM N : Uses KEK cards or manual entry of KEKs at the ATM
KEK_Zone	ns	4	C	C	KEK zone used by the ATM, required when not using Dynamic KEK

Load_KEK_Zone	ns	4	C	C	KEK zone used by the ATM, required when using Dynamic KEK
KEK_Length	a	1	M	I	Length of used KEK S : Single length KEKs D : Double length KEKs
Automated_Load_KEK	a	1	C	C	When Dynamic KEKs are enabled, Y : Automated KEK loading is turned on N : Automated KEK loading is turned off
Load_KEK_Check_Value	ns	6	C	I	Check Value of the Load KEK, relevant when Dynamic KEKs are enabled
Load_KEK_Last_Update	dt		C	I	When Dynamic KEKs are enabled, indicate the date and time when the KEKs has been updated
KEK_Check_Value	ns	6	C	I	Check Value of the KEK, relevant when Dynamic KEKs are disabled
KEK_Last_Update	dt		C	I	When Dynamic KEKs are disabled, indicate the date and time when the KEKs has been updated
AWK_Check_Value	ns	6	C	I	Check Value of the Acquirer Working Key
AWK_Last_Update	dt		C	I	Indicates date and time when the Acquirer Working Key has been updated
IWK_Check_Value	ns	6	C	I	Check Value of the Issuer Working Key
IWK_Last_Update	dt		C	I	Indicates date and time when the Issuer Working Key has been updated
MAC_Check_Value	ns	6	C	I	Check Value of the MAC Key
MAC_Last_Update	dt		C	I	Indicates date and time when the MAC Key has been updated
SMS_Alerts_Enabled	a	1	C	C	When SMS Express has been licensed, Y : SMS Alerts are enabled N : SMS alerts are disabled
SMS_Alert_Lost_Comms	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM Lost Comms N : Disabled Alert for when ATM Lost Comms
SMS_Alert_Got_Comms	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM Regains Comms N : Disabled Alert for when ATM Regains Comms
SMS_Alert_SSL_Fallback	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM does SSL Fallback N : Disabled Alert for when ATM does SSL Fallback
SMS_Alert_ATM_Opens	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM Opens N : Disabled Alert for when ATM Opens
SMS_Alert_ATM_Closes	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM Closes N : Disabled Alert for when ATM Closes
SMS_Alert_ATM_Suspends	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM Suspends N : Disabled Alert for when ATM Suspends
SMS_Alert_Supervisor	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM is in Supervisor mode N : Disabled Alert for when ATM is in Supervisor mode
SMS_Alert_Diagnostic	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM is in Diagnostic mode N : Disabled Alert for when ATM is in Diagnostic mode
SMS_Alert_Device_Stat	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM device changes status N : Disabled Alert for when ATM device changes status
SMS_Alert_Media_Stat	a	1	C	C	When SMS Express has been licensed, Y : Enabled Alert for when ATM media changes status N : Disabled Alert for when ATM media changes status
SMS_Express_Op_1_ID	ns	4	C	C	When SMS Express has been licensed, indicates the first operator's identifier
SMS_Express_Op_2_ID	ns	4	C	C	When SMS Express has been licensed, indicates the second operator's identifier
SMS_Express_Op_3_ID	ns	4	C	C	When SMS Express has been licensed, indicates the third operator's identifier
SSL_Serial_Cert	h	23	C	C	When the ATM's communications protocol has been set to "SSL + TCP/IP Socket", indicate the SSL Certificate's Serial number to use
SSL_CA_Serial_Cert	h	23	C	C	When the ATM's communications protocol has been set to "SSL + TCP/IP Socket", indicate the SSL CA Certificate's Serial number to use

4.1.2 Service Maintenance Data Extract

Function:	162	Service Maintenance Data Export or *Import
		*Import not supported in automation mode

Field name	Format	Max	Export	Import	Description
Index	n		M	M	Record index
ATM_ID	ns	4	M	M	ATM ID
Service_Open	a	1	M	M	Y : Open service allowed N : Open service not allowed
Service_Offline_Enable	a	1	M	M	Y : All cards can be used offline N : Offline operation not allowed M : Only magnetic-stripe cards allowed offline S : Only smartcards allowed offline
PIN_Change	a	1	M	M	Y : PIN Change service allowed N : PIN Change service not allowed
Balance_Enquiry	a	1	M	M	Y : Balance Enquiry service allowed N : Balance Enquiry service not allowed
Balance_Enquiry_Receipt	a	1	M	M	Y : Balance Enquiry Receipt is required N : Balance Enquiry Receipt is not required A : Ask customer if receipt is required
Fund_Transfer	a	1	M	M	Y : Fund Transfer service allowed N : Fund Transfer service not allowed O : (Other) Fund Transfer service allowed
Fund_Transfer_Receipt	a	1	M	M	Y : Fund Transfer Receipt is required N : Fund Transfer Receipt is not required A : Ask customer if receipt is required
Statement	a	1	M	M	Y : Statement service allowed N : Statement service not allowed
Statement_Receipt	a	1	M	M	Y : Statement Receipt is required N : Statement Receipt is not required A : Ask customer if receipt is required
Ministatement	a	1	M	M	Y : Mini-statement service allowed N : Mini-statement service not allowed
Deposit	a	1	M	M	Y : Deposit service allowed N : Deposit service not allowed O : (Other) Deposit service allowed
Deposit_Receipt	a	1	M	M	Y : Deposit Receipt is required N : Deposit Receipt is not required A : Ask customer if receipt is required
Bill_Payment	a	1	M	M	Y : Bill Payment service allowed N : Bill Payment service not allowed A : Advanced Bill Payment service allowed
Bill_Payment_Receipt	a	1	M	M	Y : Bill Payment Receipt is required N : Bill Payment Receipt is not required A : Ask customer if receipt is required
Book_Request	a	1	M	M	Y : Book Request service allowed N : Book Request service not allowed
Book_Request_Receipt	a	1	M	M	Y : Book Request Receipt is required N : Book Request Receipt is not required A : Ask customer if receipt is required
Cash_Withdrawal	a	1	M	M	Y : Cash Withdrawal service allowed N : Cash Withdrawal service not allowed
Cash_Withdrawal_Receipt	a	1	M	M	Y : Cash Withdrawal Receipt is required N : Cash Withdrawal Receipt is not required A : Ask customer if receipt is required
Reserved_Future_Use (Travellers Cheques Retired V82.01)	a	1	M	M	Y : Service allowed N : Service not allowed (Travellers Cheques Retired V82.01)
Reserved_Future_Use_RCP (Travellers Cheques Retired V82.01)	a	1	M	M	Y : Receipt is required N : Receipt is not required A : Ask customer if receipt is required (Travellers Cheques Retired V82.01)
Draft	a	1	M	M	Y : Draft service allowed N : Draft service not allowed
Draft_Receipt	a	1	M	M	Y : Draft Receipt is required N : Draft Receipt is not required A : Ask customer if receipt is required
Full_Statement	a	1	M	M	Y : Full Statement service allowed

					N : Full Statement service not allowed
Notice_of_Wdr	a	1	M	M	Y : Notice of Withdrawal service allowed N : Notice of Withdrawal service not allowed
Notice_of_Wdr_Receipt	a	1	M	M	Y : Notice of Withdrawal Receipt is required N : Notice of Withdrawal Receipt is not required A : Ask customer if receipt is required
Currency_2_Wdr	a	1	M	M	Y : Currency 2 Withdrawal service allowed N : Currency 2 Withdrawal service not allowed
Currency_2_Wdr_Receipt	a	1	M	M	Y : Currency 2 Withdrawal Receipt is required N : Currency 2 Withdrawal Receipt not required A : Ask customer if receipt is required
Extended_Billers	a	1	C	C	Required when Extended Billers is licensed Y : Extended Billers service allowed N : Extended Billers service not allowed
Extended_Billers_Receipt	a	1	C	C	Required when Extended Billers is licensed Y : Extended Billers Receipt is required N : Extended Billers Receipt is not required A : Ask customer if receipt is required
Barcode_Bill_Pay	a	1	C	C	Required when Barcode Bill Payment is licensed Y : Manual entry & Barcode Bill Payment service N : Barcode Bill Payment service not allowed M : Manual entry Bill Payment only B : Barcode Bill Payment only
Barcode_Bill_Pay_Receipt	a	1	C	C	Required when Barcode Bill Payment is licensed Y : Barcode Bill Payment Receipt is required N : Barcode Bill Payment Receipt is not required A : Ask customer if receipt is required
Foreign_Exchange	a	1	C	C	Required when FX BNA is licensed Y : Foreign Exchange service allowed N : Foreign Exchange service not allowed
Std_Biller_1_Name	ans	12	C	I	When Standard Biller 1 has been configured, Name of a Standard Biller
Std_Biller_1_Payment	a	1	C	C	When Standard Biller 1 has been configured, N : Standard Bill Payment service not allowed A : Standard Bill Payment by Account debit only D : Standard Bill Payment by Deposit only A : Standard Bill Payment by Account or Deposit

Std_Biller_1_Deposit_Rqd	a	1	C	C	When Standard Biller 1 has been configured,
					N : Neither the deposit of bill nor the entry of bill
					   account number is required
					B : Both the deposit of bill and entry of bill
					   account is required
					D : Deposit of Bill is required
					E : Entry of the Bill account number is required

Std_Biller_2_Name	ans	12	C	I	When Standard Biller 2 has been configured, Name of a Standard Biller
Std_Biller_2_Payment	a	1	C	C	When Standard Biller 2 has been configured, N : Standard Bill Payment service not allowed A : Standard Bill Payment by Account debit only D : Standard Bill Payment by Deposit only A : Standard Bill Payment by Account or Deposit

Std_Biller_2_Deposit_Rqd	a	1	C	C	When Standard Biller 2 has been configured,
					N : Neither the deposit of bill nor the entry of bill
					   account number is required
					B : Both the deposit of bill and entry of bill
					   account is required
					D : Deposit of Bill is required
					E : Entry of the Bill account number is required

Std_Biller_3_Name	ans	12	C	I	When Standard Biller 3 has been configured, Name of a Standard Biller
Std_Biller_3_Payment	a	1	C	C	When Standard Biller 3 has been configured, N : Standard Bill Payment service not allowed A : Standard Bill Payment by Account debit only D : Standard Bill Payment by Deposit only A : Standard Bill Payment by Account or Deposit

Std_Biller_3_Deposit_Rqd	a	1	C	C	When Standard Biller 3 has been configured,
					N : Neither the deposit of bill nor the entry of bill
					   account number is required
					B : Both the deposit of bill and entry of bill
					   account is required
					D : Deposit of Bill is required
					E : Entry of the Bill account number is required

Std_Biller_4_Name	ans	12	C	I	When Standard Biller 4 has been configured, Name of a Standard Biller
Std_Biller_4_Payment	a	1	C	C	When Standard Biller 4 has been configured, N : Standard Bill Payment service not allowed A : Standard Bill Payment by Account debit only D : Standard Bill Payment by Deposit only A : Standard Bill Payment by Account or Deposit

Std_Biller_4_Deposit_Rqd	a	1	C	C	When Standard Biller 4 has been configured, N : Neither the deposit of bill nor the entry of bill account number is required B : Both the deposit of bill and entry of bill account is required D : Deposit of Bill is required E : Entry of the Bill account number is required
Std_Biller_5_Name	ans	12	C	I	When Standard Biller 5 has been configured, Name of a Standard Biller
Std_Biller_5_Payment	a	1	C	C	When Standard Biller 5 has been configured, N : Standard Bill Payment service not allowed A : Standard Bill Payment by Account debit only D : Standard Bill Payment by Deposit only A : Standard Bill Payment by Account or Deposit
Std_Biller_5_Deposit_Rqd	a	1	C	C	When Standard Biller 5 has been configured, N : Neither the deposit of bill nor the entry of bill account number is required B : Both the deposit of bill and entry of bill account is required D : Deposit of Bill is required E : Entry of the Bill account number is required
Std_Biller_6_Name	ans	12	C	I	When Standard Biller 6 has been configured, Name of a Standard Biller
Std_Biller_6_Payment	a	1	C	C	When Standard Biller 6 has been configured, N : Standard Bill Payment service not allowed A : Standard Bill Payment by Account debit only D : Standard Bill Payment by Deposit only A : Standard Bill Payment by Account or Deposit
Std_Biller_6_Deposit_Rqd	a	1	C	C	When Standard Biller 6 has been configured, N : Neither the deposit of bill nor the entry of bill account number is required B : Both the deposit of bill and entry of bill account is required D : Deposit of Bill is required E : Entry of the Bill account number is required
Std_Biller_7_Name	ans	12	C	I	When Standard Biller 7 has been configured, Name of a Standard Biller
Std_Biller_7_Payment	a	1	C	C	When Standard Biller 7 has been configured, N : Standard Bill Payment service not allowed A : Standard Bill Payment by Account debit only D : Standard Bill Payment by Deposit only A : Standard Bill Payment by Account or Deposit
Std_Biller_7_Deposit_Rqd	a	1	C	C	When Standard Biller 7 has been configured, N : Neither the deposit of bill nor the entry of bill account number is required B : Both the deposit of bill and entry of bill account is required D : Deposit of Bill is required E : Entry of the Bill account number is required
Std_Biller_8_Name	ans	12	C	I	When Standard Biller 8 has been configured, Name of a Standard Biller
Std_Biller_8_Payment	a	1	C	C	When Standard Biller 8 has been configured, N : Standard Bill Payment service not allowed A : Standard Bill Payment by Account debit only D : Standard Bill Payment by Deposit only A : Standard Bill Payment by Account or Deposit
Std_Biller_8_Deposit_Rqd	a	1	C	C	When Standard Biller 8 has been configured, N : Neither the deposit of bill nor the entry of bill account number is required B : Both the deposit of bill and entry of bill account is required D : Deposit of Bill is required E : Entry of the Bill account number is required
Chip_Fast_Cash	a	1	C	C	When ATM is EMV capable and enabled, Y : Chip Fast Cash service allowed N : Chip Fast Cash service not allowed
Chip_Bal_Enq	a	1	C	C	When ATM is EMV capable and enabled, Y : Chip Balance Enquiry service allowed N : Chip Balance Enquiry service not allowed
Chip_Cash	a	1	C	C	When ATM is EMV capable and enabled, Y : Chip Cash service allowed N : Chip Cash service not allowed
Purse_Load_Txfr	a	1	C	C	When ATM is E-Purse capable and enabled, Y : Purse Load/Txfr service allowed N : Purse Load/Txfr service not allowed
Purse_Ministmt	a	1	C	C	When ATM is E-Purse capable and enabled, Y : Purse Mini-statement service allowed N : Purse Mini-statement service not allowed
Chip_PIN_Change	a	1	C	C	When ATM is EMV capable and enabled, Y : Chip PIN Change service allowed

					N : Chip PIN Change service not allowed

4.1.3   IMD Table Maintenance Data Extract

Function:	163	IMD Table Maintenance Data Export or *Import *Import of existing IMD records not supported

Field name	Format	Max	Export	Import	Description
Index	n		M	M	Record index
IMD_Class	ns	2	M	M	IMD Class
Usage_Code	n	1	M	M	IMD Usage code 0 : Generic usage 1 : Anonymous usage
Usage_Description	ans		M	I	IMD Usage Description
IMD_Code	ans	6	M	M	IMD Code
Name	ans	31	M	M	Name for the IMD reference
Country_Code	ns	3	M	M	ISO Country Code
Currency_Code	ns	3	M	M	ISO Currency Code
Local_Mailbox	c	1	M	M	Mailbox for routing the IMD on Sparrow system
Check_Local_Branch	a	1	M	M	Y : Subhost checks branch N : Subhost does not check branch
Post_Transaction_to_Host	a	1	M	M	Y : Transactions posted to the Host N : Transactions not posted to the Host
Sparrow_Balances	a	1	M	M	Indicates if Sparrow will have correct balances, A : Always S : Sometimes N : Never U : Unavailable
Remote_Mailbox	c	1	M	M	Mailbox for routing the Issuer system
Settlement_Group	a	1	M	M	Settlement Group the IMD belongs
Account_Number_Length	ns	2	M	M	Length of the Account Number
Account_Number_Format	ans	19	M	M	Format of the Account Number, use 9 = Account number digit & = Check digit character (stored) % = Check digit character (calculated) All other characters will appear on displayed account numbers
Use_Luhn_Checkdigit	a	1	M	M	Y : Luhn Checkdigit is in used N : Luhn Checkdigit is not in used G : Luhn Checkdifgit is automatically generated
Card_Serial_Number_Length	ns	2	M	M	Length of the Card Serial Number
Branch_Code_Position	a	1	M	M	Indicates the field position of the Branch Code I : Branch Code is found in the IMD S : Branch Code is found in the Serial Number N : Branch code not found in either IMD or Serial, but cards are related to particular branches U : Branch Code unused
Branch_Code_Length	ns	2	M	I	Length of the Branch Code, 2 ~ 4 when in used
Branch_Code_Offset	ns	2	M	C	The offset of the Branch Code
Initial_Card_Status	a	1	M	M	Initial status when card is created, C : Cold W : Warm H : Hot
Length_of_PIN	ns	2	M	M	Length of the PIN (4 ~ 16)
PIN_Block_Format	ns	2	M	M	Format of the PINBLOCK, 00 : No PIN 01 : Visa format 1 03 : Visa format 3
Translate_PIN_block	a	1	M	M	Y : PINBLOCK is translated N : PINBLOCK is not translated
Default_Type_of_Account	n	1	M	M	Default type of account, 0 : No default type 1 : Savings account 2 : Current account

					3 : Credit Card account 4 : Universal account 5 : Interest Bearing Current
Choose_Language	a	1	M	M	Y : Customer is offered choice of language N : Customer is not offered choice of language
Choose_Account	a	1	M	M	Y : Customer is offered choice of account N : Customer is not offered choice of account
Download_to_ATM	a	1	M	M	Y : The IMD is downloaded to the ATM N : The IMD is not downloaded to the ATM
Transaction_Limit	ns	10	C	C	Required when Foreign Limit or Local Dispense Limit has been enabled. Withdrawal limit will be validated when this value is non-zero. Maximum is 2000000000.
Card_Validation	a	1	C	C	ATM card validation requirement when IMD is downloaded to the ATM, V : ATM requests CVV/PVV check P : ATM requests PIN check B : ATM requests CVV/PVV and PIN check
Offline_Service *(RETIRED in V82.01+)*	*a*	*1*	*C*	*I*	*N : Offline service not allowed* *(RETIRED in V82.01+)*
Card_Type_Produced	n	1	M	C	Type of card to be produced, 0 : Cards not produced 1 : Interlink ISO Standard 2 : Visa Track 1/2 cards 3 : Visa Track 1/2/3 cards 4 : MasterCard Track 1/2 cards 5 : MasterCard Track 1/2/3 cards 6 : Customer specific 1 format 7 : Customer specific 2 format
Tracks_Encoded	ns	3	M	C	Tracks encoded on the cards 1/2/3
Automatic_Card_Numbering	a	1	C	C	Required if this is a card-producing IMD, Y : Sparrow generates card serial automatically N : Sparrow does not generates card serial number
Host_Required_for_Production	a	1	C	C	Required if this is a card-producing IMD; then the Host can support card production as follows, Y : Customer name and address can be retrieved from the Host based on PAN, and the accounts will be checked A : Host will be asked for customer name and address C : Host will be asked to check associated accounts N : Host does not support card production
Card_Production_Method	ns	2	C	C	Required if this is a card-producing IMD, and IMD-level card production method has been enabled. Any of these methods can be set when licensed, 01 : Serial Card Swipe 02 : Parallel Card Swipe 03 : DataCard 160 Embosser/Swipe 04 : DataCard 220 Embosser/Swipe 05 : DataCard 310 Embosser/Swipe 06 : NBS AdvantageEmbosser/Swipe 07 : Logika LC 450 520/30 Embosser 08 : Logika Vertigo Embosser 09 : Disk File Based Card Prod 10 : DataCard 150 E/S 11 : Magtek 12 : DataCard 150I 13 : CardWorld Producer 14 : Thales P3 (Sparrow 82+)
Card_Prod_Method_Desc	ans		C	I	Card Production Method Description, required if this is a card-producing IMD, and IMD-level card production method has been enabled
Card_Production_Use_Disk	a	1	C	C	Card Production Method Description, required if this is a card-producing IMD, and IMD-level card production method has been enabled. This is only relevant when card production method is 'Disk File' or 'CardWorld Producer'. Y : Export file for legacy Sparrow card production A/B/O : Export file for external card production
EMV Template	n	2	C	C	Card Production Method Description, required if this is a card-producing IMD, and IMD-level card production method has been enabled and Card Production Method is set to Thales P3.
Card_Version_Number	n	1	C	C	Version Number of the cards, required if this is a card-producing IMD (Retired in Sparrow 82+)
Maximum_PIN_Tries	n	1	C	C	Indicates maximum number of retries for incorrect PIN, required if this is a card-producing IMD
Track_3_Format_Code	ns	2	C	C	Track 3 format code to use, required if this is a card-producing IMD (Retired in Sparrow 82+)

CR2

Track_2_Service_Code	ns	3	C	C	Service Code, required if this is a card-producing IMD, 101 : International, including ATMs 102 : International, excluding ATMs 120 : International, verify every transaction 121 : International, verify every transaction, including ATMs 126 : International, verify every transaction, prompt for PIN 2xx : As above for EMV chip cards 501 : Local usage only, including ATMs 502 : Local usage only, excluding ATMs 520 : Local usage only, verify every transaction 521 - Local usage only, verify every transaction, including ATMs 6xx : As above for EMV chip cards 799 : On-us usage only
PIN_Algorithm_Used_on_Cards	ns	2	C	I	PIN algorithm ID, required if this is a card-producing IMD (Retired in Sparrow 82+)
Interchange_Code_on_Cards	n	1	C	C	Interchange code for use on cards, required if this is a card-producing IMD (Retired in Sparrow 82+)
Relay_Marker_Used_on_Cards	n	1	C	C	Relay marker for use on cards , required if this is a card-producing IMD (Retired in Sparrow 82+)
First_Sequence_Number	n	1	C	I	First sequence number of a card , required if this is a card-producing IMD
Expiry_Date_Offset	n	2	C	C	Required if this is a card-producing IMD. The offset in years 1-20, from the current date, that could be used to calculate the default card expiry date.
Allow_Perpetual_PIN	a	1	C	C	Required if this is a card-producing IMD. Y: Perpetual PIN can be allowed for reissued cards if possible. N: Perpetual PIN is not allowed for reissued cards and a new PIN should be generated.
Cycle_length	n	2	C	C	Required if this is a card-producing IMD. The cycle length in days 1 - 81 or 83, that could be used as the default cycle length
Cycle_auth_amount	n	4	C	C	Required if this is a card-producing IMD. The default amount authorised per cycle.
Cycle_net_auth_amount	ns	10	C	C	Required if this is a card-producing IMD. The default network amount authorised per cycle.
Cycle_pos_auth_amount	ns	10	C	C	Required if this is a card-producing IMD. The default EFTPOS amount authorised per cycle.
Currency_Exponent	n	1	C	C	Exponent to be applied on limits, required if this is a card-producing IMD. (Retired in Sparrow 82+)
Card_Limit_Warning_Level	ns	4	C	C	Limit level at which warnings will be generated, required if this is a card-producing IMD
Customer_Card_Group	ns	3	C	C	Customer group (code) for reference when producing or importing cards of this IMD.
Customer_Card_Group_Desc	ans		C	I	Customer group description
International_Issuer_Limits	a	1	C	C	Required if this is a card-producing IMD, and International Limits has been licensed, Y : International Issuer Limits enabled N : International Issuer Limits disabled
IIL_Default_Cycle_Length	ns	2	C	C	Required if this is a card-producing IMD, and International Limits has been licensed and enabled. Indicates the cycle length for refreshing the international limits, 1 to 79 days 80 : 7 days 81 : 14 days 83 : monthly 99 : one time limit
IIL_Default_Auth_Amount	ns	6	C	C	Required if this is a card-producing IMD, and International Limits has been licensed and enabled. Indicates the default international limit value.
Reward_Programme_Code	ns	3	C	C	Required if this is a card-producing IMD, indicates the reward programme (id) the IMD will be participating.
Reward_Programme	ans		C	I	Required if this is a card-producing IMD, indicates the reward programme the IMD will be participating.
Restrict_Domestic_Magstripe	a	1	C	C	Required if this is a card-producing IMD, and the per-card Service Restriction has been enabled, Y : Domestic Magstripe card services restricted N : Domestic Magstripe card services not restricted
Restrict_Interntl_Magstripe	a	1	C	I	Required if this is a card-producing IMD, and the per-card Service Restriction has been enabled, Y : International Magstripe card services restricted N : International Magstripe card services not restricted
Restrict_eCommerce	a	1	C	C	Required if this is a card-producing IMD, and the per-card Service Restriction has been enabled, Y : eCommerce card services restricted

					N : eCommerce card services not restricted
T2_CVV_Mode	n	1	C	C	Required if this is a card-producing IMD, and indicates CVV mode for magstripe Track 2 verification, 0 : Static CVV 1 : Dynamic CVV
T2_CVV_Mode_Desc	ans		C	I	Required if this is a card-producing IMD, and indicates description of CVV mode for magstripe Track 2 verification
EMV_CVV_Mode	n	1	C	C	Required if this is a card-producing IMD, and indicates CVV mode for verification of EMV Track 2 Equivalent Data, 0 : Static iCVV 1 : Dynamic iCVV 2 : Static CVV 3 : Dynamic CVV
EMV_CVV_Mode_Desc	ans		C	I	Required if this is a card-producing IMD, and indicates description of CVV mode for verification of EMV Track 2 Equivalent Data
CVV2_Mode	n	1	C	C	Required if this is a card-producing IMD, and indicates CVV2 mode for "True Cardholder" verification, 0 : Static CVV2 1 : Dynamic CVV2
CVV2_Mode_Desc	ans		C	I	Required if this is a card-producing IMD, and indicates description of CVV2 mode for "True Cardholder" verification
PIN_Management	n	1	C	C	Required if this is a card-producing IMD, and indicates PIN Management Mode verification, 0 : PIN Block 1 : Static PVV 2 : Dynamic PVV
PIN_Management_Desc	ans		C	I	Required if this is a card-producing IMD, and indicates description of PIN Management Mode verification
Cash_Withdrawal_Service	a	1	M	M	Y : Cash Withdrawal service enabled N : Cash Withdrawal service disabled
Cash_2_Withdrawal_Service	a	1	M	M	Y : Cash 2 Withdrawal service enabled N : Cash 2 Withdrawal service disabled
Reserved_Future_use Travellers Cheques Retired 82.01	a	1	M	M	Y : Service enabled N : Service disabled
Balance_Enquiry_Service	a	1	M	M	Y : Balance Enquiry service enabled N : Balance Enquiry service disabled
Book_Request_Service	a	1	M	M	Y : Book Request service enabled N : Book Request service disabled
Statement_Request_Service	a	1	M	M	Y : Statement Request service enabled N : Statement Request service disabled
Transfer_Service	a	1	M	M	Y : Funds Transfer service enabled N : Funds Transfer service disabled O : (Other) Funds Transfer service enabled
Deposit_Service	a	1	M	M	Y : Deposit service enabled N : Deposit service disabled O : (Other) Deposit service enabled B : Deposit service enabled only for BNA
Bill_Payment_Service	a	1	M	M	Y : Bill Payment service enabled N : Bill Payment service disabled
Full_Statement_Service	a	1	M	M	Y : Full Statement service enabled N : Full Statement service disabled
Mini_Statement_Service	a	1	M	M	Y : Mini Statement service enabled N : Mini Statement service disabled
Draft_Request_Service	a	1	M	M	Y : Draft Request service enabled N : Draft Request service disabled
Notice_of_Withdrawal_Service	a	1	M	M	Y : Notice of Withdrawal service enabled N : Notice of Withdrawal service disabled
PIN_Change_Service	a	1	M	M	Indicates allowed PIN Change service, A : Never B : Any time and Forced first time use C : Any time and Forced first time use (COLD reset) D : Any time
Chip_Cash_Service	a	1	C	C	Required if EMV has been enabled in the system, Y : Chip Cash service enabled N : Chip Cash service disabled
Chip_Bal_Enquiry_Service	a	1	C	C	Required if EMV has been enabled in the system, Y : Chip Balance Enquiry service enabled N : Chip Balance Enquiry service disabled
Chip_Cash2_Withdrawal_Service	a	1	C	C	Required if EMV has been enabled in the system, Y : Chip Cash 2 Withdrawal service enabled N : Chip Cash 2 Withdrawal service disabled
Chip_PIN_Change_Service	a	1	C	C	Required if EMV has been enabled in the system, Y : Chip PIN Change service enabled

CR2

Field name	Format	Max	Export	Import	Description
				N	N : Chip PIN Change service disabled
Allow_Fallback	a	1	C	C	Required if EMV has been enabled in the system, Y : EMV cards in EMV terminals are allowed to fallback to magstripe processing N : EMV cards in EMV terminals are not allowed to fallback to magstripe processing
ATM_Branding_Set_Code	ns	2	C	C	ATM Branding (associated code) set for this IMD
ATM_Branding_Set_Desc	ans		C	I	ATM Branding (name or description) for this IMD
ATM_Campaign_Code	ns	2	C	C	ATM Campaign (associated code) set for this IMD
ATM_Campaign_Desc	ans		C	I	ATM Campaign (name or description) for this IMD
Welcome_Message_1	ans	16	M	O	Welcome message for top of the ATM screen
Welcome_Message_2	ans	16	M	O	Welcome message for bottom of the ATM screen

4.2   SparrowHUB

4.2.1   Subscriber Maintenance Data Extract

Function:	061	Subscriber Maintenance Data Export

Field name	Format	Max	Export	Import	Description
Index	n		M	N	Record index
Subscriber_Identifier	an	8	M	N	Subscriber Identifier
Subscriber_Name	ans	30	M	N	Subscriber Name
Subscriber_Type_Code	ns	2	M	N	Subscriber Type Identifier
Subscriber_Type_Desc	ans	15	M	N	Subscriber Type Description
Current_Reconcile_Period	ns	4	M	N	Current Reconciliation Period
Currently_Supervisor_Held	a	1	M	N	Y : Subscriber is allowed to be routed transactions N : Subscriber is not allowed transactions
Currently_Kernel_Held	a	1	M	N	Y : Subscriber is disabled, on hold by the HUB Kernel N : Subscriber is enabled, not held by the HUB Kernel
Desired_Startup_State	n	1	M	N	Desired status at start-up, 0 : Login or Logout not supported by Subscriber 1 : Active (Login request automatically generated) 2 : Inactive (Subscriber only activated by operator login)
Security_Zone_Identifier	ns	2	M	N	Security Zone Identifier
High_Water_Mark	ns	3	M	N	Indicates number of outstanding messages waiting for the Subscriber before the HUB Kernel decides the subscriber is in difficulty.
Settlement_Group	a	2	M	N	Indicates which group the Subscriber belongs to in terms of reconciliation or settlement.

4.2.2   Interface Maintenance Data Extract

Function:	062	Interface Maintenance Data Export

Field name	Format	Max	Export	Import	Description
Index	n		M	N	Record index
Interface_Identifier	an	8	M	N	Interface Identifier
Interface_Type	ans	15	M	N	Interface Description
Currently_Kernel_Held	a	1	M	N	Y : Interface is disabled, on hold by the HUB Kernel N : Interface is enabled, not held by the HUB Kernel
Currently_Supervisor_Held	a	1	M	N	Y : Interface is allowed to be routed transactions N : Interface is not allowed transactions

CR2

Comment	s	59	M	N	Informative comments

4.2.3   Routing Maintenance Data Extract

Function:	063	Routing Maintenance Data Export

Field name	Format	Max	Export	Import	Description
Index	n		M	N	Record index
Subscriber_Identifier	an	8	M	N	Subscriber Identifier
Institution_IMD_Low	ns	6	M	N	Starting range for the IMD
Institution_IMD_High	ns	6	M	N	Ending range for the IMD
Country_Code_Low	ns	3	M	N	Starting range for the Country
Country_Code_High	ns	3	M	N	Ending range for the Country
Branch_Code_Low	ns	4	M	N	Starting range for the Branch
Branch_Code_High	ns	4	M	N	Ending range for the Branch
Mailbox_Low	c	1	M	N	Starting range for the Mailbox
Mailbox_High	c	1	M	N	Ending range for the Mailbox

4.2.4   Mapping Maintenance Data Extract

Function:	064	Mapping Maintenance Data Export

Field name	Format	Max	Export	Import	Description
Index	n		M	N	Record index
Subscriber_Identifier	an	8	M	N	Subscriber Identifier
Interface_Identifier	an	8	M	N	Interface Identifier

4.3 External Network Interfaces

4.3.1 Terminal Data Maintenance Data Extract

Function:	097	Terminal Data Maintenance Data Export or *Import
		Import of existing records not supported in automation mode

Field name	Format	Max	Export	Import	Description
Index	n		M	M	Record index
IMD_Code	an	11	M	M	IMD Code of the terminal owner
Terminal_ID	ans	16	M	M	Unique terminal identifier
Terminal_Name_Location	ans	25	M	O	Terminal name and/or location
Terminal_City	ans	13	M	O	Name of the city where terminal is situated
Terminal_Zip_Code	ans	5	M	O	Zip code of terminal location
Terminal_State_Code	ans	3	M	O	State code of terminal location
Terminal_Country_ISO_A2	a	2	M	O	2 char ISO alpha country code of the terminal location
Terminal_Country_ISO_A3	a	3	M	O	3 char ISO alpha country code of the terminal location
Chip_Reader	a	1	M	M	Y : ATM terminal has a chip reader N : ATM terminal doesn't have a chip reader

4.3.2 IMD-BIN Mapping Maintenance Data Extract

Function:	098	IMD-BIN Mapping Maintenance Data Import*
		Export of records not supported

Field name	Format	Max	Export	Import	Description
Index	n		N	N	Record index
IMD_Code	an	11	N	M	IMD Code of the acquiring Sparrow
BIN	an	11	N	M	BIN Code for the acquring Sparrow
Group	ans	1	N	O	Group code
Group Description	ans	25	N	O	Description of the BIN group
BIN Name	ans	25	N	O	Name of the BIN
Bank Name	ans	25	N	O	Name of the Bank

4.4 SparrowPOS

4.4.1 Terminal Maintenance Data Extract

Function:	100/101	Terminal Maintenance Data Export or Import (*)
		Import of existing records not supported in automation mode

Field name	Format	Max	Export	Import	Description
Index	n		M	M	Record index
Int_term_ID	n	4	M	M	Internal Terminal ID
Terminal_ID	an	9	M	M	Unique POS Terminal identifier
Merchant_ID	n	16	M	M	Merchant ID
Terminal_Type	n	2	M	M	40 – MDC Format 60 – ISO8583
Terminal_Capability	a	1	M	M	E- EMV Capable C – EMV + Contactless X – Contactless Only M – Magstripe Only A – Acquirer Default *(may be amended)*
Currency	n	3	M	I	
Telephone_No	n	15	M	O	*(may be amended)*
Product_Type (Deprecated from V82.03+)	n	4	M	O	*(may be amended)*
Validation	a	1	M	M	P – PiN Verification S – Signature only I – Use Issuer validation method *(may be amended)*
Sale_Service	a	1	M	M	Y – Yes N- No A – Use Acquirer setting G – Use Merchant Group setting M – Use Merchant setting
SaleCash_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Refund_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Balance_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Preauth_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Tip_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Payment_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Void_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Transfer_Service	a	1	M	O	Y/N/A/G/M (depends on CSPEC) *(may be amended)*
Deposit_Service	a	1	M	O	Y/N/A/G/M (depends on CSPEC) *(may be amended)*
Pin_Change_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
MTU_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Sponser	n	4	M	M	*(may be amended)*
Comment	ans	40	M	O	*(may be amended)*
Total_Credits	n	4	M	I	Number of Credits Since Update
Total_Debits	n	4	M	I	Number of Debits Since Update
Credits_Value	ns	14	M	I	Total Value of Credits Since Update
Debits_Value	ns	14	M	I	Total Value of Debits Since Update
DynKek_alloc	a	1	M	M	Y/N *(may be amended)*
Pinpad_id	n	16	M	I	
Kek_zone	n	5	M	O	If dynamic KEK allocation = N, is required. *(may be amended)*
Dyn_sess_key	a	1	M	M	Y/N *(may be amended)*
Enc_scheme	an	1	M	M	0/1/H *(may be amended)*
Current_STAN	n	6	M	I	
Batch_Salecnt	n	4	M	I	

Batch_Saletot	ns	16	M	I	
Current_Batch	n	4	M	I	
Batch_Cashcnt	n	4	M	I	
Batch_Cashtot	ns	16	M	I	
Software_rel	n	4	M	I	
Refund_Cashcnt	n	4	M	I	
Refund_Cashtot	ns	16	M	I	
LastSettle_STAN	n	6	M	I	
LastSettle_RNN	n	12	M	I	
Settle_Bday	n	4	M	I	
Key_Timechange	an	36	M	I	
Transactions_Keychange	n	4	M	I	
Keyschanged_LstSettlmnt	a	1	M	I	Y/N

4.4.2   Merchant Maintenance Data Extract

Function:	107/108	Merchant Maintenance Data Export or Import (*)
		Import of existing records not supported in automation mode

Field name	Format	Max	Export	Import	Description
Index	n		M	M	Record index
Merchant_ID	n	16	M	M	Merchant ID
Merchant_Name	an	25	M	O	Merchant Name
Merchant_Address_1	an	20	M	O	Merchant Address Line 1 *(may be amended)*
Merchant_Address_2	an	20	M	O	Merchant Address Line 2 *(may be amended)*
Merchant_Address_3	an	20	M	O	Merchant Address Line 3 *(may be amended)*
Merchant_City	an	20	M	O	Merchant City *(may be amended)*
Manager_Name	ans	20	M	O	Manager responsible for POS *(may be amended)*
Telephone_No	n	20	M	O	Merchant telephone number *(may be amended)*
Merchant_Account_IMD	n	6	M	M	IMD of Account Holder *(may be amended)*
Merchant_Account_No	n	13	M	M	Account Number of Account Holder *(may be amended)*
Comment	ans	40	M	O	General Comment *(may be amended)*
Card_Group	n	3	M	M	Card Group *(may be amended)*
Merchant_Type	n	4	M	M	Merchant Type *(may be amended)*
Merchant_Group	n	3	M	O	Merchant Group. "000" or existing group *(may be amended)*
Fee_Group	n	3	M	O	Fee group *(may be amended)*
Merchant_Status	n	2	M	O	Merchant status 00-99 *(may be amended)*
Hours_of_Business_Open_1	n	4	M	O	Hours of Business: Opening Time #1 (HHMM) *(may be amended)*
Hours_of_Business_Close_1	n	4	M	O	Hours of Business: Closing Time #1 (HHMM) *(may be amended)*
Hours_of_Business_Open_2	n	4	M	O	Hours of Business: Opening Time #2 (HHMM) *(may be amended)*
Hours_of_Business_Close_2	n	4	M	O	Hours of Business: Closing Time #2 (HHMM) *(may be amended)*
Sale_Service	a	1	M	M	Y – Yes N- No A – Use Acquirer setting G – Use Merchant Group setting M – Use Merchant setting *(may be amended)*
SaleCash_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Refund_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Balance_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Preauth_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Tip_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Payment_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Void_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Transfer_Service	a	1	M	O	Y/N/A/G/M (depends on CSPEC) *(may be amended)*
Deposit_Service	a	1	M	O	Y/N/A/G/M (depends on CSPEC) *(may be amended)*
Pin_Change_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
MTU_Service	a	1	M	M	Y/N/A/G/M *(may be amended)*
Sale_Service_Enabled	a	1	M	M	E – Enabled D – Disabled *(may be amended)*
SaleCash_Enabled	a	1	M	M	E/D *(may be amended)*
Refund_Enabled	a	1	M	M	E/D *(may be amended)*
Balance_Enabled	a	1	M	M	E/D *(may be amended)*
Preauth_Enabled	a	1	M	M	E/D *(may be amended)*
Tip_Enabled	a	1	M	M	E/D *(may be amended)*
Payment_Enabled	a	1	M	M	E/D *(may be amended)*
Void_Enabled	a	1	M	M	E/D *(may be amended)*
Transfer_Enabled	a	1	M	O	E/D (depends on CSPEC) *(may be amended)*

Deposit_Enabled	a	1	M	O	E/D (depends on CSPEC) *(may be amended)*
Pin_Change_Enabled	a	1	M	M	E/D *(may be amended)*
MTU_Enabled	a	1	M	M	E/D *(may be amended)*
Total_Credits	n	4	M	I	Number of Credits Since Update
Total_Debits	n	4	M	I	Number of Debits Since Update
Fee_Value	n	8	M	I	Total Fee Accrued Since Update
Max_Debit	n	8	M	I	Max Debit Allowed Per Transaction
Max_Credit	n	8	M	I	Max Credit Allowed Per Transaction
Agent_Code	an	5	M	O	JCB Field
Area_Code_1	an	2	M	O	JCB Field
Area_Code_2	an	2	M	O	JCB Field
Merchant_Class	an	1	M	O	JCB Field. Valid values '0' or '1'
Merchant_Currency	n	3	M	O	*(may be amended)*
JCB_Merchant_Flag	a	1	M	O	JCB field. 'Y' or 'N'
Transaction_Category	an	1	M	O	Merchant Transaction Category Code. Value A - Automobile/Vehicle Rental C - Manual Cash Disbursement F - Restaurant H - Hotel/Motel O - Hospitalization, College P - Payment R - All Other Merchants T - All Other Non-Face-to-Face Transactions U - Unique Transaction Quasi-Cash Disbursement X - Airline/Railroad 1 - In place of a valid TCC requests that the Authorization Platform to perform the TCC assignment *(may be amended)*
Debits_Value	ns	14	M	I	Total Value of Debits Since Last Update. Units of minimum currency.
Credits_Value	ns	14	M	I	Total Value of Credits Since Last Update. Units of minimum currency.
Merchant_Country_Code	a	2	M	M	Merchant Country Code – 2 character alphabetic. *(may be amended)*
MVV_Support	an	10	M	O	Visa Merchant Verification Value (MVV) for the merchant. MVV's must not contain spaces, and are made of the characters 0-9 and A-F
Merchant_Post_Code	an	10	M	O	Merchant Post Code *(may be amended)*
Acquirer_Index	n	2	M	M	Index number as noted in the SparrowPOS Acquirer maintenance. Default value is "00"
Account_Opened	n	8	M	O	Merchant opening date - Format YYYYMMDD

05 Sample Data Extracts

5.1　　Sparrow

Sample Network Maintenance Data Extract [dbx_spa_atm.json]

```json
{
  "Sparrow_NetworkMaintenance": [
    {
      "Index": 1,
      "ID": "0055",
      "Name": "SELFSERV RKLDCC",
      "Name Lang 2": "SELFSERV RKLDCC",
      "IMD": "600998",
      "Branch": "00",
      "Protocol": 1,
      "Protocol Config": "SERVER 10.1.4.110 SERVICE 8586 KEEPALIVE 120",
      "Poll Code": null,
      "Port Number": "0155",
      "BNA_Device": "N",
      "BNA_FX_Device": null,
      "Anonymous BNA": "N",
      "ATM Group": "00",
      "ATM Fee Group": "02",
      "Model ID": "26",
      "Model_Desc": "NCR                    ",
      "Model Last Notified": "18/01/16 20:55.46",
      "Application ID": "06",
      "Application Desc": "BW ATM Client (Not SSL-Capable) : BankWorld ATM Client 5.0.0.20            ",
      "EMV Capable": "N",
      "COPAC_Capable": "N",
      "CEPS_Capable": "N",
      "Chip IFD Serial": null,
      "Dynamic KEK": "Y",
      "KEK Zone": null,
      "Load KEK Zone": "0055",
      "KEK_Length": "S",
      "Automated_Load_KEK": "Y",
      "Load KEK Check Value": "5F4EAC",
      "Load KEK Last Update": "20:55:45 18/01/16",
      "KEK Check Value": "570CBE",
      "KEK_Last_Update": "20:55:45 18/01/16",
      "AWK_Check_Value": "DF6AAD",
      "AWK_Last_Update": "20:55:45 18/01/16",
      "IWK Check Value": "26F04B",
      "IWK Last Update": "20:55:45 18/01/16",
      "MAC Check Value": "090F99",
      "MAC_Last_Update": "20:55:45 18/01/16",
      "SMS_Alerts_Enabled": null,
      "SMS_Alert_Lost_Comms": null,
      "SMS Alert Got Comms": null,
      "SMS Alert SSL Fallback": null,
      "SMS_Alert_ATM_Opens": null,
      "SMS_Alert_ATM_Closes": null,
      "SMS_Alert_ATM_Suspends": null,
      "SMS Alert Supervisor": null,
      "SMS Alert Diagnostic": null,
      "SMS Alert Device Stat": null,
      "SMS_Alert_Media_Stat": null,
      "SMS_Express_Op_1_ID": null,
      "SMS_Express_Op_2_ID": null,
      "SMS Express Op 3 ID": null,
      "SSL Serial Cert": null,
      "SSL CA Serial Cert": null
    },
    {
      "Index": 2,
```

```
        "ID": "1006",
        "Name": "SELFSERV-DUBLIN",
        "Name_Lang_2": "SELFSERV-DUBLIN",
        "IMD": "600998",
        "Branch": "18",
        "Protocol": 1,
        "Protocol Config": "SERVER 10.1.4.125 SERVICE 9217 KEEPALIVE 120",
        "Poll_Code": null,
        "Port Number": "0106",
        "BNA Device": "N",
        "BNA FX Device": null,
        "Anonymous BNA": "N",
        "ATM_Group": "02",
        "ATM_Fee_Group": "02",
        "Model ID": "26",
        "Model Desc": "NCR                    ",
        "Model Last Notified": "06/10/14 21:09.25",
        "Application ID": "08",
        "Application_Desc": "EMV BW ATM Client (Not SSL-Capable) : BankWorld ATM Client 4.1.22.0            ",
        "EMV_Capable": "Y",
        "COPAC Capable": "N",
        "CEPS Capable": "N",
        "Chip IFD Serial": "00000000",
        "Dynamic_KEK": "N",
        "KEK_Zone": "0000",
        "Load_KEK_Zone": null,
        "KEK Length": "S",
        "Automated Load KEK": null,
        "Load KEK Check Value": null,
        "Load_KEK_Last_Update": null,
        "KEK_Check_Value": null,
        "KEK Last Update": null,
        "AWK Check Value": "77800C",
        "AWK Last Update": "",
        "IWK_Check_Value": "77800C",
        "IWK_Last_Update": "",
        "MAC_Check_Value": "77800C",
        "MAC Last Update": "",
        "SMS Alerts Enabled": null,
        "SMS Alert Lost Comms": null,
        "SMS_Alert_Got_Comms": null,
        "SMS_Alert_SSL_Fallback": null,
        "SMS_Alert_ATM_Opens": null,
        "SMS Alert ATM Closes": null,
        "SMS Alert ATM Suspends": null,
        "SMS Alert Supervisor": null,
        "SMS_Alert_Diagnostic": null,
        "SMS_Alert_Device_Stat": null,
        "SMS_Alert_Media_Stat": null,
        "SMS Express Op 1 ID": null,
        "SMS Express Op 2 ID": null,
        "SMS Express Op 3 ID": null,
        "SSL_Serial_Cert": null,
        "SSL_CA_Serial_Cert": null
      }
    ]
}
```

Sample Service Maintenance Data Extract [dbx_spa_svc.json]

```
{
  "Sparrow ServiceMaintenance": [
    {
      "Index": 1,
      "ATM_ID": "0055",
      "Service_Open": "Y",
      "Service_Offline_Enable": "N",
      "PIN Change": "N",
      "Balance Enquiry": "Y",
      "Balance Enquiry Receipt": "Y",
      "Fund_Transfer": "N",
      "Fund_Transfer_Receipt": "N",
```

```
            "Statement": "N",
            "Statement_Receipt": "N",
            "Ministatement": "N",
            "Deposit": "N",
            "Deposit Receipt": "N",
            "Bill Payment": "N",
            "Bill Payment Receipt": "N",
            "Book_Request": "N",
            "Book Request Receipt": "N",
            "Cash Withdrawal": "Y",
            "Cash Withdrawal Receipt": "Y",
            "Travel Cheque": "N",
            "Travel_Cheque_Receipt": "N",
            "Draft": "N",
            "Draft Receipt": "N",
            "Full Statement": "N",
            "Notice of Wdr": "N",
            "Notice of Wdr Receipt": "N",
            "Currency_2_Wdr": "Y",
            "Currency_2_Wdr_Receipt": "N",
            "Extended Billers": "N",
            "Extended Billers Receipt": "N",
            "Barcode Bill Pay": null,
            "Barcode_Bill_Pay_Receipt": null,
            "Foreign_Exchange": null,
            "Std_Biller_1_Name": "ELECTRICITY",
            "Std Biller 1 Payment": "N",
            "Std Biller 1 Deposit Rqd": "N",
            "Std Biller 2 Name": null,
            "Std_Biller_2_Payment": null,
            "Std_Biller_2_Deposit_Rqd": null,
            "Std Biller 3 Name": null,
            "Std Biller 3 Payment": null,
            "Std Biller 3 Deposit Rqd": null,
            "Std_Biller_4_Name": null,
            "Std_Biller_4_Payment": null,
            "Std_Biller_4_Deposit_Rqd": null,
            "Std Biller 5 Name": null,
            "Std Biller 5 Payment": null,
            "Std Biller 5 Deposit Rqd": null,
            "Std_Biller_6_Name": null,
            "Std_Biller_6_Payment": null,
            "Std_Biller_6_Deposit_Rqd": null,
            "Std Biller 7 Name": null,
            "Std Biller 7 Payment": null,
            "Std Biller 7 Deposit Rqd": null,
            "Std_Biller_8_Name": "MOBILE TOPUP",
            "Std_Biller_8_Payment": "N",
            "Std_Biller_8_Deposit_Rqd": "N",
            "Chip Fast Cash": "Y",
            "Chip Bal Enq": "Y",
            "Chip Cash": "Y",
            "Purse_Load_Txfr": "N",
            "Purse_Ministmt": "N",
            "Chip_PIN_Change": "N"
        },
        {
            "Index": 2,
            "ATM_ID": "1006",
            "Service_Open": "Y",
            "Service Offline Enable": "N",
            "PIN Change": "Y",
            "Balance Enquiry": "Y",
            "Balance_Enquiry_Receipt": "Y",
            "Fund Transfer": "Y",
            "Fund Transfer Receipt": "Y",
            "Statement": "Y",
            "Statement Receipt": "Y",
            "Ministatement": "Y",
            "Deposit": "Y",
            "Deposit Receipt": "Y",
            "Bill Payment": "Y",
            "Bill Payment Receipt": "Y",
            "Book Request": "Y",
            "Book Request Receipt": "Y",
            "Cash_Withdrawal": "Y",
            "Cash Withdrawal Receipt": "Y",
            "Travel Cheque": "N",
            "Travel Cheque Receipt": "N",
            "Draft": "N",
            "Draft_Receipt": "N",
```

```json
        "Full Statement": "N",
        "Notice_of_Wdr": "N",
        "Notice_of_Wdr_Receipt": "N",
        "Currency 2 Wdr": "Y",
        "Currency 2 Wdr Receipt": "Y",
        "Extended Billers": "N",
        "Extended Billers Receipt": "N",
        "Barcode_Bill_Pay": null,
        "Barcode Bill Pay Receipt": null,
        "Foreign Exchange": null,
        "Std Biller 1 Name": "ELECTRICITY",
        "Std Biller 1 Payment": "B",
        "Std_Biller_1_Deposit_Rqd": "E",
        "Std_Biller_2_Name": null,
        "Std Biller 2 Payment": null,
        "Std Biller 2 Deposit Rqd": null,
        "Std Biller 3 Name": null,
        "Std Biller 3 Payment": null,
        "Std_Biller_3_Deposit_Rqd": null,
        "Std_Biller_4_Name": null,
        "Std Biller 4 Payment": null,
        "Std Biller 4 Deposit Rqd": null,
        "Std Biller 5 Name": null,
        "Std_Biller_5_Payment": null,
        "Std_Biller_5_Deposit_Rqd": null,
        "Std_Biller_6_Name": null,
        "Std Biller 6 Payment": null,
        "Std Biller 6 Deposit Rqd": null,
        "Std Biller 7 Name": null,
        "Std_Biller_7_Payment": null,
        "Std_Biller_7_Deposit_Rqd": null,
        "Std Biller 8 Name": "MOBILE TOPUP",
        "Std Biller 8 Payment": "A",
        "Std Biller 8 Deposit Rqd": "N",
        "Chip_Fast_Cash": "Y",
        "Chip_Bal_Enq": "Y",
        "Chip_Cash": "Y",
        "Purse Load Txfr": "N",
        "Purse Ministmt": "N",
        "Chip PIN Change": "Y"
    }
  ]
}
```

Sample IMD Table Maintenance Data Extract [dbx_spa_imd.json]

```json
{
  "Sparrow IMDTableMaintenance": [
    {
      "Index": 1,
      "IMD Class": "00",
      "Usage Code": 0,
      "Usage_Description": "Generic",
      "IMD_Code": "600998",
      "Name": "Fiji Bank",
      "Country Code": "242",
      "Currency Code": "242",
      "Local Mailbox": "S",
      "Check_Local_Branch": "N",
      "Post_Transaction_to_Host": "Y",
      "Sparrow_Balances": "S",
      "Remote Mailbox": "S",
      "Settlement Group": "A",
      "Account Number Length": "13",
      "Account_Number_Format": "999999999999",
      "Use_Luhn_Checkdigit": "N",
      "Card_Serial_Number_Length": "09",
      "Branch Code Position": "S",
      "Branch Code Length": "02",
      "Branch Code Offset": "00",
      "Initial_Card_Status": "C",
      "Length_of_PIN": "04",
```

```json
        "PIN Block Format": "03",
        "Translate_PIN_block": "N",
        "Default_Type_of_Account": "0",
        "Choose Language": "N",
        "Choose Account": "Y",
        "Download to ATM": "Y",
        "Transaction Limit": null,
        "Card_Validation": "N",
        "Offline Service": "N",
        "Card Type Produced": "1",
        "Tracks Encoded": "123",
        "Automatic Card Numbering": "Y",
        "Host_Required_for_Production": "C",
        "Card_Production_Method": "09",
        "Card Prod Method Desc": "Write to Disk",
        "Card Production Use Disk": "Y",
        "Card Version Number": "0",
        "Maximum PIN Tries": "3",
        "Track_3_Format_Code": "00",
        "Track_2_Service_Code": "501",
        "PIN Algorithm Used on Cards": "00",
        "Interchange Code on Cards": "0",
        "Relay Marker Used on Cards": "0",
        "First_Sequence_Number": "0",
        "Currency_Exponent": 0,
        "Card_Limit_Warning_Level": "1000",
        "Customer Card Group": "000",
        "Customer Card Group Desc": "All Cards",
        "International Issuer Limits": "Y",
        "IIL_Default_Cycle_Length": "83",
        "IIL_Default_Auth_Amount": "002000",
        "Reward Programme Code": null,
        "Reward Programme": null,
        "Restrict Domestic Magstripe": null,
        "Restrict_Interntl_Magstripe": null,
        "T2_CVV_Mode": 1,
        "T2_CVV_Mode_Desc": "Dynamic CVV",
        "EMV CVV Mode": 3,
        "EMV CVV Mode Desc": "Dynamic CVV",
        "CVV2 Mode": 1,
        "CVV2_Mode_Desc": "Dynamic CVV2",
        "PIN_Management": 1,
        "PIN_Management_Desc": "Static PVV",
        "Cash Withdrawal Service": "Y",
        "Cash 2 Withdrawal Service": "Y",
        "Travellers Cheques Service": "N",
        "Balance_Enquiry_Service": "Y",
        "Book_Request_Service": "Y",
        "Statement_Request_Service": "Y",
        "Transfer Service": "Y",
        "Deposit Service": "Y",
        "Bill Payment Service": "Y",
        "Full_Statement_Service": "N",
        "Mini_Statement_Service": "Y",
        "Draft_Request_Service": "N",
        "Notice of Withdrawal Service": "N",
        "PIN Change Service": "D",
        "Chip_Cash_Service": "N",
        "Chip_Bal_Enquiry_Service": "N",
        "Chip_Cash2_Withdrawal_Service": "N",
        "Chip PIN Change Service": "N",
        "Allow Fallback": "N",
        "ATM Branding Set Code": "00",
        "ATM_Branding_Set_Desc": "Default",
        "ATM Campaign Code": "00",
        "ATM Campaign Desc": "None",
        "Welcome Message 1": "  WELCOME TO   ",
        "Welcome Message 2": "ALL DAY NETWORK"
    },
    {
        "Index": 2,
        "IMD Class": "00",
        "Usage Code": 1,
        "Usage Description": "Anonymous",
        "IMD Code": "989898",
        "Name": "BNA Anonymous Issuer",
        "Country Code": "242",
        "Currency Code": "242",
        "Local Mailbox": "S",
        "Check_Local_Branch": "N",
        "Post_Transaction_to_Host": "Y",
```

```json
        "Sparrow Balances": "S",
        "Remote_Mailbox": "S",
        "Settlement_Group": "S",
        "Account Number Length": "13",
        "Account Number Format": "9999999999999",
        "Use Luhn Checkdigit": "N",
        "Card Serial Number Length": "13",
        "Branch_Code_Position": "U",
        "Branch Code Length": "02",
        "Branch Code Offset": "00",
        "Initial Card Status": "C",
        "Length of PIN": "12",
        "PIN_Block_Format": "01",
        "Translate_PIN_block": "N",
        "Default Type of Account": "0",
        "Choose Language": "Y",
        "Choose Account": "N",
        "Download to ATM": "N",
        "Transaction_Limit": null,
        "Card_Validation": "N",
        "Offline Service": null,
        "Card Type Produced": "0",
        "Tracks Encoded": "12",
        "Automatic_Card_Numbering": null,
        "Host_Required_for_Production": null,
        "Card_Production_Method": null,
        "Card Prod Method Desc": null,
        "Card Production Use Disk": null,
        "Card Version Number": null,
        "Maximum_PIN_Tries": null,
        "Track_3_Format_Code": null,
        "Track 2 Service Code": null,
        "PIN Algorithm Used on Cards": null,
        "Interchange Code on Cards": null,
        "Relay_Marker_Used_on_Cards": null,
        "First_Sequence_Number": null,
        "Currency_Exponent": null,
        "Card Limit Warning Level": null,
        "Customer Card Group": "000",
        "Customer Card Group Desc": "All Cards",
        "International_Issuer_Limits": null,
        "IIL_Default_Cycle_Length": null,
        "IIL_Default_Auth_Amount": null,
        "Reward Programme Code": null,
        "Reward Programme": null,
        "Restrict Domestic Magstripe": null,
        "Restrict_Interntl_Magstripe": null,
        "T2_CVV_Mode": null,
        "T2_CVV_Mode_Desc": null,
        "EMV CVV Mode": null,
        "EMV CVV Mode Desc": null,
        "CVV2 Mode": null,
        "CVV2_Mode_Desc": null,
        "PIN_Management": null,
        "PIN_Management_Desc": null,
        "Cash Withdrawal Service": "N",
        "Cash 2 Withdrawal Service": "N",
        "Travellers_Cheques_Service": "N",
        "Balance_Enquiry_Service": "N",
        "Book_Request_Service": "N",
        "Statement Request Service": "N",
        "Transfer Service": "N",
        "Deposit Service": "Y",
        "Bill_Payment_Service": "N",
        "Full Statement Service": "N",
        "Mini Statement Service": "N",
        "Draft Request Service": "N",
        "Notice of Withdrawal Service": "N",
        "PIN Change Service": "A",
        "Chip_Cash_Service": "N",
        "Chip Bal Enquiry Service": "N",
        "Chip Cash2 Withdrawal Service": "N",
        "Chip PIN Change Service": "N",
        "Allow Fallback": "N",
        "ATM Branding Set Code": "00",
        "ATM_Branding_Set_Desc": "Default",
        "ATM Campaign Code": "00",
        "ATM Campaign Desc": "None",
        "Welcome Message 1": "",
        "Welcome_Message_2": ""
    },
```

```
{
    "Index": 3,
    "IMD_Class": "00",
    "Usage Code": 0,
    "Usage Description": "Generic",
    "IMD Code": "??????",
    "Name": "Wildcard Lookup",
    "Country_Code": "242",
    "Currency Code": "242",
    "Local Mailbox": "N",
    "Check Local Branch": "N",
    "Post Transaction to Host": "N",
    "Sparrow_Balances": "N",
    "Remote_Mailbox": "N",
    "Settlement Group": "A",
    "Account Number Length": "10",
    "Account Number Format": "9999999999",
    "Use Luhn Checkdigit": "N",
    "Card_Serial_Number_Length": "10",
    "Branch_Code_Position": "N",
    "Branch Code Length": "02",
    "Branch Code Offset": "00",
    "Initial Card Status": "C",
    "Length_of_PIN": "12",
    "PIN_Block_Format": "01",
    "Translate_PIN_block": "N",
    "Default Type of Account": "0",
    "Choose Language": "N",
    "Choose Account": "N",
    "Download_to_ATM": "Y",
    "Transaction_Limit": null,
    "Card Validation": "N",
    "Offline Service": "N",
    "Card Type Produced": "0",
    "Tracks_Encoded": "123",
    "Automatic_Card_Numbering": null,
    "Host_Required_for_Production": null,
    "Card Production Method": null,
    "Card Prod Method Desc": null,
    "Card Production Use Disk": null,
    "Card_Version_Number": null,
    "Maximum_PIN_Tries": null,
    "Track_3_Format_Code": null,
    "Track 2 Service Code": null,
    "PIN Algorithm Used on Cards": null,
    "Interchange Code on Cards": null,
    "Relay_Marker_Used_on_Cards": null,
    "First_Sequence_Number": null,
    "Currency_Exponent": null,
    "Card Limit Warning Level": null,
    "Customer Card Group": "000",
    "Customer Card Group Desc": "All Cards",
    "International_Issuer_Limits": null,
    "IIL_Default_Cycle_Length": null,
    "IIL_Default_Auth_Amount": null,
    "Reward Programme Code": null,
    "Reward Programme": null,
    "Restrict_Domestic_Magstripe": null,
    "Restrict_Interntl_Magstripe": null,
    "T2_CVV_Mode": null,
    "T2 CVV Mode Desc": null,
    "EMV CVV Mode": null,
    "EMV CVV Mode Desc": null,
    "CVV2_Mode": null,
    "CVV2 Mode Desc": null,
    "PIN Management": null,
    "PIN Management Desc": null,
    "Cash Withdrawal Service": "N",
    "Cash 2 Withdrawal Service": "N",
    "Travellers_Cheques_Service": "N",
    "Balance Enquiry Service": "N",
    "Book Request Service": "N",
    "Statement Request Service": "N",
    "Transfer Service": "N",
    "Deposit Service": "N",
    "Bill_Payment_Service": "N",
    "Full Statement Service": "N",
    "Mini Statement Service": "N",
    "Draft Request Service": "N",
    "Notice_of_Withdrawal_Service": "N",
    "PIN_Change_Service": "A",
```

```
        "Chip_Cash_Service": "N",
        "Chip_Bal_Enquiry_Service": "N",
        "Chip_Cash2_Withdrawal_Service": "N",
        "Chip_PIN_Change_Service": "N",
        "Allow Fallback": "N",
        "ATM Branding Set Code": "00",
        "ATM Branding Set Desc": "Default",
        "ATM_Campaign_Code": "00",
        "ATM Campaign Desc": "None",
        "Welcome Message 1": "UNKNOWN CARD",
        "Welcome Message 2": "    TYPE"
      }
   ]
}
```

5.2   SparrowHUB

Sample Subscriber Maintenance Data Extract [dbx_hub_sub.json]

```
{
  "SparrowHUB_SubscriberMaintenance": [
    {
      "Index": 1,
      "Subscriber Identifier": "FJIVR",
      "Subscriber Name": "FIJI IVR",
      "Subscriber Type Code": "02",
      "Subscriber_Type_Desc": "Sparrow",
      "Current_Reconcile_Period": "1155",
      "Currently Supervisor Held": "N",
      "Currently Kernel Held": "N",
      "Desired Startup State": 2,
      "Security Zone Identifier": "14",
      "High_Water_Mark": "025",
      "Settlement_Group": "IV"
    },
    {
      "Index": 2,
      "Subscriber_Identifier": "BCAST",
      "Subscriber_Name": "HUB Broadcast",
      "Subscriber Type Code": "04",
      "Subscriber Type Desc": "System",
      "Current Reconcile Period": "0000",
      "Currently Supervisor Held": "N",
      "Currently_Kernel_Held": "N",
      "Desired_Startup_State": 0,
      "Security Zone Identifier": "00",
      "High Water Mark": "000",
      "Settlement Group": "ZZ"
    },
    {
      "Index": 3,
      "Subscriber Identifier": "EMAIL",
      "Subscriber Name": "HUB E-Mail",
      "Subscriber Type Code": "04",
      "Subscriber Type Desc": "System",
      "Current_Reconcile_Period": "0000",
      "Currently_Supervisor_Held": "N",
      "Currently Kernel Held": "N",
      "Desired Startup State": 0,
      "Security Zone Identifier": "00",
      "High_Water_Mark": "000",
      "Settlement_Group": "ZZ"
    },
    {
      "Index": 4,
```

```json
    "Subscriber Identifier": "HOTFILE",
    "Subscriber_Name": "HUB HotCard File",
    "Subscriber_Type_Code": "04",
    "Subscriber Type Desc": "System",
    "Current Reconcile Period": "0000",
    "Currently Supervisor Held": "N",
    "Currently Kernel Held": "N",
    "Desired_Startup_State": 0,
    "Security Zone Identifier": "00",
    "High Water Mark": "000",
    "Settlement Group": "ZZ"
  },
  {
    "Index": 5,
    "Subscriber Identifier": "HUB",
    "Subscriber Name": "HUB General",
    "Subscriber Type Code": "04",
    "Subscriber Type Desc": "System",
    "Current_Reconcile_Period": "0000",
    "Currently_Supervisor_Held": "N",
    "Currently Kernel Held": "N",
    "Desired Startup State": 0,
    "Security Zone Identifier": "00",
    "High_Water_Mark": "000",
    "Settlement_Group": "ZZ"
  },
  {
    "Index": 6,
    "Subscriber Identifier": "LOGIN",
    "Subscriber_Name": "HUB Login control",
    "Subscriber_Type_Code": "04",
    "Subscriber Type Desc": "System",
    "Current Reconcile Period": "0001",
    "Currently Supervisor Held": "N",
    "Currently_Kernel_Held": "N",
    "Desired_Startup_State": 0,
    "Security_Zone_Identifier": "00",
    "High Water Mark": "025",
    "Settlement Group": "ZZ"
  },
  {
    "Index": 7,
    "Subscriber_Identifier": "MDS",
    "Subscriber Name": "Master Card Debit Switch",
    "Subscriber Type Code": "03",
    "Subscriber Type Desc": "ExtNetwork",
    "Current_Reconcile_Period": "1160",
    "Currently_Supervisor_Held": "N",
    "Currently_Kernel_Held": "Y",
    "Desired Startup State": 0,
    "Security Zone Identifier": "02",
    "High Water Mark": "025",
    "Settlement_Group": "MC"
  },
  {
    "Index": 8,
    "Subscriber Identifier": "PLUS",
    "Subscriber_Name": "Visa International",
    "Subscriber_Type_Code": "03",
    "Subscriber_Type_Desc": "ExtNetwork",
    "Current Reconcile Period": "1160",
    "Currently Supervisor Held": "N",
    "Currently Kernel Held": "Y",
    "Desired_Startup_State": 0,
    "Security Zone Identifier": "01",
    "High Water Mark": "025",
    "Settlement Group": "PL"
  },
  {
    "Index": 9,
    "Subscriber Identifier": "RECON",
    "Subscriber Name": "HUB Reconcile",
    "Subscriber Type Code": "04",
    "Subscriber Type Desc": "System",
    "Current Reconcile Period": "0000",
    "Currently_Supervisor_Held": "N",
    "Currently Kernel Held": "N",
    "Desired Startup State": 0,
    "Security Zone Identifier": "00",
    "High_Water_Mark": "000",
    "Settlement_Group": "ZZ"
```

```json
        },
        {
            "Index": 10,
            "Subscriber Identifier": "SMS",
            "Subscriber Name": "VISA SMS Switch",
            "Subscriber Type Code": "03",
            "Subscriber Type Desc": "ExtNetwork",
            "Current_Reconcile_Period": "1155",
            "Currently Supervisor Held": "N",
            "Currently Kernel Held": "Y",
            "Desired Startup State": 0,
            "Security Zone Identifier": "03",
            "High_Water_Mark": "025",
            "Settlement_Group": "SM"
        }
    ]
}
```

Sample Interface Maintenance Data Extract [dbx_hub_hi.json]

```json
{
    "SparrowHUB InterfaceMaintenance": [
        {
            "Index": 1,
            "Interface Identifier": "FJIVRIE",
            "Interface Type": "Comms",
            "Currently Kernel Held": "N",
            "Currently Supervisor Held": "N",
            "Comment": "Fiji with IVR system - configured 12/01/15"
        },
        {
            "Index": 2,
            "Interface Identifier": "BCASTER",
            "Interface Type": "Broadcast",
            "Currently_Kernel_Held": "Y",
            "Currently_Supervisor_Held": "N",
            "Comment": "System Broadcast Task, No External Comms."
        },
        {
            "Index": 3,
            "Interface_Identifier": "HOTFER1",
            "Interface Type": "HotCard",
            "Currently Kernel Held": "N",
            "Currently Supervisor Held": "N",
            "Comment": "System HotCard Task,   External To HotCardFile."
        },
        {
            "Index": 4,
            "Interface Identifier": "MBOXER",
            "Interface Type": "Mailbox",
            "Currently Kernel Held": "Y",
            "Currently_Supervisor_Held": "N",
            "Comment": "System MailBox Task,   External to Message File."
        },
        {
            "Index": 5,
            "Interface Identifier": "MDSIE",
            "Interface_Type": "ExtNetwork",
            "Currently_Kernel_Held": "N",
            "Currently Supervisor Held": "N",
            "Comment": null
        },
        {
            "Index": 6,
            "Interface Identifier": "PLUSIE",
            "Interface Type": "ExtNetwork",
            "Currently Kernel Held": "N",
            "Currently Supervisor Held": "N",
            "Comment": null
        },
        {
            "Index": 7,
            "Interface Identifier": "SMSIE",
            "Interface Type": "ExtNetwork",
            "Currently_Kernel_Held": "N",
```

```json
        "Currently Supervisor Held": "N",
        "Comment": null
      }
    ]
}
```

Sample Routing Maintenance Data Extract [dbx_hub_rte.json]

```json
{
  "SparrowHUB RoutingMaintenance": [
    {
      "Index": 1,
      "Subscriber_Identifier": "FJIVR",
      "Institution_IMD_Low": "601023",
      "Institution IMD High": "601023",
      "Country Code Low": "000",
      "Country Code High": "000",
      "Branch_Code_Low": "0000",
      "Branch_Code_High": "0000",
      "Mailbox Low": "-",
      "Mailbox High": "-"
    },
    {
      "Index": 2,
      "Subscriber Identifier": "HUB",
      "Institution IMD Low": "999999",
      "Institution IMD High": "999999",
      "Country Code Low": "999",
      "Country_Code_High": "999",
      "Branch Code Low": "9999",
      "Branch Code High": "9999",
      "Mailbox Low": "-",
      "Mailbox High": "-"
    },
    {
      "Index": 3,
      "Subscriber Identifier": "BCAST",
      "Institution IMD Low": "999999",
      "Institution IMD High": "999999",
      "Country Code Low": "999",
      "Country_Code_High": "999",
      "Branch Code Low": "9999",
      "Branch Code High": "9999",
      "Mailbox Low": "B",
      "Mailbox High": "B"
    },
    {
      "Index": 4,
      "Subscriber Identifier": "RECON",
      "Institution IMD Low": "999999",
      "Institution IMD High": "999999",
      "Country_Code_Low": "999",
      "Country Code High": "999",
      "Branch Code Low": "9999",
      "Branch Code High": "9999",
      "Mailbox Low": "M",
      "Mailbox_High": "M"
    },
    {
      "Index": 5,
      "Subscriber Identifier": "EMAIL",
      "Institution IMD Low": "999999",
      "Institution_IMD_High": "999999",
      "Country_Code_Low": "999",
      "Country Code High": "999",
      "Branch_Code_Low": "9999",
```

```
      "Branch Code High": "9999",
      "Mailbox_Low": "E",
      "Mailbox_High": "E"
    },
    {
      "Index": 6,
      "Subscriber Identifier": "HOTFILE",
      "Institution_IMD_Low": "999999",
      "Institution IMD High": "999999",
      "Country Code Low": "999",
      "Country Code High": "999",
      "Branch Code Low": "9999",
      "Branch_Code_High": "9999",
      "Mailbox_Low": "H",
      "Mailbox High": "H"
    },
    {
      "Index": 7,
      "Subscriber_Identifier": "LOGIN",
      "Institution_IMD_Low": "999999",
      "Institution IMD High": "999999",
      "Country Code Low": "999",
      "Country Code High": "999",
      "Branch_Code_Low": "9999",
      "Branch_Code_High": "9999",
      "Mailbox_Low": "L",
      "Mailbox High": "L"
    },
    {
      "Index": 8,
      "Subscriber_Identifier": "MDS",
      "Institution IMD Low": "000000",
      "Institution IMD High": "000000",
      "Country Code Low": "000",
      "Country_Code_High": "000",
      "Branch_Code_Low": "0000",
      "Branch_Code_High": "0000",
      "Mailbox Low": "M",
      "Mailbox High": "M"
    },
    {
      "Index": 9,
      "Subscriber_Identifier": "MDS",
      "Institution IMD Low": "504540",
      "Institution IMD High": "504540",
      "Country Code Low": "000",
      "Country_Code_High": "000",
      "Branch_Code_Low": "0000",
      "Branch_Code_High": "0000",
      "Mailbox Low": "M",
      "Mailbox High": "M"
    },
    {
      "Index": 10,
      "Subscriber_Identifier": "PLUS",
      "Institution IMD Low": "000000",
      "Institution IMD High": "000000",
      "Country_Code_Low": "000",
      "Country_Code_High": "000",
      "Branch_Code_Low": "0000",
      "Branch Code High": "0000",
      "Mailbox Low": "V",
      "Mailbox High": "V"
    },
    {
      "Index": 11,
      "Subscriber Identifier": "SMS",
      "Institution IMD Low": "000000",
      "Institution IMD High": "000000",
      "Country_Code_Low": "000",
      "Country Code High": "000",
      "Branch Code Low": "0000",
      "Branch Code High": "0000",
      "Mailbox Low": "Z",
      "Mailbox High": "Z"
    }
  ]
}
```

Sample Mapping Maintenance Data Extract [dbx_hub_map.json]

```
{
  "SparrowHUB MappingMaintenance": [
    {
      "Index": 1,
      "Subscriber Identifier": "HUB",
      "Interface_Identifier": "MBOXER"
    },
    {
      "Index": 2,
      "Subscriber Identifier": "RECON",
      "Interface_Identifier": "MBOXER"
    },
    {
      "Index": 3,
      "Subscriber Identifier": "EMAIL",
      "Interface Identifier": "MBOXER"
    },
    {
      "Index": 4,
      "Subscriber Identifier": "BCAST",
      "Interface Identifier": "BCASTER"
    },
    {
      "Index": 5,
      "Subscriber Identifier": "HOTFILE",
      "Interface Identifier": "HOTFER1"
    },
    {
      "Index": 6,
      "Subscriber_Identifier": "FJIVR",
      "Interface Identifier": "FJIVRIE"
    },
    {
      "Index": 7,
      "Subscriber_Identifier": "LOGIN",
      "Interface Identifier": "MBOXER"
    },
    {
      "Index": 8,
      "Subscriber_Identifier": "MDS",
      "Interface_Identifier": "MDSIE"
    },
    {
      "Index": 9,
      "Subscriber_Identifier": "PLUS",
      "Interface_Identifier": "PLUSIE"
    },
    {
      "Index": 10,
      "Subscriber Identifier": "SMS",
      "Interface_Identifier": "SMSIE"
    }
  ]
}
```

CR2

5.3 External Network Interfaces

Sample Terminal Data Maintenance Extract for MasterCard Network [dbx_mds_trm.json]

```json
{
  "MasterCardNetwork_TerminalDataMaintenance": [
    {
      "Index": 1,
      "IMD Code": "600998",
      "Terminal ID": "1001",
      "Terminal_Name_Location": "MAIN BRANCH ON WILLIAM",
      "Terminal_City": "SYDNEY",
      "Terminal_Zip_Code": "",
      "Terminal State Code": "NSW",
      "Terminal Country ISO A2": "AU",
      "Chip Reader": "N"
    },
    {
      "Index": 2,
      "IMD Code": "600998",
      "Terminal ID": "1004",
      "Terminal Name Location": "GOSNELL BRANCH",
      "Terminal_City": "SYDNEY",
      "Terminal_Zip_Code": "",
      "Terminal_State_Code": "NSW",
      "Terminal Country ISO A2": "AU",
      "Chip Reader": "N"
    }
  ]
}
```

Sample IMD-BIN Mapping Maintenance Import file for MasterCard Network [dbx_mds_bim.json]

```json
{
        "MasterCardNetwork _IMDBINMappingMaintenance":        [{
                    "imd":        "600998",
                    "bin":        "654321",
                    "group":      "M",
                    "groupdesc": "Mastercard Group",
                    "binname":    "Mastercard BIN",
                    "bankname":  "Sparrow Bank"
            }]
}
```

5.4   SparrowPOS

Sample Terminal Maintenance Extract [dbx_pos_ptd.json]

```json
{
  "SparrowPOS_POSTerminalMaintenance": [
    {
      "Index": 1,
      "Int term ID": "0001",
      "Terminal ID": "080000001",
      "Merchant_ID": "0000118000009700",
      "Terminal_Type": "60",
      "Terminal_Capability": "E",
      "Currency": "834",
      "Telephone No": "61893282828",
      "Validation": "S",
      "Sale_Service": "Y",
      "SaleCash_Service": "Y",
      "Cash_Service": "Y",
      "Refund Service": "Y",
      "Balance Service": "Y",
      "Preauth Service": "Y",
      "Tip_Service": "Y",
      "Payment_Service": "N",
      "Void_Service": "Y",
      "Transfer Service": null,
      "Deposit Service": "Y",
      "Pin_Change_Service": "Y",
      "MTU_Service": "N",
      "Sponser": "0001",
      "Comment": "Software Products",
      "Total Credits": 3,
      "Total Debits": 0,
      "Credits_Value": "314.00",
      "Debits Value": "0.00",
      "DynKek alloc": "N",
      "Pinpad id": "",
      "Kek zone": "00000",
      "Dyn sess key": "N",
      "Enc_scheme": "0",
      "Current STAN": "99649",
      "Batch Salecnt": 3,
      "Batch Saletot": "314.00",
      "Current Batch": 1,
      "Batch Cashcnt": 0,
      "Batch_Cashtot": "0.00",
      "Software rel": "",
      "Refund Cashcnt": 0,
      "Refund Cashtot": "0.00",
      "LastSettle STAN": 0,
      "LastSettle_RNN": "",
      "Settle Bday": "",
      "Key Timechange": 0,
      "Transactions Keychange": 9,
      "Keyschanged LstSettlmnt": "N"
    },
    {
      "Index": 2,
      "Int term ID": "0002",
      "Terminal ID": "900000003",
      "Merchant ID": "0000111003942500",
      "Terminal_Type": "60",
      "Terminal_Capability": "E",
      "Currency": "834",
      "Telephone No": "098775666",
      "Product type": "0004",
      "Validation": "P",
      "Sale_Service": "Y",
      "SaleCash_Service": "N",
      "Cash Service": "N",
      "Refund Service": "N",
      "Balance Service": "N",
      "Preauth Service": "N",
      "Tip_Service": "N",
      "Payment_Service": "N",
      "Void Service": "N",
      "Transfer Service": null,
      "Deposit_Service": "N",
      "Pin_Change_Service": "N",
```

```
        "MTU Service": "N",
        "Sponser": "0001",
        "Comment": "Special Merchant",
        "Total Credits": 0,
        "Total Debits": 0,
        "Credits Value": "0.00",
        "Debits Value": "0.00",
        "DynKek_alloc": "N",
        "Pinpad id": "",
        "Kek zone": "00002",
        "Dyn sess key": "Y",
        "Enc scheme": "0",
        "Current_STAN": "0",
        "Batch_Salecnt": 0,
        "Batch Saletot": "0.00",
        "Current Batch": 1,
        "Batch Cashcnt": 0,
        "Batch Cashtot": "0.00",
        "Software_rel": "",
        "Refund_Cashcnt": 0,
        "Refund Cashtot": "0.00",
        "LastSettle STAN": 0,
        "LastSettle RNN": "",
        "Settle_Bday": "",
        "Key_Timechange": 0,
        "Transactions_Keychange": 0,
        "Keyschanged LstSettlmnt": "N"
      }
  ]
}
```

Sample Merchant Maintenance Extract [dbx_pos_pme.json]

```
{
  "SparrowPOS_POSMerchantMaintenance": [
    {
      "Index": 1,
      "Merchant ID": "0000000000000001",
      "Merchant_Name": "TEST MERCHANT 1",
      "Merchant_Address_1": "7 Bird st",
      "Merchant Address 2": "Nestville",
      "Merchant Address 3": "",
      "Merchant City": "PERTH",
      "Manager Name": "Bob Thwaite",
      "Telephone_No": "08348754",
      "Merchant_Account_IMD": "412345",
      "Merchant Account No": "1000000000001",
      "Comment": "This is a comment",
      "Card Group": "002",
      "Merchant Type": "2741",
      "Merchant_Group": "000",
      "Fee_Group": "001",
      "Merchant Status": "31",
      "Hours of Business Open 1": "1100",
      "Hours of Business Close 1": "1200",
      "Hours of Business Open 2": "1300",
      "Hours_of_Business_Close_2": "1400",
      "Sale_Service": "A",
      "SaleCash Service": "A",
      "Cash Service": "A",
      "Refund Service": "N",
      "Balance Service": "A",
      "Preauth_Service": "A",
      "Tip Service": "A",
      "Payment Service": "N",
      "Void Service": "A",
      "Transfer Service": null,
      "Deposit_Service": null,
      "Pin_Change_Service": "A",
      "MTU Service": "A",
      "Sale Enabled": "E",
      "SaleCash Enabled": "E",
      "Cash Enabled": "E",
      "Refund_Enabled": "D",
```

```
    "Balance Enabled": "E",
    "Preauth_Enabled": "E",
    "Tip_Enabled": "E",
    "Payment Enabled": "E",
    "Void Enabled": "E",
    "Transfer Enabled": null,
    "Deposit Enabled": null,
    "Pin_Change_Enabled": "E",
    "MTU Enabled": "E",
    "Total Debits": 0,
    "Total Credits": 0,
    "Fee Value": 0.00,
    "Max_Debit_Per_Txn": 0,
    "Max_Credit_Per_Txn": 0,
    "Agent Code": "",
    "Area Code 1": "",
    "Area Code 2": "",
    "Merchant Class": "",
    "Currency": "840",
    "JCB_Merchant_Flag": "",
    "Transaction Category": "R",
    "Debits Value": 0,
    "Credits Value": 0,
    "Merchant_Country_Code": "AU",
    "MVV_Support": null,
    "Merchant_Post_Code": "6009"
    "Acquirer Index": "00",
    "Account Opened": null
},
```