

## COOP Bank SOW/Last version



# Table of Contents

<b>1. Background</b>	3
<b>2. Stakeholders/Parties Involved</b>	3
<b>3. Delivered</b>	3
<b>4. Summary of Deliverables (based on last technical pre-sales call)</b>	4
<b>5. High Level Architecture Diagram</b>	4
<b>6. Detailed Requirements</b>	5
<b>6.1 Payment Application: WiseCashier</b>	5
<b>6.1.1 Functions (Phase 1)</b>	5
<b>6.1.2 Cards L3 Certification :</b>	6
<b>6.2 Terminal Management System: WiseCloud (London site)</b>	8
<b>6.2.1 Functions List.</b>	8
<b>7. Dependencies &amp; Pre-requisites</b>	9
<b>7.1 New Channel &amp; Network Connectivity</b>	9
<b>7.2 Test Credentials</b>	10
<b>8. Communication Tools</b>	10

## 1. Background

The Coop bank is one of the most profitable banks in Ethiopia, having a total asset value of more than ETB 139.56 billion. The bank has 738+ branch networks, 11.2 million account holders, and more than 11,500 employees. They will deploy Wiseasy devices all over Ethiopia using WiseCashier payment application.

## 2. Stakeholders/Parties Involved

Company Name	Roles/Responsibility	Remarks
Coop bank	End Customer	The Bank planning to use Wiseasy solutions in Ethiopia
Wiseasy	Solution Provider	Will be offering EMV devices and payment solutions to the bank

## 3. Delivered

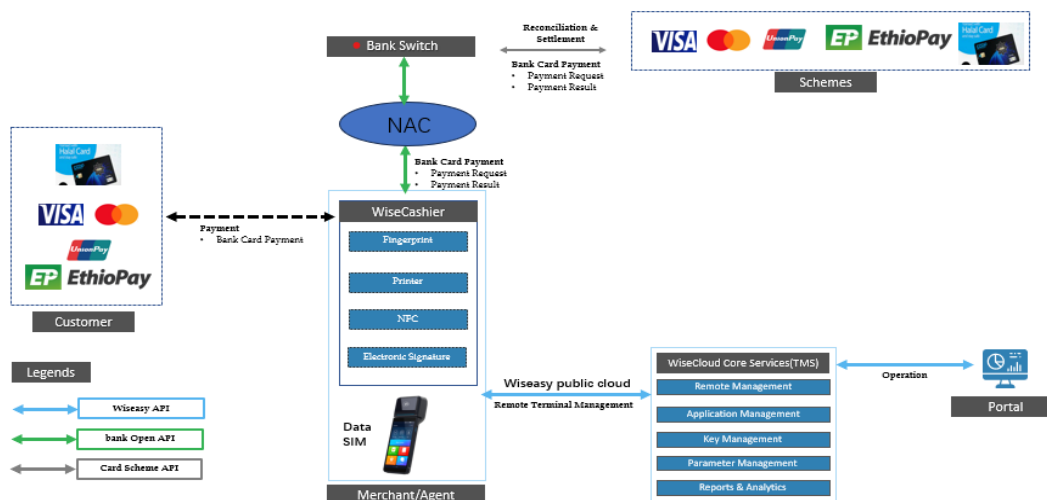
Product/Items	Description	Quantity
EMV POS Terminal	<b>Wiseasy P5FP, Specs:</b> Android 11, Qualcomm Quad-core 2.0GHz, 2GB+16GB memory; 5.5 inches, 1280*720; MSR, IC card, NFC; 2" High Speed Thermal Printer  Fingerprinter module:(HS: 8470501000)  <b>Wiseasy T1, Specs:</b> Android 10.1, Qualcomm Octa-core 1.8GHz, 2GB+16GB memory; 11.6 inches, 1920*1080; MSR, IC card,NFC;	Below Qty have been shipped and received by the bank: <ul style="list-style-type: none"> <li>8500 P5FP</li> <li>1500 T1</li> </ul>
	<b>ROM</b> <b>P5FP ROM:</b> P5_Android11_V01.00_2309051830_international_user_1463 <b>T1 ROM:</b> @Amine	

## 4. Summary of Deliverables (based on last technical pre-sales call)

Product/Items	Description
<b>Terminal Management System</b>	WiseCloud(SaaS) with RKI Lite edition
<b>Implementation Plan</b>	Wiseasy Public Cloud (London site)
<b>Payment Application</b>	<b>WiseCashier</b>
	<b>Payment Methods</b> Visa, Mastercard, UnionPay, Amex, EhtioPay cards, Coop bank cards.
	<b>Date of Delivery</b> CPM to define time of delivery
<b>Open API</b>	<ul style="list-style-type: none"> <li>3rd Party Payment API for App to App Integration</li> </ul>
<b>Certification</b>	<ul style="list-style-type: none"> <li>System Integration Test (SIT) with Coop Bank &amp; EthioPay Switch for Domestic Card Payment Acceptance</li> <li>L3 Certification for International Card Payment Acceptance</li> </ul>

## 5. High Level Architecture Diagram

## High Level Architecture Diagram



## 6. Detailed Requirements

### 6.1 Payment Application: WiseCashier

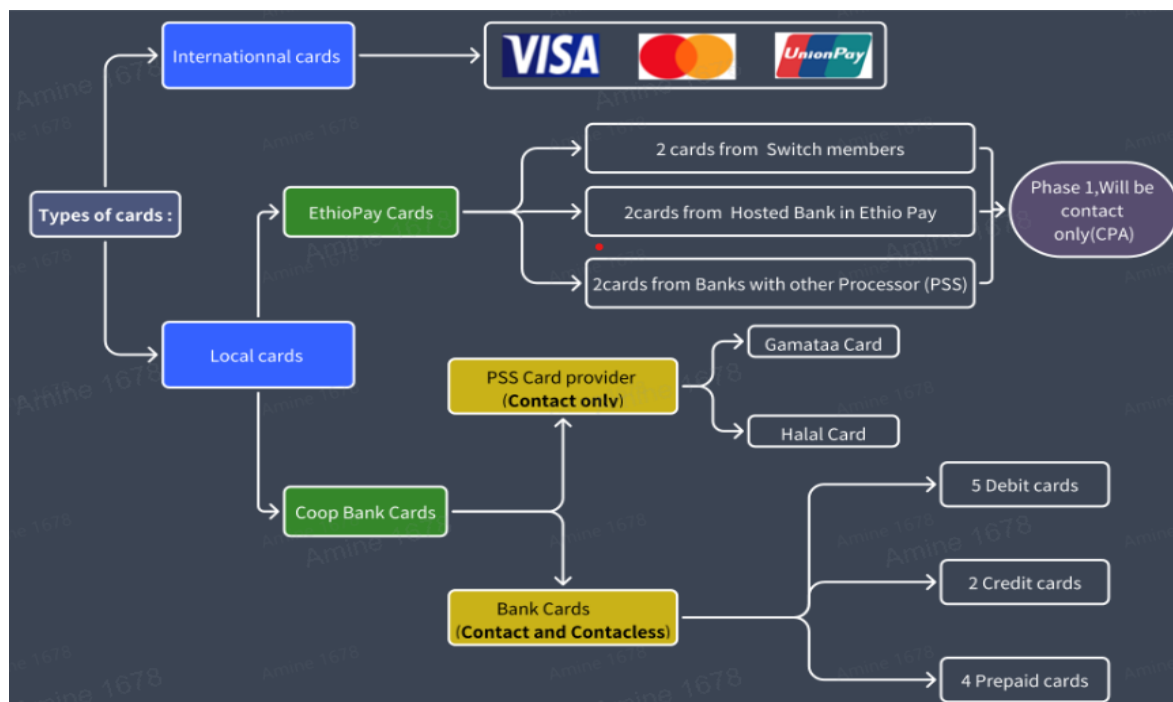
#### 6.1.1 Functions (Phase 1)

Item	Functions Check List	Description
Transaction Set/Type	Purchase	Request a purchase transaction for authorization
	Void/Cancellation	Cancel any transaction
	Refund	Request a refund transaction for a returned goods or service
	Preauth	Request a pre-authorization transaction request
	Pre-authorization void	Cancel and pre-authorization request
	Pre-authorization complete	Complete a pre-authorization transaction
	Pre-authorization complete void	Cancel a completed pre-authorization transaction
	Balance Inquiry	Inquiry cardholder balance
	Mini-statement	Mini-statement for merchants
	Purchase with Cashback	Purchase transaction with a cashback
	Cash Advance	Cash advance transaction for card holders
	Reversal (Automated)	Reversal transaction request

	Settlement	Automated settlement request to switch
	Settlement functionality	POS Settlement
	Daily Summary report	Daily Transaction summary report
	Summary Report	Get transaction summary report for a specified time
	Prints duplicate transaction	Print duplicate transaction receipt
	Shift Totals	Display & print summary at the end of every shift
	Searching transactions	Look for a specific transaction from transaction history
	Batch settlement	Batch upload settled and unsettled transactions
	Manual authorization	Manual entry for POS transaction
	POS Forex	Foreign currency purchase at Agent/Branch Office
	Multi-currency	Multiple currency support: Birr, USD, Franc, Yuan
	Discounts	Discount redeemed at POS terminals based on the discount policy
	Tip management	Manage Tips
	PIN Reset	Set or reset PIN for bank card
	Prepaid card reload	Load customer prepaid cards
Card Schemes & L3 Certifications	China UnionPay International (UPI)	Contact, Contactless.
	Visa	
	Mastercard	
	Ethiopay card	Contact only (CPA)
	Coop Bank Cards	PSS card(Contact only)+ Bank cards(Contact and contacless)
Key Loading Method	Remote Key Injection	DUKPT (BDK) Keys will managed and injected remotely from WiseCloud

### 6.1.2 Cards L3 Certification :

- For the cards L3 Certifications:



For local cards, there are two kinds of types of cards :

- EthioPay cards :

For EthioPay cards, there are 3 types of card: cards for the Switch members, cards for banks hosted in EthioPay and cards for banks with other processors. In order to accept payment by these cards from other players, we need to test 6 of these cards, 2 of each type, we will get test cards and specifications for all these cards.

- Coop Bank Cards:

Coop Bank has two types of cards, the cards which are personalized by PSS (US company) EMV, CPA cards:

**Gamtaa card** : conventional product

**Hallal card** : non interest/Islamic product

They have a second type of cards, product personalized by Coop Bank itself. These cards chip is CPACE - Dual Interface.

**5 Products under debit cards**: depends on the customer type, deposit and other products

Normal, Silver, Gold, Platinum, Infinity

**2 Credit card** : Conventional and other is Islamic

**4 Products under prepaid** : Wallet, Closed loop, anonymous, open.

**Note :**

For the cards who are personalized by coop bank, they are under project implementation, they will check and get back to us. There is a chance that this may be a second phase project.

## 6.2 Terminal Management System: WiseCloud (London site)

1. CBO will use Wiseasy public cloud, London site.
2. Coop Bank will use DUKPT (BDK). To accomodate CBO's Remote Key Injection (RKI), the bank will use RKI lite edition from Wiseasy .

### 6.2.1 Functions List

Module	Function	Description
<b>Device Management</b>	Device List	Functions: dev instruction operation, dev info, life track, app installation, operation status, WiseOS config, app pre-install, dev data usage view, etc.
	Label management	Functions: create label; delete label, modify label, label transfer, label delete, etc.
	Instruction log	View instruction log, view instruction chain, etc.
<b>Application Management</b>	App list	App upload, version update, etc.
	App market	App publish/unpublish, gray release, etc.
	Unknown app	View app list, view installed dev, etc.
<b>OTA Management</b>	OTA list	Create OTA、OTA version maintainance&push, etc.
<b>WiseOS Settings</b>	wiseOS management	Create wiseOS config file, clone, push, etc.
	App pre-install	Create app pre-install config
	Cortex scan motivation	New authorization; push
<b>Batch task management</b>	Batch task list	Batch task operation, check, etc.
	Export task list	Export batch task list, etc.
<b>Partner Management</b>	Partner list	Create a new partner, view, authorize, etc.



<b>Merchant Management</b>	Merchant list	Create new merchants; view and distribute stores and merchants, etc.
<b>System Settings</b>	User management	Add, delete, modify, check system users
	Role management	Config, add, delete, modify, check roles
	Operation log	System operation log
<b>Advanced Services</b>	RKI	Key Types: <b>DUKPT (BDK)</b> , <b>MK/SK</b> and <b>ZMK</b>
	Kiosk Mode	Chose the app from Wisecloud and put it on kiosk mode
	Developer (Open API)	Online API's to be consumed by third party apps

## 7. Dependencies & Pre-requisites

### 7.1 New Channel & Network Connectivity

Items	Details/Description
<b>IPSec VPN Parameters</b>	Will be shared soon
<b>Coop Bank Switch Integration (Direct Connectivity)</b>	Coop Bank Switch Specifications: Hypercom MsgSpec v344.pdf
<b>NAC Specification</b>	NAC Overview - for Wiseasy.pdf
<b>Trace Messages</b>	<b>[pos_hypfmtndump.debug]</b>
<b>IP</b>	NAC : IP concentrator (Once NAC is connected, the Coop bank switch will provide IP and Port)
<b>Port</b>	NAC: Port
<b>Sample receipt</b>	sample will be proposed by Wiseasy for Coop bank selection
<b>Settlement</b>	Terminal Settlement automatic by the EOD at 00:00

<b>PIN Card set</b>	<b>TBC</b>
<b>Forex Purchase</b>	<b>TBC</b>

## 7.2 Test Credentials

Items	Files/Attachment
<b>Test Cards</b>	<b>TBC</b>
<b>AID list</b>	<b>Eth_AID.rar</b>
<b>Test MID</b>	CBOMOS01
<b>Test TID</b>	CBOPOS01
<b>Test Key</b>	DUKPT (Coop bank will provide once POS subsystem and HSM is connected, they will generate the requested keys accordingly.)
<b>Test Cases</b>	<b>TBC</b>

## 8. Communication Tools

A Feishu group will be created to facilitate the communication between our team, coop bank team and switch team as well, the group will have from the other party :

- Project manager
- Business Manager
- Business Team
- Technical manager
- Technical Team
- Project owners

CBO will share the list of resources, and a dedicated team from our side should be involved as well.