



ePOS
**Maximum Eligible Amount to
Finance
Technical Specification**

Version 1.2
Prepared By: Amy Byers
Revision Date: 6/23/2016

Table of Contents

1. Overview	2
1.1 Description	2
2. User Impacts	2
3. Use Case: Finance	2
3.1 Use Case Flow	2
3.2 Preconditions.....	2
3.3 Main Flow	2
3.4 Alternate Flow.....	3
3.5 Special Cases/Notes	3
4. Screen Layouts.....	6
4.1 Finance Plan Screen.....	6
5. Printing	7
6. Database Settings	7
7. Logging	7
8. Interfaces.....	7
9. Out Of Scope.....	7
10. Business Sign Off.....	7
11. Technical Sign Off	7
12. Technical Review	7
13. Technical Inform	8
14. Revision History.....	8
14.1 Reviews	8
14.2 Revision History.....	8
15. Appendix A: Source Documentation	8
15.1 Functional Requirements	8

1. Overview

1.1 Description

Change the formula for defining the maximum eligible to finance to include a database maximum, adding admin fee to the maximum when applying the finance plan, remove restriction of tender type on finance plan eligibility.

2. User Impacts

Amounts on the finance plan choice screen may change, but no screen flow changes.

3. Use Case: Finance

3.1 Use Case Flow

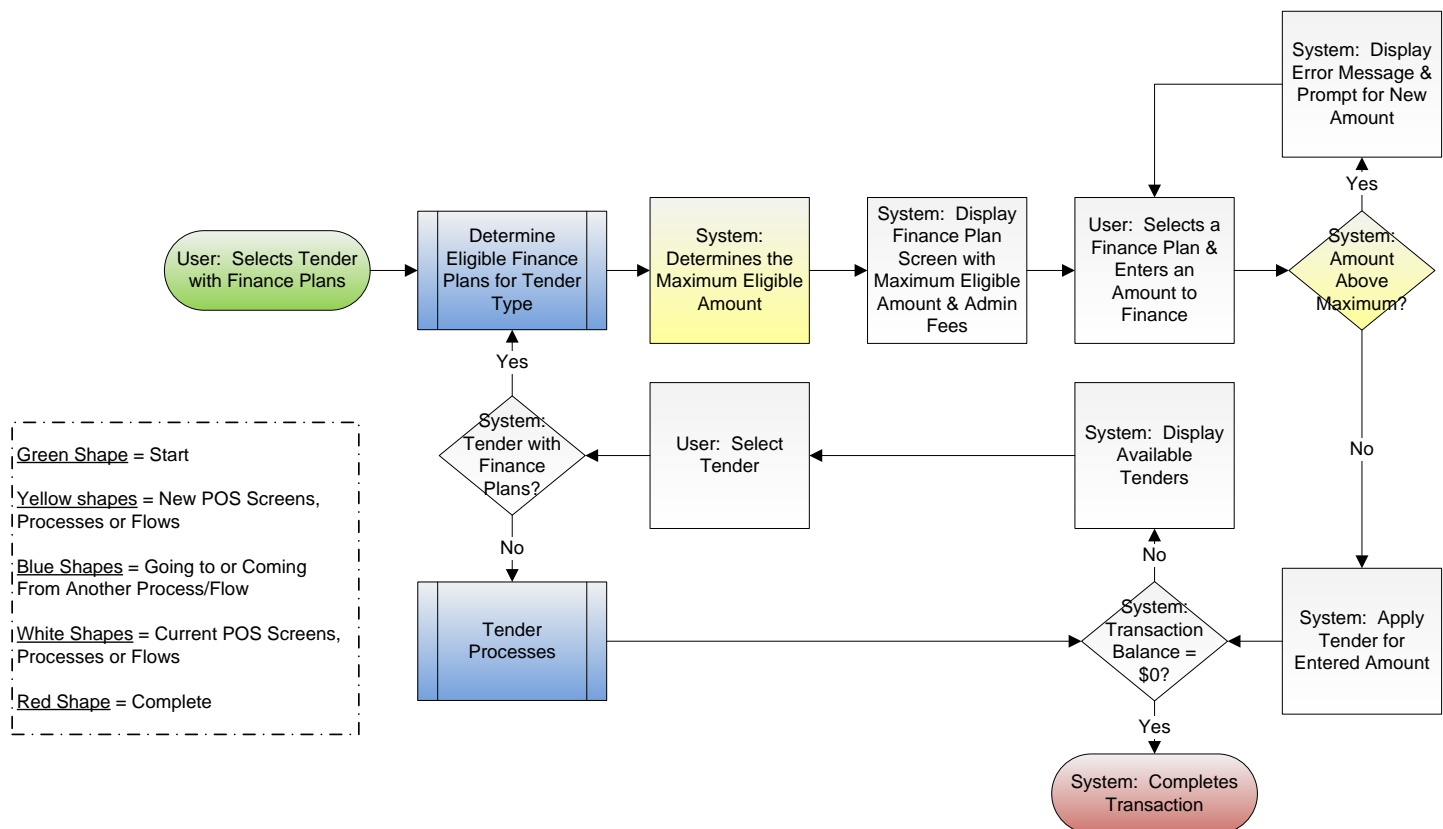


Figure 1: Finance Flow

3.2 Preconditions

- User selects a tender that requires a finance plan selection.

3.3 Main Flow

- System uses current process to determine finance plan for the tender type.
- System executes Maximum Eligible Finance Amount Calculation Alternate Flow (section 3.4.1).
- System displays Max Eligible Finance Amount and any admin fees as shown in section 4.1.
- User Selects a finance plan.
- System prompts for amount to finance with the Max Eligible Amount defaulted.
- If User changes the amount, system executes Maximum Entered Finance Amount Validation Alternate Flow (section 3.4.2).
- System applies the tender to the transaction.

8. If balance does not equal 0, System returns to tender screen and use case ends.
9. If balance equals 0, System completes transaction and use case ends.

3.4 Alternate Flow

3.4.1 Maximum Eligible Finance Amount Calculation Alternate Flow

1. System calculates Max Eligible Item Amount (Sum of the eligible items' extended price and prorated tax minus FinancedAmount applied to same external finance plan ID on the eligible items).
2. System calculates Transaction Total Eligible Amount (The transaction total minus admin fees with prorated taxes).
3. System calculates Database Total Eligible Amount (The max charge amount defined in database for the finance plan minus amount applied to same external finance plan ID transaction).
4. System evaluates Max Eligible Item Amount, Transaction Total Eligible Amount and Database Total Eligible Amount and uses the minimum amount as the Maximum Eligible Finance Amount.
5. System returns to calling use case.

3.4.2 Maximum Entered Finance Amount Validation Alternate Flow

1. System compares the entered amount with the Maximum Eligible Finance Amount determined in Maximum Eligible Finance Amount Calculation Alternate Flow (section 3.4.1) plus any financeable admin fees.
2. If the entered amount is greater, System displays error message and returns Main flow where System prompts for amount (bullet 5).
3. If the entered amount is less than or equal to, System returns to calling use case.

3.5 Special Cases/Notes

1. If the Maximum Eligible Finance Amount equals 0, system does not display the plan on the list.

3.5.1 Examples

Transaction:

TV	\$ 1000
DVD	\$ 300
Subtotal	\$ 1300
Tax	\$ 130
Total	\$ 1430

Finance Plan Setup:

	Eligible Tenders	Database Minimum Purchase Amount	Database Maximum Purchase Amount	Admin Fee
Finance Plan A	DCS Visa, PLCC	\$ 200	\$ 2000	\$ 60
Finance Plan B	DCS Visa, PLCC	\$ 900	\$ 1200	\$ 10

Assume both Admin Fees are taxable and financeable.

Before the first tender:

Calculate Maximum Financeable Amount:

	Max Eligible Item Amount	Transaction Total Eligible Amount	Database Total Eligible Amount	Plan Max (Minimum of 3)
Finance Plan A	$\$1000 + \$300 + \$130 = \1430	\$ 1430	\$ 2000	\$ 1430
Finance Plan B	$\$1000 + \$300 + \$130 = \1430	\$ 1430	\$ 1200	\$ 1200

And screen shows

	Maximum Amount	Admin Fee
Finance Plan A	\$ 1430	\$ 60
Finance Plan B	\$ 1200	\$ 10

3.5.1.1 Example 1

The operator swipes DCS Visa, selects Finance and Finance Plan A then enters \$100. \$100 is accepted as below Plan Max Eligible Amount and tender and Fee is added to the transaction

Transaction:

TV	\$ 1000
DVD	\$ 300
Admin Fee	\$ 60
Subtotal	\$ 1360
Tax	\$ 136
DCS Visa	\$ 166-
Total	\$ 1330

Then the Maximum is adjusted.

	Plan Max (Minimum of 3)
Finance Plan A	\$1430-\$100 = \$ 1330
Finance Plan B	\$ 1200

And if another finance card with same plans is swiped, the screen would show below. **NOTE:** Both Admin fees are \$0 because \$10 is less than \$60 and only one admin fee is added to the transaction.

	Maximum Amount	Admin Fee
Finance Plan A	\$ 1330	\$ 0
Finance Plan B	\$ 1200	\$ 0

The operator then swipes PLCC and selects Finance Plan B then enters \$1330. \$1330 is above Plan Max Eligible Amount and error message displays. Operator then enters 1200.

Transaction:

TV	\$ 1000
DVD	\$ 300
Admin Fee	\$ 60
Subtotal	\$ 1360
Tax	\$ 136
DCS Visa	\$ 166-
PLCC	\$ 1200
Total	\$ 130

Then the Maximum is adjusted again.

	Plan Max (Minimum of 3)
Finance Plan A	Transaction total < \$1330 \$ 130
Finance Plan B	\$1200-\$1200 \$ 0

And if another finance card with same plans is swiped, the screen would show below. If the Operator enters the remaining balance \$196, the amount is accepted (less than or equal to Max Eligible plus admin fees and taxes).

	Maximum Amount	Admin Fee
Finance Plan A	\$ 130	\$ 0

3.5.1.2 Example 2

The operator swipes DCS Visa, selects Finance and Finance Plan B then enters \$100. \$100 is accepted as below Plan Max Eligible Amount and tender and Fee is added to the transaction

Transaction:

TV	\$ 1000
DVD	\$ 300
Admin Fee	\$ 10
Subtotal	\$ 1310
Tax	\$ 131
DCS Visa	\$ 111-
Total	\$ 1330

Then the Maximum is adjusted again.

	Plan Max (Minimum of 3)
Finance Plan A	\$ 1330
Finance Plan B	\$1200-\$100= \$ 1100

And if another finance card with same plans is swiped, the screen would show

	Maximum Amount	Admin Fee
Finance Plan A	\$ 1385	\$ 60
Finance Plan B	\$ 1100	\$ 0

The operator swipes PLCC and selects Finance Plan A then enters \$1385. \$1385 is accepted as below Plan Max Eligible Amount plus admin fee and the tender amount plus new fee and new Fee is added to the transaction. **NOTE:** The Admin Fee amount is changed to \$60.

Transaction:

TV	\$ 1000
DVD	\$ 300
Admin Fee	\$ 60
Subtotal	\$ 1360
Tax	\$ 136
DCS Visa	\$ 111-
PLCC	\$ 1385-
Total	\$ 0

And the Admin Fee in the transaction would be \$10. If a Plan A tender is subsequently accepted, the

The operator can continue accepting individual Finance Plan tenders until the balance of the transaction is zero as long as the amount of the individual Finance Plan tender does not exceed the maximum allowable amount for that plan at that point in the transaction.

NOTE: In this example, if Plan A is selected after Plan B, the existing Admin Fee SKU on the transaction will remain the same, but the price of the Admin Fee SKU line will be increased to \$60.

4. Screen Layouts

4.1 Finance Plan Screen

When a card with finance plan options is entered, the finance plan selection screen displays.

[illegible]

Figure 2: Finance Plan Selection Screen

4.1.1 Screen Definitions

All screen information remains as current with the exception of the calculation of the Eligible Amount.

4.1.1.1 Data/Input Field Enhancements

Label	Editable	Req'd?	Data Type	Min Length	Max Length	Notes
Eligible Amount	No	NA	NA	NA	NA	Display only The Maximum Eligible Finance Amount.

5. Printing

No changes, remains the same as current.

6. Database Settings

No new database settings.

7. Logging

No changes to current logging.

8. Interfaces

No changes to current interfaces.

9. Out Of Scope

- This Specification covers the changes needed to implement the Maximum Eligible Financed Amount changes.*

10. Business Sign Off

Name	Organization	Approval Email and/or Date Received

11. Technical Sign Off

Name	Organization	Approval Email and/or Date Received

12. Technical Review

Name	Organization	Approval Email and/or Date Received

13. Technical Inform

Name	Organization	Approval Email and/or Date Received

14. Revision History

14.1 Reviews

Date	Iteration	Result
6/22/2016	V1.1 – BBYCA	Updates in 1.2

14.2 Revision History

Reviser	Revision	Date	Version
Amy Byers	Initial document	6/13/2016	1.0
Amy Byers	Internal Review	6/16/2016	1.1
Amy Byers	<ul style="list-style-type: none"> Section 3.4.1: Clarified that POS uses external Finance plan ID to determine amounts applied to the same plan in the transaction. Sections 3.5.1.1 & 3.5.1.2: <ul style="list-style-type: none"> Added admin fee to the financed amount on first partial tender. Removed max amount calculation after first tender and subtracted payment from amount. Section 		

15. Appendix A: Source Documentation

- CR 67 - Cap on Financing Plan_v1.4

15.1 Functional Requirements

Req ID	Description	Section
1.1	The system shall allow the configuration of both the upper and lower limits for each finance plan	• Current Functionality
1.2	Upon financing for PLCC and DCS Visa, the system shall display a list of finance plans for selection	• Current Functionality
1.3	If transaction total is less than the configured minimum finance limit of a finance plan, POS shall not display the finance plan on the finance plan selection list	• Current Functionality
1.3.1	If there is no finance plan to display, POS shall display an error message "No finance plan is available"	• Current Functionality
1.4	If a transaction total is greater than the configured minimum finance amount of a finance plan, the finance plan shall be displayed on the finance plan selection list.	• Current Functionality
1.4.1	Upon user selecting a finance plan and entering a finance amount that is less than the minimum limit of the finance plan, POS shall display an error message stating the entered amount is less than the required minimum.	• Current Functionality
1.5	If transaction total is greater than the configured maximum finance amount of a finance plan, POS shall display the finance plan on the finance plan selection list	• 3.4.1 Maximum Eligible Finance Amount Calculation Alternate Flow
1.5.1	The finance plan selection list shall display the eligible amount and admin fee for each finance plan	• 4.1 Finance Plan Screen

Req ID	Description	Section
1.5.2	For each financing option displayed, the eligible amount shall be enforced and shall take into consideration the upper limit of the finance plan	<ul style="list-style-type: none"> 3.4.2 Maximum Entered Finance Amount Validation Alternate Flow
1.5.2.1	Eligible amount displayed and enforced shall be the minimum of: <ol style="list-style-type: none"> 1. Transaction total 2. Maximum limit of the finance plan, and 3. Sum of eligible sale (i.e. non-return) items (including tax if it is configured that taxes of the items will be financed on the plan) 	<ul style="list-style-type: none"> 3.4.1 Maximum Eligible Finance Amount Calculation Alternate Flow
1.5.2.1.1	<p>In the case where user finances using the same financing plan with either DCS Visa or DCS MC or DCS PLCC in the same transaction, the eligible amount shall be reduced by the already tendered amount on the same finance plan.</p> <p>Note 1: Currently ePOS calculates eligible amount at plan and card level. This is a defect and should not happen with xPOS - xPOS should calculate eligible amount at plan level for all card types (i.e. DCS Visa, DCS MC, DCS PLCC)</p> <p>Note 2: Currently there is a production defect raised on ePOS where the subsequent times when user selects to finance from the same finance plan, the eligible amount is further reduced by (admin fee + admin fee taxes). This should not happen with xPOS</p> <p>Note 3: Upon financing from the same finance plan using multiple cards, only one admin fee will be charged - same as current ePOS today. The admin fee will not be considered in calculating the eligible amount.</p>	<ul style="list-style-type: none"> 3.4.1 Maximum Eligible Finance Amount Calculation Alternate Flow
1.5.3	<p>Upon user selecting a finance plan and entering a finance amount that is greater than the <eligible amount + admin fee> of the finance plan, POS shall display an error message stating the entered amount exceeds the <eligible amount + admin fee> for the selected finance plan.</p> <p>Note: Above admin fee includes/excludes tax per finance plan configuration</p>	<ul style="list-style-type: none"> Current Functionality
1.5.3.1	User shall need to acknowledge the error message (i.e. selecting OK).	<ul style="list-style-type: none"> Current Functionality
1.5.3.2	Upon acknowledging the error message, user shall be returned to the screen for re-entering finance amount	<ul style="list-style-type: none"> Current Functionality
1.5.4	Upon user selecting a finance plan and entering a finance amount that is less than the <eligible amount + admin fee including tax> of the finance plan, POS shall allow the user to proceed and continue with the transaction	<ul style="list-style-type: none"> Current Functionality
1.6	User shall continue to have the ability to finance on multiple plans within same transaction	<ul style="list-style-type: none"> Current Functionality
1.7	For offline transactions, the finance upper and lower limits shall still apply	<ul style="list-style-type: none"> Current Functionality