xPOS
DCS PLCC with FiPay
Technical Specification

Version 1.2
Prepared By: Amy Byers
Revision Date: 6/1/2016

Table of Contents

1. Overview

1.1 Description

Best Buy PLCC cards can be used as financing cards or as Visa credit cards and complete real time authorizations. These authorizations are completed through FiPay processes and need specific changes to xPOS to handle the new authorization process.

2. User Impacts

User sees no new flow. xPOS flows the same as other Cards.

3. Use Case: DCS Tender Authorization

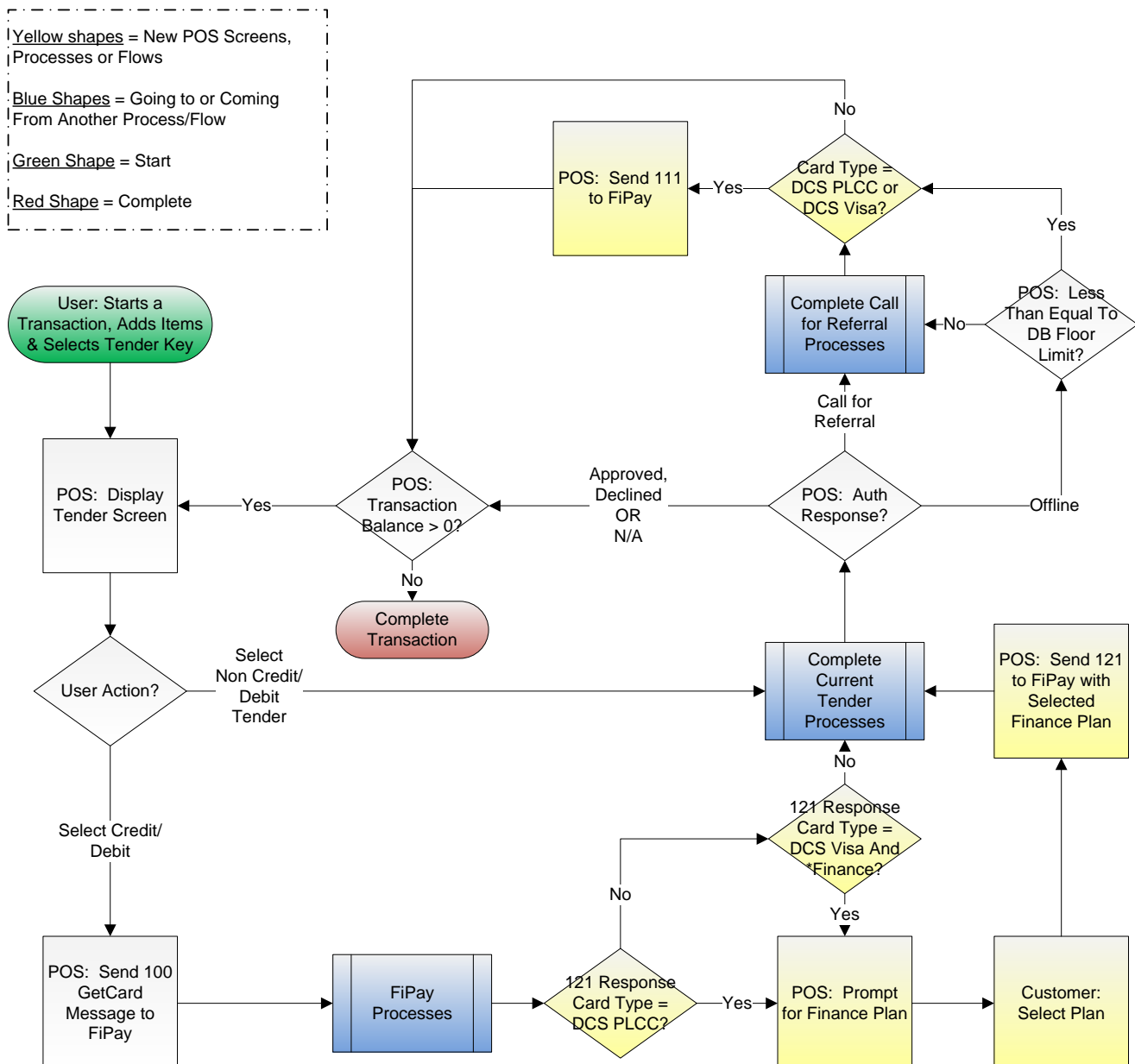## 3.1 Use Case Flow

Figure 1: DSC Tender Authorization Flow

3.2   Preconditions
- User signs into xPOS client
- User enters items.
- User selects Tender key.
- User Enters Credit Card (insert, swipe or manual entry)

3.3   Main Flow
1. System evaluates the Card Type of the 121 Response.
2. If Card Type is not DCS Visa or DCS PLCC, use case ends and system returns to Credit Use Case (BBYC_mPOS_Credit-Debit-EMV FDoc) to complete tender processing.
3. If the Card Type is DCS Visa and field 21 does not have *Finance (section 11.1), then use case ends and system returns to Credit Use Case (BBYC_mPOS_Credit-Debit-EMV FDoc) to complete tender processing.
4. If the Card Type is DCS PLCC or DCS Visa with field 21 containing *Finance (section 11.1), System executes Finance Credit Tender Use case (BBYC_mPOS_Finance Tender FDoc) and completes tender processing.
5. Use case ends.

4. Other Feature Impacts

4.1   Credit Debit Impacts
Added reference to this document for cancel from PinPad and for DCS tenders and added offline processes.

4.2   ESC to Item Entry from Tender after Tender Added
There are no changes when a DCS-PLCC or DCS Visa tender is added to the transaction and user selects to return to item entry. System continues to evaluate the reuse authorization flag for the tenders to determine if a change in tender amount can reuse the authorization code without voiding the tender. **NOTE**: Assumption is that reuse is not allowed for DCS cards.

4.3   Void Tender and Transaction Impacts
Voiding DCS tenders follow current processes to check the tender voidable and send cancellation message on void flags to send reversals on voiding of the tender. The void/reversal message is defined in section 11.1.6. If the 101 response is not 'approved', then ePOS sends a 111 (section 11.1.5) request to FiPay. System continues with the void regardless of the 111 response from FiPay. **NOTE**: A Void chit prints as current.

4.4   Return and Adjustment Impacts
R11_BBYCA_Phase 2 Return Tender Tech Spec is updated to define processes during a return transaction.

4.5   Reboot Impacts
If the register reboots after adding a DCS tender and before transaction completes, then System sends a reversal (section 11.1.6) when the register initiates. If this request does not receive a response, a 111 request (section 11.1.5) is sent to FiPay. System continues regardless of the 111 response.

5. Assumptions
1. DCS-PLCC and DCS-Visa tenders are configured to be voidable and to send cancellation messages on void.
2. The magnetic stripe format for DCS cards follows standard format used by other accepted credit cards.
3. DCS Tenders can be partial tenders.

6. Screen Layouts

6.1.1 Dialog Messages/Message Boxes

6.1.1.1 Financing Prompt Message

Description	When POS determines that a manually entered tender is a DCS-Visa card, message displays to determine if finance plans need to prompt.
Message	Apply Financing to Tender
Key prompt	• Yes continues to current finance plan prompting process. • No continues tendering as a Visa.
Notes	• 'No' key has focus • Text for message box, Yes key, No key is configurable

7. Printing

7.1   PLCC Receipt Changes

```
...
                      SUBTOTAL    199.99
                        GST CA     10.00

                        TOTAL    209.99

Transaction Record SALE
Xxxxxxxxxxxx9076 K BBY CARD      209.99
Approved 053555
TERM: 0960 001 C
SEQ NO: 134713995859
LPS NO:
12/13/2011 11:34:49
PLAN:  012
TERM:  00 MONTHS
GRACE: 06 MONTHS

Finance Plan Terms & Conditions
```

First 3 lines continue to print as current including rules and database locations.

- Terminal line contains configurable text with value from the 121 response.
- Sequence Number line contains configurable text with value from the 121 response.
- LPS Number line contains configurable text with value from the 121 response.
- Plan line contains configurable text and value.
- Term line contains configurable text and value.
- Grace line contains configurable text and value.

NOTE: If value text is not available for the tender, then line does not print.

Figure 2: PLCC Receipt Example

7.1.1 Field Definitions

Name	Description
Terminal Line	Text label to Print with the value in field 7 (IxTermID) in the response from AJB (section 11.1)
Sequence Number	Text label to Print with the value in field 47 (IxBatchNumber) in the response from AJB (section 11.1)
LPS Number	Text to label Print with the 3 digit value with first digit containing entry method (D=Swipe, C=Chip and T=keyed/manual entry), the second digit is '@' and the third digit is auth type (1=online, 5= referral).
Plan information	Text label to Print with configurable value.
Term information	Text label to Print with configurable value.
Grace Period Information	Text label to Print with configurable value.

7.2   VISA Receipt Changes

```
...
                          SUBTOTAL   199.99
                           GST CA     10.00
                                     _____

                             TOTAL   209.99

Transaction Record SALE
Xxxxxxxxxxxx9076 K VISA              209.99
Approved 053555
TERM: 0960 001 C
SEQ NO: 134713995859
LPS NO:
12/13/2011 11:34:49
ACI/ISO:  001 / 00
AID:  A000000000031010
APN:  VISA
```

First 3 lines continue to print as current including rules and database locations.

- Terminal line contains the text defined in section 7.1.1.
- Sequence Number line contains the text defined in section 7.1.1.
- LPS Number line contains the text defined in section 7.1.1.

NOTE: ACI/ISO does not print when approval is offline.

NOTE: If replacement text is not available for the tender, then line does not print.

7.3   Tender Void Receipt Changes

```
                Welcome to the POS
                 Corporate Office
                  (999) 999-9999
                 POS LAB TESTING


     ||||||||||| BAR CODE |||||||||||

Val # 1234-2432-2344-2542
0004  001  9620   09/29/2005    15:31   1234098


          SALE TENDER VOID


The following tenders were voided:


xxxxxxxxxxxx9876 K VISA              20.00
AID:  A000000000031010

BEST BUY
APPROVAL 08941A
ACI/ISO 001/00
SEQ 001001001001
```

NOTE: ACI/ISO does not print when approval is offline. Response line does not print when approval is offline

8. Back Office Reports

8.1   Store Accounting Total

The new DCS tenders are added to the Store Accounting Total Report as shown below in **blue**.

Best Buy
Store # 929
Run Date - 12/12/07 16:28
Page 1 of 1

STORE ACCOUNTING TOTALS
OPERATOR - 123456
12/12/14 - 12/12/14

PAYMENT METHODS	**AMOUNT**	**COUNT**
CDN Cash		
VISA		
MasterCard		
Amex		
Canadian Cheque		
Travelers Cheque		
Gift Card		
Store Credit		
Layaway Deposit		
US Dollar		
US Trav Cheque		
House Account		
Debit		
Coupon (Mfg)		
DCS Visa		
DCS PLCC		
RZCERT (FS Points in Future Shop Stores)		

TRANSACTION TYPES	**AMOUNT**	**COUNT**
SALE		
RETURN		
EXCHANGE		
PRICE MATCH		
PRICE CORRECTION		
MFG WARRANTY EXCHANGE		
PSP EXCHANGE		
LOST/DAMAGED EXCHANGE		
NO SALE		
VOID TRANSACTION		
EXCEPTION		
PRODUCT SERVICE UPGRADE		
CASH IN		
CASH OUT		
EMPLOYEE SALE		
EMPLOYEE RETURN		
EMPLOYEE EXCHANGE		
EMPLOYEE PRICE MATCH		
EMPLOYEE PRICE CORRECTION		
EMPLOYEE MFG WARRANTY EXCHANGE		
EMPLOYEE PSP EXCHANGE		
EMPLOYEE LOST/DAMAGED EXCHANGE		
PAYMENT ON ACCOUNT-CREDIT		
PAYMENT ON ACCOUNT-HOUSE ACCT		
ACCOUNT REFUND		
LAYAWAY DEPOSIT		
PRE-SELL		
GC ISSUE/RELOAD		
GC CASH OUT		

8.2   Detail Transaction Listing

DCS Tenders are added to the report criteria screen to create the Detail Transaction Listing report.

9. Configurable Settings

Parameter Mnemonic	Description	Valid Values
DCS PLCC Tender Code	DCS PLCC Tender code for logging	80
DCS Visa Tender Code	DCS Visa Tender code for logging	81
DCS PLCC Bin Range	DCS PLCC Bin Range for determining card type	453094
DCS Visa Bin Range	DCS Visa Bin Range for determining card type	453091
DCS Finance Plans	DCS Finance plans for determining plans for the tender type	These new plans are defined using current finance plan processes.
DCS Finance Plan Financing Type	DCS Finance Plan Financing Type sent in authorization message. Values configured by BBYCA and stored and associated with current finance plan information.	'D' – Deferred Payments, 'E' – Equal Payments
DCS Finance Plan Number	DCS Finance Plan number, different from current plan numbers, sent in authorization message. Values configured by BBYCA and stored and associated with current finance plan information.	3 Alphanumeric characters
DCS Finance Plan Grace Period	DCS Finance Plan grace period with deferred payment transaction sent in authorization message. Values configured by BBYCA and stored and associated with current finance plan information.	2 digit numeric value. Must be "00" for equal payments, refunds or preauthorization reversal
DCS Finance Plan Payment Term Months	DCS Finance Plan number of payments (in months) for transactions with equal payments sent in authorization message. Values configured by BBYCA and stored and associated with current finance plan information.	2 digit numeric value representing months. Must be "00" if a transaction with deferred payment, a refund or a preauthorization reversal.
Credit Plan	A flag on the finance plans to identify the finance plan as a credit plan for authorization	0/1 flag where 1 = process as credit. 0 or NULL processes as finance/AccordD

10.   Logging

10.1   Electronic Journal Logging Changes

The card type description from the database prints as the card type in the dirty Electronic Journal same as current processes. **NOTE**: When system converts EMV tender to swiped, tender is logged as swiped in Electronic Journal.

10.2   POSLog Changes

No POSLog Changes, the new tender codes log as current. **NOTE**: When system converts EMV tender to swiped, tender is logged as swiped in POSLog.

11. Interfaces

11.1 FiPay Interface

11.1.1 100 Credit Request from ePOS to FiPay (when account number handkeyed)

New Data in **blue**.

Name	Field No.	Description
IxTransactionType	1	"100"
IxCreditInterfaceIdentification	3	Set ttsssss where tt = right 2 digits of IxTerminalNumber (padded on left with 0 to be 2 digits) and ssss = 1 - 9999 value, right justified padded with 0
IxTimeOut	5	Timeout value in seconds
IxDebitCredit	6	"Credit"
IxStoreNumber	8	Store Number – "xxxx" maximum of 4 characters
IxTerminalNumber	9	Register Number – "xx" maximum of 2 characters
IxTranType	10	"Sale" or "Refund"
IxAccount	13	Card Account number
IxExpDate	14	Card Expiration Date
IxSwipe	15	Track 2 data without sentinels for swiped transactions
IxAmount	16	Amount with no decimal point
IxInvoice	17	Sequence Number "xxxxx" maximum of 5 characters (Use Transaction Sequence Number)
IxForceAuthCode	19	**If return transaction, use "999999"**
IxOptions	21	**if DCS PLCC add "*privatelabel3"**
IxOperator	24	Employee ID
IxIssueNumber	**25**	**8 alphanumeric character in format of FPPPGGTT where** • **F = Financing type ('D' – Deferred Payments, 'E' – Equal Payments) from FCODE2_VU.FTYPE database as defined in section 9.** • **PPP = Plan number (always right justified and filled with zeros on the left) from FCODE2_VU.EXT_PLAN_NO as defined in section 9.** • **GG = Grace period (grace period with derffered payment transactions. Must be "00" for equal payments, refunds or preauthorization reversal) from FCODE2_VU.GRACE_PD as defined in section 9.** • **TT = Term (number of payments (in months) for transactions with equal payments. Must be "00" if a transaction with deferred payment, a refund or a preauthorization reversal.) from FCODE2_VU.PYMT_TERM_MO as defined in section 9.**
IxAVSMailOrderAVSData	31	Security code in *CVV2_####
IxPosEchoField	34	POS Sequence number
IxDate	50	If not supplied, AJB will put the current date
IxTime	51	If not supplied, AJB will put the current time

11.1.2   121 Response From FiPay to ePOS

New Data in **blue**.

Name	Field No.	Description
IxTransactionType	1	"121"
IxCreditInterfaceIdentification	3	"PosValidate
IxTimeOut	5	Echo from 100 request
IxDebitCredit	6	Tender Type • Credit • Debit • GiftCard
IxStoreNumber	8	Store Number – "xxxx" maximum of 4 characters
IxTerminalNumber	9	Register Number – "xx" maximum of 2 characters
IxTranType	10	"Sale" or "Refund"
IxCardType	12	Tender Description • **DCS Visa** • **DCS PLCC**
IxAccount	13	Masked Account Number
IxExpDate	14	Expiration
IxSwipe	15	Track 2 data from the card that was swiped or inserted at the PIN pad.
IxAmount	16	Amount with no decimal point
IxInvoice	17	Sequence Number "xxxxx" maximum of 5 characters (Use Transaction Sequence Number)
IxTranLanguage	18	Transaction language to be used if not in track data
IxOptions	21	• *CEM_Insert - entry method EMV • *Contactless - entry method contactless • *CEM_Swiped - entry method swiped • *FALLBACK_EMV • *pos_validate_swipe • *GetCard • ***Finance**
IxOperator	24	Employee ID
IxPosEchoField	34	Echo from POS 100 message
IxLanguage	49	Language in which the response should come
IxDate	50	If not supplied, AJB will put the current date
IxTime	51	If not supplied, AJB will put the current time
IxProductInfo	56	• <signature>No</signature> - Signature is not required • <signature>Yes</signature> - Signature is required. • - (field is missing) – If field 21 (IxOptions) contains "FALLBACK_EMV" and field 6 (IxDebitCredit) = "Credit", then signature is required. • <4f> - value is the Application Identifier to be printed on receipt. • <9f12> - Value is the Application Preferred Name to be printed on receipt.

11.1.3   121 Request From ePOS to FiPay

New Data in **blue**.

Name	Field No.	Description
IxTransactionType	1	"121"
IxDebitInterfaceIdentification	2	• 0 - Validation Passed; continue processing • 1 - Validation Failed; stop processing.
IxCreditInterfaceIdentification	3	"PosValidate
IxActionCode	4	• 0 = Authorized / Approved / Successful • 1 = Declined
IxTimeOut	5	Echo from FiPay Response
IxDebitCredit	6	Echo from FiPay Response
IxStoreNumber	8	Store Number – "xxxx" maximum of 4 characters
IxTerminalNumber	9	Register Number – "xx" maximum of 2 characters
IxTranType	10	"Sale" or "Refund"
IxCardType	12	Echo from FiPay Response
IxAccount	13	Echo from FiPay Response
IxExpDate	14	Echo from FiPay Response
IxSwipe	15	Blank out what was received from response.
IxAmount	16	Amount with no decimal point
IxInvoice	17	Sequence Number "xxxxx" maximum of 5 characters (Use Transaction Sequence Number)
IxTranLanguage	18	Echo from FiPay Response
IxOptions	21	Echo from FiPay Response. **If a PLCC tender, then add "privatelabel3" NOTE: DCS PLCCs do have expiration dates, therefore the "NOEXPCHECK" used for other PLCCs is not added.**
IxOperator	24	Employee ID
IxIssueNumber	**25**	**8 alphanumeric character in format of FPPPGGTT where** • **F = Financing type ('D' – Deferred Payments, 'E' – Equal Payments) from FCODE2_VU.FTYPE database as defined in section 9.** • **PPP = Plan number (always right justified and filled with zeros on the left) from FCODE2_VU.EXT_PLAN_NO as defined in section 9.** • **GG = Grace period (grace period with derffered payment transactions. Must be "00" for equal payments, refunds or preauthorization reversal) from FCODE2_VU.GRACE_PD as defined in section 9.** • **TT = Term (number of payments (in months) for transactions with equal payments. Must be "00" if a transaction with deferred payment, a refund or a preauthorization reversal.) from FCODE2_VU.PYMT_TERM_MO as defined in section 9.**
IxMailOrderAVSData	31	Left blank for account lookup. Secure identification number (CID) and AVS information • *CVV2_#### - This option is used to pass the CID, CVV2 or HVN2 to the bank for verification and is required for a card not present transaction. • *AVS_zip_address - This option is used to pass the zip code and street address associated to the card for a card not present transaction that is not a telephone order. • *TO_zip_address- This option is used to pass the zip code and street address associated to the card for a card not present transaction that is not a telephone order. • Null **NOTE**: Field cannot contain spaces. They must be changed to hyphens.
IxPosEchoField	34	Echo from FiPay Response

Name	Field No.	Description
IxLanguage	49	Echo from FiPay Response
IxDate	50	If not supplied, AJB will put the current date
IxTime	51	If not supplied, AJB will put the current time

11.1.4   101 Response From FiPay to ePOS

New Data in **blue**.

Name	Field No.	Description
IxTransactionType	1	"101"
IxCreditInterfaceIdentification	3	Echo from 100 request
IxActionCode	4	• 0 = Authorized / Approved / Successful • 1 = Declined • 2 = Call Bank • 3 = Offline • X = error
IxDebitCredit	6	Echo from 100 request
IxTermID	7	DCS Terminal ID
IxStoreNumber	8	Echo from 100 request
IxTerminalNumber	9	Echo from 100 request
IxTranType	10	Echo from 100 request
IxCardType	12	Tender Description • **DCS-Visa** • **DCS-PLCC**
IxAccount	13	Masked Account Number
IxExpDate	14	Expiration
IxSwipe	15	Track 2 data from the card that was swiped or inserted at the PIN pad.
IxAmount	16	Amount authorized with no decimal point
IxInvoice	17	Echo from 100 request
IxTranLanguage	18	Transaction language to be used if not in track data
IxOrgAmount	20	Amount Requested
IxOptions	21	• *CEM_Insert - entry method EMV • *Contactless - entry method contactless • *CEM_Swiped - entry method swiped • *FALLBACK_EMV • *pos_validate_swipe • *GetCard • "privatelabel3
IxOperator	24	Echo from 100 request
IxMailOrderAVSData	31	Echo from 100 request
IxPosEchoField	34	Echo from 100 request
IxAuthCode	37	The authorization code if approved – 343434 if approved offline except for HSBC which will be 843434 if approved offline
IxReceiptDisplay	38	What to print on the receipt
*IxPS2000	44	• For Visanet - ISO 8583Fields 62 and 44. Contains VISA Payment Service Indicator, Transaction ID, Valid Code, Banknet Reference Number, Banknet Date, CVC Data and Response / Reason Code • For Discover – ISO 8583 Field 44. Contains AVS and / or CID response code(s) • For American Express – ISO 8583 Field 31. Contains Transaction Identifier from Amex
IxRefNumber	45	AJB Reserved field

Name	Field No.	Description
IxSeqNumber	46	Echo from 100 request
IxBatch	47	Batch and Sequence Numbers
IxPostingDate	48	Echo from 100 request
IxLanguage	49	Echo from 100 request
IxDate	50	Echo from 100 request
IxTime	51	Echo from 100 request
IxDepositData	52	The balance on the card (used by VISA 51 to return card balance)
IxIsoResp	53	The vendor response code
IxBankNodeID	54	The bank node Id that processed the transaction
IxDataDictionary	63	The response time from RTS
IxRTSApplication	64	The time at which RTS received the vendor response in format HHMMSSmm
IxPrnFile	82	The response description

11.1.5   111 Request From ePOS to FiPay

Name	Field No.	Description
IxTransactionType	1	"111"
IxCreditInterfaceIdentification	3	Set ttssss where tt = right 2 digits of IxTerminalNumber (padded on left with 0 to be 2 digits) and ssss = 1 - 9999 value, right justified padded with 0
IxTimeOut	5	Timeout value in seconds
IxDebitCredit	6	"Credit"
IxStoreNumber	8	Store Number – "xxxx" maximum of 4 characters
IxTerminalNumber	9	Register Number – "xx" maximum of 2 characters
IxTranType	10	"Sale" or "Refund"
IxAccount	13	Card Account number
IxExpDate	14	Card Expiration Date
IxSwipe	15	Track 2 data without sentinels for swiped transactions
IxAmount	16	Amount with no decimal point
IxInvoice	17	Sequence Number "xxxxx" maximum of 5 characters (Use Transaction Sequence Number)
IxOptions	21	**If DCS PLCC, add "*privatelabel3"** **All data from field 21 of the 101 link down response**
IxOperator	24	Employee ID
IxIssueNumber	**25**	**8 alphanumeric character in format of FPPPGGTT where** • **F = Financing type ('D' – Deferred Payments, 'E' – Equal Payments) from FCODE2_VU.FTYPE database as defined in section 9.** • **PPP = Plan number (always right justified and filled with zeros on the left) from FCODE2_VU.EXT_PLAN_NO as defined in section 9.** • **GG = Grace period (grace period with derffered payment transactions. Must be "00" for equal payments, refunds or preauthorization reversal) from FCODE2_VU.GRACE_PD as defined in section 9.** • **TT = Term (number of payments (in months) for transactions with equal payments. Must be "00" if a transaction with deferred payment, a refund or a preauthorization reversal.) from FCODE2_VU.PYMT_TERM_MO as defined in section 9.**
IxAVSMailOrderAVSData	31	Security code in *CVV2_####
IxPosEchoField	34	POS Sequence number
IxDate	50	If not supplied, AJB will put the current date

Name	Field No.	Description
IxTime	51	If not supplied, AJB will put the current time
IxSwipeFlag	56	**All data from field 56 of the 101 link down response**

11.1.6   100 Void Request from ePOS to FiPay

New Data in **blue**.

Name	Field No.	Description
IxTransactionType	1	"100"
IxCreditInterfaceIdentification	3	Set ttssss where tt = right 2 digits of IxTerminalNumber (padded on left with 0 to be 2 digits) and ssss = 1 - 9999 value, right justified padded with 0
IxTimeOut	5	Timeout value in seconds
IxDebitCredit	6	"Credit"
IxStoreNumber	8	Store Number – "xxxx" maximum of 4 characters
IxTerminalNumber	9	Register Number – "xx" maximum of 2 characters
IxTranType	10	The opposite of original. If Sale, send refund, If refund, send sale.
IxAccount	13	Card Account number
IxExpDate	14	Card Expiration Date
IxSwipe	15	Track 2 data without sentinels for swiped transactions
IxAmount	16	Amount with no decimal point
IxInvoice	17	Sequence Number "xxxxx" maximum of 5 characters (Use Transaction Sequence Number)
IxOptions	21	**"*privatelabel3"**
IxOperator	24	Employee ID
IxIssueNumber	**25**	**8 alphanumeric character in format of FPPPGGTT where** • **F = Financing type ('D' – Deferred Payments, 'E' – Equal Payments) from FCODE2_VU.FTYPE database as defined in section 9.** • **PPP = Plan number (always right justified and filled with zeros on the left) from FCODE2_VU.EXT_PLAN_NO as defined in section 9.** • **GG = Grace period (grace period with derffered payment transactions. Must be "00" for equal payments, refunds or preauthorization reversal) from FCODE2_VU.GRACE_PD as defined in section 9.** • **TT = Term (number of payments (in months) for transactions with equal payments. Must be "00" if a transaction with deferred payment, a refund or a preauthorization reversal.) from FCODE2_VU.PYMT_TERM_MO as defined in section 9.**
IxAVSMailOrderAVSData	31	Security code in *CVV2_####
IxPosEchoField	34	POS Sequence number
IxDate	50	If not supplied, AJB will put the current date
IxTime	51	If not supplied, AJB will put the current time

12.   Out Of Scope

• *This Specification covers the changes needed to implement the DCS PLCC Authorization Process.*
• *Payment on Account has not been implemented in xPOS at this time, so any DCS Payment on Account Processes will be covered in that document.*

13. Business Sign Off

Name	Organization	Approval Email and/or Date Received
Jesse Wielgen	Best Buy	

14. Technical Sign Off

Name	Organization	Approval Email and/or Date Received
Kevin Bahng	Best Buy	
Mark Houghton	Best Buy	

15. Technical Review

Name	Organization	Approval Email and/or Date Received
Jessyka McLean	Best Buy	
Andy Liang	Best Buy	

16. Technical Inform

Name	Organization	Approval Email and/or Date Received
Paul Leung	Storeworks/Stella Nova Technologies	
Vinodh Narayanan	Storeworks/Stella Nova Technologies	
Greg Irvine	Best Buy	

17. Revision History

17.1 Reviews

Date	Iteration	Result

17.2 Revision History

Reviser	Revision	Date	Version
Amy Byers	Initial document	4/25/16	1.0
Amy Byers	– Section 2: Removed user impacts as user should not see anything different. – Section 3: Removed manual key processes from POS. – Section 4.1: Added offline processes to Credit document – Section 4.2: Added section to define processes when ESC to item entry after adding a tender. – Section 4.3: Added Voided Tender and Transaction Impacts. – Section 4.4: Added Return/Adjustment Impacts – Section 4.5: Added Reboot Impacts – Section 12: Added Payment on Account as Out of Scope – Section 19: Added reference to return tender spec.	5/5/16	1.1
Amy Byers	– Section 18: Added section for requirements and mapped to sections/documents where appropriate.	6/2/2016	1.2

18. Appendix A: Source Documentation

- PLCC for XPOS Requirements Specification_v4.xlsx

18.1 Functional Requirements

Req ID	Description	• Section
FR1	XPOS shall be able to accept tendering of XPOS transactions using DCS Accord-D (Mastercard/Visa) and PLCC cards	• 3 Use Case: DCS Tender Authorization • BBYC_mPOS_Credit-Debit-EMV FDoc
1.01	xPOS shall support insert, swipe, and manual entry for DCS Accord-D EMV Card	• 3.2 Preconditions
1.02	xPOS shall support card swipe of PLCC, and manual entry of PLCC account number	• 3.2 Preconditions
1.03	In the case of manual card entry, sigPAD shall prompt for the following: 1. Card Number 2. Expiry Date 3. CVV (DCS Accord-D Card only as PLCC does not have CVV)	• Not a POS requirement.
1.03.1	Manager override shall be required for manually captured card number	• BBYC_mPOS_Credit-Debit-EMV FDoc
FR2	PLCC shall be treated separately from the DCS Accord-D card. The PLCC shall be treated as a Financing card, and DCS Accord-D card shall be treated as either a Credit or Financing card	• 3 Use Case: DCS Tender Authorization
FR3	For DCS Accord-D cards, the Pin Pad shall display a prompt to customers and allow the option to choose whether to use the card for 1) Financing, or 2) Regular Credit	• Not a POS requirement.
3.01	The text and label on buttons on the prompt shall be configurable	• Not a POS requirement.
3.02	The need to prompt for Financing or Regular Credit shall be determined and handled by FiPay EPS by checking BIN range	• Not a POS requirement.
3.03	Upon selecting the Financing option, the tender shall be processed as DCS Financing AccordD. Upon selecting the Credit option, the tender shall be processed as Regular Credit (i.e. Visa/Mastercard depending on the card)	• Not a POS requirement.
4.01	User shall continue to have the ability to partial tender, financing on multiple plans on same card within same transaction	• 5 Assumptions
4.02	User shall continue to have the ability to partial tender a transaction using both credit and financing, using same or different cards	• 5 Assumptions
4.03	User shall continue to have the ability to partial tender a transaction using multiple method of payments, and multiple cards	• 5 Assumptions
4.04	Employee purchases using PLCC and DCS Accord-D shall consider upcharge.	• BBYC_mPOS_Credit-Debit-EMV FDoc
4.04.1	Upon using DCS AccordD Regular credit for employee purchase, a 2% upcharge shall be incurred.	• Data Configuration
4.04.2	Upon using DCS AccordD Financing or PLCC for employee purchase, the upcharge rate shall be based on finance plan setup.	• Data Configuration
4.05	Finance options and admin fee offered for PLCC in XPOS shall be the same as ePOS. Similarly, financing options and adfmin fee offered for DCS AccordD (Visa and Mastercard) shall be the same as ePOS	• BBYC_mPOS_Finance Tender FDoc

Req ID	Description	• Section
5.01	The minimum and maximum limit shall be the same between ePOS and xPOS. The configuration of the lower and upper limit for each finance plan shall apply to both ePOS and xPOS [Note: Per ePOS, xPOS in scope of this project is expected to only enforce lower limit]	• BBYC_mPOS_Finance Tender FDoc
5.02	Upon financing for PLCC and DCS Accord-D, the system shall display a list of eligible finance plans along with the corresponding eligible amount and admin fee for selection	• BBYC_mPOS_Finance Tender FDoc
5.02.1	The eligible amount of the finance plans shall be calculated as the greater of: 1. Sum of items eligible for the finance plan, or 2. Minimum amount configured for the finance plan	• BBYC_mPOS_Finance Tender FDoc
5.02.2	If the sum of items eligible for the finance plan is less than the minimum amount configured for the finance plan, xPOS shall not display the finance plan on the finance plan selection list	• BBYC_mPOS_Finance Tender FDoc
5.03	Upon user selecting a finance plan and entering a finance amount that is less than the lower limit for the finance plan, xPOS shall display an error message stating the entered amount is less than the required minimum.	• BBYC_mPOS_Finance Tender FDoc
FR6	When a DCS Accord-D card is used for financing or when a PLCC card is used, authorization shall be against DCS, otherwise, authorization shall be as Credit to Global Payments	• Not a POS requirement
6.01	The system shall support real-time authorization of xPOS sales authorizations to Desjardins bank (for financing)	• Not a POS requirement
6.01.1	The authorization of xPOS sales to Desjardins bank shall be via FiPayEPS	• BBYC_mPOS_Credit-Debit-EMV FDoc
6.01.2	FiPay EPS response codes shall remain the same (0=approve; 1=decline; 2=referral)	• 11.1.4 101 Response From FiPay to ePOS
6.02	The system shall support manual authorization of xPOS sales authorization to Desjardins bank (for financing)	• Not a POS Requirement
6.02.1	Manual authorization shall be initiated by xPOS via FiPay EPS. FiPay EPS shall be responsible for handling Save and Send	• FiPay initiates manual entry
6.02.2	The system shall manage authorization requests and responses upon timeout reversal, for only the last processed transaction by terminal ID	• Not a POS Requirement
6.02.3	The system shall manage authorization requests and responses of call for referrals between BBYC and DCS	• Not a POS Requirement
6.02.3.1	In the case of call for referral, **XPOS** shall prompt for the Approval Number and Call For Referral Amount	• BBYC_mPOS_Finance Tender FDoc
6.02.3.2	Manager override shall be required for Call for Referral	• BBYC_mPOS_Finance Tender FDoc
6.02.4	The system shall manage authorization requests and responses of tender void between BBYC and DCS	• Not a POS Requirement
6.03	When offline to Desjardin, the xPOS shall apply floor limits and approve PLCC credit offline.	• BBYC_mPOS_Finance Tender FDoc
6.03.1	In the case floor limit is configured to be 0, xPOS shall not approve the credit offline, instead it shall prompt for call for referral	• BBYC_mPOS_Finance Tender FDoc

Req ID	Description	•	Section
6.04	Tender code for xPOS and ePOS shall be the same: - The STAR tender code to be used shall continue to be "B" for DCS Accord D Financing (Visa/Mastercard) & "L"- DCS-PLCC. - The unique tender code identifying PLCC for POS shall continue to be CD 80, and for DCS Accord D financing shall continue to be CD 81	•	Data Setup
7.01	The printed receipt shall include Best Buy's name, as applicable, and the address of the applicable Best Buy Store	•	7 Printing
7.02	The printed receipt shall include the Card number	•	7 Printing
7.02.1	Card number of electronically printed receipt shall be masked except for the last 4 digits	•	7 Printing
7.03	The printed receipt shall include the payment method name. For PLCC the name shall be DCS PLCC. For DCS Accord-D Mastercard and Visa, the name shall be DCS Accord-D.	•	7 Printing
7.04	The printed receipt shall include the authorization number	•	7 Printing
7.05	The printed receipt shall accurately reflect the LPS entry method: D=swipe, C=chip insert, or T=manual card entry	•	7 Printing
7.06	The printed receipt shall include the date and time of the transaction.	•	7 Printing
7.06.1	The transaction date and time shall be from the TAS server	•	7 Printing
7.07	The printed receipt shall include financing details for PLCC or DCS AccordD financing. This shall include the Plan, Term, Grace, and Description	•	7 Printing
7.08	The printed receipt shall include the Terms and Conditions for PLCC or DCS AccordD financing	•	7 Printing
7.09	The printed receipt shall include the entire amount due for the transaction (including any applicable Taxes);	•	7 Printing
8.01	For returns of xPOS transactions using financing, ePOs shall continue to check if the finance plan is still valid (via TLUP) - If the plan is valid, ePOS shall not prompt for the Finance Plan. - If the plan is no longer valid or does not exist, ePOS shall prompt for the finance plan for user to select.	•	Return Tender spec when complete
8.02	For Regular Return with receipt and DCS Accord-D Credit (no Financing) was the original tender, ePOS shall continue to prompt to select Financing/Credit. The refund shall be treated like a regular credit card.	•	Return Tender spec when complete
8.03	For all returns of xPOS sales on ePOS, ePOS shall continue to send 999999 as the original approval number	•	Return Tender spec when complete
8.04	Returns of xPOS sales on ePOS shall continue to be authorized via FiPay and RTS	•	Return Tender spec when complete
9.01	Store Accounting Totals backoffice reporting shall reflect payment method for PLCC and DCS AccordD on XPOS	•	Data Setup
9.02	Detail Transaction Listing backoffice reporting shall reflect payment method for PLCC and DCS AccordD on XPOS	•	Data Setup
10.01	Upon selecting payment on account, XPOS shall prompt for amount of payment	•	Payment on Account not implemented
10.02	XPOS shall accept partial tender for payment on account	•	Payment on Account not implemented
10.03	XPOS shall allow only Debit, Cash ,or CDN Cheque as tender for payment on account	•	Payment on Account not implemented

Req ID	Description	•	Section
10.04	XPOS shall send the account number in POS Log without authorizing through FiPay EPS	•	Payment on Account not implemented
10.05	The settlement file from CSPARC for in-store payment transactions collected through POS shall include XPOS Payment on Account transactions	•	Payment on Account not implemented
10.06	Payments on accounts shall include either a mod10 validation or an authorization when performed in the store.	•	Payment on Account not implemented
10.07	The printed receipt of PLCC and DCS Accord-D Card Sales transactions shall have the same labels, fields, and layout as ePOS receipt. This includes and is not limited to the following:	•	Payment on Account not implemented
10.07.1	Header including Store Name and Address	•	Payment on Account not implemented
10.07.2	Transaction Type: Payment on Account	•	Payment on Account not implemented
10.07.3	Masked PLCC Account Number	•	Payment on Account not implemented
10.07.4	Amount of payment	•	Payment on Account not implemented
10.07.5	Payment information including: a) Masked Card Number, b) Entry Method, c) Card Type, d) Terminal ID, e) Account selected, f) Sequence Number, g) Transaction status and ISO code, h) Transaction Date, i) payment amount	•	Payment on Account not implemented
10.07.6	If partial tender, payment information for all tenders shall be displayed	•	Payment on Account not implemented
10.07.7	4 part key	•	Payment on Account not implemented

19.   Appendix B: Referenced Documentation

- BBYC_mPOS_Credit-Debit-EMV FDoc_v1.6
- BBYC_mPOS_R8_Tender FDoc_v1.2
- BBYC_mPOS_Finance Tender FDoc_1.2
- R11_BBYCA_Phase 2 Return Tender Tech Spec v1.0

20.   Appendix C: Glossary

Term	Definition