



Request for Proposals
For
Selection of Financial Institution for National Common
Mobility Card (NCMC) based City Payments System
for Indore Smart City Development Limited (ISCDL)
Volume – II
Scope of Work

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DISCLAIMER

The information contained in this Request for Proposal document (the “RFP”) or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the Indore Smart City Development Limited (the “Authority”) or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an Agreement and is neither an offer nor invitation by the Authority to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in making their financial offers (Bids) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in the Bidding Documents, may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Authority, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this Bid Stage.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

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The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and the Authority shall not be liable in any manner whatsoever for the same or for any other

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based City Payments System for ISCDL**



costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

Acronyms

Abbreviations	Description
CCH	Central Clearing House
EMD	Earnest Money Deposit
EWS	Economic Weaker Section
EMV	Europay, Mastercard, and Visa
FI	Financial Institution
ISMS	Information Security Management System
IPR	Intellectual Property Rights
MTBF	Mean time between failures
MTTR	Mean Time to Repair
NCMC	National Common Mobility Card
PoS	Point of Sale
PMC	Project Management Consultant
HTTPS	Secure Hypertext Transfer Protocol
SMAC	Social, Mobile, Analytics and Cloud
SSL	Secure Socket Layers
SLA	Service level agreement
UID	Unique Identity Database

Definition of Terms

1. **Agreement/Contract** means; the Contract entered into by the parties with the entire documentation specified in the RFP.
2. **Applicable Law(s)** means; any statute, law, ordinance, notification, rule, regulation, judgment, order, decree, bye-law, approval, directive, guideline, policy, requirement or other governmental restriction or any similar form of decision applicable to the relevant party and as may be in effect on the date of the execution of this Agreement and during the subsistence thereof, applicable to the Project.
3. **Authority** means; the Indore Smart City Development Limited. The project shall be executed in Indore and shall be owned by Indore Municipal Corporation.
4. **Contract Value** means; the price payable to the successful bidder under this Contract for the full and proper performance of its contractual obligations
5. **Document** means; any embodiment of any text or image however recorded and includes any data, text, images, sound, voice, codes, databases or any other electronic documents as per IT Act 2000.
6. **Service level agreement (SLA)** is the service level and performance commitment of a System Integrator to AUTHORITY that defines the performance output and availability of the deliveries and installations under this RFP Requirements.
7. **Consortium** means; the entity named in the contract for any part of the work has been sublet with the consent in writing of the AUTHORITY and the heirs, legal representatives, successors and assignees of such person.
8. **OEM** means; the Original Equipment Manufacturer of any equipment / system / software / product which are providing such goods to the AUTHORITY under the scope of the RFP.
9. **Services** means; the work to be performed by the successful bidder pursuant to the RFP and to the contract to be signed by the parties in pursuance of any specific assignment awarded by the AUTHORITY.

Scope of Work

1. Introduction

1.1. Project Background and Need

Indore Smart City Development Limited / Indore Municipal Corporation (AUTHORITY) has a vision to empower residents and visitors of Indore city to look at a new paradigm of payment and identification. It aims to simplify the life for all residents and visitors of the city by addressing common issues such as lack of proper change while making payments, high queuing times at public places to access amenities and the need to carry multiple cards for identification, membership etc.



Figure 1: Contactless card and reader

The Co-branded card itself would be available in two broad categories –Prepaid card and debit/credit card. The prepaid cards can be non-personalized general cards or personalized cards. Further, there should be flexibility to ensure targeted benefits for groups such as students, senior citizens, Economic Weaker Section (EWS), AUTHORITY employees, tourists or other concession groups as defined by AUTHORITY from time to time. The card once issued would contain all pertinent information related to the cardholder and permit them to use the card for making payments and establishing identity and membership status at select facilities along with provision of mobile wallet for cashless electronic transfer and for card to card transfer using mobile wallet. AUTHORITY also envisages concepts like cashback and rewards to accelerate the acceptance of these cards in the city.

To provide the best of services to the residents and visitors, AUTHORITY wants to attract the best of talent from leading financial institutions who have rich experience in running similar initiatives. The implementation plans hence would be tendered and the party which meets all relevant requirements with the highest total financial score would be awarded the contract. The parties who respond to the RFP are expected to manage the entire program end-to-end including supply of manpower, related equipment such as printers, access gates etc.

In the entire City Payment Card ecosystem, AUTHORITY is at the core of the structure as service provider. The Financial Institution along with their technology/ consortium

partner(s) (if any) will act as card issuer and reload agent and will be the party which responds and wins this tender, referred to as FI throughout this document.



Figure 2: Overarching Principles

The overarching idea of the City Payment Card is to use a single payment instrument for all city-wide services. This would also facilitate to integrate mobility systems across the city with other services.

The end-to-end ecosystem associated with City Payment Card is captured and the key entities and processes associated with the program are documented. The City Payment Card would work at designated touch points in conjunction with a contactless card reader. When the customer waves the card at the reader, the transaction is performed in a matter of a few seconds and this would help prevent queuing up at the usage points.

The concept of City Payment Card is ‘EMV based open loop payment cards’ which are interoperable owing to widespread usage and reliability of EMV standards.

The underlying specifications for the card would be EMV-compliant cards on ISO 14443/ISO18092/ISO7816 standards.

By opting for an open loop payment processing, the cards will become cash accessible, the card holder may be able to access funds through an ATM (Only personalized cards) or at a PoS (Point of Sale). Multipurpose cards may be anonymous or personalized. It simplifies the purchasing processes with minimum credit risk to the cardholder.

- 1) Interoperability - Being open standard based, the cards can be used across all transit modes along with other municipal services like **tax payments, library/ swimming pool membership, one-time entrance fees, parking etc.** These are solutions where cards are issued to card holders by multiple issuing entities and are accepted at multiple locations not necessarily belonging to AUTHORITY only. The solution provides interoperability amongst the members who subscribe to this solution and becomes a part of the payment network.
- 2) No loss to personalized cardholders if the card is lost as the value is also stored on server if customer reports the loss on time to financial institution to block the card along with this, customer should also be given a provision to block the card using Mobile App.
- 3) The cards are provided free of cost to cardholders without any recurring monthly or annual charges.
- 4) The eco system to include Prepaid Cards, co-branded debit/credit card, mobile wallets and NFC enabled mobile payments, thus future-proofing the solution.
- 5) With RuPay as the preferred scheme, the solution to be compatible with UPI, Aadhaar linked payments and National Common Mobility Card (NCMC) initiatives.
- 6) Higher transaction limits as regulated by RBI or any other regulating agency norms based on the type of.

2. Scope of Work

Authority intends to tender out the entire system to a qualified financial institution (FI). The operating model involved is 'Build – Operate – Transfer'. The selected vendor would be entirely responsible for running the program with an Authority appointed Project Management Consultant (PMC) to oversee the operations and manage the evolutionary progress of the ecosystem.

The FI shall design, develop and maintain the open loop smart card top-up channels and e-payment services. It is the responsibility of Bidder to abide by all RBI mandated guidelines apart from any other government guidelines if any, over and above RFP mentioned terms and conditions.

It is envisaged that the rollout of the cards and associated services will be staggered to gain a steady and confident approach amongst card users. The successful Financial Institution will be responsible for activities mentioned under its purview.

2.1. Processes for City Payment Card Ecosystem

The following are the processes defined for the City Payment Card ecosystem:

2.1.1. Card Issuance

1. The customer can request for a new card. This is the first step where the customer approaches the designated City Payment Card issuance outlet and applies for the card. General cards are issued without personalization at FI outlets, retail outlets and Bus terminals. Personalized cards to be issued by FI from both AUTHORITY premises as well self-managed outlets.
2. FI will capture details as per standard KYC norms and will also capture other information as finalized by AUTHORITY like property tenement ID, library membership number, Public bike sharing membership number, etc. for personalized cards as and when required.
3. All the personalized cards will be mandatorily linked to Aadhaar card (UID/ KYC). Only one personalized card to be issued per customer. Lost/ Damage cases will be handled by FI as per its standard practices for reissuing of personalized cards. The manpower for such tasks will be managed by FI.

2.1.2. Card Loading

1. This is the process which defines how cardholder loads money into the card by approaching loading points (operated by FI/its affiliates or Authority or its affiliates). The manpower for such tasks would be managed by FI or Authority or its affiliates.
2. FI shall also installed Self-service Kiosks for loading / top up amount at all Bus stations, Airport, Railway Stations and some identified public places like Malls, Parks, etc.
3. FI shall provision Mobile App for cardholders to load / top up the amount in the card.

2.1.3. Pay and Access Usage

This process deals with cardholders using facilities like zoo, parking, and paying for the same with their City Payment Cards.

2.1.4. Pay Only Usage

This process exists in scenarios where only payments are made without the need for any doors to be opened or entries and exits to be recorded. Typical scenario is payment of Property taxes/Water bills/MSW charges at civic centers.

2.1.5. Membership Usage

This process is mainly for pre-paid membership services such as library, swimming pools, etc.

2.1.6. Transport Usage

This business process will be defined by AiCTSL and AUTHORITY and the FI's system should integrate with the exiting payment mechanism. FI will be responsible to provide required H/w if the existing infrastructure is not compatible with the proposed system for BRTS, Feeder buses, Municipal Zone offices etc.

2.1.7. Mobile Validator Usage

This process is for enforcement agents appointed by AUTHORITY who have a mobile device to check the card for usage at designated spots and levy fines should a situation arise.

2.1.8. Cashback Scenario

This process defines the cashback scenario where cardholders get money back into their cards. Similar to cashback scenario, loyalty points to be accumulated in card account of the cardholder.

2.1.9. Retail Payment

This process defines end-user availing cash-free shopping service using City Payment Card.

2.1.10. Refund Scenario

This process defines end-user returns his card and wants to get the amount refunded to him in his card linked bank account/cash.

The principal point to be noted are as follows:

- i. Authorized financial institution will be responsible for issuing the personalized City Payment Cards. Financial institution will develop, operate and maintain card management system to cover card procurement, card pre-personalization, personalization, issuance, dispatch & delivery.
- ii. Financial Institution to be also responsible for supplying general cards (non-personalized) to the people in Indore. These cards would be available at various touch- points in the city. Additionally, financial institution to ensure that these cards are present at all bus terminals along with other major PoS in Indore. This would ensure widespread adoption of the ecosystem.
- iii. Financial institution to be responsible for cash management, reconciliation and settlement activities, provision, and customization of validators. Customization of validators to be done by FI jointly with the concerned service provider.
- iv. Financial institution to be central and focal point for all activities/card operations – both payment and non-payment transactions. Financial institution will be responsible to develop an authentication mechanism and maintaining MIS for all non-payment transactions and extend access to non-financial transactions data to AUTHORITY for its employee attendance record or any other purpose as and when asked by AUTHORITY.
- v. Financial institution to be responsible for developing the retail ecosystem for City Payment Card at a healthy pace. FI will be responsible to take decisions related to declaration of loyalty programs and various schemes for City Payment Card on time- to-time basis throughout the contract period.
- vi. The financial institution will also deploy their resources in the project as required.

This includes managing helpdesk for card issuance, dispatch and delivery, field training, hardware management, fraud and dispute management.

2.2. Design, Development, Procurement, Issuance, Supply, Integration, and Implementation of City Payment Card Project

- i. Design, development, procurement, issuance, supply, integration, and implementation of Open Loop EMV Compliant smart card based citywide common payment solution for following Smart City/Municipal Services:

Services to be Covered	Nodal Agency/ Department in AUTHORITY
City Bus Services	AICTSL
Library	AUTHORITY
Park	AUTHORITY
Pay and Park	AUTHORITY
Zoo	AUTHORITY
City Civic Centre, Ward Offices & Field Payment Collection	AUTHORITY
Swimming Pool	AUTHORITY
Hospitals & Urban Health Centers	Health
Affordable Housing Scheme	AUTHORITY
Public Bike Sharing	AICTSL

Note: The above-mentioned services list is indicative, and AUTHORITY may add/remove any service to the above list in future in consultation with the successful bidder.

The scope shall also include all custom clearance, handling, and inland transportation of all Hardware/Software under this Contract, till the time the equipment is installed at Project site and all tests completed.

- ii. The City Payment Card project shall comprise the Hardware and Software items specified hereunder.

Services	Hardware
Library	<ul style="list-style-type: none"> - Co – branded personalized cards acting as membership cards - POS machines with functionality to pay, to map & read membership details to/from card and to top-up card
Parks	<ul style="list-style-type: none"> - Co – branded Personalized/ Non Personalized cards - POS machines with functionality to pay
Multi-level Parking & other Pay & Park	<ul style="list-style-type: none"> - Co-branded Personalized/ Non Personalized cards - POS machines with functionality to pay
City Civic Center/s	<ul style="list-style-type: none"> - Co – branded Personalized/ Non Personalized cards - POS machines with functionality to pay, to map & read IMC / ICCD domain system info. to/from card and to top-up card
Zone / Ward Offices	<ul style="list-style-type: none"> - Co – branded Personalized/ Non Personalized cards - POS machines with functionality to pay, to map & read IMC / ICCD domain system info. to/from card and to top-up card
Property Tax Collection	<ul style="list-style-type: none"> - Co – branded cards - POS machines with functionality to pay
AUTHORITY & AiCTSL Office	<ul style="list-style-type: none"> - Personalized cards for all employees
City Bus Services	<ul style="list-style-type: none"> - Co-branded cards - Personalized cards as pass
Zoo	<ul style="list-style-type: none"> - Co – branded Personalized/ Non Personalized cards - POS machines with functionality to pay
Swimming Pool	<ul style="list-style-type: none"> - Co – branded Personalized/ Non Personalized cards - POS machines with functionality to pay
Affordable Housing Scheme	<ul style="list-style-type: none"> - Personalized cards for all beneficiaries under affordable housing scheme
Field Payment Collection	<ul style="list-style-type: none"> - Co – branded Personalized/ Non Personalized cards - POS machines with functionality to pay

Services	Hardware
Hospitals & UHCs	<ul style="list-style-type: none"> - Co – branded Personalized/ Non Personalized cards - POS machines with functionality to pay
Smart Health ATM	<ul style="list-style-type: none"> - Co – branded Personalized/ Non Personalized cards - POS machines with functionality to pay
Public Bike Sharing	<ul style="list-style-type: none"> - Co – branded Personalized/ Non Personalized cards - POS machines with functionality to pay
Software across all services	
<ul style="list-style-type: none"> • Card Management System • Clearing House Solution Software • Validators/ acquiring terminals software components • Web portal with Internet Payment Gateway • Payment Wallet /Mobile App • Security/Firewall etc. • Integration with AUTHORITY/ICCC systems (where exist) like parking management system, public bike sharing, health ATM, library management system, access management system, property tax/other payment collection system, etc. • Interface/ console to AUTHORITY to declare schemes to define charges or concession groups 	

- iii. Selected Bidder shall at its sole discretion undertake the implementation of City Payment Card Project at following places outside the AUTHORITY framework.
 - a. Utility Payments such as Electricity, Gas, Mobile/Telephone etc.
 - b. Retail /Merchant/Grocery outlets/ Hawkers/ Hotels/ Private Hospitals/ Shops & Malls
 - c. Other mobility vendors like Auto rickshaws/ Taxi
- iv. Selected Bidder will be responsible for installation, integration, initialization and startup of the Hardware and software supplied by it.
- v. Selected Bidder will undertake Card Personalization Task.
- vi. Selected Bidder shall also ensure interoperability of Co-Branded Cards outside IMC / ICCC domain using the open standard common specifications.

2.2.1. Types of cards available for citizens

The City Payment Card and the add-ons such as mobile wallets, NFC enabled mobile phones and co-branded debit and credit cards would be available in the following flavors to the citizens of Indore. A possible construct of the card is given below along with the basic elements, to be finalized by FI with Authority. All norms as set by RBI will need to be followed. Apart from the rules and regulations set by RBI, rest of the design and information will be approved by the Authority.

i. General/ Non-Personalized Cards:

a) On-Spot cards

These cards are issued to temporary residents of Indore who wish to access some of the common facilities such as public transport and parking infrastructure within the city.

The primary difference between the general and other cards is that the general card is not personalized for any individual and can be issued instantly at the designated outlets in Indore City.

For the <CATEGORY> entry, ON-SPOT will be printed in this card.

b) Tourist Cards

Specialized general cards are also being envisaged where a variant would be available for tourists/visitors. These cards are issued to tourists and temporary visitors of Indore who wish to access Smart City/Municipal services, public transport and parking infrastructure. CMS system should be able to handle card validity for a daily/weekly cards issued to visitors and also able to support bundled offers like 2 visit to zoo, 3-day pass for city bus, one visit to park, two free use of Public bike sharing for an assumed bundled value of 500. To promote tourist cards in Indore aligned with MP Tourism objective, financial institution has to come up with combo offers and marketing schemes in accordance with guidance from Authority.

For the <CATEGORY> entry, TOURIST will be printed in this card.

ii. Personalized Cards:

a) Standard cards

The standard card and three other cards detailed below come under the category of “personalized cards”. These cards cannot be issued instantly to the cardholder. Instead, the cardholder data is captured at the touch-points and the citizens would receive the cards after a pre-defined period of time.

The standard cards are issued to citizens who are above the age of 18. These cards would serve as a general card and most of the services would be availed by the cardholders at the prescribed rates.

For the <CATEGORY> entry, STANDARD will be printed in this card.

b) Child/Youth Cards

These cards are issued to residents of Indore who are below the age of 18. The holders of this card would be eligible for certain special prices at all the available access points. This will ensure that once the cardholder turns 18, they would be prompted to acquire an adult card from FI touch points. For the <CATEGORY> entry, CHILD/YOUTH will be printed in this card.

c) Senior Cards

These cards are issued to residents of Indore who are above the age of 60. This card would give the cardholders special rates at most of the touch points including buses, public libraries, and venues such as science centers, etc. For the <CATEGORY> entry, SENIOR will be printed in this card.

d) Concession Cards

These cards are issued to residents of Indore who meet a certain criterion such as 'Lower Income group'. The aim of this card would be to bring social inclusion for the cardholders along with the ability to offer differential pricing on a regular basis. This card can also be issued to especially-abled citizens. For the <CATEGORY> entry, CONCESSION will be printed in this card.

Further, there should be algorithms embedded to ensure targeted benefits for groups such as students, senior citizens, EWS, AUTHORITY employees, tourists or other concession groups as defined by AUTHORITY from time to time.

Note: All personalized cards to be issued subsequent to standard KYC by bank along with Aadhaar authentication. Aadhaar authentication will also help determine the age of the applicant to check eligibility for issuance of Child/Youth Card or Senior Card.

2.3. Providing Interfacing protocols, APIs of Card Management System, Central Clearing House and Smart Cards for integration with IMC / ICCD domain systems

- (i) Selected Bidder shall provide/share all required APIs and interfacing protocols of Card Management System, Central Clearing House and Smart Cards to IMC / ICCD domain system in order to ensure all non-payment use cases are implemented.
- (ii) Selected Bidder shall undertake Integration Responsibilities with AUTHORITY and IMC / ICCD and shall facilitate such integration by providing any support required apart from sharing of required APIs and Interfacing Protocols.
- (iii) Selected Bidder shall establish the real-time connectivity of IMC / ICCD Data centers/Servers and domain system servers with Selected Bidder's Central Clearing House Servers /data centers for sending details/information pertaining to card based transaction.
- (iv) Selected Bidder shall have to ensure timely sending of transaction settlement data from its Central Clearing House servers to IMC / ICCD data servers for reconciliations of transactions settled. Selected Bidder shall undertake complete reconciliation responsibilities.

2.4. Transaction settlement, Cash Collection and Deposit

- (i) Selected Bidder shall undertake complete smart card based and cash based Transaction settlement and reconciliation responsibilities.
- (ii) The Cash Collection timing shall be decided in mutual consultation between the parties based on requirement of respective department.
- (iii) The Cash Collection responsibility/business at Authority's Service Points shall be transferred to the Selected Bidder after successful implementation of City Payment Card Project in all services including City Bus. Up to this point, only City Payment Card based transaction shall be routed through the Selected Bidder.
- (iv) For any delay in settlement of daily card based transaction to Authority's Merchant's accounts beyond T+2 days, the Authority reserves the right to deduct the Damages as amount by charging interest rates of **12% per annum** for any additional period for which cash settlement is delayed provided the delay is attributable to the Financial Institute.
- (v) Selected Bidder shall undertake reconciliation of cash collected and transaction reported. Selected Bidder shall have to provide explanation for any discrepancy found.

2.4.1. Validators/PoS Terminal types

a) Standalone PoS Swipe & Dip/ PoS machines for add value, card issuance

Traditional PoS terminal which can have swipe and dip functionality for EMV cards. Connects to bank switch via mobile data or landline telephone (modem based). Can be loaded with custom applications for supporting non-payment transactions similar to loyalty points enquiry, etc.

b) Contactless PoS

Battery operated PoS have to be used. These are used for ticketing in city bus, park, public bike sharing and can be extended to rickshaws and taxis too.

c) Contactless Gate

These validators would sit on turnstiles or at one time entrance fee payments. The validators to have provision to read QR-code based tickets along with City Payment Cards.

d) Integrated PoS – Swipe & Dip

These do not require separate key-in of amount on PoS as the amount would flow directly from billing software to machine. They can also be used for non-financial transactions such as library. Turnaround time is lot quicker here. May accept contact, Contactless transactions.

2.4.2. Usage Points

The usage points are classified into the following categories:

- a. Unique Financial Applications
- b. One-Time Entrance fee
- c. Merchant Financial Use Cases
- d. Validation/Authentication only

a) Unique Financial Applications

Sr. No	Type of Application / Location	Cards permitted
1	Library membership	Personalized only
2	City Bus	Both personalized and general cards

3	Multi-level Parking & other Pay & Parks	Both personalized and general cards
4	City Civic Centre, Integrated Ward Office, Mobile Van & Field Payment Collection	Both personalized and general cards
5	Affordable Housing	Personalized cards

b) One-Time Entrance Fee / Charges

Sr. No.	Type of Application / Location	Cards permitted
1	Gardens/Parks	Both personalized and general cards
2	Rajwada	Both personalized and general cards
3	Smart Health ATM	Both personalized and general cards

c) Merchant Financial Use Cases

Sr. No.	Type of Application / Location	Cards permitted
1	Hotels	Both personalized and general cards
2	Hawkers	Both personalized and general cards
3	Shops & Malls	Both personalized and general cards
4	Auto-Rickshaw	Both personalized and general cards

d) Validation/Authentication Only

Sr. No.	Type of Application / Location	Cards permitted
1	AUTHORITY Employees	Personalized only

e) Non-Functional Requirements

The card management system of FI should be able to sustain the Non-functional Requirements like:

i. Security Requirement

- All security breach detections shall be confidential, and accessible only to users of the appropriate class and reported immediately to AUTHORITY.
- The system security shall provide features to maintain data integrity, including error checking, error monitoring, error handling and encryption.
- Validator-to-Smart Card communication shall be secured using multiple security keys and layers of information protection or encryption to mitigate risk against the possibility of being “hacked” or read by an unauthorized device. Vendor to provide information on proposed security methods in their Proposal submission.

ii. System Resilience

- All equipment like Readers / Validators, ETMs, etc. should be reliable.
- Mean time between failures (MTBF) in operational hours Minimum MTBF for On-board equipment
 - Validator – 10,000 hours
 - Electronic Ticketing Machine (including printer) – 7,000 hours
 - POS terminal – 7,000 hours
- Service Support
 - Maximum time for providing support at site - 2 hours
 - Mean time to repair (MTTR) for all equipment - max up to 2 hours after which the equipment has to be replaced from the buffer stock.
 - Buffer Stock for all devices to be maintained at 10-12% of the requirements.

iii. System Monitoring Requirement

- FI shall implement all necessary tools to monitor SLA parameters and generate reports (example availability, performance, downtime, usage, etc.) accordingly accessible to authorized AUTHORITY users.
- The system should be able to generate all types of reports which will be used to track status of Deployment, Technical and Operational SLA including parameters like Correctness of deployment, Capacity of Application, Transfer of transactions, etc. for monitoring of SLA.
- Application should have a web console which can be displayed in ICCC and can be used by ISCDL operators for monitoring actions taken by FI on incidents.
- The FI should provide the following helpdesk performance monitoring reports:
 - a) Details of Calls logged on weekly, monthly or any other duration as specified by AUTHORITY
 - b) Numeric and graphical representation of calls logged at Helpdesk

2.5. Establishing Marketing and Channels

- (i) Selected Bidder shall set up approx. 1000 card recharging, dispensing and/or municipal bill payment services through its network of service providers within the city limit. This could be set up at stores, side stores, grocery stores where users shall avail all card recharging and dispensing services such that citizens can find a PoS **within 500 meters throughout the city limit**. The idea is to spread the availability and thereby maximizing the use of the City Payment Card and it is expected that these touch points can be availed by citizens at a walkable distance across the Indore city.
- (ii) Setup of web-enabled and mobile-app based, card top-up with payment gateways and other banking channels.
- (iii) Offer mobile wallet for cashless electronic transfer.
- (iv) Develop and integrate with existing loyalty programs to maximize the use of City Payment Cards.

2.6. Maintenance and Management of Smart Card Eco System during Contract Period

- (i) Selected Bidder shall maintain and manage all Hardware and Software forming part of the City Payment Card Project during the Contract/License Period to ensure the availability of the Smart Card Eco System in accordance with the provisions of the Scope of Services and Technical Specification as per RFP, Service Levels specified in RFP and guidelines and specifications as may be stipulated time to time by the Authority.

2.7. Setting up Operation and Maintenance of Central Clearing House and other required central processing systems at its own locations during License Period

- (i) The Selected Bidder shall set up central systems (to install and host the required hardware and software of central system of City Payment Card Project) at its own locations and carry out centralized monitoring and supervision of Operation, Maintenance, and Management of City Payment Card Project during the License Period.
- (ii) The scope shall include centralized monitoring and supervision of operation and functionality of City Payment Card Project components (all hardware and software), handling ticketing related queries from commuters through help desk/call center, providing detailed MIS reports and other aspects as specified in RFP.

- (iii) FI should ensure strictly that data should not be stored in public cloud, the servers should reside within the boundaries of India, and necessary security measures are in place to handle any disaster. Periodic DR needs to be performed as per the RFP requirements. For Authority, FI will remain responsible for any mishandling of the project data.

2.8. Ensuring resilience of City Payment Card Project

- (i) Selected Bidder shall ensure resilience of City Payment Card Project in case of any stoppages of failure as per the scope, Technical Specifications and Functionalities specified in RFP.
- (ii) Selected Bidder shall ensure smooth functioning of the system and make necessary provisions for business continuity and uninterrupted functioning of the system.

2.9. Customer support to resolve Co-branded smart card users' queries/issues

Selected Bidder shall establish customer care/call center in Hindi and English to support over, Phone, Internet for queries pertaining to card issuance, personalization, renewal, refunds, card not working in Non-transit environment, recharge or deduction related queries, expiry of cards customer account management and customer support with payment gateway.

2.10. Training and handholding support to Authority's Staff

- (i) Selected Bidder shall organize workshop for Senior Management officers of Authority on City Payment Card Project overview.
- (ii) Selected Bidder shall train the staff of the Authority/staff deployed by Authority for fare collection operations of services. Such training shall include and not limited to loading, recharging, card issuance and other activities as directed by the Authority.

3. Roles and Responsibilities of Financial Institution will include:

The roles & responsibility of FI will be inclusive but not limited to the following. The FI will be required to carry out all activities and perform roles & responsibility to meet the objective of the Open Loop Smart Card Common City Payment System.

3.1. Contactless EMV complaint Card Issuance:

- a) Card Procurement, pre-personalize, personalize

- The card should be complaint with ISO standards (like ISO 14443/ISO 18092/ISO 7816/ISO 10373) with Memory size of 32 KB or above as per RBI guidelines for smart card, debit card, credit card in terms of dimensions, resistance, etc.
 - AUTHORITY to approve the card design before proceeding to printing by FI
- b) Issue cards as per FI's KYC Norms
- Linking of Aadhar card with personalized card
 - FI has to collect tenement ID, library membership ID, swimming pool membership ID with card application or at a later date for mapping
 - Personalized cards with nomenclature for different types such as senior citizen, Adult, Youth, Concession cards, EWS, AUTHORITY employees, etc. or other concession groups as defined by AUTHORITY from time to time
 - Non-Personalized cards for general users and tourists
 - FI must automatically issue new cards on change of card type
 - FI to offer its existing cardholders in Indore to upgrade to City Payment Cards
- c) Card courier and dispatch
- FI shall undertake supply/distribution of City Payment Card to all designated locations.
 - FI shall make provisions for delivery of the personalized cards to the individuals at their doorstep.
 - FI should maintain City Payment Cards in a secure location and with security guidelines as per PCI guidelines and EMV guidelines (MasterCard, Visa and RuPay standard for key management, personalization etc. should be followed).

3.2. Card Loading

- a) Cash loading through cash, ATM/ CDM, online transfer through various channels
- b) Mobile App based wallet with Auto top-up feature
- c) Provide facility to automate top-up of card from any bank account in case of low balance
- d) Card-to-card mobile/online transfer
- e) Financial Institution (FI) to tie-up with retailers for loading points

3.3. Hardware provisioning:

- a) Provide necessary hardware for all required applications:
 - The service delivery points (approximately 1000+) shall be located at various locations across the city. The purpose of providing such touch points is to ensure that all services mentioned as part of this RFP can be availed

- by citizens at a walkable distance of not more than 500 metres
 - Payments – standard PoS transactions through AUTHORITY amenities such as Civic Centers, Science Museum, Nature Park, Gardens, online, etc.
 - Non-Payment – Identification, attendance, membership details such as library, AUTHORITY offices.
- b) Certify devices, cards, etc. as per EMV and PCI-DSS standards

3.4. Merchant Management:

- a) FI to ensure retailers display City Payment Card symbol prominently
- b) FI will facilitate following through retailers:
- Card loading and issue cards as per given process (in case of general cards)
 - For personalize cards acceptance new forms from customer and submit to FI
 - Activation of new cards as per FI's norms
 - Bill payments
 - FI to maintain inventory of prepaid general cards
 - Cash withdraw from card at any PoS
 - Help end users / cardholders about use of cards

3.5. Card Management System:

- a) Manage the entire smart card life cycle management of open standards card specifications, card applications, payment scheme, card account management and card transactions
- b) FI to maintain entire life cycle indicative activities of City Payment Card such as Issuance, Activation/Deactivation, Blockage, Blacklisting, Decommissioning, Re-load /Reuse, Lost/Found, etc.
- c) FI to ensure inter-operability of cards across all use cases
- d) FI to provide exclusive Intellectual Property Rights (IPR) of City Payment Card data format and standards to AUTHORITY
- e) For any non-financial transaction, bank gateway will communicate with AUTHORITY API for authorization and authentication

3.6. Cash Management:

- a) Cash management for field loading points (on behalf of the FI)
- b) FI shall collect the cash at AUTHORITY Premises at the end of the day and/or the amount received from card based transactions and deposit into AUTHORITY's Merchant account on T+2 day (settlement). Where 'T' is date on which money collected

3.7. Reconciliation and Settlement:

- a) Account maintenance – Pool account, Merchant accounts, etc.
- b) Perform transaction clearing, reconciliation, and settlement for all participants in the eco system
- c) Regular reporting on behalf of FI on agreed parameters
- d) Central Clearing House (CCH)
 - CCH should track and account the fare deduction based on unique identification of Smartcard
 - FI shall settle all the transactions done up to 11:00 PM daily. The share of transactions so settled shall be transferred to account of AUTHORITY Merchants in T+2 day
 - CCH should calculate and transfer the AUTHORITY revenue share on non-AUTHORITY payment transaction charges

3.8. Non-payment Usage:

- a) FI to ensure all non-payment use cases are met and necessary integration with IMC / ICCD domain systems are completed
- b) AUTHORITY may appoint 3rd party agency to certify the data formats and standards used by FI for terminal interface

3.9. Marketing, Loyalty, fraud and risk Management:

- a) Marketing Activities
 - Marketing and promotions of card - to come up with innovative marketing strategies time-to-time and expedite adoption of cards across Indore city
 - FI should market Co-branded card with IEC materials through multiple channels such as (web adds, FM, radio, TV, Posters, brochures) with FI own cost
- b) Provide risk, fraud and dispute/chargeback capabilities including KEY management
- c) Provide Loyalty management capabilities (co-branded with AUTHORITY).

3.10. Helpdesk and Dispute Management:

Provide central toll-free helpdesk/ IVRS to handle customer grievances

- a. Provide City Payment Card dedicated card customer support over Phone, Internet and at bank branch level for card issuance, renewal, refunds, customer and merchant account management and customer support with payment gateway and authentication services as per RBI requirements
- b. FI to maintain separate helpdesk /call center to handle calls of AUTHORITY

3.11. Admin Console for AUTHORITY:

- a) Admin console for AUTHORITY to define charges or concession groups:
FI should expose a https-based portal application for IMC/ ISCDL's authorized signatories (with Four eye principle), providing them access to maintain/ modify (Covering but not limited to) –
 - Pricing for each category (For services rendered by IMC merchants)
 - Concessions for senior citizens/ Youth etc.
 - Special seasonal fares
 - Seasonal discounts / Promotions
 - Cash back eligibility criteria (i.e. logic) and percentage etc.,
 - Send Greetings / Alerts / Notifications/ Announcements to citizens
 - Define Business Rules /campaign /promotion rules for a specific validity period
- b) To access MIS reports
- c) AUTHORITY foresees the need for implementing changes during the contract period (e.g. generation of new MIS reports, provision to upload additional formats, modify reconciliation logic, etc.). This may also include incorporation of new modes of payment along with the current modes of payment. FI to provide the above with no additional cost to AUTHORITY.

3.12. Field Training, Hardware maintenance and consumables:

- a) FI should have a local technical team set-up in Indore for operations and support.
- b) Provide training to retailers in Hindi/ English for citizen-friendly operations
- c) Arrange for field training and maintenance of the validators/PoS Terminals
- d) FI should provide training material and user manuals on usage of Smart card validator, Ticket vending machines and Ticket Value machines
- e) FI should provide training on the FI related MIS report and fund reconciliation
- f) Manage hardware on field including requests for adding new hardware
- g) Manage consumables such as printer role and spares in case of faults in the machine

3.13. SMS and E-mail gateway:

- a) Manage email/SMS for citizens and merchants
- b) Check balance through SMS

3.14. e-Payment gateway, Mobile application and web-portal, wallet software:

- a) Augment wallet to the prepaid instruments
- b) Provide an e-payment gateway and portal for self-service and loading
- c) Mobile application (Android/iOS/Windows) connected to mobile wallet to be

developed for all user services like secure QR based tickets, app based payments for parking, etc.

- d) Supports standard Internet security including, but not limited to Digital Certificates, Various levels of encryption, Secure Socket Layers (SSL), Secure Hypertext Transfer Protocol (HTTPS)

3.15. Integration with ICCC:

- a) Provide MIS integration points for AUTHORITY
- b) Provide APIs for mobile apps and web applications for public
- c) Facilitate integration between ICCC (AUTHORITY's Command Center) and MIS dashboard.

4. Exit Management

- a) The exit process would start at the beginning of the last two quarters of sixth year (i.e. from the date of signing of the contract) in case contract is not extended further. At the beginning of the last quarter of the end of the contract period or in the event of termination of contract, the FI is required to provide necessary handholding and transition support, which shall include but not limited to, conducting detailed walkthrough and demos/drills for FI Services system, project documentation, etc., and addressing the queries/clarifications of new FI selected by Authority.
- b) The incumbent FI shall prepare proper books of accounts for all transactions and specifically provide clear details of pending to be fund transfer. FI shall also deposit the cash collected and amount of transaction settled to Authority.
- c) FI shall provide support in terms of smooth handing over of database. The ownership of the data generated upon usage of the system, at any point of time during the contract or expiry or termination of the contract, shall vest with Authority / New FI. At the end of the License Period or earlier Termination of Contract due to FI Event of Default, the FI shall transfer ownership of all Hardware, database, Standard third party software Licenses, source code & APIs of the customized software developed for City Payment Card Project except its proprietary Hardware and Software to Authority at no cost to Authority.
- d) During the contract period, the FI shall ensure that all the documentation including policies, procedures, etc. are kept up to date and the same are handed over to Authority during the Exit management process.

5. Service Level Agreements

5.1. Purpose

The purpose is to define the levels of service provided by selected bidder to the Authority for the duration of the contract. The benefits of this are:

1. Start a process that applies to Authority and selected bidder attention to some aspect of performance, only when that aspect drops below the threshold defined by the Authority.
2. Help the Authority control the levels and performance of selected bidder's services.
3. The Service Levels are between the Authority and selected bidder.

The FI who is awarded the contract will be measured on certain KPIs and SLAs. This is to ensure that they are accountable for their tasks and only get compensated if their work is of high quality and bears maximum efficiency. Some basic parameters in KPI and SLA are mentioned below.

Below are KPIs which can be finalized with the successful FI in consultation with ISCDL. Critical KPIs can have back-to-back measurements and successive lapses can lead to financial penalty for the FI.

No	Performance Indicator	Below Acceptable Levels	At Acceptable Levels	Above Acceptable Levels
1	Customer Satisfaction Index	<=70%	70-90%	=>90%
2	Logistical errors in card personalization (wrong dispatch)	>4.00%	1.00-4.00%	<1.00%
3	Incorrect/Failed personalization -Citizen Inconvenience	>2%	0.2%-2%	<0.2%
4	Card validators/readers not accepting cards	>1% occurrences in a calendar month	0.2%-1%	<0.2%
5	Errors in cashback/reward point calculations and reporting to AUTHORITY	>0.5% of monthly throughput	0.1%-0.5%	<0.1%

No	Performance Indicator	Below Acceptable Levels	At Acceptable Levels	Above Acceptable Levels
6	Percentage of cards issued within agreed hours of completing the card application process	<=90%	90-95%	>=95%

Reporting at regular intervals has to be made available by successful FI for AUTHORITY monitoring using automated tools to calculate the total penalties arising due to non-compliance of the SLA.

5.2. How KPIs would be measured?

No	Performance Indicator	Measurement Methods
1	Customer Satisfaction Index	At every customer touch point, a customer feedback needs to be recorded. The solution for this would be provided by the FI and discussed with AUTHORITY. In parallel, AUTHORITY may conduct independent customer survey.
2	Logistical errors in card personalization (wrong dispatch)	Customer complaints system would pass the information to the KPI measurement system.
3	Incorrect/Failed personalization – Citizen Inconvenience	If the wrong card is printed by FI, count of reprints need to be captured. Sum total of such reprints can be used to monitor incorrect personalization.
4	Card validators/readers not accepting cards	Based on customer complaints, this information should be fed into the KPI measurement system.
5	Errors in cashback/reward point calculations and reporting to AUTHORITY	Recon reports and verification mechanisms deployed.
6	Percentage of cards issued within agreed hours of completing the card application process	Card issuance reports and customer complaints

5.3. Penalty

- i. In case of failure to complete the job in assigned time, a penalty would be imposed at the rate of 0.02% per day for each day delay subject to maximum of 10% of the consideration of Contract. In case of delay due to some genuine rationale, the Authority may extend the time limit if the same is requested in writing.
- ii. In case the overall support of the bidder to the Authority is not found sufficient or satisfactory, the same will also amount to failure and attract a penalty generally up to 10% of the consideration of Contract. The penalty will be proportionate to the time period for which the support is not found to be sufficient or satisfactory.
- iii. In case the bidder fails to deliver service as depicted in the scope of work, penalty will be imposed generally up to 10% of the consideration of contract depending upon the nature of failure or the short-fall.
- iv. In case the bidder fails to be compliant with SLAs and KPIs requirements at regular intervals, penalty will be imposed generally up to 10% of the consideration of contract depending upon the nature of failure or the short-fall.
- v. The decision of competent authority will be final and binding in case of the percentage of penalty to be applied, imposed in all the above cases to the bidder.
- vi. In case of continued failure or short-falls from the established standard, the contract shall be terminated and no payments will be made nor will any damages be paid to the bidder besides forfeiting Security Deposit.

6. MIS requirements

Apart from the financial reconciliation reports which need to be generated by the system every day at a pre-agreed cut-off time, the card management system of FI should be able to generate all of the below items on an ad-hoc as well as a real-time basis for a given date range apart from standard periods like Today, This Week, Last Week, This Month, Last Month, This Quarter, Last Quarter, Month to date, year to date, launch to date.

1. How many people applied for cards with categorical breakup
2. How many people successfully cleared e-KYC
3. How many people did not clear e-KYC
4. PoS terminal wise reports

- a. Applications
 - b. Foot falls
 - c. Collections
 - d. Revenue generated
 - e. Attendance/staff position
 - f. Warning on low or no stationary, consumables etc.
5. How many cards per category issued
- a. Adult
 - b. Youth/children
 - c. Senior citizen
 - d. Concession
 - e. How many General/Tourist cards are being issued by all participating outlets?
6. How many cards are loaded with cash
- a. Cash position in bank – reconciled as of n-1 day
 - b. Shortfall if any
7. How many cards are dormant (with cash loaded) for
- a. 1 month
 - b. 3 months
 - c. 6 months
 - d. 9 months

How many cards are being used for cash transactions - outlet information

1. How many cards are being used at AUTHORITY for non-payment use cases - e.g. library, etc.
2. How many online top-ups are being done
3. How many cardholders have linked their Savings bank account to the card account
4. How many cardholders availed auto top-up facility and top-up patterns as per amount and mode of payment
5. User demographics and popular travel destination
6. Most travelled routes and peak hours in BRTS, city bus
7. The FI website shall provide MIS view of Bank Statements without any limitation on the period
8. MIS Dashboard - The Bank shall provide MIS dashboard displaying the following
 - a. Closing Balance in each Account
 - b. Amount eligible to be withdrawn
 - c. No. of Transactions + Value of transactions (mode-wise) for last 7 days
 - d. No. of EMDs refunded + total value for last 7 days
 - e. Status of Payment Scrolls

Note: These are not exhaustive. Provisions should be kept to fulfill ad-hoc report requests from AUTHORITY.

7. Technical Solution

The entire City Payment Card system (shown in the next section) would be managed by financial institution. This system is a combination of application and database layers which is accessed by all users of the system through standard web-browsers. It would be the pivotal part of the eco-system and centrally communicate to all the parties involved. On one end of the spectrum, there would be the cardholders who would approach validators/card readers in various form factors. These validators/readers would communicate through one or more mediums to the financial institution. On the other end, FI will communicate to all parties as required such as Unique Identity Database (UID), E-mail and SMS gateways, etc.

The financial institution may have following core modules within itself which deal with specific functionality. Necessary audit trail to be maintained. Some of the most important ones are:

- 1) User rights management: This module would maintain a repository of all users and manage their credentials, complexity of passwords, expiry dates of such passwords and also maintain their access privileges.

- 2) Card validation: This module would perform various types of card authentication for both payment and non-payment transaction categories. The validators would primarily communicate with this module and get a response on the next state accordingly. This module would have an integrated fraud and risk management module which would work on defined business rules to ensure that social miscreants do not game the system.

- 3) Printing services: This pertains to the card personalization (both exterior and interior) before it can be sent to the customer. The input for this stage is a pre-personalized card and the output is a finished card which has the customer's photograph, card number, validity date and Name. Though the module is present in the FI, it may be accessed at a remote printing site where bulk printing is carried out.

- 4) Courier & Logistics module: Cardholders can get cards home-delivered free of charge.

This module would give a tracking feature which can be accessed by anyone who has access to the web portal.

5) Supply Chain module: The sourcing of cards, maintaining inventory and predicting the demand for future procurement are all handled by this module. This module would work on analysis of past data and have a manual override feature to ensure that only adequate quantities of supplies such as blank cards, printer parts etc. are ordered and maintained. This will also take care of auto-invoicing, payments to vendors and all related processes.

6) Security key management module: All smart card keys are maintained in this secure module and can only be retrieved by key custodians. The module will manage a pair of custodians. In this case, the two parties could be one each from FI and one from AUTHORITY/ AFC vendor as designated.

7) Customer care module: This is solely responsible for handling all customer queries and tracking their grievances. This is accessible both by cardholders and helpdesk agents.

8. Network & Infrastructure Requirements

ISCDL would evaluate the responses and select a qualified vendor who would then be awarded the contract. In the response stage, the vendor would come up with a comprehensive application architecture and solution.

Since the network and infrastructure designs will vary from one vendor solution to another, the requirements cannot be defined now. The optimum selection would depend on various factors such as total cost of ownership, robustness of the solution architecture and previous implementation track record.

The proposed solution should have all adequate failsafe mechanisms so that it does not cause inconvenience to the users of City Payment Cards. At no point, should users experience issues due to network and infrastructure failure. Below are general expectations from system w.r.t. network and infrastructure.

8.1. Infrastructure Requirements

a) The solution hardware and software architecture should be able to meet the

- requirements to process 500 concurrent transactions per second initially, and vertically scalable up to 2000 with an expected growth of 20% every year.
- b) System should be capable of expanding and scaling up to 20% with additional deployment of required hardware and necessary amendments to software for smooth operation of City Payment Card system.
 - c) Server uptime more than 99.98%.
 - d) Guarantee more than 99% availability of services.
 - e) Sufficient data storage to maintain six months' transaction data and eighteen months' summarized reports available on-line for analysis, reporting and investigation.
 - f) Three years' complete data Backup to be available onsite.
 - g) System shall support 1200-1500 concurrent users, readers / validators for total services with at least 30% scalability.

8.2. Performance Requirements

The proposed system shall meet the following essential performance specifications:

1. Speed of Providing Service to Commuters

- a) Point of Sale Terminals (providing a non-registered SMART CARD across the counter) – less than 1 minute per customer
- b) All types of readers for reading / writing from/to the card & capturing a transaction – 1 seconds
- c) Electronic Ticketing Machine for capturing a transaction and print out the ticket – 1 second
- d) Printer to print out the ticket/receipt – 4 seconds

2. Speed of Transfer of Transactions and Important Data

- a) From POS terminal to backend & vice-versa - Maximum 1 second after a transaction is made on either side (in the quickest possible setting)
- b) From Validator to backend and vice-versa - less than 1 min after a transaction is made

- on either side (in the quickest possible setting)
- c) From backend, transfer of information like fare tables, blacklist, etc. to validators, ETMs, POS terminals – within 15 min of initiating this transfer of data from backend

3. Speed of Generation of MIS reports

- a) Maximum time after ‘firing’ a report to the time of report generation – 30 seconds to 90 seconds (depending on the size of report)

9. Ending Note

With absolute clarity on the approach vis-à-vis tendering the entire gamut of services to financial institution, AUTHORITY would like to take a phased approach.

- a) In the first phase, AUTHORITY and Financial Institution will launch a limited pilot to ensure that the cards are issued and start reaching cardholders. Then as part of phase 1, these cards to be used in all city buses. The maximum expected timeline for pilot implementation is 2 months and **Phase-1 completion is 4 months** from signing of agreement. As part of Pilot, it is expected that all required systems are developed and deployed. Pilot phase will be assumed to be successful, post successful validation of usage 3 BRTS stops & one City bus route.
- b) In second phase, the FI is expected to cover all other AUTHORITY’s services. The maximum expected timeline for **Phase-2 completion is 8 months** from signing of agreement.
- c) The usage of cards at NON-AUTHORITY services including merchant payments in retail outlet environment will be developed by financial institution in parallel along both the phases and comes under FI’s purview.
- d) The application’ security policy should be aligned to standard industry practices and RBI or any applicable regulating agency’s guidelines. Both application and the underlying infrastructure operations/physical environments should employ security frameworks that span multiple standards, including the ISO 27000 family of standards, NIST 800, and others.
- e) The security framework is recommended to be based on ISO 27001/27018 which would enable FI to meet or exceed security standards and implementation guidelines. ISO 27001 defines how to implement, monitor, maintain, and continually improve the Information Security Management System (ISMS).

- f) The underlying information security policy is also recommended to be aligned with ISO 27002. ISO 27002 is not a certification but provides a suggested set of suitable controls for the Information Security Management System

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