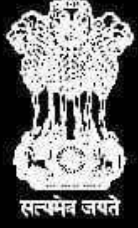


लोकसत्ता  
लोकमान्य लोकसत्ता

# महात्मा फुले मागासवर्ग विकास महामंडळ (मर्यादित), मुंबई

(महाराष्ट्र शासनाचा अंगिकृत उपक्रम)

CIN NO. U7499MH1978SGC020479



सत्यमेव जयते



महात्मा फुले मागासवर्ग विकास महामंडळ मर्यादित हे मफुमाविम वेब पोर्टलकरिता ब्लॉकचेन इंटीग्रेटेड सिस्टमच्या आरेखन, विकास, कार्यान्वयन आणि देखभाल करण्याकरिता संस्थांकडून ऑनलाईन प्रस्ताव मागवित आहेत.

तपशिलवार माहितीकरिता कृपया

<https://mpbcdc.maharashtra.gov.in> येथे भेट द्यावी.

सही / - महाव्यवस्थापक

**Request for Proposal**  
**For the**  
**Implementation and Maintenance of Financial Assistance**  
**Programme using Blockchain Technology for Mahatma**  
**Phule Backward Class Development Corporation Ltd.**  
**Mumbai**  
**Social Justices and Special Assistance**  
**Govt of Maharashtra**



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## 1. Glossary of Terms

|        |   |
|--------|---|
| MPBCDC | Mahatma Phule Backward Class Development Corporation Ltd. |
| MD     | Managing Director   |
| GM     | General Manager   |
| IT     | Information Technology                                    |
| TPS    | Transactions Per Second                                   |
| EMD    | Earnest Money Deposit                                     |
| BSN    | Beneficiary Service Network                               |
| QCBS   | Quality and Cost Based Selection                          |
| RFP    | Request for Proposal                                      |
| SDLC   | Software Development Life Cycle                           |
| SLA    | Service Level Agreement                                   |
| SI     | System Integrator   |
| IA     | Implementation Agency                                     |

## 2. Fact Sheet

| Index | Item   | Description  |
|-------|--|--|
| 1     | Project Title  | Proposal to Build a Beneficiary Service Network Powered by Blockchain Technology |
| 2     | Name of the Purchaser                                    | Mahatma Phule Backward Class Development Corporation Ltd. (MPBCDC)               |
| 3     | Contact Person, Address and Email                        | General Manager, MPBCDC  |
| 4     | Date of Publication of RFP                               | 7 <sup>th</sup> October 2024   |
| 5     | RFP Document Fees  | ₹ 11,800/- (₹ 10,000+18% GST)  |
| 6     | Earnest Money Deposit                                    | ₹ 5,00,000/-   |
| 7     | Selection Method   | Quality and Cost Based Selection (QCBS)  |
| 8     | Last date for submission of Prebid queries by Bidders    | 14 <sup>th</sup> October 2024  |
| 9     | Pre-Bid Meeting  | 15 <sup>th</sup> October 2024  |
| 10    | Publication of Corrigendum (If any)                      | To be notified later   |
| 11    | Last date and time for receipt of proposals from Bidders | 19 <sup>th</sup> October 2024 at 4.00 pm   |
| 12    | Date and time for opening of Technical Proposals         | 19 <sup>th</sup> October 2024 at 4.00  |
| 11    | Date and time for Technical Presentation                 | To be notified later   |
| 12    | Date and time for opening of Commercial Bids             | To be notified later   |
| 13    | Bid Validity Period                                      | 180 days   |
| 14    | Bid Term   | 5 years  |

### **3. Invitation to the Bid**

Mahatma Phule Backward Class Development Corporation Ltd. (MPBCDC) is inviting online bids for “Tender for Selection of Agency for the Implementation and Maintenance of Financial Assistance Schemes and Programs using Blockchain”. This invitation to bid is open to all bidders meeting the minimum eligibility criteria as mentioned in this RFP Document. Actual award of contract will follow the conditions as per this document. This document is given for enabling the bidders to know the tender conditions to guide them in filling up the technical bid and financial bid for the said work.

### **4. Introduction**

The Mahatma Phule Backward Class Development Corporation Limited (MPBCDCL) was established by the Government of Maharashtra under the Companies Act 1956 on 10th July 1978 with the objective of bringing about economic upliftment of financially weak families of the Scheduled Castes, and the Safai Karmachari community in the state of Maharashtra. MPBCDC is governed by the Department of Social Welfare and Special Assistance (Govt of Maharashtra) and the Department of Social Justice (Govt of India). The main objectives of MPBCDC are as follows.

To plan, promote, aid, counsel, assist, finance, protect and undertake, on its own or in collaboration with Government, Statutory Bodies, Companies, firms, individuals or through such organization or agencies, programs of agricultural development, marketing , processing, supply and storage of agricultural produce, small scale industries, building construction, transport and such other business, profession (such as medical, engineering, architecture, etc.), trade or activity for the benefit and welfare of Backward Classes.

To provide capital, credit means, resources, and technical and managerial assistance for the prosecution of the work, business, profession, trade, or activity to enable Backward Classes to develop, improve economic conditions/ methods and techniques of production, manufacture, management, and marketing.

To enter into contracts with and take up indents from, the Government of India and State Governments in the Union of India, Statutory Bodies, Companies, Firms or Individuals or organization for fabrication, manufacture, assembly and supply of agricultural produce, goods, materials, articles and equipment of every description and to arrange for the performance of such contracts and indents by sub-contracting them to, or placing orders in respect thereof, to the persons belonging to Backward Class or seek the assistance for the fabrication, manufacture, assembly or supply of such agricultural produce, goods, materials, articles or equipment or parts thereof, servicing or processing in

connection therewith, or such managerial services as may be necessary for the due performance of such contracts and indents, and to have the agricultural produce, goods, materials, articles and equipment fabricated, manufactured, assembled and supplied;

To grant or guarantee or recommend the grant of loans to persons belonging to Backward Classes to whom sub-contracts are given or orders are issued, as aforesaid, in order to enable them, in carrying out the sub-contracts or orders, to finance production, plant construction, conversion or expansion, including the acquisition of land, or to finance the construction, conversion or expansion, including the acquisition of land, or to finance the acquisition of equipment, facilities, machinery, supplies or materials, or to supply such concerns with working capital to be used in the manufacture of articles, equipment, supplies or materials under contract to Government or to this Corporation, to provide them with such financial, technical, managerial and other assistance as may be deemed necessary for the purpose of enabling them to execute and carry out the sub-contracts and other sub contacts and organize production and manufacture for meeting such contracts and sub-contracts adequately and according to specification, and to ensure satisfactory production but all necessary instruction, assistance, inspection and supervision.

#### **4.1 Blockchain Technology**

Blockchain is a peer-to-peer network technology that securely stores a chain of linked records in a distributed database. These records are protected and secured using cryptographic algorithms. The captured data records are maintained on all the participating machines/nodes in the peer-to-peer network. A mechanism known as consensus algorithm is used to add data to the blockchain and to maintain data integrity across the nodes. This mechanism ensures that data added to the blockchain cannot be modified easily. Due to this feature, the data stored in a blockchain is termed immutable. This property makes the technology extremely useful from a data integrity point of view. Once these transactions are captured on the blockchain, it becomes tamper-proof and even if the records get corrupted in the source system, these documents and certificates do not get tampered. The technology can also be used to detect any modifications done in the source systems either wilfully or due to an error.

#### **4.2 Verifiable Credentials**

Verifiable credentials are digital credentials that can be cryptographically verified, ensuring their authenticity and integrity. Verifiable credentials should follow the open standards set by the World Wide Web Consortium. They are designed to represent the information found in physical credentials



such as AADDHAAR, passport, education certificate, driving license etc. as well as new type of information that have no physical equivalent, like digital ownership of a bank account.

Verifiable credentials should be digitally signed, making them tamper resistant and instantly verifiable. The holder of a verifiable credential has control over the credential and can present them to anyone in a secure and seamless manner. Verifiable credentials operate within a triangle of trust involving issuer, holder, and verifier. The roles of these stakeholders are described below.

There are a set of key stakeholders in the establishment of a verifiable credential network.

- **Issuer:** The entity that creates and issues the credential. This could be a government department issuing a national identity or an academic institution issuing an education certificate. In the scope of this RFP, the issuer will be MPBCDC.
- **Holder:** The individual or entity that receives and stores the credential. The holder can present the credential to other when needed. The beneficiaries who register in the NAVYUG portal application will be the holders of the credential.
- **Verifier:** The entity that verifies the authenticity of the credential. This included all the stakeholders related to the MPBCDC loans, schemes who need to verify the disbursement and payment of loans, completion of trainings and enrolment in the job applications.

Through verifiable credentials we can empower the beneficiaries by enabling them as the custodians of credentials throughout the beneficiary service lifecycle and scheme management architecture.

### **4.3 Blockchain based Credentials.**

Blockchain technology offers several benefits for verifiable credentials. The combination of cryptographic schemes and consensus algorithms used in blockchain makes the digital credentials tamper resistant. This ensures integrity and authenticity of the credential. Blockchain technology has a transformative potential in the issuance, storage, sharing and verification of digital credentials.

All transactions on blockchain are transparent and traceable. This builds trust among all parties involved as the credentials can be easily verified. As a blockchain based distributed ledger operates on a decentralised network, it reduces the risk of single point of failure, and enhances the resilience of the credentialing system. Blockchain based verification process eliminates the need for trusted third parties allowing for near instantaneous verification of credentials. This reduces the time and cost associated with traditional verification methods. Individuals have control over their own

credentials and can choose what information to share and with whom. This enhances privacy and empowers users.

## 5. Project Objectives

MPBCDC aims to implement a Financial Assistance Management End to End Solution using Blockchain Technology with a focus on delivering schemes, loans and associated initiatives in a verifiable manner providing state of the art standards of transparency and trust. MPBCDC aims to undertake Blockchain implementation on the NAVYUG Beneficiary Portal as part of the e-Governance initiatives. NAVYUG Beneficiary Portal is a web-based application to manage the scheme delivery and beneficiary selection for the NAVYUG scheme. The existing portal is built using the traditional centralized architecture and implementation approach. To further strengthen this system and to promote a secure, seamless, and fully auditable process for beneficiary selection, benefit allocation, and beneficiary data management, the department intends to integrate the current beneficiary registration system with a permissioned blockchain based identity management system, loan origination system, loan management system, payment system and notification system. By leveraging the new systems, the NAVYUG scheme can benefit from its inherent features such as immutability, transparency, accountability, and decentralisation etc. The use of a permissioned blockchain will allow the authorized stakeholders to participate in the network while maintaining control over access rights. This transition will enhance the security of the beneficiary selection process, eliminating the risk of tampering, and provide a clear audit trail of all transactions. Furthermore, the blockchain based system will promote trust among participants and stakeholders by ensuring that the selection process is fair, transparent, and resistant to any single point of failure. Hence the department is looking for development of a sophisticated End to End System to be integrated into the existing NAVYUG portal.

MPBCDC has envisaged a Blockchain based Beneficiary Service Network to secure the identities, interactions, processes, and workflows associated with the Navyug Beneficiary Registration Portal. It is intended to implement a Blockchain platform in a modular, scalable, interoperable, and portable manner.

The Beneficiary Service Network platform would provide an immutable ledger secured by cryptography. Additionally, it would host a family of smart contract enabled workflows that would allow MPBCDC to build efficient, non-repudiable and automated workflows. The Beneficiary Service Network will enable the MPBCDC to establish a trusted and tamper proof cryptographic anchor which can be used to create efficient and economic workflows and records for departmental and citizen transactions.

## 6. About Financial Assistance Programme

1. **Financial Assistance Programme:** The objective of the MPBCDC is upliftment of the SC community using financial assistance from Central/State Governments in Maharashtra.

State Schemes – Subsidy, Money Margin, Direct Finance Ministry of Social Justice and Special Assistance, Govt. of Maharashtra.

Central Schemes – NSFDC, NSKFDC under the Ministry of Social Justice and Empowerment, Govt. of India (which contains more sub schemes and programmes)

Skill Development Training Program under the PM-AJAY Scheme, Ministry of Social Justice, and Empowerment, & Ministry Skill Development of Govt. of India.

## 7. Benefits of Blockchain Based Approach

Following are the benefits of blockchain technology based financial assistance management solution implementation.

- **Transparent Fund Distribution:** Blockchain's decentralized ledger ensures that all transactions are recorded transparently and immutably. This can help in tracking the distribution of funds, ensuring that the allocated money reaches the intended beneficiaries without any diversion or corruption.
- **Smart Contracts:** These are self-executing contracts with the terms of the agreement directly written into code. They can automate the release of funds based on predefined criteria, such as verification of beneficiary eligibility, thereby reducing administrative overhead and delays.
- **Identity Verification:** Blockchain can be used to create secure and tamper-proof digital identities for beneficiaries. This can streamline the process of verifying eligibility and reduce fraud by ensuring that assistance is provided only to those who qualify.
- **Efficient Record-Keeping:** All transactions and records can be stored on the blockchain, making it easier to audit and review the program's performance. This can help in identifying areas for improvement and ensuring compliance with regulations.
- **Decentralized Management:** By decentralizing the management of financial assistance programs, blockchain can reduce the reliance on intermediaries, thereby cutting costs and increasing efficiency.
- **Enhanced Security:** Blockchain's decentralized nature and cryptographic features ensure a high level of security, making it extremely difficult for unauthorized parties to tamper with or forge documents/certificates/transactions.
- **Transparency and Traceability:** The transparent and immutable nature of blockchain allows for real-time tracking and verification of records and transactions. This can

significantly reduce the risk of fraud and enhance the overall credibility of our record management and transaction management systems.

- **Efficiency:** Blockchain can streamline the seedling identity storage and verification process by automating certain aspects, reducing paperwork, and minimizing the need for manual intervention. This, in turn, can lead to faster processing times and improved overall efficiency.
- **User Empowerment:** Blockchain technology allows citizens to have greater control over their activities, enabling them to share or verify their activities more easily and securely.
- **Transparency in Loan Management:** Provide comprehensive snapshot of the lending process, key metrics, and insights for effective decision-making.
- **Traceability of Loan repayments:** Facility to track repayments based on the defined timelines in a tamper evident and transparent manner.
- **Facilitate tamper proof reporting:** Periodic reporting to Credit Scoring companies in cases of defaults based on the data generated from blockchain ledger.
- **Collateral Management:** Facility to record collateral details through tamper evident workflows and processes.
- **Payment Distribution:** Facilitate disbursement of the funds using various digital payment mechanisms leveraging automated workflows integrated to blockchain smart contracts.
- **Notification System:** Facilitate sending alerts to relevant stakeholders at defined time intervals via SMS or Email as required.
- **Dashboard:** various customise reports preparation and data managements.

Thus, implementing blockchain in these programs can lead to more seamless, secure, and scalable distribution of resources, ultimately benefiting the backward classes more directly and transparently.

## 8. Instructions to the Bidder

The RFP document can be downloaded from the web site (<https://maharashtra.nextprocure.in/>) and MPBCDC web site (<https://mpbccdc.maharashtra.gov.in/>) up to the date and time mentioned in the RFP Notice.

While efforts have been made to provide comprehensive and accurate background information, requirements and specifications, Bidders must form their own conclusions about the solution needed to meet requirements. Also, bidders may wish to consult their own legal advisers in relation to this RFP.

All information supplied by Bidders may be treated as contractually binding on the Bidders, on successful award of the assignment by MPBCDC based on this RFP.

No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of MPBCDC. Any notification of preferred bidder status by MPBCDC shall not give rise to any enforceable rights by the Bidder. MPBCDC may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of MPBCDC.

This RFP supersedes and replaces any previous public documentation and communications, and Bidders should place no reliance and dependence on such communications.

Bidders are advised to study all instructions, forms, terms, requirements, and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.

Failure to comply with the requirements of this paragraph may render the proposal non-compliant and the proposal may be rejected. Bidders must

- Include all documentation specified in this RFP.
- Follow the format of this RFP and respond to each element in the order as set out in this RFP.
- Comply with all requirements as set out within this RFP.

**Pre-Bid Meeting and Certification**

MPBCDC shall hold a pre-bid meeting with the prospective bidders on the 16<sup>th</sup> October and 3 pm.

Link will be provided to the interested bidders on request through email to [gm@mpbccdc.in](mailto:gm@mpbccdc.in) before 15<sup>th</sup> October and 3 pm.

The representatives of the bidders (restricted to two persons) may attend the pre-bid meeting.

The bidders should submit their queries in writing in the below specified format (in MS-Word only) by the schedule as mentioned in the RFP prior to attending the pre-bid meeting.

During the meeting, the representatives of the bidders should only ask showstopper queries and relevant queries which seem to be an obstacle to them to participate in the tender. All other queries will be answered and published as response sheet.

| S. No | RFP Document Reference(s) (Section & Page Number(s)) | Content of RFP requiring Clarification(s) | Points of Clarification |
|-------|--|---|-------------------------|
| 1.    |  |   |                         |
| 2.    |  |   |                         |

MPBCDC shall not be responsible for any bidder’s queries received by them in any other format. Any request for clarifications after the indicated date and time mentioned will not be entertained by MPBCDC.

## Responses to the Pre-Bid Queries and Issue of Corrigendum

The program coordinator designated by MPBCDC shall endeavour to provide timely response to all queries. However, MPBCDC neither makes representation or warranty as to the completeness or accuracy of any response made in good faith, nor does MPBCDC undertakes to answer all the queries that have been posed by the Bidders.

At any time prior to the last date of receipt of bids, MPBCDC may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the RFP document by corrigenda and / or addenda.

The Corrigendum (if any) & clarifications to the queries from all bidders will be posted on the website - <https://mpbccdc.maharashtra.gov.in/> and emailed to all participants of the pre-bid conference.

Any such corrigenda and / or addenda shall be deemed to be incorporated in this RFP.

To provide prospective Bidders reasonable time for taking the corrigenda and / or addenda into account, MPBCDC may, at its discretion, extend the last date for the receipt of proposals.

### Key Requirements of the Bid

MPBCDC may terminate the RFP process at any time and without assigning any reason. MPBCDC makes no commitments, express or implied, that this process will result in a business transaction anymore.

This RFP does not constitute an offer by MPBCDC. The bidder's participation in this process may result in MPBCDC selecting the bidder to engage towards execution of the contract.

### RFP Document Fees

The bidder must furnish along with its bid required bid processing fee amounting to ₹ 10,000/- inclusive of GST @ 18% in shape of DD in favour of MPBCDC, drawn in any scheduled commercial bank and payable at Mumbai failing which the bid will be rejected. They may also be paid through electronic mode to the following account.

|                       |  |
|-----------------------|--|
| Bank Account No:      | 001105026934   |
| Payee Name:           | Mahatma Phule Backward Class Development Corporation Ltd.  |
| Bank Name and Branch: | ICICI Bank, S. V. Road, Andheri west branch Mumbai- 400058 |
| Account Type:         | Saving   |
| IFSC:                 | ICIC0000011  |

### Earnest Money Deposit

Bidders shall submit, along with their bids, EMD of ₹ 5,00,000/- (Five Lakh Only) in the shape of Bank Draft OR Bank Guarantee (in the format specified in this RFP) issued by any scheduled commercial bank in favour of MPBCDC, payable at Mumbai, and should be valid for 180 days from the due date of the tender / RFP. This EMD should be submitted in the General Bid.

The EMD may also be paid through electronic mode to the following financial:

|                       |  |
|-----------------------|--|
| Bank Account No:      | 001105026934   |
| Payee Name:           | Mahatma Phule Backward Class Development Corporation Ltd.  |
| Bank Name and Branch: | ICICI Bank, S. V. Road, Andheri west branch Mumbai- 400058 |
| Account Type:         | Saving   |
| IFSC:                 | ICIC0000011  |

The EMD of all unsuccessful bidders would be refunded by MPBCDC within 60 days of the bidder being notified as being unsuccessful. The EMD, for the amount mentioned above, of successful bidder would be returned upon submission of the Performance Bank Guarantee.

The EMD is interest free and will be refunded to the unsuccessful bidders without any accrued interest on it.

The bid / proposal submitted without EMD, mentioned above, will be summarily rejected.

As per "Revised Rule 170 (i), the EMD shall be exempted for eligible bidders - Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organisation or the concerned Ministry or Department or Startups as recognised by Department of Industrial Policy & Promotion (DIPP).

The EMD may be forfeited:

- If a bidder withdraws its bid during the period of bid validity
- In case of a successful bidder, if the bidder fails to sign the contract in accordance with this RFP.
- If found to have a record of poor performance such as having abandoned work / having been blacklisted / having inordinately delayed competition / having faced commercial failures etc.
- The bidder being found to have indulged in any suppression of facts, furnishing of fraudulent statement, misconduct, or other dishonest or other ethically improper activity, in relation to this RFP.

- A proposal contains deviations (except when provided in conformity with the RFP) conditional offers and partial offers.

### **Submission and Opening of Proposals**

- The bidders should submit their responses as per format given in this RFP in the following manner.
  - Response to the Pre-Qualification Criteria (1 Original + 1 Copy) in the first envelope
  - Technical Proposal - (1 Original + 1 Copy) in the second envelope
  - Commercial Proposal (1 Original) in the third envelope
- Please note that the prices should not be indicated in the Pre-Qualification Response or Technical Proposal but should only be indicated in the Commercial Proposal
- The Response to Pre-Qualification criterion, Technical Proposal and Commercial Proposal should be covered in separate sealed envelopes super-scribing "Pre-Qualification Proposal", "Technical Proposal" and "Commercial Proposal" respectively. Each copy of each bid should also be marked as "Original" OR "Copy" as the case may be.
- The three envelopes containing copies of Pre-qualification Proposal, Technical Proposal and Commercial Proposal should be put in another single sealed envelope clearly marked "Response to RFP for <Name of the assignment> - < RFP Reference Number> and the wordings "DO NOT OPEN BEFORE <Date and Time>".
- The outer envelope thus prepared should also clearly indicate the name, address, telephone number, E-mail ID, and fax number of the bidder to enable the Bid to be returned unopened in case it is declared "Late".
- All the pages of the proposal must be sequentially numbered and must contain the list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bid.
- All pages of the bid including the duplicate copies, shall be initialled and stamped by the person or persons who sign the bid.
- In case of any discrepancy observed by MPBCDC in the contents of the submitted original paper bid documents with respective copies, the information furnished on original paper bid document will prevail over others.
- The response to the Pre-Qualification Criteria, Technical Proposal and Commercial Proposal should be submitted through Online mode.

### **Authentication of Bids**

A Proposal should be accompanied by a power-of-attorney in the name of the signatory of the Proposal.

### **Late Bids**



Bids received after the due date and the specified time (including the extended period if any) for any reason whatsoever, shall not be entertained and shall be returned unopened.

The bids submitted in hard copy or by post/e-mail etc. shall not be considered and no correspondence will be entertained on this matter.

MPBCDC reserves the right to modify and amend any of the above-stipulated condition/criteria depending upon project priorities vis-à-vis urgent commitments.

### **Proposal Preparation Costs**

The bidder shall be responsible for all costs incurred in connection with participation in the RFP process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings or discussions or presentations, preparation of Proposal, in providing any additional information required by MPBCDC to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process. MPBCDC will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

### **Language**

The Proposal should be filled by the Bidder in English language only. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by Bidders. For purposes of interpretation of the Proposal, English translation shall govern.

### **Acceptance and Rejection of Bids**

MPBCDC reserves the right to reject in full or part, any, or all bids without assigning any reason thereof. MPBCDC reserves the right to assess the Bidder's capability and capacity. The decision of MPBCDC shall be final and binding. Bid should be free of overwriting. All measures, correction or addition must be clearly written both in words and figures and attested. Offers not submitted in prescribed manner or submitted after due date and time are liable to rejection.

### **Venue & Deadline for Submission of Proposals**

Proposals, in its complete form in all respects as specified in the RFP, must be submitted to < Nodal Agency> at the address specified below:

|                     |  |
|---------------------|--|
| <b>Addressed To</b> | General Manager, IT, MPBCDC  |
| <b>Name</b>         | Mahatma Phule Backward Class Development Corporation Ltd. (MPBCDC)   |
| <b>Address</b>      | Shop No.N/1, Juhu Supreme Shopping Centre Gulmohar, Cross Rd Number 9, JVPD Scheme, Juhu, Mumbai, Maharashtra 400049 |

|   |  |
|---|--|
| <b>Telephone</b>                          | +91 8380066680                               |
| <b>Fax Nos.</b>                           | <Fax No.>                                    |
| <b>Email ids</b>                          | <a href="mailto:gm@mpbcd.in">gm@mpbcd.in</a> |
| <b>Last Date &amp; Time of Submission</b> | 19 <sup>th</sup> October 2024 before 4 pm    |

## 9. Evaluation Criteria

The overall objective of this evaluation process is to select a capable and qualified firm and providing associated capacity building, training, and operations & maintenance support. The Pre-Qualification proposal will be evaluated as per criteria mentioned below and only those bidders who qualify the requirements will be eligible for next set of evaluations. Technical Proposal and Commercial Proposal of Bidders who do not meet the Prequalification criteria will not be opened in the portal.

The technical score of all the bidders would be calculated as per the criteria mentioned below. All the bidders who achieve at least 70 marks in the Technical Evaluation would be eligible for the next stage, i.e., Commercial Bid opening. Bidders should submit supporting documentary evidence with respect to the above, in absence of which their proposals will be summarily rejected.

### Consortium and Sub-Contracting

Consortium or Subcontracting of any kind shall not be acceptable for this project implementation and maintenance. Any deviation would lead to disqualification or termination of the same.

### Pre-Qualification Criteria:

| Sr. No. | Pre-Qualification Criteria   | Supporting Documents   |
|---------|--|--|
| 1       | <p>The bidder should be a Company or LLP registered under Companies Registration act 1956/2013 or LLP Act, 2008 or Proprietorship or Partnership Concern registered under MSME and must have 2 years of existence in India as on bid submission date.</p> <p>Exemption shall be given to DPIIT/MSME registered startups in this criterion. *</p>   | <p>1. Valid copy of the Certificate of incorporation by the recognised Government body.</p> <p>2. "Certificate of Recognition" as a Startup from the Ministry of Commerce and Industry</p>                                   |
| 2       | <p>Bidders should have successfully developed, deployed, and provided technical support for a Blockchain Technology platform implementation in India meeting the below criteria (The customer should be outside of the bidder's organization who pays for the solutions being provided).</p> <p>- One Blockchain platform for customer with value not less than <b>INR 1 Crore</b>.</p> <p><b>-OR-</b></p> <p>- Two Blockchain platforms for one or more customers with value not less than <b>INR 60 Lakhs</b> each.</p> <p><b>OR-</b></p> <p>- Three Blockchain platforms for one or more customers with value not less than <b>INR 30 Lakhs</b> each.</p> | <p>Completion Certificates from the client/customer.</p> <p><b>OR</b></p> <p>Work Order + Payment received from the client.</p> <p>Technical presentation needs to be made by bidders who qualify for all such projects.</p> |

|   |  |  |
|---|--|--|
|   | Projects should have been executed during the last five financial years.   |  |
| 3 | <p>Bidders should have successfully implemented the technology platform for the Banking Activities like loan management and loan disbursement related implementations in India meeting the below criteria (The customer should be outside of the bidder's organization who pays for the solutions being provided).</p> <p>Exemption shall be given to DPIIT/MSME registered startups in this criterion. *</p>  | <p>Completion Certificates from the client/customer.</p> <p><b>OR</b></p> <p>Work Order + Payment received from the client.</p>  |
| 4 | The Bidder should be a Software Development firm and should be in operations in successful Software Development, Software Customization & Implementation anywhere in India for at least 5 Years as on date of submission of bid.   | Work Orders / Contract Agreements/ Client Certificates confirming year and area of activity.   |
| 5 | <p>The Bidder should have an annual turnover from IT Software related services (Software Development/ Software Customization or Implementation) of at least Rs. 5 Crore during each of the last three financial years (2020-21, 2021-22 and 2022-23) or cumulative turnover of Rs. 15 Crore for the last three financial years (2020-21, 2021-22 and 2022-23)</p> <p>Exemption shall be given to DPIIT/MSME registered startups in this criterion. *</p> | <p>Audited and Certified Balance Sheet &amp; Profit/Loss Account of last 3 Financial Years.</p> <p>CA certificate mentioning turnover of Software development/IT projects/products development and Support service activities.</p> |
| 6 | <p>The Bidder should have successfully executed at least 3 Software Development projects during the last 5 years as on date of submission of bids in which each project cost should not be less than INR 5 Crore with project completion certificate.</p> <p>Exemption shall be given to DPIIT/MSME registered startups in this criterion. *</p>   | Project completion Certificate/Work Order / Project Contract Document / Agreement / Satisfactory Completion Certificate by the client with details of project value and scope.   |
| 7 | Bidder should not have violated / infringed on any Indian or foreign trademark, patent, registered design, or other intellectual property rights any time anywhere in India.   | Affidavit regarding non-violation / infringement of any Indian or foreign trademark, patent, registered design, or other intellectual property rights must be submitted by the   |

|    |  |  |
|----|--|--|
|    |  | bidder as per Attached format.   |
| 8  | <p>The Bidder should have at least one office in Maharashtra and preferably support centres/logistics for the entire state. If the Bidder is not having any office in Maharashtra, then the bidder should submit a letter of undertaking to open an office in Maharashtra within 45 days from the date of issue of work order if they are awarded the work.</p> <p>Exemption shall be given to DPIIT/MSME registered startups in this criterion. *</p> | <p>The copy of Property tax bill/Electricity Bill/Telephone Bill/G.S.T.-C.S.T. Registration/Lease agreement should be submitted as proof Or Undertaking Letter</p> |
| 9  | The bidder should have ISO 9001:2015 and CMMi level 3 or above certification valid as on the bid submission date.  | Bidders to submit the valid certification & its authenticity must be verified.   |
| 10 | The Bidder should not be under a declaration of ineligibility for corrupt and fraudulent practices issued by Government of Maharashtra or any of the PSU in the state of Maharashtra. Certificate / affidavit mentioning that the Bidder is not currently blacklisted by Government of Maharashtra or the PSU in the state of Maharashtra is due to engagement in any corrupt & fraudulent practices.  | Self-Declaration   |
| 11 | The bidder may submit the bid as a Joint Venture Partner. However, No Consortium will be allowed.  | <p>Self-declaration</p> <p>Joint Venture Agreement</p>   |

**\*Exemptions for DPIIT/ MSME registered startups shall be applicable as per the guidelines:**

- Rule 173 (i) of the GFRs exempts the startup from Prior Experience and Prior Turnover requirements for DPIIT Recognized Startups subject to meeting of quality & technical specifications and making suitable provisions in the bidding document.
- Ministry of "Micro, Small & Medium Enterprises (MSMES) vide Policy Circular No.1(2) (1y2016-MA dated 10th March,2016 has clarified that all Central Ministries / Departments / Central Public Sector Undertakings (CPSUS) may relax condition of prior turnover and prior experience with respect of Micro & Small Enterprises (MSEs) in all public procurements subject to meeting of quality and technical specifications.

**Note: In case if Tenderer finds that submitted documents are insufficient then Bidder is expected to give additional documents to confirm eligibility based on request from Tenderer.**

**Technical Evaluation Criteria:**

Bidders who meet the pre-qualifications/eligibility requirements would be considered as qualified to move to the next stage of Technical and Financial evaluations.

| <b>Technical Evaluation</b> |  |                  |  |   |
|-----------------------------|--|------------------|--|---|
| <b>S.N.</b>                 | <b>Parameter</b>   | <b>Max Marks</b> | <b>For Companies other than Startups</b>   | <b>For Startups</b>                                     |
| <b>1.</b>                   | <b>Past Experience</b>   | <b>50</b>        | 1.1 + 1.2 + 1.3+1.4 clause   |   |
| 1.1                         | Experience of implementation in BFSI/Govt Sector   | 15               | > 5 Completed / Ongoing Projects – 15 marks.<br>> 3 and <= 5 Completed / Ongoing Projects – 12 marks<br>>=1 and <=3 Completed / Ongoing Project – 10 marks |   |
| 1.2                         | Experience in implementation of Blockchain Technology  | 15               | > 5 Completed / Ongoing Projects – 15 marks.<br>> 3 and <= 5 Completed / Ongoing Projects – 12 marks<br>>=1 and <=3 Completed / Ongoing Project – 10 marks |   |
| 1.3                         | No. of years of operation in India as on 31.03.2024  | 10               | <= 3 years – 3<br>> 3 and <= 5 years – 5<br>> 5 and <= 10 years – 10<br>(Additional 1 mark for each additional year, subject to max of 5 marks)            | <b>Exempt for Startups as per DPIIT/MSME Guidelines</b> |
| 1.4                         | Average Turnover not less than INR 5 Crores in the last 3 consecutive financial year with positive Net Worth | 10               | <= 3 crore – 3 marks<br>> 3 and < 5 crore – 5 marks<br>5 crore and above – 10marks   | <b>Exempt for Startups as per DPIIT/MSME Guidelines</b> |
| <b>2.</b>                   | <b>Location of office</b>  | <b>10</b>        | At Mumbai or Pune  | <b>Exempt for Startups as per DPIIT/MSME Guidelines</b> |
| <b>3.</b>                   | <b>Presentation/Demo</b>   | <b>20</b>        |  |   |

|           |   |            |   |  |
|-----------|---|------------|---|--|
|           | <p>The presentation to cover the following areas.</p> <ul style="list-style-type: none"> <li>• <b>Company profile</b></li> <li>• <b>Blockchain Technology Credentials</b></li> <li>• <b>Loan Management System Credentials</b></li> </ul>   |            | <p>Live demonstration of Loan Management Workflows – 10 marks</p> <p>Live Demonstration of Verifiable Credentials – 10 marks</p> <p>Live Demonstration of Smart Contract based verification workflows – 5 marks.</p> <p>Live demonstration of reports and dashboards – 5 marks</p>  |  |
| <b>4.</b> | <p><b>Implementation Methodology –</b></p> <ul style="list-style-type: none"> <li>• <b>Understanding of Scope</b></li> <li>• <b>Solution Design</b></li> <li>• <b>Value Proposition</b></li> <li>• <b>Implementation Method</b></li> <li>• <b>Solution Architecture</b></li> <li>• <b>Security Architecture</b></li> <li>• <b>Project Plan and Timelines</b></li> <li>• <b>Risks and Mitigations</b></li> </ul> | <b>20</b>  | <p>Qualitative assessment based on Demonstration of understanding of the Department’s requirements through providing the proposal with:</p> <ul style="list-style-type: none"> <li>- Solution proposed and its components,</li> <li>- Technologies used,</li> <li>- Scale of implementation,</li> <li>- Security Model</li> <li>- Learning on Issues</li> <li>- Challenges</li> <li>- Challenges likely to be encountered.</li> <li>- Mitigation proposed.</li> <li>- Client references:</li> </ul> |  |
|           | <b>TOTAL</b>  | <b>100</b> |   |  |

**Evaluation of the Technical Bids**

- All the bidders who secure a technical score of 70% or more will be declared as technically qualified.
- The bidder with highest technical bid (H1) will be awarded 100% score.
- The technical score other than H1 bidders will be evaluated using the following formula.
- $T_n = \{( \text{Technical Bid score of the Bidder} / \text{Highest technical evaluation marks} * 100 \} \%$  (Adjusted to two decimal places)
- The commercial bids of only the technically qualified bidders will be opened for further processing.

**Evaluation of the Commercial Bids**

- The Commercial Bids of technically qualified bidders (i.e., Bidders with more than 70 marks in Technical Evaluation) will be opened on the prescribed date in the presence of bidder representatives.
- Only fixed price financial bids indicating total prices for all the deliverables and services

specified in this bid document will be considered.

- Any conditional bid would be rejected.
- Commercial bids whose value is less than 30% of the average bid price will be disqualified (the average price shall be computed by adding all commercial bid values of the technically qualified bidders' and dividing the same by number of qualified bidders).
- Errors & Rectification: Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the bidder does not accept the correction of error, its bid will be rejected".
- If there is no price quoted for certain material or service, the bid shall be declared as disqualified.
- If there are 2 or more bidders having the same value in commercial bid, the bidder securing highest technical score will be adjudicated as "Best responsive bid" for award of the Project.
- The bidder with lowest qualifying financial bid (L1) will be awarded 100% score.
- Financial score for other bidders will be evaluated using the following formula:  $F_n = \{(Financial\ Bid\ of\ L1 / Financial\ Bid\ of\ Bidder) * 100\} \%$ .

#### **Final Evaluation of the Bids**

- The technical and financial evaluation scores secured by each bidder will be added using weightages of 70% and 30% respectively to compute composite score.
- The composite score will be computed as under:  $B_n = 70\% * T_n + 30\% * F_n$  b) The bidder securing highest composite score will be adjudicated as most responsive bidder for award of project.
- In case of a tie, the bidder with the highest Technical Scores will be considered.

## **10. Appointment of Service Provider**

### **Award Criteria**

MPBCDC will award the Contract to the successful bidder whose proposal has scored the highest composite score and would consider it as substantially responsive as per the process outlined above.

### **Right to Accept Any Proposal and To Reject Any or All Proposal(s)**

MPBCDC reserves the right to accept or reject any proposal, and to annul the tendering process/ public procurement process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for MPBCDC action.

### **Purchaser's Procurement Rights**

Without incurring any liability, whatsoever to the affected bidder or bidders, the Purchaser reserves the right to:



- Amend, modify, or cancel this tender and to reject any or all proposals without assigning any reason.
- Change any of the scheduled dates stated in this tender.
- Reject proposals that fail to meet the tender requirements.
- Exclude any of the module(s)
- Remove any of the items at the time of placement of order.
- Increase or decrease no. of resources supplied under this project.
- Should the Purchaser be unsuccessful in negotiating a contract with the selected bidder, the Purchaser will begin contract negotiations with the next best value bidder in order to serve the best interest.
- Make typographical correction or correct computational errors to proposals.
- Request bidders to clarify their proposal.
- The Purchaser understands and appreciates that the proposal is for an integrated application and the change / addition / deletion as per above shall not result in change of the overall scope of the Project for which the RFP is sought.
- However, quantities depending on number of data sources can be added / deleted based on actual situation on ground, as part of Change Management. Approved Scope should include total number of data sources and users at the time of approval of SRS and commencement of Development/ Customization/ Integration phase.

### **Notification of Award**

Prior to the expiration of the proposal validity period, MPBCDC will notify the successful bidder in writing or by fax or email, that its proposal has been accepted. In case the tendering process/public procurement process has not been completed within the stipulated period, MPBCDC may like to request the bidders to extend the validity period of the bid.

The notification of award will constitute formation of the Contract. Upon the successful bidder's furnishing of Performance Bank Guarantee (PBG), MPBCDC will notify each unsuccessful bidder and return their EMD.

### **Contract Finalization and Award**

MPBCDC may also like to reduce or increase the quantity of any item in the Scope of Work defined in RFP. Accordingly, total contract value may change based on rates defined in the financial proposal.

### **Performance Guarantee**

- Selected Service to provide a Performance Bank Guarantee (PBG), within 15 days from the date of notification of award to MPBCDC.
- PBG would be 2% of the total Project cost and valid for 60 months.

- The selected bidder shall be responsible for extending the validity date and claim period of the Performance Guarantee as and when it is due on account of non- completion of the service during the work order period.
- In case the selected bidder fails to submit performance guarantee within the time stipulated, MPBCDC at its discretion may cancel the order placed on the selected bidder and/or forfeit the EMD after giving prior written notice to rectify the same.
- MPBCDC shall invoke the performance guarantee in case the selected bidder fails to discharge their contractual obligations during the period or MPBCDC incurs any damages due to bidder's negligence in carrying out the project implementation as per the agreed terms & conditions.

### **Signing of Contract**

After MPBCDC notifies the successful bidder that its proposal has been accepted, MPBCDC shall enter a contract with the successful bidder, incorporating all clauses, pre-bid clarifications and proposal of the bidder.

### **Failure to Agree with the Terms and Conditions of the RFP**

Failure of the successful bidder to agree with the draft legal agreement and Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of award, in which event MPBCDC may call for new proposals from the interested bidders. In such a case, MPBCDC shall invoke the PBG of successful bidder.

### **Limitation of Liability**

The bidder's aggregate liability in connection with obligations undertaken as a part of the RFP shall be at actual and limited to the Contracted Value.

### **Key Project Team members replacement**

Key Project Team members once assigned for the project shall not be normally replaced during the tenure of the project. In case of any replacement of resource the bidder will provide resources having similar or better educational qualification and experience.

### **Force Majeure**

Neither the Purchaser / nor the Successful Bidder shall be liable to the other for any delay or failure in the performance of their respective obligations due to causes or contingencies beyond their reasonable control such as:

- Natural phenomena including but not limited to earthquakes, floods and epidemics.
- Acts of any Government authority domestic or foreign including but not limited to war declared or undeclared, priorities and quarantine restrictions.

## 13 Scope of Work

### 13.1 Overview

The proposed scope entails implement an End-to-End Financial Assistance Management Solution using Blockchain Technology with a focus on delivering schemes, loans and associated initiatives in a verifiable manner providing state of the art standards of transparency and trust.

The solution should be integrated with the NAVYUG Beneficiary Management System through a set of standard and seamless APIs. The MPBCDC currently manages the beneficiary registration process through a web portal application integrated to a centralised database. This process involves the provision of facilities to apply for the schemes in various fields and segments.

### 13.2 System Context

The proposed system should empower the eligible beneficiaries in the state to register using AADHAAR. Once the AADHAAR based authentication is completed, the system should issue a decentralised identity based on AADHAAR and the beneficiary information. The beneficiary information should be considered as the metadata. Beneficiaries should be able to enter their eligibility for various schemes as the claims associated with the decentralised identity. Once the beneficiary identity related metadata, claims and proofs are captured, the beneficiary credentials should be generated.

It has been proposed that the applications designed and developed for the MPBCDC must follow some best practice and industry standards. In order to achieve the high level of stability and robustness of the application, the system development life cycle must be carried out using the industry standard best practices and adopting the security constraints for access and control rights.

### 13.4 System Modules

The solution has to be integrated with the NAVYUG beneficiary registration management system using APIs in a secure manner. The beneficiary service network blockchain platform should be functioning as the cryptographic anchor and the source of verifiable information for the NAVYUG Beneficiary Registration Portal.

The NAVYUG Beneficiary Registration Portal application should be able to interact with the APIs of:

1. **Blockchain Based Identity Platform:** for the following functions.

- i. Issuance of tamper proof beneficiary identities
- ii. Verification of tamper proof beneficiary identities
- iii. Addition of beneficiary identity attributes in a tamper proof manner
- iv. Generation of verifiable credentials for the beneficiaries
- v. Storage and sharing of initial credentials for the beneficiaries.

- vi. Addition of beneficiary eligibility criteria in a tamper proof manner
- vii. Sharing of beneficiary eligibility criteria in a tamper proof manner
- viii. Verification of beneficiary eligibility criteria in a tamper proof manner
- ix. Addition of the list of schemes, loans in a tamper proof registry
- x. Sharing of the list of schemes, loans, in a tamper proof registry
- xi. Mapping of beneficiaries to the schemes, loans, and in a tamper proof manner
- xii. Generation of beneficiary credentials after they receive the loans.
- xiii. Generation of beneficiary credentials after the beneficiaries repay the loans.

**2. Loan Origination System:** Provide a platform to automate and streamline the process of creating and managing loans from application to approvals.

- i. Provide comprehensive snapshot of the lending process, key metrics, and insights for effective decision-making.
- ii. The system must facilitate the assignment of multiple roles to users, to engage in a spectrum of distinct responsibilities within the framework.
- iii. Utilize the Optical Character Recognition Technology to scan the uploaded KYC Documents
- iv. Ability to connect with other tools/systems for added functionality.
- v. Incorporate exception handling mechanism.

**3. Loan Management System:** Oversees the entire loan lifecycle, encompassing initiation, processing, approval, disbursement, monitoring, and recovery. Key features include

- i. Incorporate application processing,
- ii. Integrate with the Credit scoring companies and report in cases of defaults.
- iii. Ability to track collateral management.
- iv. Ability to track repayments based on the defined timelines.

**4. Payment Module:** Provide and manage efficient payment solutions tailored to the specific nature of Central/State schemes.

**5. Notification Module:** Provide the functionality for sending alerts to relevant stakeholder via SMS/Email for the significant events.

- i. Access Management: Provide access controls to various stakeholders.
- ii. Dashboard to provide analytics of the SMS Events
- iii. Add and manage different SMS vendors.
- iv. Create templates and schedule events for various purposes.

\* The summary of components specific to blockchain module of the entire project are provided in the following table.

| Technology Feature                        | Desired Specifications   |
|---|--|
| <b>Distributed Ledger Architecture</b>    | Permissioned Ledger Model  |
| <b>Authentication</b>                     | AADHAAR based  |
| <b>Consent Management</b>                 | Smart Contract Based   |
| <b>Verifiable Credential Format</b>       | JSON Web Token (JWT) based, or JSON Linked Data (JSON-LD) based, or Zero Knowledge Proof based |
| <b>Verifiable Credential Issuance</b>     | W3C Standard Based   |
| <b>Verifiable Credential Storage</b>      | Blockchain Technology Based  |
| <b>Verifiable Credential Verification</b> | Blockchain Technology Based  |
| <b>Beneficiary Eligibility Check</b>      | Through Smart Contracts  |
| <b>Scheme Allocation</b>                  | Through Smart Contracts  |
| <b>Beneficiary Acknowledgement</b>        | Through Smart Contracts  |

### 13.5 Technology Components

1. **Blockchain Based Identity Platform:** The blockchain technology platform software stack will be built using open-source technology. The platform should be designed in a privacy first mode and with a tamper proof consent mechanism.

| Technology Component                     | Desired Specification   |
|--|---|
| <b>Smart Contracts</b>                   | Solidity/Go/ JavaScript/ Rust/Python  |
| <b>Blockchain Network</b>                | Hyperledger Indy / Hyperledger Besu / Hyperledger Fabric / Any equivalent open source blockchain technology platform                                      |
| <b>Blockchain Database</b>               | CouchDB or suitable alternative   |
| <b>Application Programming Interface</b> | JavaScript / Rust / Python  |
| <b>Hosting Infrastructure</b>            | Public Cloud service taken by Department/ Agency of Government of Maharashtra (Public Cloud service should be MeITY empanelled list of Service Providers) |
| <b>Platform Users</b>                    | MPBCDC Department officials, MPBCDC Department users, citizens of the state of Maharashtra and internal stakeholders as required.                         |
| <b>Blockchain Node Custodians</b>        | MPBCDC  |
| <b>On-chain architecture</b>             | Containerized infrastructure  |
| <b>Off-chain architecture</b>            | Micro service architecture  |
| <b>Consensus Mechanism</b>               | Byzantine Fault Tolerant, Crash Fault Tolerant, Sybil Resistant, Eclipse Attack Resistant Consensus Mechanism Implementation                              |
| <b>Access Control Mechanism</b>          | Private data and private ledgers  |
| <b>Off-chain database</b>                | MongoDB or suitable alternative   |

Following are the high-level technical features required from the beneficiary service network.

- i. The beneficiary service network Infrastructure should have a distributed system architecture consisting of nodes spread across the hosted infrastructure of the blockchain network. This hosted infrastructure could be hosted in a MeITY empanelled cloud.
- ii. The blockchain node software should be based on a containerization ecosystem. Different components of the blockchain software can be deployed to the infrastructure through

container images and components that are no longer required or outdated can be uninstalled by removing these containers.

- iii. Authorized departments should be able to connect to the blockchain platform through NAVYUG beneficiary registration portal to issue and verify the citizen documents.
- iv. Citizens should be able to access the blockchain platform through NAVYUG beneficiary registration portal application to secure their government records and various academic and non-academic certificates currently stored data sources of government departments and academic institutions.
- v. The blockchain platform infrastructure should also host an API gateway that can be used by authorized departments and academic institutions to carry out read, write, and other operations on the blockchain network. The required access control should be configured to ensure only authorized parties can access this service and the parties can only execute permitted operations.
- vi. The blockchain protocol used to build the citizen information integrity platform should implement a proven consensus or ordering mechanism for creating blocks and adding transactions to the network. The consensus/ordering mechanism should ensure that data captured to the ledgers is immutable.
- vii. The Blockchain Platform should have the capability of creating and deploying private ledgers. Only the participants of these private ledgers can view and access the data on these ledgers. The data should be hidden from the other participants of the network.
- viii. The Blockchain Platform should allow the option of sharing private data between network participants. This is data that is not stored on the blockchain ledger, but its integrity is maintained by capturing the hash of the data on the blockchain.
- ix. The Blockchain Platform should host an identity service that uses public key cryptography for identifying the nodes and other participants of the network. A suitable infrastructure should be in place for securely storing and using these keys.
- x. The Blockchain Platform should allow creation and configuration of access policies based on the identity of the participants and nodes to allow/restrict access to read/write data on the private blockchain ledgers.
- xi. The Blockchain Platform should be highly scalable based on the industry benchmarks for the block size and block height settings and provide at least 500 transactions in less than a second.
- xii. The blockchain platform should support writing and deploying of smart contracts or event based distributed workflows secured by the immutability property of the blockchain and authenticated by public key cryptography.

## 2. Loan Origination System:

- i. The platform ought to employ web-based technology, adhering to a multi-tiered (at least 3-tier) structure, including a user interface that's both web and touch-responsive.
- ii. The platform should integrate with existing system through web services messaging formats such as REST API and SOAP, utilizing standardized data structures like JSON, XML, ISO 8583, among others.
- iii. The platform is required to have the capability to Extract, Transform, and Load (ETL) data from source systems and possess the capacity to process and consume Big Data
- iv. Provision of well-structured and comprehensively documented Open APIs for accessibility by third parties and Fintech entities.
- v. The platform must support multi-lingual capability.

## 3. Loan Management System:

- i. The platform ought to employ web-based technology, adhering to a multi-tiered (at least 3-tier) structure.
- ii. The platform must support multi-lingual capability.

## 4. Payment Solution:

- i. Provide and manage efficient payment solutions tailored to the specific nature of direct benefit transfer schemes.

## 5. SMS Module:

- i. The platform must incorporate JWT Token verification.
- ii. The platform must incorporate a multi-tenant architecture and store data on a per-tenant basis.
- iii. Each tenant's data must be isolated and securely maintained.
- iv. The platform must ensure Client-Specific Storage for data integrity and security.

## 13.6 Security Guidelines

Considering the sensitive nature of beneficiary registration data, security and privacy should be paramount in the platform design.

- Encryption:
  - Implement end-to-end encryption for all data transmissions.
  - Use strong encryption algorithms for data at rest.
- Access Control:
  - Implement fine-grained, role-based access control (RBAC) for all system functions.
  - Enforce the principle of least privilege for user permissions.
- Audit Logging:
  - Maintain comprehensive audit logs of all system activities and user actions.
  - Ensure log integrity and non-repudiation.
- Secure Key Management:



- Implement a robust key management system for blockchain keys and user credentials.
- Use hardware security modules (HSMs) for storing critical keys.
- Data Privacy:
  - Design the system to comply with relevant data protection regulations.
  - Implement data minimization and purpose limitation principles.
- Network Security:
  - Deploy firewalls and intrusion detection/prevention systems.
  - Regularly perform network security assessments and penetration testing.
- Smart Contract Security:
  - Conduct thorough security audits of all smart contracts before deployment.
  - Implement fail-safe mechanisms and circuit breakers in smart contracts.
- Secure Development Practices:
  - Follow secure coding guidelines and best practices.
  - Conduct regular code reviews and security assessments.
- Authentication:
  - Implement multi-factor authentication for all user accounts.
  - Enforce strong password policies.
- Compliance:
  - Ensure compliance with relevant government regulations and standards for data security and privacy.

### 13.7 Implementation Stages

The Platform Implementation should consist of:

- Development and Deployment of the entire solution with inherent scalability, security, and privacy-based data sharing capabilities.
- Development and Deployment of Blockchain based Identities to provide secure identity and access management capabilities.
- Development of Blockchain Smart Contracts and APIs that can secure the beneficiary identity details, scheme details, scheme eligibility details and other relevant information in a privacy preserving manner.
- Ingestion of beneficiary identity details using Data Adapters
- Ingestion of scheme and loan details using Data Adapters
- Ingestion of scheme and loan eligibility details using Data Adapters
- Securing beneficiary identity details using Blockchain
- Securing scheme and loan details using Blockchain
- Securing scheme and loan eligibility details using Blockchain
- Performance Audit of the Blockchain Platform
- Security Audit of the Blockchain Platform
- The cost of one-time security audit should be borne by the MPBCDC at actuals.
- Implementation of Loan Origination System

- Implementation of Loan Management System
- Setting up module for disbursement of funds
- Setting up of Notification System
- Operation & Maintenance(O&M) of above for 5 years

### 13.8 Reference Standards

Platform should be designed to adhere to Governmental regulations around 'data privacy and security' protocols and 'consent rules for individuals. The platform should adhere to the following regulations but not limited to:

- Information Technology Act, 2000 and subsequent amendments.
- DPDP Act 2023
- Electronic Consent Framework
- Data Sharing and Accessibility Policies
- National Data Sharing and Accessibility Policy (NDSAP)
- Policy on Open Application Programming Interface (API) for Government
- National Strategy on Blockchain Technology

### 14 Project Implementation Timeline

- Development Phase: 6 months
- Pilot Phase and Go Live: 3 months.
- O&M phase for 60 months

#### **Implementation Phase and Go Live (6 months)**

Once the Financial Assistance Management End to End Solution is developed & implemented, blockchain applications will be developed for securing and verifying transactions related to the MPBCDC through integration with existing portals and databases as Pilot Run for at least two months before declaring it Go live. Some of the services being delivered through MPBCDC will be selected to be integrated with the developed blockchain infrastructure for Pilot run.

The Government of Maharashtra is using MPBCDC portals and platforms with the vision to deliver public services online to the citizens even in the remotest corner of the state online. A process needs to exist to secure these records and verify these records. Such a process needs to rely on time tested cryptographic algorithms for verifying and authenticating the documents. Thus, there is need of setup a trusted source of truth which can be used to verify the authenticity of certificates issued by the government.

A blockchain application needs to be set up that can use the state blockchain for authenticating transactions generated by MPBCDC portals. Envisaged process is as follows:

- It should be able to capture and convert the transactions generated by MPBCDC Portals and process it into a suitable data format for recording to the blockchain.
- This data should then be recorded on the blockchain and digitally signed using cryptographic algorithms.
- For checking integrity, digital copies of these certificates, licenses and documents submitted by citizens to access a service will be converted into the recorded format and compared with the blockchain for checking integrity.

### **Go Live & Stabilization Phase (3 months):**

After successful acceptance/departmental approval of the mentioned citizen centric services on blockchain infrastructure, BSN will be declared live. This period is envisaged to be completed within 3 months of development & implementation of Blockchain Platform.

### **Security review of blockchain application:**

As cyber threats are increasing day by day, security aspects of blockchain are very critical. Therefore, bidders need to perform below mentioned activities under security review:

- Vulnerability Assessment & Penetration Testing: This will help in identifying security loopholes in the application.
- Access Controls: Review the access and identity management controls used by the blockchain application. This includes a review of both public and private keys.
- Network Security: Review the blockchain network's security, which includes verifying the security of nodes and the peer-to-peer network.

### **Operation & Maintenance (60 months)**

After successful Go-Live of the project, there will be an operation & maintenance phase of 60 months. It will be the responsibility of SI to run the infrastructure and application developed free from errors. A complete SLA will be defined for this.

Operation & maintenance consists of the comprehensive timely operations, maintenance, change request implementation, H/W and S/W installation & support, commissioning of H/W and S/W components, managing the system alerts & events, SSL implementation and maintenance etc. Apart

from the above the following detailed activities should be performed one or more times based on the requirement:

- Bug fixes and updates to the asset or the underlying software stack.
- Addition/Removal/Update of app components, modules or layers including its authoring. Authoring includes but is not limited to capturing, development, testing, processing etc.
- Server-side activities required for proper functioning, but not limited to configuration, fine tuning, optimization, and addition/soft deletion/updating of features for the applicable app components, modules, or layers.
- Feedback-based continuous improvement.
- Identification of preventive and corrective measures with the respect to the changes occurring. Maintain a log for the operations being done which can be used for further action.
- Update the blockchain platform and hosted solutions software in accordance with advancements in cryptography, cybersecurity, computing power, and other technology domains during the project’s lifetime. This is important to ensure the platform is scalable and secure for years to come.

## 15 Service Level Agreements

The successful bidder shall ensure system uptime more than 99.5%. The uptime will be monitored on a quarterly basis. The initial contract is for a period of 15 months (6 months of development & deployment, 6 months as free warranty). Work Order might be issued for O&M for blockchain backbone and hosted applications. If applicable, SLA will be monitored during the O&M period post Go-Live. The Successful Bidder shall ensure application uptime, responsiveness and resolution of issues reported are within the acceptable limits as set forth in the following table. The successful bidder will maintain logs for the entire contract period.

| Description | Baseline | Severity Level 1 | Severity Level 2 | Severity Level 3 | Severity Level 4 |
|-------------|----------|------------------|------------------|------------------|------------------|
|             |          |                  |                  |                  |                  |

|   |                                       | Breach                              | Breach                              | Breach                              | Breach  |
|---|---------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|
| <p>System Availability for Blockchain Infrastructure components and all applications after go live</p> <p>(Any failure due to external factors or scheduled downtime is not part of the SLA but the bidder is required to document these external failures and provide documentary evidence when asked for)</p> | 99.5%                                 | < 99% and >= 98%                    | < 98% and >= 96%                    | < 96% and >= 95%                    | < 95%   |
| <p>Application Performance SLA</p> <p>Average Response Time for any user interaction with hosted applications or API gateway (Excluding the time taken by the external system)</p>  | <=5 seconds for 99.5% of the requests | <=5 seconds for 98% of the requests | <=5 seconds for 96% of the requests | <=5 seconds for 95% of the requests | <=5 seconds for less than 95% of the requests |
| Transaction per second (TPS) for request/response on Blockchain   | 500 TPS                               | > 450 TPS to <= 500 TPS             | > 450 TPS to <= 480 TPS             | > 400 TPS to <= 450 TPS             | > 350 TPS to <= 400 TPS                       |

|  |          |                      |                      |                        |          |
|--|----------|----------------------|----------------------|------------------------|----------|
| <p>Support Resolution SLA – P1</p> <p>Time taken to fix a P1 defect once reported<br/>                     P1: A defect which results in users not being able to complete the service transaction / activity</p>   | 16 hours | >16 hrs and <=24 hrs | >24 hrs and <=48 hrs | >48 hrs and <=72 hrs   | >72 hrs  |
| <p>Support Resolution SLA – P2</p> <p>Time taken to fix a P2 defect once reported<br/>                     P2: A defect which impacts the functionality, services/information are delivered at a sub-optimal level or workaround for the identified issue is not possible without significant inconvenience to the users or loss of required functionality</p> | 48 hrs   | >48 hrs and <=72 hrs | >72 hrs and <=96 hrs | > 96 hrs and <=120 hrs | >120 hrs |

The penalty for SLA breaches will be calculated based on the severity level of the breach determined in accordance with the table above, and levied as % of the software development cost payable for the

quarter during the free warranty period and as % of the O&M cost payable for the quarter during the O&M period as set forth in the table below:

| Severity Level | Penalty |
|----------------|---------|
| 4              | 2.0%    |
| 3              | 1.5%    |
| 2              | 1.0%    |
| 1              | 0.5%    |

### 16 Project Implementation Support Committee:

Project Implementation Support Committee shall be constituted under the chairmanship of Special Secretary, Department of IT, Government of Maharashtra along with Director CDAC as member. This committee will monitor the project implementation and will give insight on Project implementation, policy making and directions regarding.

| S. No | Designation                      | Committee Position |
|-------|----------------------------------|--------------------|
| 1     | Special Secretary, IT Department | Chairperson        |
| 2     | Managing Director, MPBCDC        | Member Convenor    |
| 3     | Director, CDAC                   | Member             |
| 4     | General Manager from MPBCDC      | Member             |

### Project Implementation Committee: Functions and Responsibilities -

The following key responsibilities will be borne by the Project Implementation Committee: -

- To ensure that concern department provide data dump.
- Department onboarding facilitation
- Engagement of manpower for project coordination

- Anything else related to implementation of the project with Approval from steering committee
- User Acceptance Testing

## 17 Project Milestones

| S No. | Milestone                   | Time for completion |
|-------|-----------------------------|---------------------|
| 1     | Project Kick off            | T0                  |
| 2     | Inception Report / DPR      | T1 = T0 + 1 month   |
| 3     | FRS/SRS Document creation   | T2 = T1 + 1 months  |
| 4     | UAT for Blockchain Platform | T3 = T2 + 4 months  |
| 5     | Stabilization and Go Live   | T4 = T3 + 3 months  |
| 6     | Operation and Maintenance   | T5 = T4+ 60 months  |

## 18 Payment Schedule

| S.No. | Milestone                  | Deliverable  | Payment %  |
|-------|----------------------------|--|--|
| 1     | FRS Document Creation      | FRS Document   | 10% of Financial Bid (PART A + PART C)   |
| 2     | Design Documentation       | LLD Document   | 20% of Financial Bid (PART A + PART C)   |
| 3     | UAT – BSN Platform         | UAT Sign Off from MPBCDC   | 30% of Financial Bid (PART A + PART C)   |
| 4     | Go Live – BSN Platform     | BSN Platform Hosted in Live as per scope   | 40% of Financial Bid (PART A + PART C)   |
| 5     | Operations and Maintenance | 1. Monthly Project Status Reports<br>2. Issue Logs<br>3. Exit Plan Documentation | Monthly payments<br><br>(O&M amount quoted by bidder for Financial Bid ( PART B+ PART D ) would be distributed equally across 60 months and paid against monthly invoices) |



## 19 Proposed Team Structure of Implementing Agency:

### A. Design, Development, and Deployment Period:

Proposed resource type and duration is as follows:

| S.No. | Resource Type             | Onsite/ Offsite | Qty | Experience | Man-month |
|-------|---------------------------|-----------------|-----|------------|-----------|
| 1     | Project Manager           | Onsite          | 1   | 10 Years + | 6 months  |
| 2     | Business Analyst          | Onsite          | 1   | 6 Years +  | 6 months  |
| 3     | Solution Architect        | Onsite/Offsite  | 1   | 10 Years + | 6 months  |
| 4     | Web/Mobile App Developers | Offsite         | 1   | 6 Years+   | 6 months  |
| 5     | Blockchain Developers     | Offsite         | 2   | 4 Years+   | 6 months  |
| 6     | Quality Analyst           | Offsite         | 1   | 3 Years+   | 6 months  |

### B. Recommended Operation & Maintenance(O&M) Period:

| S.No. | Resource Type                        | Onsite/ Offsite | Qty | Experience | Man- month |
|-------|--------------------------------------|-----------------|-----|------------|------------|
| 1     | Project Manager cum Business Analyst | Onsite (15%)    | 1   | 10 Years + | 60 months  |
| 2     | Blockchain Developers                | Onsite          | 1   | 3 Years+   | 60 months  |

## 20 Technical Bid Formats

Description of Proposed Solution along with Technology, Scalability, Completeness, Simplicity, and Interoperability is required in the technical bid. Bidder has to provide details of the entire solution proposed covering all requirements as listed out in the scope of work. Bidder has to specifically include (but not limited to) diagram and detailed description of the following:

- Functional Architecture
- Technical Architecture
- Integration Architecture
- Deployment Architecture
- Security Architecture
- Scalability Architecture
- Approach and Methodology

- Risks and Mitigations
- Detailed Workplan

Bidder must cover all aspects of the solution while showcasing its scalability, completeness, simplicity, and interoperability. Bidder is free to propose any type of approach for implementation of this application.

## 21 Detailed Work Plan

Detailed Work Plan with Activities, Duration, Sequencing, Interrelations, Milestones and Dependencies.

| SL# | Deliverable / Activity | Months |   |   |   |   |
|-----|------------------------|--------|---|---|---|---|
|     |                        | 1      | 2 | 3 | 4 | n |
| a   |                        |        |   |   |   |   |
| b   |                        |        |   |   |   |   |
| c   |                        |        |   |   |   |   |
| d   |                        |        |   |   |   |   |
| e   |                        |        |   |   |   |   |
| f   |                        |        |   |   |   |   |
| g   |                        |        |   |   |   |   |

## 22 Financial Bid Commercials

Costing for the Selection of Implementation Agency for the Design, Development, Deployment and Maintenance of the BSN Blockchain Platform in SaaS model.

| SI# | Category   | Module/Item  | Unit                         | Qty | Unit Rate | Total Amount |
|-----|--|--|------------------------------|-----|-----------|--------------|
| A   | Platform Implementation Cost                           | Application Platform Implementation                                  | Lumpsum, Initial Set up cost | 1   |           |              |
| B   | Operation and Maintenance Cost                         | Application Support & Software Maintenance Per Transaction performed | Months                       | 60  |           |              |
| C   | Cloud Hosting Cost Charges during Implementation Phase | Infrastructure Hosting   | Months                       | 6   |           |              |
| D   | Cloud Hosting Charges during O&M Phase                 | Blockchain Platform Infrastructure Hosting                           | Months                       | 60  |           |              |

### Note \*

In case the MPBCDC decides to provide the cloud infrastructure during the project execution phase the payment for the same will no longer be applicable.

However, the one migration fee for the same will be addressed by the MPBCDC. The cost will be decided based on the effort agreed between the IA and the MPBCDC.

## 23 Appendix I: Pre-Qualification & Technical Bid Templates

The bidders are expected to respond to the RFP using the forms given in this section and all documents supporting Pre-Qualification / Technical Evaluation Criteria.

Pre-Qualification Bid & Technical Proposal shall comprise of following forms:

## Form 1: Compliance Sheet for Pre-qualification Proposal

(The pre-qualification proposal should comprise of the following basic requirements. The documents mentioned in this compliance sheet along with this form, needs to be a part of the Pre-Qualification proposal)

|    | Basic Requirement          | Required   | Provided | Reference & Page Number |
|----|----------------------------|--|----------|-------------------------|
| 1. | Document Fee               | Demand Draft   | Yes / No |                         |
| 2  | Power of Attorney          | Copy of Power of Attorney in the name of the Authorized signatory  | Yes / No |                         |
| 3  | Particulars of the Bidders | As per Form 2  | Yes / No |                         |
| 4  | Earnest Money Deposit      | Demand Draft / Bank Guarantee (Form 3)   | Yes / No |                         |
| 5  | Turnover                   | Extracts from the audited Balance sheet and Profit & Loss; OR<br><br>Certificate from the statutory auditor      | Yes / No |                         |
| 6  | Net Worth                  | Certificate from the statutory auditor   | Yes / No |                         |
| 7  | Technical Capability       | Completion Certificates from the client/customer.<br><b>OR</b><br>Work Order + Payment received from the client. | Yes / No |                         |
| 7  | Certifications             | CMMi L3 or Above   | Yes / No |                         |
| 8  | Certifications             | ISO 9001:2015  |          |                         |
| 8  | Joint Venture              | Memorandum of Understanding Signed by the Designed Authorities form both the parties.                            | Yes / No |                         |
| 9  | Legal Entity               | Copy of Certificate of Incorporation; and<br><br>Copy of Service Tax Registration Certificate                    | Yes / No |                         |
| 10 | Blacklisting               | A self-certified letter  | Yes / No |                         |

## Form 2: Compliance Sheet for Pre-qualification Proposal

| SI No. | Information Sought  | Details to be Furnished |
|--------|---|-------------------------|
| A      | Name and address of the bidding Company                                   |                         |
| B      | Incorporation status of the firm (public limited / private limited, etc.) |                         |
| C      | Year of Establishment   |                         |
| D      | Date of registration  |                         |
| E      | ROC Reference No.   |                         |
| F      | Details of company registration   |                         |
| G      | Details of registration with appropriate authorities for service tax      |                         |
| H      | Name, Address, email, Phone nos. and Mobile Number of Contact Person      |                         |

## Form 3: Bank Guarantee for Earnest Money Deposit

To,

General Manager

IT Department

MAHATMA PHULE BACKWARD CLASS DEVELOPMENT CORPORATION LTD.

1-N Juhu Supreme Shopping Centre, Gulmohar Cross Road No.9,

J.V.P.D/ Scheme, Juhu, Mumbai – 400049.

+91-8380-066680

[gm@mpbccdc.in](mailto:gm@mpbccdc.in)

Whereas <<Name of the bidder>> (hereinafter called 'the Bidder') has submitted the bid for Submission of RFP # <<RFP Number>> dated <<Date>> for <<Name of the assignment>> (hereinafter called "the Bid") to MPBCDC.

Know all Men by these presents that we << >> having our office at <<Address>> (hereinafter called "the Bank") are bound unto the MPBCDC (hereinafter called "the Purchaser") in the sum of Rs.

<<Amount in figures>> (Rupees <<Amount in words>> only) for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this <<Date>>

The conditions of this obligation are:

1. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of validity of bid.

(a) Withdraws his participation from the bid during the period of validity of bid document; or

(b) Fails or refuses to participate in the subsequent Tender process after having been short listed.

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to <<insert date>> and including <<extra time over and above mandated in the RFP>> from the last date of submission and any demand in respect thereof should reach the Bank not later than the above date.

**NOTWITHSTANDING ANYTHING CONTAINED HEREIN:**

- I. This Bank Guarantee shall be valid up to <<insert date>>)
- II. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this Bank Guarantee that we receive a valid written claim or demand for payment under this Bank Guarantee on or before <<insert date>>) failing which our liability under the guarantee will automatically cease.

(Authorized Signatory of the Bank)

Seal:

Date:

#### Form 4: Compliance Sheet for Technical Proposal

(The Technical proposal should comprise of the following basic requirements. The documents mentioned in this compliance sheet along with this form, needs to be a part of the technical proposal)

|    | Specific Requirements  | Documents Required   | Compliance | Reference & Page Number |
|----|--|--|------------|-------------------------|
| 1. | Covering Letter for Technical Proposal   | As per Form 5  | Yes / No   |                         |
| 2. | Turnover from Software Development and Implementation Work in last 5 years (Turnover in Rs Crores)                                 | Extracts from the audited Balance sheet and Profit & Loss; OR Certificate from the statutory auditor; and<br><br>Project citation (Form 6)   | Yes / No   |                         |
| 3. | Experience in Blockchain Technology Implementation (Last five years)   | Completion Certificates from the client/customer.<br><b>OR</b><br>Work Order + Payment received from the client; and<br><br>Project citation (Form 6)  | Yes / No   |                         |
| 4. | Experience in Software Development & maintenance services (last five years)  | Completion Certificates from the client/customer.<br><b>OR</b><br>Work Order + Payment received from the client; and<br><br>Project citation (Form 6)  | Yes / No   |                         |
| 5. | Solution Proposed, Approach & Methodology, Understanding and work Plan (As per the requirements specified in technical evaluation) | The proposal document should highlight understanding of the MPBCDC requirements through providing justifications for:<br>1) Understanding of the Scope<br>2) Solution proposed and its components, | Yes / No   |                         |

|    |  |  |          |  |
|----|--|--|----------|--|
|    |  | 3) Technology stack proposed,<br>4) Challenges likely to be encountered.<br>5) Learning on how to deal with the challenges.<br>6) Client references<br>7) Form 8 |          |  |
| 6. | Resume of all key technical resources proposed for the assignment      | CV & a Note (Form 9, 10 and 11)  | Yes / No |  |
| 7. | Tools and Assets As per requirement specified in technical evaluation) | A note and demonstration of the Tool/Assets  | Yes / No |  |
| 8. | Deviations (if any)  | Form 12  | Yes / No |  |

### Form 5: Letter of Proposal

To:

<Location, Date>

General Manager  
 IT Department  
 MAHATMA PHULE BACKWARD CLASS DEVELOPMENT CORPORATION LTD.  
 1-N Juhu Supreme Shopping Centre, Gulmohar Cross Road No.9,  
 J.V.P.D/ Scheme, Juhu, Mumbai – 400049.  
 +91-8380-066680  
[gm@mpbccdc.in](mailto:gm@mpbccdc.in)

**Subject:** Submission of the Technical bid for <Name of the Systems Implementation assignment>

Dear Sir/Madam,

We, the undersigned, offer to provide Systems Implementation solutions to the MPBCDC on Design, Development, Implementation and Maintenance of Financial Assistance Programme



using Blockchain Technology with your Request for Proposal dated <insert date> and our Proposal. We are hereby submitting our Proposal, which includes this technical bid and the Financial Bid sealed in a separate envelope.

We hereby declare that all the information and statements made in this technical bid are true and accept that any misinterpretation contained in it may lead to our disqualification.

We undertake, if our Proposal is accepted, to initiate the Implementation services related to the assignment not later than the date indicated in Fact Sheet.

We agree to abide by all the terms and conditions of the RFP document. We would hold the terms of our bid valid for 180 days as stipulated in the RFP document.

We understand you are not bound to accept any Proposal you receive.

Yours sincerely,

Authorized Signature [*In full and initials*]:

Name and Title of Signatory:

Name of Firm:

Address:

Location: \_\_\_\_\_ Date: \_\_\_\_\_

**Form 6: Project Citation Format**

| Relevant IT project experience (provide no more than 5 projects in the last 5 years) |  |
|--|--|
| <b>General Information</b>   |  |
| Name of the project  |  |
| Client for which the project was executed  |  |
| Name and contact details of the client   |  |
| <b>Project Details</b>   |  |
| Description of the project   |  |
| Scope of services  |  |
| Service levels being offered/ Quality of service (QOS)                               |  |
| Technologies used  |  |

|  |  |
|--|--|
| Outcomes of the project  |  |
| <b>Other Details</b>   |  |
| Total cost of the project  |  |
| Total cost of the services provided by the respondent                                |  |
| Duration of the project (no. of months, start date, completion date, current status) |  |
| <b>Other Relevant Information</b>  |  |
| Letter from the client to indicate the successful completion of the projects         |  |
| Copy of Work Order   |  |

**Form 7: Proposed Solution**

Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present Approach and Methodology divided into the following sections:

- a) Solution Proposed
- b) Understanding of the project
- c) Solution Architecture
- d) Technology Architecture
- e) Integration Architecture
- f) Deployment Architecture
- g) Technical Approach and Methodology

**Form 8: Proposed Work Plan**

| No | Activity <sup>1</sup> | Calendar Months |   |   |   |   |   |   |   |   |    |    |    |   |
|----|-----------------------|-----------------|---|---|---|---|---|---|---|---|----|----|----|---|
|    |                       | 1               | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | n |
| 1  |                       |                 |   |   |   |   |   |   |   |   |    |    |    |   |
| 2  |                       |                 |   |   |   |   |   |   |   |   |    |    |    |   |
| 3  |                       |                 |   |   |   |   |   |   |   |   |    |    |    |   |
| 4  |                       |                 |   |   |   |   |   |   |   |   |    |    |    |   |
| 5  |                       |                 |   |   |   |   |   |   |   |   |    |    |    |   |
|    |                       |                 |   |   |   |   |   |   |   |   |    |    |    |   |
|    |                       |                 |   |   |   |   |   |   |   |   |    |    |    |   |
|    |                       |                 |   |   |   |   |   |   |   |   |    |    |    |   |
|    |                       |                 |   |   |   |   |   |   |   |   |    |    |    |   |



|   |  |
|---|--|
| Proposed Role in the Project  |  |
| Proposed Responsibilities in the Project  |  |
| <p>Academic Qualifications:</p> <ul style="list-style-type: none"> <li>• Degree</li> <li>• Academic institution graduated from</li> <li>• Year of graduation</li> <li>• Specialization (if any)</li> <li>• Key achievements and other relevant information (if any)</li> </ul>  |  |
| Professional Certifications (if any)  |  |
| Total number of years of experience   |  |
| Number of years with the current company  |  |
| Summary of the Professional / Domain Experience   |  |
| Number of complete life cycle implementations carried out   |  |
| The names of customers (Please provide the relevant names)  |  |
| <p>Past assignment details (For each assignment provide details regarding name of organizations worked for, designation, responsibilities, tenure)</p> <p>Prior Professional Experience covering:</p> <ul style="list-style-type: none"> <li>• Organizations worked for in the past <ul style="list-style-type: none"> <li>○ Organization name</li> <li>○ Duration and dates of entry and exit</li> <li>○ Designation Location(s)</li> <li>○ Key responsibilities</li> </ul> </li> <li>• Prior project experience <ul style="list-style-type: none"> <li>○ Project name</li> <li>○ Client</li> <li>○ Key project features in brief</li> <li>○ Location of the project</li> <li>○ Designation</li> <li>○ Role</li> <li>○ Responsibilities and activities</li> <li>○ Duration of the project</li> </ul> </li> </ul> <p>Please provide only relevant projects.</p> |  |

|   |  |
|---|--|
| Proficient in languages (Against each language listed indicate if speak/read/write) |  |
|---|--|

**Form 11: Deployment of Personnel**

| No | Name of Staff | Staff input in Months (in the form of a bar chart) <sup>2</sup> |   |   |   |   |   |   |   |   |       |    |    |   | Total staff man-months proposed |
|----|---------------|---|---|---|---|---|---|---|---|---|-------|----|----|---|---------------------------------|
|    |               | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10    | 11 | 12 | n |                                 |
| 1  |               |   |   |   |   |   |   |   |   |   |       |    |    |   |                                 |
| 2  |               |   |   |   |   |   |   |   |   |   |       |    |    |   |                                 |
| 3  |               |   |   |   |   |   |   |   |   |   |       |    |    |   |                                 |
| N  |               |   |   |   |   |   |   |   |   |   |       |    |    |   |                                 |
|    |               |   |   |   |   |   |   |   |   |   | Total |    |    |   |                                 |

1. Professional Staff the input should be indicated individually; for Support Staff it should be indicated by category
2. Months are counted from the start of the assignment.

Full time input

Part time input

**Form 12: Deviations**

To:

<Location, Date>

General Manager  
 IT Department  
 MAHATMA PHULE BACKWARD CLASS DEVELOPMENT CORPORATION LTD.  
 1-N Juhu Supreme Shopping Centre, Gulmohar Cross Road No.9,

J.V.P.D/ Scheme, Juhu, Mumbai – 400049.

+91-8380-066680

[gm@mpbcd.in](mailto:gm@mpbcd.in)

Dear Sir:

**Subject:** Deviations <Provide Name of the Implementation Assignment>

We declare that all the services shall be performed strictly in accordance with the Tender documents except for the variations and deviations, all of which have been detailed out exhaustively in the following statement, irrespective of whatever has been stated to the contrary anywhere else in our bid.

Further we agree that additional conditions, if any, found in the Tender documents, other than those stated in deviation schedule, shall not be given effect to.

**A - On the Terms of Reference**

*[Suggest and justify here any modifications or improvement to the Scope of Work you are proposing to improve performance in carrying out the assignment (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point and incorporated in your Proposal.]*

| No. | Deviation               | Material   | Non-Material | Impacted Deliverable(s)                                    | Impacted Timeline(s)                       | Financial Impact |
|-----|-------------------------|------------|--------------|--|--|------------------|
| 1.  | <Deviation description> | <Yes / No> | <Yes / No>   | <Name(s) of Deliverables to get affected by the Deviation> | <Effect on Timelines due to the Deviation> | <Value >         |
| 2.  | <Deviation description> | <Yes / No> | <Yes / No>   | <Name(s) of Deliverables to get affected by the Deviation> | <Effect on Timelines due to the Deviation> | <Value >         |
| 3.  | <Deviation description> | <Yes / No> | <Yes / No>   | <Name(s) of Deliverables to get affected by the Deviation> | <Effect on Timelines due to the Deviation> | <Value >         |

**B – Any other areas**

| No. | Deviation | Material | Non-Material | Impacted Deliverable(s) | Impacted Timeline(s) | Financial Impact |
|-----|-----------|----------|--------------|-------------------------|----------------------|------------------|
|-----|-----------|----------|--------------|-------------------------|----------------------|------------------|

|    |                         |            |            |  |  |          |
|----|-------------------------|------------|------------|--|--|----------|
| 1. | <Deviation description> | <Yes / No> | <Yes / No> | <Name(s) of Deliverables to get affected by the Deviation> | <Effect on Timelines due to the Deviation> | <Value > |
| 2. | <Deviation description> | <Yes / No> | <Yes / No> | <Name(s) of Deliverables to get affected by the Deviation> | <Effect on Timelines due to the Deviation> | <Value > |
| 3. | <Deviation description> | <Yes / No> | <Yes / No> | <Name(s) of Deliverables to get affected by the Deviation> | <Effect on Timelines due to the Deviation> | <Value > |

Yours sincerely,

Authorized Signature:

Name and Title of Signatory:

Name of Firm:

Address:

## Appendix II: Financial Proposal Template

### Form 1: Covering Letter

To:

<Location, Date>

General Manager

IT Department

MAHATMA PHULE BACKWARD CLASS DEVELOPMENT CORPORATION LTD.

1-N Juhu Supreme Shopping Centre, Gulmohar Cross Road No.9,

J.V.P.D/ Scheme, Juhu, Mumbai – 400049.

+91-8380-066680

[gm@mpbccdc.in](mailto:gm@mpbccdc.in)

**Subject:** Submission of the Financial bid for <Provide Name of the Implementation Assignment>

Dear Sir/Madam,

We, the undersigned, offer to provide the Implementation services for <<*Title of Implementation Services*>> in accordance with your Request for Proposal dated <<*Date*>> and our Proposal (Technical and Financial Proposals). Our attached Financial Proposal is for the sum of <<*Amount in words and figures*>>. This amount is inclusive of the local taxes.

**1. PRICE AND VALIDITY**

- All the prices mentioned in our Tender are in accordance with the terms as specified in the RFP documents. All the prices and other terms and conditions of this Bid are valid for a period of <days> calendar days from the date of opening of the Bid.
- We hereby confirm that our prices include all taxes. However, all the taxes are quoted separately under relevant sections.
- We understand that the actual payment would be made as per the existing indirect tax rates during the time of payment.

**2. UNIT RATES**

We have indicated in the relevant forms enclosed, the unit rates for the purpose of on account of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

**3. TENDER PRICING**

We further confirm that the prices stated in our bid are in accordance with your Instruction to Bidders included in Tender documents.

**4. QUALIFYING DATA**

We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our Tender, we agree to furnish the same in time to your satisfaction.

**5. BID PRICE**

We declare that our Bid Price is for the entire scope of the work as specified in the <Refer Section No.>. These prices are indicated Commercial Bid attached with our Tender as part of the Tender.

**6. PERFORMANCE BANK GUARANTEE**

We hereby declare that in case the contract is awarded .to us, we shall submit the Performance Bank Guarantee as specified in the <Appendix III> of this RFP document.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, i.e., [*Date*].

We understand you are not bound to accept any Proposal you receive.

We hereby declare that our Tender is made in good faith, without collusion or fraud and the information contained in the Tender is true and correct to the best of our knowledge and belief.



We understand that our Tender is binding on us and that you are not bound to accept a Tender you receive.

Thanking you,

We remain,

Yours sincerely,

Authorized Signature:

Name and Title of Signatory:

Name of Firm:

Address:

### Form 2: Financial Proposal

| S. No.                        | Item   | Total Price | Taxes (wherever applicable) | Total cost (total price + taxes) |
|-------------------------------|--|-------------|-----------------------------|----------------------------------|
| a)                            | Platform Implementation Cost (A)                                 |             |                             |                                  |
| b)                            | Operations and Maintenance Cost for the period of five years (B) |             |                             |                                  |
| c)                            | Cloud Hosting Cost Charges during Implementation Phase (C)       |             |                             |                                  |
| d)                            | Cloud Hosting Charges during O&M Phase (D)                       |             |                             |                                  |
| <b>Total Cost</b>             |  |             |                             |                                  |
| <b>Total cost in figures:</b> |  |             |                             |                                  |

### Appendix III: Template for PBG

#### Form 1: Performance Bank Guarantee

##### PERFORMANCE SECURITY:

<Name>

<Designation>

<Address>

<Phone Nos.>

<Fax Nos.>

<email id>

Whereas <<name of the supplier and address>> (hereinafter called “the bidder”) has undertaken, in pursuance of contract no. <Insert Contract No.> dated. <Date> to provide Implementation services for <<name of the assignment>> to MPBCDC (hereinafter called “the beneficiary”)

And whereas it has been stipulated in the said contract that the bidder shall furnish you with a bank guarantee by a recognized bank for the sum specified therein as security for compliance with its obligations in accordance with the contract.

And whereas we, <Name of Bank> a banking company incorporated and having its head /registered office at <Address of Registered Office> and having one of its offices at <Address of Local Office> have agreed to give the supplier such a bank guarantee.

Now, therefore, we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of **Rs.<Insert Value> (Rupees <Insert Value in Words> only)** and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of Rs. **<Insert Value> (Rupees <Insert Value in Words> only)** as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the bidder before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the Bidder shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall be valid until <<Insert Date>>)

Notwithstanding anything contained herein:

- I. This bank guarantee shall be valid up to <Insert Expiry Date>)
- II. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this bank guarantee that we receive a valid written claim or demand for payment under this bank guarantee on or before <Insert Expiry Date>) failing which our liability under the guarantee will automatically cease.