ODISHA COMPUTER APPLICATION CENTRE

REQUEST FOR PROPOSAL

Enq.No.:-OCAC-CERT-INFRA-0001-2023-23123

Odisha Computer Application Centre (OCAC) invites Request for Proposal (RFP) for selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as Service Platform for Odisha. For details please visit websites www.ocac.in & www.odisha.gov.in. T**he bid shall be submitted in electronic mode only in the portal https://enivida.odisha.gov.in latest by 12.01.2024, 12.00 P.M.** OCAC reserves the right to accept/ reject any / all bids without assigning any reason thereof.

General Manager(Admin), OCAC, Plot No.-N-1/7-D, Acharya Vihar, P.O.-RRL, Bhubaneswar-751013, Ph.-2567280/ 2567064/ 2567295

Request for Proposal

Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for Odisha

RFP No.: OCAC-CERT-INFRA-0001-2023- 23123
Dtd.14.12.2023

Odisha Computer Application Centre (Technical Directorate of E&IT Department, Government of Odisha), N-1/7-D, Acharya Vihar, PO- RRL, Bhubaneswar – 751013, EPBX: 0674-2567280 / 2567064 /2567295 / 2567283

Contents

1 Glossary of Terms

UAS	Unified Automation System
ATS	Annual Technical Support
CPU	Central Processing Unit
CBT	Computer Based Training
CV	Curriculum Vitae
DO	Dismissal Order
EMD	Earnest Money Deposit
FRS	Functional Requirement Specification
HLD	High Level Design
ICT	Information Communication Technology
ISO	International Organization for Standardization
IT	Information Technology
KB	Kilobytes
LLD	Low Level Design
LOI	Letter of Intent
MIS	Management Information System
MUR	Monthly Utilization Reports
Nos	Numbers
OCAC	Odisha Computer Application Center
OSDC	Odisha State Data Centre
OSEPA	Odisha School Education Programme Authority
PBG	Performance Bank Guarantee
PMU	Project Management Unit
PSU	Public Sector Undertaking
QCBS	Quality & Cost Based Selection
RFP	Request for Proposal
ROC	Registrar of Companies
RTI	Right to Information
SDLC	Software Development Life Cycle
SI	System Integrator
SLA	Service Level Agreement

2 Fact Sheet

Sl#	Item	Description
1	Project Title	RFP for Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha
2	Name of the Purchaser	Odisha Computer Application Cerntre
3	Contact Person, Address and Email	General Manager (Admin) Plot No. N-1/7-D, Acharya Vihar RRL Post Office, Bhubaneswar Odisha - 751013 gm_ocac@ocac.in
4	Date of Publication of RFP	15.12.2023
5	RFP Document Fees	₹11,200/- inclusive of GST @ 12% (Rupees Eleven Thousand and Two Hundred only)
6	Earnest Money Deposit	₹20,00,000/- in shape of DD/RTGS or BG
7	Selection Method	Quality and Cost Based Selection (QCBS)
8	Last date for submission of queries by Bidders	By 4 PM of 20.12.2023
9	Pre-bid Meeting	22.12.2023 at 12 Noon (in VC mode)
10	Publication of Corrigendum (If Any)	28.12.2023
11	Last date and time for receipt of proposals from Bidders	12.01.2024 by 12 Noon through e-Nivide Portal (www.enivida.odisha.gov.in)
12	Date and time for opening of Pre-Qualification Proposals	12.01.2024 at 12:30 PM
13	Date and time for opening of Technical Proposals	To be notified later
14	Date and time for Technical Presentation	To be notified later
15	Date and time for opening of Commercial Bids	To be notified later
16	Bid Validity Period	180 days
17	Bid Term	5 Years

3 Request for proposal

Sealed proposals are invited from eligible Service Providers for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for Odisha. Thisinvitation to bid is open to all bidders meeting the minimum eligibility criteria as mentioned in thisRFP Document.

4 Structure of the RFP

This RFP document for **Selection of Service Providers for the Design, Development and Implementation of Blockchain as a Service platform for Odisha** comprises of the following.

A) Instructions on the Bid process for the purpose of responding to this RFP. This broadly covers:

i. Project Background
ii. Instruction to Bidders
iii. Criteria for evaluation
iv. Appointment of Service Provider / Implementing Agency
v. Formats for Pre-Qualification, Technical and Financial Bid response

B) Functional and Technical Requirements of the project. The contents of the document broadly cover the following areas:

a) About the project and its objectives
b) Scope of Work
c) Project Milestones and Timelines
d) Payment Terms and Schedule
e) Service Level Agreement for Service Provider

The bidder is expected to respond to the requirements as completely and in as much relevant detail as possible and focus on demonstrating bidder's suitability to become the System Integrator of OCAC for this assignment.

The bidders are expected to examine all instructions, forms, terms, project requirements and other information in the RFP documents. Failure to furnish all information required as mentioned in the RFP documents or submission of a proposal not substantially responsive to the RFP documents in every respect will be at the bidder's risk and may result in rejection of the proposal.

Basic Information

OCAC, the technical directorate of E & IT Department, Government of Odisha invites responses ("Tenders") to this Request for Proposals ("RFP") from System Integrators ("Bidders") for provision of **Selection of Service Providers for the Design, Development and Implementation of Blockchain as a Service platform for Odisha** as described in the "Terms of Reference" of this RFP.

Proposals must be received not later than time, date and venue mentioned in the Fact Sheet.

Proposals that are received late will not be considered in this procurement process.

OCAC will award the contract to the successful bidder whose proposal has been determined as the best value proposal based on Technical and Financial evaluation criteria and accepted by the Tender Accepting Authority

.

4.1 Project Background

About OCAC

The Department of Electronics & Information Technology is the nodal department for Government of Odisha in the matters of IT, ITES and Communication. The department plays a vital role in formulating and implementing policy matters in Information Technology, ITES, Electronics and Telecom; promotion of Odisha as an ultimate ICT destination for investment and facilitating ICT industries; assisting other department for effective e-Governance and capacity building; Promotion of ICT based education in the State.

Odisha Computer Application Centre (OCAC), the Technical Directorate of Electronics & Information Technology Department, Government of Odisha, has evolved through years as a Centre of Excellence in IT solutions and e-Governance. It has contributed significantly to the steady growth of IT in the state. It helps IT to reach the common citizen so as to narrow down the Digital Divide and widespread applications of IT in establishing a system where the citizens are receiving good governance in addition to ensuring speed of decisions from a transparent Government through an effective e-Governance System.

OCAC on behalf of Govt. of Odisha intends to implement a Blockchain as a Service platform within the eGovernance framework for securing government issued data and documents**.** The Blockchain as a Service platform will be a statewide distributed ledger infrastructure which would enable the Government to further increase the security and efficiency of government systems and applications. Departments / participants who cannot afford to host a node will connect to the blockchain platform through an API Gateway.

OCAC is pleased to engage qualified and preferred software development Agency to execute this project.

Project Profile

Our endeavor is to evolve a vigilant and trusted collaborative digital ecosystem to provide a consensus based, tamper-evident, transparent and open framework for offering e-Governance services to citizens and businesses involving multiple organizations in a participating environment assuring trust, security, track and trace, integrity and regulatory compliance.

OCAC envisages building a statewide Blockchain as a Service Platform for Odisha. This would be a flexible, modular blockchain platform which would be leveraged for building secure and efficient e_Governance applications for protecting government data and documents. This data would include, but not be limited to academic certificates, marksheets, degrees & diplomas, land registration transactions, provenance data of physical and digital government assets and digital identities of citizens. However, the actual data and documents to be secured within the scope of this project would be decided while drafting the contract with mutual agreement. Additionally, apart from new applications, this platform would also be used to augment the security and functionalities of existing e_Governance platforms. The platform would also be

used to host an API sandbox to allow government departments and participants to build applications on top.

The major objective of the development of the Blockchain as a Service platform for Odisha is to achieve the following:

a) Create a trusted digital platform by evolving a State Blockchain infrastructure that can be used for development and deployment of applications supported with a sandbox for testing multiple Blockchain based solutions.
b) To address challenges related to rapid application development & deployment, interoperability, scalability, security and privacy.
c) Create and update an innovation roadmap for trusted digital platform, addressing various challenges towards Blockchain technology adoption
d) Plan for production grade applications of national interest focusing on providing faster, secure, transparent, trusted and efficient delivery of services to the citizens and businesses.
e) Evolve a centralized planning and decentralized execution model for large scale adoption.
f) Increase the security of data and documents in government systems and within the e_Governance framework
g) Identify the legal and policy requirements towards regulating Blockchain for offering services to citizens and businesses.
h) Augment existing government workflows by leveraging smart contracts deployed on the blockchain layer to promote efficient automated non-repudiable processes within departments and entities.
i) Provide a blockchain sandbox infrastructure to startups and departments to innovate and build citizen friendly applications and services

Blockchain as a Service infrastructure for Odisha

Odisha aims to setup and maintain a state-wide Blockchain as a Service Infrastructure that can be leveraged by all government departments and agencies, public sector enterprises, startups, developers and private sector enterprises as decided on a case-to-case basis.

This platform will be used by eligible parties to build transparent, efficient and secure citizen and business centric applications to promote ease-of-living and ease-of-business. Enterprise grade G2G, G2B & G2C applications and services will be implemented by leveraging this platform and its functionalities. Only the G2C and G2G applications mentioned within the scope of work section (Section 9) need to be implemented as part of this RFP. The platform will also be used to augment existing e_Governance applications and existing IT infrastructure. The platform would provide an immutable ledger secured by cryptography and peer-to-peer networking which would allow applications to secure and verify government data and documents. Additionally, it would host a family of smart contract enabled workflows that would allow departments to be build efficient non-repudiable and automated workflows. This platform would be called the Odisha Blockchain Service Infrastructure.

This platform will enable the government of Odisha to establish a trusted and secured cryptographic anchor which can be used to create efficient and secure systems for government processes. Applications build leveraging this platform can be in multiple domains of governance including agriculture, land records, public distribution system, benefits tracking and distribution, data integrity and healthcare to name a few.

The platform will also function as a Blockchain As A Service (BAAS) provider to Government departments and Public and private sector organizations, agencies and companies, startups and blockchain developers. Organizations that do not want the custody or overhead of hosting a node can access the blockchain through an API Gateway. In addition to the Blockchain as a Service Infrastructure, the scope of this project also consists of blockchain applications developed leveraging this platform.

This RFP is for the Blockchain as a Service Infrastructure and a suite of eGovernance applications used for securing and verifying government issued documents and data. These documents can include academic certificates and marksheets such as 10th and 12th degree and marksheet, higher education degrees and marksheets for engineering, medical, arts and other education fields, diplomas, skill certificates etc. It'll also be used to secure demographic certificates such as income certificates, caste certificates, domicile certificates as well as government issued licenses such as pharma licenses, boiler licenses, sawmill licenses etc. Lastly, it'll be used to secure land registration transactions data and documents.

The use cases and scope for the Blockchain Infrastructure and the applications is defined in depth in section 2.0 of this document.

5 Instruction to the Bidders

5.1 General

a) 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.

b) All information supplied by Bidders may be treated as contractually binding on the Bidders, on successful award of the assignment by OCAC on the basis of this RFP.

c) 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 OCAC. Any notification of preferred Bidder status by OCAC shall not give rise to any enforceable rights by the Bidder. OCAC may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of OCAC.

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

5.2 Compliant Proposals / Completeness of Response

a) 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.

b) 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.

5.3 Pre-Bid Meeting and Clarifications

Pre-Bid conference

a) OCAC shall hold a pre-bid meeting with the prospective bidders on **22- Dec-2023, 12:00 PM**

b) Link will be provided to the interested bidders on request through email to gm_ocac@ocac.in (with a copy to manamohan.mohapatra@odisha.gov.in and subrat.mohanty@ocac.in) by **22-Dec-2023, 11:00 AM**

c) The representatives of Bidders (restricted to one person) may attend the Pre-bid meeting.

d) The Bidders should submit their queries in writing in below specified format (**in MS-Excel only**) by the schedule as mentioned in this RFP, prior to attending the pre-bid meeting.

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

#	RFP Document Reference(s) *(Section & Page Number(s))*	Content of RFP requiring Clarification(s)	Points of Clarification

f) OCAC shall not be responsible for any Bidders' queries received by it in any other format. Any requests for clarifications post the indicated date and time mentioned will not be entertained by OCAC.

Responses to Pre-Bid Queries and Issue of Corrigendum

a) The Nodal officer notified by OCAC shall endeavor to provide timely response to all queries. However, OCAC neither makes representation or warranty as to thecompleteness or accuracy of any response made in good faith, nor does OCAC undertaketo answer all the queries that have been posed by the Bidders.

b) At any time prior to the last date for receipt of bids, OCAC 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.

c) The Corrigendum (if any) and clarifications to the queries from all Bidders will be posted on www.ocac.in or www.odisha.gov.in

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

e) In order to provide prospective Bidders reasonable time for taking the corrigenda and/or addenda into account, OCAC may, at its discretion, extend the last date for the receipt of Proposals.

5.4 Key Requirements of the Bid

Right to Terminate the Process

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

business transaction with anyone.

b) This RFP does not constitute an offer by OCAC. The Bidder's participation in this process may result in OCAC 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 **₹ 11,200/-** inclusive of GST @ 12% in shape of DD in favor of Odisha Computer Application Centre (OCAC), drawn in any scheduled commercial bank and payable at Bhubaneswar failing which the bid will be rejected. The fee may also be paid through electronic mode to the following account:

Bank A/c No.: 149311100000195
Payee Name: Odisha Computer Application Center
Bank Name & Branch: Union Bank of India, Acharya Vihar, Bhubaneswar
Account Type: Savings
IFSC: UBIN0814938

Also, the fees may be paid online on e-Nivida portal through e-Payment Gateway.

Earnest Money Deposit

a) Bidders shall submit, along with their Bids, EMD of **₹20,00,000/-** (Twenty lakhs only) in the shape of Bank Draft OR Bank Guarantee (in the format specified in this RFP) issuedby any scheduled bank in favor of Odisha Computer Application Centre, payable at Bhubaneswar, and should be valid for 180 days from the due date of the tender / RFP. The EMD should be submitted in the General Bid.

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

Bank A/c No.: 149311100000195
Payee Name: Odisha Computer Application Centre
Bank Name & Branch: Union Bank of India, Acharya Vihar, Bhubaneswar
Account Type: Savings
IFSC: UBIN0814938

c) EMD of all unsuccessful bidders would be refunded by OCAC 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 Performance Bank Guarantee.

d) The EMD amount is interest free and will be refundable to the unsuccessful bidders without any accrued interest on it.

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

f) The EMD may be forfeited:

i. if a bidder withdraws its bid during the period of bid validity.

ii. In case of a successful bidder, if the bidder fails to sign the contract in accordance with this RFP.

iii. If found to have a record of poor performance such as having abandoned work/ having been black-listed/ having inordinately delayed completion/ having faced Commercial failures etc.

iv. 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.

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

5.5 Submission of proposal

Instruction to Bidders for Online Bid Submission

e-Nivida is a complete process of e-Tendering, from publishing of tenders online, inviting online bids, evaluation and award of contract using the system. The instructions given below are meant to assist the bidders in registering on e-Nivida Portal and submitting their bid online on the portal.

More information useful for submitting online bids on the e-Nivida Portal may be obtained at: https://enivida.odisha.gov.in

Guidelines for Registration

a) Bidders are required to enroll themselves on the eNivida Portal https://enivida.odisha.gov.in or click on the link "Bidder Enrolment" available on the home page by paying Registration Fees of Rs. 2500/- + Applicable GST.

b) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

c) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication with the bidders.

d) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Only Class III Certificates with signing + encryption key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify/ TCS / nCode/ eMudhra etc.), with their profile.

e) Only valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.

f) Bidder then logs in to the site through the secured log-in by entering their user ID /password and the password of the DSC / e-Token.

g) The scanned copies of all original documents should be uploaded in pdf format on e-tender portal.

h) After completion of registration payment, bidders need to send their acknowledgement copy on our help desk mail id odishaenivida@gmail.com for activation of the account.

Searching for Tender Documents

a) There are various search options built in the e-tender Portal, to facilitate bidders to search active tenders by several parameters.

b) Once the bidders have selected the tenders they are interested in, then they can pay the Tender fee and processing fee (NON-REFUNDABLE) by net-banking / Debit / Credit card then you may download the required documents / tender schedules, Bid documents etc. Once you pay both fees, tenders will be moved to the respective 'requested' Tab. This

would enable the e-Tender Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

Preparation of Bids

a) Bidder should take into account any corrigendum published on the tender document before submitting their bids.

b) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.

c) Bidder, in advance, should get ready with the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF formats. Bid Original documents may be scanned with 100 dpi with Colour option which helps in reducing size of the scanned document.

d) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, GST, Annual reports, Auditor Certificates etc.) has been provided to the bidders. Bidders can use “My Documents” available to them to upload such documents.

e) These documents may be directly submitted from the “My Documents” area while submitting a bid and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process. Already uploaded documents in this section will be displayed. Click “New” to upload new documents.

Submission of Bids

a) Bidder should log into the website well in advance for the submission of the bid so that it gets uploaded well in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

b) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document as a token of acceptance of the terms and conditions laid down by the Department.

c) Bidder has to select the payment option as per the tender document to pay the Tender fee / Tender Processing fee & EMD as applicable and enter details of the instrument.

d) In case of BG, bidder should prepare the BG as per the instructions specified in the tender document. The BG in original should be posted/couriered/given in person to the concerned official before the Online Opening of Financial Bid. In case of non-receipt of BG amount in original by the said time, the uploaded bid will be summarily rejected.

e) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded andto be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the yellow colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

f) The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

g) The uploaded bid documents become readable only after the tender opening by the authorized bid openers.

h) Upon the successful and timely submission of bid click “Complete” (i.e. after clicking “Submit” in the portal), the portal will give a successful Tender submission acknowledgement & a bid summary will be displayed with the unique id and date & time of submission of the bid with all other relevant details.

i) The tender summary has to be printed and kept as an acknowledgement of the submission of the tender. This acknowledgement may be used as an entry pass for any bid opening meetings.

Clarifications on using e-Nivida Portal

a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

b) Any queries relating to the process of online bid submission or queries relating to e-tender Portal in general may be directed to the Helpdesk Support.

Please feel free to contact e-Nivida Helpdesk (as given below) for any query related to e-tendering.

Phone No.: 011-49606060

Email id: odishaenivida@gmail.com

Tender Validity

Proposals shall remain valid for a period of **180 Days** from the date of opening of the pre-qualification and technical proposals. OCAC reserves the rights to reject a proposal valid for a shorter period as non- responsive and will make the best efforts to finalize the selection process and award of the contract within the bid validity period. The bid validity period may be extended on mutual consent.

Submission and Opening of Proposals

a) The bidders should submit their responses as per format given in this RFP in the following manner:
   - Response to Pre-Qualification Criteria
   - Technical Proposal
   - Commercial Proposal

b) Please Note that Prices should not be indicated in the Pre-Qualification Response or Technical Proposal but should only be indicated in the Commercial Proposal.

c) The Response to Pre-Qualification criteria, Technical Proposal and Commercial Proposal (as mentioned in previous paragraph) should be submitted through online mode in e-Nivida Portal.

The Proposals submitted up to **12-Jan-2024, 12:00 PM** will be opened on **12-Jan-2024, 12:30**

PM by Proposal Evaluation Committee.

Late Bids

a) 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.

b) 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.

c) OCAC 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 OCAC to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.

OCAC 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

OCAC reserves the right to reject in full or part, any or all bids without assigning any reason thereof. OCAC reserves the right to assess the Bidder's capability and capacity. The decision of OCAC 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.

5.6 Evaluation Process

a) OCAC will constitute a Proposal Evaluation Committee to evaluate the responses of the bidders.

b) The Proposal Evaluation Committee constituted by OCAC shall evaluate the responses to RFP and all supporting documents/ documentary evidence. Inability to submit requisite supporting documents/ documentary evidence, may lead to rejection of the bid.

c) The decision of Proposal Evaluation Committee in evaluation of responses to the RFP shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the Committee.

d) The Proposal Evaluation Committee may ask for meetings with the Bidders to seek clarifications on their proposals, if required.

e) The Proposal Evaluation Committee reserves the right to reject any or all proposals on the basis of any deviations.

f) Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.

g) Initial bid scrutiny will be held, and incomplete details as given below will be treated as nonresponsive if proposals are:

- Not submitted as specified in the RFP document
- Received without the Letter of Authorization (Power of Attorney)
- Found with suppression of details
- Found with incomplete information, subjective, conditional offers and partial offers submitted
- Submitted without the documents requested in checklist
- Submitted with lesser validity period

h) All responsive Bids will be considered for further processing as below:

OCAC will prepare a list of responsive bidders, who comply with all the Terms and Conditions of RFP. All eligible bids will be considered for further evaluation by a committee according to the evaluation process defined in this RFP document. The decision of the Committee will be final in this regard.

6 Criteria for Evaluation

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 Pre-Qualification 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 80 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, inabsence of which their proposals will be summarily rejected.

6.1 Consortium and sub-contracting:

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

In case of any sub-contracting the overall responsibility of the success of the project will lie with the bidder

6.2 Pre-Qualification Criteria:

Sl#	Basic Requirement	Specific Requirement	Documents required
a)	Legal Entity	Responding bidder should be: • Registered as a Company / LLP under Companies Act, 1956/ 2013 OR Partnerships Firm registered under LLP Act, 2008. • Company should be in operation for last three (3) years as on date of bid submission date • Registered with Goods and Services Tax Network (GSTN).	– Copy of Certificate of Incorporation / Registration attested by Authorized signatory of the company – Copy of GST Registration Certificate – Copy of PAN card
b)	Sales Turnover	Average Annual Turnover must be Rs. 100 Crores in lastthree financial years (FY2020-21, FY2021-22, FY2022-23)	Copy of audited Profit & Loss Statement and Balance Sheet issued by the CA (with CA's Registration Number/ Seal) for last 3 financial years (FY2020-21, FY2021-22, FY2022-23).
c)	Manpower	The bidder should have a team of at least 200 (Two hundred) full time employees on its payroll	Certificate from appropriate authorized signatory / HR
d)	Certifications	The bidder should hold relevant certifications recognized in the industry for quality management standards, information security standards, etc. **The below certifications are required.** ● ISO 9001 (quality management systems) ● CMMI Level 3 or above (only software development)	Copy of certificates. The certificates should be valid on bid submission date
e)	Relevant experience	Bidder should have at least two Blockchain consultancy / implementation projects with minimum order value of 50 lakhs for a State / Central govt client in India in last 6 years ending as on bid submission date (Ongoing projects are acceptable)	Bidder needs to submit the below documents – Letter of Intent from client; OR Work Order received from

Sl#	Basic Requirement	Specific Requirement	Documents required
			the client;
f)	Local Presence	Bidder should have an office in Bhubaneswar for quick support	Bidder to furnish proof for their office in Bhubaneswar such as GST registration / electricity bill / rent agreement.
g)	Net Worth	The Bidder must have positive net worth in the last three financial years ending at 31st March 2023. (FY 2022-23, 2021-22, 2020-21)	Certificate from CA certifying positive net worth of the firm in the last three years
h)	Blacklisting	Bidder should not be blacklisted by Government of India / Any State Government in India as on date of submission of the bid.	Self-Declaration / Certification on the entity's letterhead by Authorized signatory
i)	Power of Attorney for Authorized Signatory	The bidder shall submit Power of Attorney or Board resolution, duly authorizing the person signing the documents to sign on behalf of the bidder and thereby binding on the bidder.	Power of Attorney document or Board resolution

6.3 Technical Evaluation Scoring Matrix

Technical proposal of those bidders will be opened and evaluated, who qualify the Pre-Qualification criteria. The Evaluation Committee will evaluate the Technical Proposals on the basis of technical evaluation criterion as provided below:

Organization Profile & Resource Strength	20
e-Governance Experience and Maturity	10
Blockchain expertise and relevant experience of the team	40
Approach & Methodology and Presentation	30

Sl. No.	Evaluation Criteria	Max Score	Documents required
a.	**Organization Profile & Resource Strength**		
i)	Average Annual turnover in the last 3 financial years (FY2020-21, FY2021-22, FY2022-23) should be greater than 200 Cr: 2 Marks *[Additional 2 marks for additional 20 crores subject to maximum 10 marks]*	**10**	Copy of audited Balance sheet and Profit & LossStatement OR Certificate from the Statutory Auditor with CA's registration number and seal

ii)	Quality Certification – CMMi Level 5: 3 Marks – ISO 27001: 2 Marks	**05**	• Copy of valid certificate published in CMMi website • Copy of ISO 27001 certificate valid on bid submission date
iii)	The bidder must have at least 200 employees as on dateof submission of bid. – ≥ 200 Employees: 1 Mark *[Additional 1 mark will be awarded per 100 employees above 200, subject to a maximum 4 additional marks]*	**05**	Certificate from HR / appropriate signatory authority
b.	**e-Governance Experience and Maturity**		
i)	The bidder should have experience of at least 5 eGovernance / ICT consulting projects (completed / ongoing) of value more than 2 Crores for Central and State Government clients – 5 marks (At least one project should have a value of 20 Crores of more) *[Additional 1 mark will be awarded for each additional project of value greater than 2 crores. Up to maximum of 5 additional marks]*	**10**	Work Orders or Contract or agreements or LOA / LOI from the client
Sl. No.	**Evaluation Criteria**	**Max Score**	**Documents required**
c.	**Blockchain expertise and relevant experience of the team**		
i)	**<u>e_Governance Blockchain SME</u>** ● Should have B.Tech/ B.E or equivalent degree in Computer Science /IT/ Any other Engineering discipline. ● Should have at least 6 years of experience working with Enterprise Blockchain applications – **5 marks** ● Should have worked with Government of India / Any State government of India as a Blockchain consultant for at least 4 years – **5 marks** ● Should be member of a Global blockchain think tank / expert panel / thought leadership body recognized by any government/ regulator in India or abroad – **2 marks** ● Should have worked on a blockchain policy document for Government of	**15**	Copy of resume of proposed team member

	India / Any State Government in India – **3 marks** ● This resource would be on offsite		
ii)	**Blockchain Solution Architect** ● Should have B.Tech/ B.E or equivalent degree in Computer Science /IT/ Any other Engineering discipline. ● Should have overall experience of atleast 7 years in software design, development, testing and implementation – **1 mark** ● Should have atleast 4 years of experience working with Enterprise Blockchain or Public Blockchain applications implementing solutions using Hyperledger Fabric / Ethereum / EVM architecture chains – **5 marks** ● This resource would be offsite –	**06**	Copy of resume of proposed team member
iii)	**Project Manager** ● Should have B.Tech/ B.E or equivalent degree in Computer Science /IT/ Any other Engineering discipline. ● Should have overall experience of at least 6 years in software design, development, testing and implementation – **2 marks** ● Should have at least two years of experience working on projects for a Central / State government / PSU / Government owned entity - **2 mark** ● Should have 2 years of project management experience – **1 mark** ● The designated project manager should be available in Bhubaneshwar during the project duration for critical meetings and would be the single point of contact / key personnel from the successful bidder's team for coordinating and successfully delivering the project as per the requirements.	**05**	Copy of resume of proposed team member

iv)	**Business Analysts** ● Two candidates should be proposed for this role in the project. ● The candidates should have B.Tech/ B.E or equivalent degree in Computer Science /IT/ Any other Engineering discipline. ● Should have overall experience of atleast 2 years in software design, development, testing and implementation – **1 marks for each candidate** ● The candidates should have at least two years of experience working on projects for a Central / State government / PSU / Government owned entity – **1 mark for each candidate** ● At least one of the designated business analysts should be available in Bhubaneshwar during the project execution period for coordination and critical meetings of the project.	**04**	Copy of resume of proposed team member
v)	**Blockchain Developers** ● Two candidates should be proposed for this role in the project. ● Should have B.Tech/ B.E or equivalent degree in Computer Science /IT/ Any other Engineering discipline. ● Should have overall experience of atleast 2 years in software design, development, testing and implementation - **2 marks for each candidate** ● Should have previous experience working with Enterprise Blockchain or Public Blockchain applications. Applications should have developed using Hyperledger Fabric / Ethereum / EVM architecture chains – **3 marks for each candidate** ● These resources would be offsite	**10**	Copy of resume of proposed team member
d.	**Approach and Methodology**		

i)	Approach and Methodology to successfully execute the project. Following are the areas which should be elaborated - Bidder's approach - Methodology - Dependencies - Project Plan	**10**	Technical Proposal needs to be submitted and a presentation needs to be given to the evaluation panel. The quality of Technical Proposal and presentation will be evaluated based on the enlisted criteria
e.	**Presentation**		
ii)	Understanding of the scope of the work and proposed solution Following are the areas that should be addressed: - Detailed understanding of the scope - Proposed Functional and Technical Architecture of the OBSI platform - Challenges envisaged for execution of the scope of work - Larger impact on the e_Governance framework of Odisha and future roadmap for the OBSI platform	**20**	Technical Proposal needs to be submitted and a presentation needs to be given to the evaluation panel. The quality of Technical Proposal and presentation will be evaluated based on the enlisted criteria

a) All the bidders who secure a Technical Score of 70% or more will be declared as technically qualified.

b) The bidder with highest technical bid (H1) will be awarded 100% score.

c) Technical Scores for other than H1 bidders will be evaluated using the following formula:

Tn = {(Technical Bid score of the Bidder / Highest technical evaluation marks * 100} % (Adjusted to two decimal places)

d) The commercial bids of only the technically qualified bidders will be opened for further processing.

6.4 Evaluation of Commercial Bids

a) 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.

b) Only fixed price financial bids indicating total price for all the deliverables and services specified in this bid document will be considered.

c) Any conditional bid would be rejected.

d) 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).

e) 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".

f) If there is no price quoted for certain material or service, the bid shall be declared as disqualified.

g) In the event that 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.

h) 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:

Fn = {(Financial Bid of L1 / Financial Bid of Bidder) * 100} %.

6.5 Final Evaluation of Bids

a) 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:

Bn = 70%*Tn + 30%*Fn

b) The bidder securing highest composite score will be adjudicated as most responsive bidder for award of project.

c) In case of a tie, the bidder with the highest Technical Scores will be considered.

7 Appointment of Service Provider

7.1 Award Criteria

OCAC 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.

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

OCAC 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 OCAC action.

7.3 Purchaser's Procurement Rights

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

a) Amend, modify, or cancel this tender and to reject any or all proposals without assigning any reason.

b) Change any of the scheduled dates stated in this tender.

c) Reject proposals that fail to meet the tender requirements.

d) Exclude any of the module(s)

e) Remove any of the items at the time of placement of order.

f) Increase or decrease no. of resources supplied under this project.

g) 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.

h) Make typographical correction or correct computational errors to proposals.

i) Request bidders to clarify their proposal.

j) 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, quantitiesdepending on number of schools can be added / deleted based on actual situation on ground, as part of Change Management. Approved Scope should include total number ofschools and users at the time of approval of SRS and commencement of Development/ Customization/ Integration phase.

7.4 Notification of Award

Prior to the expiration of the proposal validity period, OCAC 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, OCAC 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), OCAC will notify each unsuccessful bidder and return their EMD.

7.5 Contract Finalization and Award

OCAC 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 on the basis of rates defined in the financial proposal.

7.6 Performance Guarantee

a) Selected Service to provide a Performance Bank Guarantee (PBG), within 15 days from the date of notification of award to OCAC.

b) PBG would be 10% of the total Project cost and valid for 63 months.

c) 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.

d) In case the selected bidder fails to submit performance guarantee within the time stipulated, OCAC 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.

e) OCAC shall invoke the performance guarantee in case the selected bidder fails to discharge their contractual obligations during the period or OCAC incurs any damages due to bidder's negligence in carrying out the project implementation as per the agreed terms & conditions.

7.7 Signing of Contract

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

7.8 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 OCAC may call for new proposals from the interested bidders. In such a case, OCAC shall invoke the PBG of successful bidder.

7.9 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.

7.10 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

7.11 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.

8 Formats for Response

8.1 Pre-Qualification Bid Formats

8.1.1 FORM PQ-1: Cover Letter

(To be submitted on the Letterhead of Bidder)

To

The General Manager (Admin),
Odisha Computer Application Centre,
N-1/7-D, Acharya Vihar, P.O. RRL, Bhubaneswar - 751013.

Sub: Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha

Ref: RFP Reference No. OCAC-CERT-INFRA-0001-2023-23123 Dtd.14.12.2023

Sir / Madam,

I, the undersigned, offer to provide the services for the proposed assignment in respect to your Request for Proposal No. OCAC-CERT-INFRA-0001-2023-23123 Dtd.14.12.2023. We hereby submit our proposal which includes the pre-qualification proposal, technical proposal and commercial proposal, sealed under separate envelopes. Our proposal will be valid for acceptance up to 180 Days and I confirm that this proposal will remain binding upon us and may be accepted by you at any time before this expiry date.

All the information and statements made in our proposal are true and correct and I accept that any misinterpretation contained in it may lead to disqualification of our proposal. If negotiations are held during the period of validity of the proposal, I undertake to negotiate on the basis of proposal submitted by us. Our proposal is binding upon us and subject to the modifications resulting from contract negotiations.

I have examined all the information as provided in your Request for Proposal (RFP) and offer to undertake the service described in accordance with the conditions and requirements of the selection process. I agree to bear all costs incurred by us in connection with the preparation and submission of this proposal and to bear any further pre-contract costs. In case, any provisions of this RFP/ ToR/Scope including of our technical and financial proposal are found to be deviated, then you shall have rights to reject our proposal. I confirm that, I have the authority to submit the proposal and to clarify any details on its behalf.

I understand you are not bound to accept any proposal you receive.

Yours faithfully,

(Authorized Signatory)

Name, Designation & Contact No.

Seal

8.1.2 FORM PQ-2: Bidder's Organization (General Details)

(To be submitted on the Letterhead of Bidder)

Sl#	Information	Details
1.	Name of Bidder	
2.	Registered Address of Bidder	
3.	Address for Communication	
4.	Address of local office in Odisha. If bidder has no local office at the time of bid submission, an undertaking has to be furnished on bidder's letter head on setting up an office within 1 month from issuance of work order.	
5.	Name, Designation and Address of the contact person to whom all references shall be made regarding this RFP	
6.	Mobile no. of contact person:	
7.	E-mail address of contact person:	
8.	GST Number of the Firm	
9.	PAN No. of the firm	

Yours faithfully,

(Authorized Signatory)

Name, Designation & Contact No.

Seal

8.1.3 FORM PQ-3 [Acceptance of Terms and Conditions]

(To be submitted on the Letterhead of Bidder)

To

The General Manager (Admin),

Odisha Computer Application

Centre,

N-1/7-D, Acharya Vihar P.O. RRL, Bhubaneswar - 751013.

Sub: Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha

Madam/Sir,

I have carefully and thoroughly gone through the Terms & Conditions along with scope of work contained in the RFP No. OCAC-CERT-INFRA-0001-2023-23123 Dtd.14.12.2023 regarding RFP for **Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha.**

I declare that all the provisions/clauses including scope of work of this RFP are acceptable to our company. I further certify that I am an authorized signatory of the company and I am, therefore, competent to make this declaration.

Yours faithfully,

(Authorized Signatory)

Name, Designation & Contact No.

Seal

8.1.4 FORM PQ-4 [Self-Declaration against Not-Blacklisted]

(To be submitted on the Letterhead of Bidder)

To
The General Manager (Admin),
Odisha Computer Application
Centre,
N-1/7-D, Acharya Vihar P.O. RRL, Bhubaneswar - 751013.

Sub: Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha

Ref: RFP Ref No. OCAC-CERT-INFRA-0001-2023-23123 Dtd.14.12.2023

Sir

In response to the RFP No.: OCAC-CERT-INFRA-0001-2023-23123 Dtd.14.12.2023 for RFP titled "Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha", as owner/ partner/ Director of (organization name)_____ I/ We
hereby declare that to the best of our knowledge, presently our Company/ firm is not under declaration of ineligibility for corrupt & fraudulent practices, blacklisted either indefinitely or for a particular period of time at the time of submission of bid.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/ our security may be forfeited in full and the tender if any to the extent accepted may be cancelled.

Thanking you,

Yours faithfully,

(Authorized Signatory) Name, Designation & Contact No.

Seal

8.1.5 FORM PQ-5 Project Citation Format

a)	Project Name:	
b)	Value of Contract/ Work Order (In INR):	
c)	Name of the Client:	
d)	Project Location:	
e)	Project Duration:	
f)	Start Date (month/year): Completion Date (month/year):	
g)	Status of assignment: Completed / Ongoing (if it is on-going, level of completion)	
h)	Narrative description of the project with scope:	
i)	List of Services provided by your firm/company:	

8.1.6 FORM PQ-6 Format for Bank Guarantee for Earnest Money Deposit

To
The General Manager (Admin)
Odisha Computer Application Centre
(Technical Directorate of E&IT Dept, Govt. of Odisha)
N-1/7-D, Acharya Vihar P.O. - RRL, Bhubaneswar - 751013

Sub: Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha

RFP Ref. No.: OCAC-CERT-INFRA-0001-2023-23123 Dtd.14.12.2023

Whereas <<Name of the bidder>> (hereinafter called 'the Bidder') has submitted the bid for Submission of RFP Ref. No. OCAC-CERT-INFRA-0001-2023-23123 Dtd.14.12.2023, for engagement of **Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha** (hereinafter called "the Bid") to OCAC. Know all Men by these presents that We <<Name of the Bidder>> havingour office at <<Address>> (hereinafter called "the Bank") are bound unto the Odisha Computer Application Centre (hereinafter called "the Purchaser") in the sum of Rs.XX,XX,XXX (Rupees X Lakh 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 withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender; or
2. If the Bidder have been notified of the acceptance of his tender by the Purchaser during the period of its validity: -

a. If the tenderer fails to furnish the Performance Security for the due performance of thecontract; or

b. Fails or refuses to accept/execute the contract;

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.

NOTHWITHSTANDING ANYTHING CONTAINED HEREIN:

i) Our liability under this Bank Guarantee shall not exceed Rs. <<Amount in figures>>(Rupees <<Amount in words>> only)

ii) This Bank Guarantee shall be valid upto <<insert date>>)

iii) It is condition of our liability for payment of the guaranteed amount or any partthereof arising under this Bank Guarantee that we receive a valid written claim ordemand 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:

8.2 Technical Bid Formats

8.2.1 FORM TECH-1: Description of Proposed Solution along with Technology,Scalability, Completeness, Simplicity and Interoperability

Bidder has to provide details of the entire solution proposed covering all requirements as listed out in Volume-II of this RFP.

Bidder has to specifically include (but not limited to) diagram and detailed description of the following:

a) Functional Architecture
b) Technical Architecture
c) Deployment Architecture

Bidder must cover all aspects of the solution while showcasing its scalability, completeness, simplicity and interoperability.

8.2.2 FORM TECH-2: Description of Proposed Approach and Methodology

Bidder is free to propose any type of approach for implementation of this application.

8.2.3 FORM TECH-3: Detailed Work Plan with Activities, Duration, Sequencing,Interrelations, Milestones and Dependencies

SL#	Deliverable/ Activity*	Months							
		1	2	3	4	5	6	7	n
a)									
b)									
c)									
d)									
e)									
f)									
g)									
h)									
i)									
j)									
k)									
l)									
m)									
n)									
o)									

p)									
q)									
r)									
s)									

8.3 Financial Bid

8.3.1 FORM FIN-1: Financial Bid Covering Letter

(To be submitted on the Letterhead of Bidder)

To

The General Manager (Admin),
Odisha Computer Application
Centre,
N-1/7-D, Acharya Vihar P.O. RRL, Bhubaneswar - 751013.

Sub: Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha

Ref: RFP Reference No. OCAC-CERT-INFRA-0001-2023-23123 Dtd.14.12.2023

Madam/Sir,

I /We, the undersigned, offer to provide the service for Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha *as* per RFP No. OCAC-CERT-INFRA-0001-2023-23123 Dtd.14.12.2023 and *our Pre*-Qualification, Technical and Financial Proposals. Our attached Financial Proposal is for the sum of <<Amount in words and figures>> exclusive of all applicable taxes and duties.

a) 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 in the Financial Bid as part of this RFP response. In case there is substantial difference between the component wise price approved by OCAC and the price quoted by the bidder, OCAC will have the rights to ask the bidder to realign their prices without impacting the total bid price. We hereby agree to submit our offer accordingly.

b) PERFORMANCE BANK GUARANTEE

We hereby declare that in case the contract is awarded to us, we shall submit the Performance BankGuarantee as specified in this RFP document.

We understand you are not bound to accept any Proposal you receive. We hereby declare that ourProposal is made in good faith, without collusion or fraud and the information contained in the proposal is true and correct to the best of our knowledge and belief.

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

Yours faithfully,

(Authorized

Signatory)

Name, Designation & Contact No.

Seal

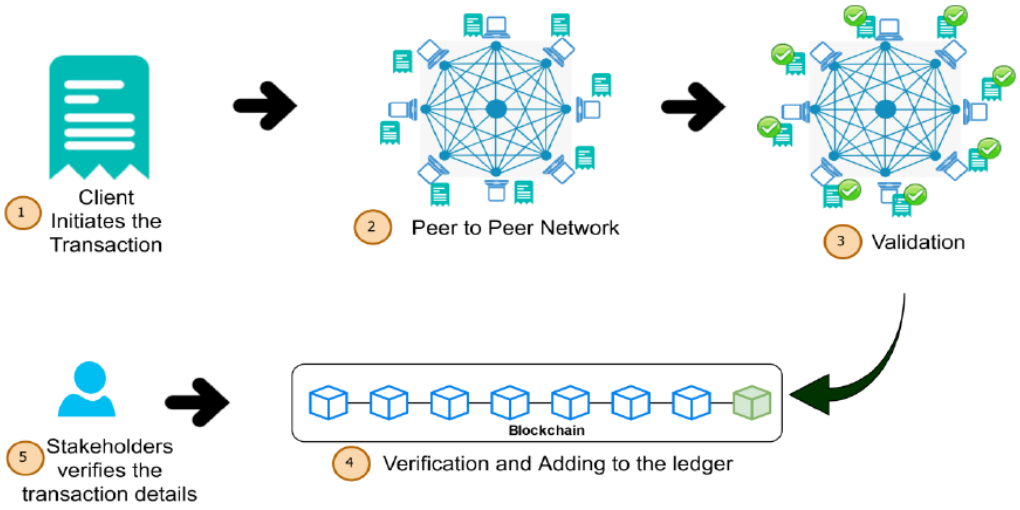
8.3.2 FORM FIN-2: Financial Bid Commercials:

Costing for Selection of Service Provider for the Design, Development, Implementation and Maintenance of Blockchain as a Service platform for the State of Odisha

Sl#	Category	Module/Item	Unit	Qty	Unit Rate	Total Amt
A	**Application Development**	OBSI platform + 3 eGov apps + Odisha Blockchain Sandbox	Lump-sum	1		
	Design, Development, & Implementation of Odisha Blockchain as a Service Infrastructure, eGov applications and Sandbox as defined in the Section 9.2.4 of Volume II of this RFP document					
B	Operation & Maintenance	Application Support & Software Maintenance	Year	3		
C	Change Request	Blended Technical Resource	Man-month	20		
					Total	
					GST (18%)	
					Grand Total	

9 Scope of Work

Data and transactions executed over the network are stored in the ledger in a decentralized manner over peer-to-peer network. Transactions are validated and verified through consensus (consensus protocols) across nodes of the Blockchain network.



The successful bidder must implement the following platforms and applications within the scope of this RFP –

- **Odisha Blockchain Service Infrastructure (OBSI)** – Blockchain as a Service platform for Odisha
- **eGovernance Blockchain applications** to be developed leveraging the Odisha Blockchain Service Infrastructure including –
    - Provide support to stakeholders who need distributed data provenance architectures with inherent scalability, security resilient and privacy-based data sharing capabilities.
    - Contribute towards development of national and global level standards, strategies and best practices.
    - Provide support for naturally evolving interoperability across different Blockchain platforms amongst participating entities.
    - Application for securing and verifying academic certificates and marksheets.
    - Application for securing and verifying government issued certificates for residents of the State of Odisha such as Caste certificates, Residential certificates, etc.
    - Applications for securing and verifying daily land registration transactions for the State of Odisha.
    - Carryout detailed study and identify the legal and policy requirements towards Blockchain regulation and governance for offering citizen services.
    - Evolve multi stakeholder model towards creating the national Blockchain infrastructure.

- **Odisha Blockchain Sandbox** which will be used by the state to drive innovation in public service delivery including creation of proactive governance delivery of schemes and services

The following sections discuss each of these sections in detail.

9.1 Odisha Blockchain Service Infrastructure

The successful bidder will be responsible for designing and implementing an enterprise grade private Blockchain as a Service Infrastructure for the state of Odisha. Below are the architectural considerations that the successful bidder should follow for building the platform.

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

i. Information Technology Act, 2000 and subsequent amendments.
ii. DPDP Act 2023
iii. The Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016, Aadhaar (Data Security) Regulations, 2016, Aadhaar (Sharing of Information) Regulations, 2016
iv. Electronic Consent Framework
v. Data Sharing and Accessibility Policies
vi. National Data Sharing and Accessibility Policy (NDSAP)
vii. Odisha State Data Policy
viii. Policy on Open Application Programming Interface (API) for Government
ix. Policy on Open Standards for e-Governance
x. Should adhere to National Strategy on Blockchain

.

Parameter	Consideration
Type of Blockchain implementation	Private permissioned blockchain BaaS (Blockchain as a Service implementation)
Technology stack	Hyperledger Fabric 2.x or above
Hosting infrastructure	Public Cloud service taken by Department/ Agency of Government of Odisha (Public Cloud service should be MeiTY empaneled list of Service Providers)
Platform users	Odisha government officers, resident of Odisha & other external and internal stakeholders as required
Node custodians	Odisha Government departments & agencies
Platform architecture	Microservices based
Consensus mechanism	Ordering mechanism (RAFT or suitable alternative)
Access control mechanisms	Private data and private ledgers
Smart contract language	Go / NodeJS

The infrastructure should abstract the smart contract functionalities and blockchain services layer and expose a set of micro services which in turn would be used for development of e_Governance applications. Specific off chain modules for interacting with the blockchain layer should be developed and deployed as a container. Off chain modules may contain implementation of business logic for facilitating business requirement. Departments should be able to pull images and deploy containers required for developing and deploying applications.

For example, a single microservice can be hosted for issuing all academic certificate credentials on the blockchain layer. Such a microservice may also contain an additional RDBMS database for reporting and to support rich SQL queries

A suite of department specific applications will be developed using these microservices. These applications will be used by the government departments and public sector enterprises, agencies and organizations to deliver value added services and improve transparency and efficiency in government services.

Below are the requisite features of the Odisha Blockchain Service Infrastructure:

- The blockchain platform will have a peer-to-peer architecture. Nodes will be spread across the hosted infrastructure of various stakeholders and participants of the blockchain platform.
- The node software should follow a containerization ecosystem. Different components of the blockchain software can be deployed to the infrastructure of the participants through container images.
- The platform will host an API gateway that can be used by departments and other stakeholders to interact with the blockchain infrastructure and microservices described earlier. The API gateway should have suitable access controls to prevent misuse of the platform.
- The consensus/ordering mechanism used for building the platform should ensure that data captured to the ledgers is immutable and cannot be tampered with if the consensus requirements are met. The ordering / consensus algorithms used should be proven and widely accepted.
- The implemented blockchain platform should allow creation and configuration of access policies based on the identity of the participants. Additionally, the platform should leverage public key cryptography and digital signatures to ensure only parties with access can read/write from the shared ledgers.
- The platform should support writing and deploying of smart contract workflows.
- Business Continuity Planning (BCP) DC and DR integration for all modules and components should be such that it is possible to operate any module from DR in case of any disruption at DC site. The IA may suggest a better methodology for optimal usage and cost benefits. IA will provide a BCP and DR plan as part of business continuity plan.
- The bidder shall ensure that each module & features developed for SPDP is tested as per the latest version of IEEE 730 standards.

- The IA shall design and develop components/ functionalities that are required to address the requirements of OBSI as mentioned above. The IA shall develop the solution in the public cloud environment to be provided by the government.
- The IA shall supply the following documents along with the developed components:
    i. Business Process Manual
    ii. Data Model Descriptions
    iii. User Manual
    iv. Operational Manual
    v. Configuration Manual
    vi. API Documentation
    vii. Frequently Asked Question (FAQ) guides
    viii. Any other documentation as required for usage

9.2 Applications to be developed leveraging Blockchain Infrastructure

This section details the e_Governance applications that need to be built leveraging the Odisha Blockchain Service Infrastructure as part of the scope of this RFP

For every application the successful bidder needs to get a sign off on the design and workflows before starting the development process.

9.2.1 Securing and verifying academic certificates and marksheets issued by the Government entities of the State of Odisha

Odisha has several prestigious academic institutes that issue educational degrees, certificates, marksheets, diplomas etc. These maybe issued at the high school level, higher secondary level, graduation level or post graduate level. Even in a digitized world it is relatively cumbersome for employers and education institutes to validate the authenticity of the degrees or certificates that these students present at the time of admission or employment. Several government organizations of state and central government, employers, higher educational institutes, and universities need to verify these qualifications and certificates to establish the academic credentials of candidates applying for employment or admission.

There is a need to setup a trusted source of truth which can be used to verify the authenticity of any degree or certificate issued by an educational institute. A blockchain backed education degree or certificate will remove any ambiguity in academic credentials issued by various universities and institutions within Odisha. Document verification is a cumbersome process and results in heavy unproductive expenditure. By putting the academic credentials on the blockchain the process can be made efficient, transparent and hassle free

A blockchain application needs to be setup that can use the state blockchain for authenticating degrees and certificates issued by our educational institutes. It should follow the below process for securing degrees and certificates

1. It should capture education degrees and certificates for all levels and process it into a suitable format for recording to the blockchain.

2. This data should then be recorded on the blockchain and digitally signed using cryptographic algorithms.
3. For checking integrity, digital copies of these education degrees, certificates and other documents submitted by students for employment, higher education or other services will be converted into the recorded format and compared with the blockchain.
4. Client facing API services and middleware layer needs to be provided so institutes can quickly be on boarded to the infrastructure and can use the service

Following are the list of academic certificates that will be secured with this application–

1. Class Xth Passing Certificate – Board of Secondary Education, Odisha
2. Class XIIth Passing Certificate – Council of Higher Secondary Education, Odisha
3. Degree, Biju Patnaik University of Technology
4. Diploma certificate, Odisha State Technical Council for Education and Vocational training
5. Degree, Utkal University, Bhubaneswar

9.2.2 Securing and verifying other government certificates issued by eDistrict Odisha platform

The Government of Odisha has implemented the e-District Odisha platform with the vision to deliver public services online to the citizens even in the remotest corner of the state online. Revenue and other departments of government issue a suite of certificates such as Income Certificates, Caste Certificates, Resident Certificates, and more for citizens and businesses through this platform. A process needs to exist to secure these documents and verify these documents. Such a process needs to rely on time tested cryptographic algorithms for verifying and authenticating the documents. Thus, we need to 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 setup that can use the state blockchain for authenticating certificates issued by the revenue and other government departments using eDistrict Odisha. It should meet the criteria below.

1. It should be able to capture and convert the certificates, documents and licenses issued by the Revenue and other government departments and agencies and process it into a suitable data format for recording to the blockchain.
2. This data should then be recorded on the blockchain and digitally signed using cryptographic algorithms.
3. 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.

Following are the certificates that will be secured -

1. Caste Certificate
2. Economically Weaker Section Certificate
3. OBC Certificate
4. Economically backward in General Caste Certificate
5. Income Certificate
6. Residence Certificate

7. Legal Heir Certificate
8. SC/ST Certificate
9. Marriage Certificate
10. Guardianship Certificate

9.2.3 Securing and verifying land registration transactions carried out daily on the IGR platform

It is desired by the department to securely store land registration data and documents so these are available unaltered for years to come and can also be used as a truth anchor for all land transactions in the state.

To accomplish the same, it has been proposed to develop a blockchain application Blockchain will enable us to protect all such data from tampering or deletion once they are recorded. Additionally, it'll act as an immutable and secure truth anchor which can be used for verifying the authenticity of digital copies of these data and documents in the future.

OBSI is the underlying blockchain network which will be used to develop the proposed application and secure the documents and data. The application will fetch the native or raw document files and data, convert it into a suitable format or signature and submit this formatted data to the blockchain. Transactions will be submitted to the blockchain layer through client APIs exposed by the blockchain platform.

The application layer should also be able to run on-demand verification on the secured data to identify and notify authorities in case of any tampering or modifications.

Following are the functionalities of such a blockchain application –

1. **Secure the registration documents and data generated from citizen transactions on the IGR Portal on a day-to-day basis** The application built by the successful bidder needs to ensure that documents generated from these transactions are secured through blockchain technology. Only the changes made to the documents by authorized users should be accepted and retained and all other cases should be flagged to authorities.

2. **Providing a blockchain enabled secure digital verification workflow for data stored to the blockchain.** Authorities will be given access to a screen which can be used for digitally verifying authenticity of registration data and documents by comparing with the values preserved in the blockchain.

9.2.4 Odisha Blockchain Sandbox

The Odisha Blockchain Service Infrastructure would host an API sandbox to allow departments and start-ups to build applications. Developers can access a controlled development environment of the platform and use it to develop and host prototypes and applications. Following are the features of the Sandbox –

1. Published set of APIs with token gated accessed shared with selected individuals / entities.

2. Participants would be given access to specific APIs based on the requirement of their application

Following are the APIs that need to be exposed for developers –

1. API for creating a new document type
2. Notarizing API for securing a document or multiple documents
3. Verification API for verifying a document or multiple documents

.

9.3 Team Structure During development, implementations and O&M period: ONSITE / OFFSITE

The SI need to follow Following Team structure during the project period:

#	Resource Type	Onsite/ Offsite	Qty	Duration
1.	Project Manager	Onsite at OCBC office	1	60 months
2.	Business Analyst	Onsite at OCBC office	2	60 months
3.	eGovernance Blockchain SME	Offsite	1	60 months
4.	Blockchain Solution Architect	Offsite	1	60 months
5.	Blockchain Developers	Offsite	2	60 months

10 Expected Project Milestones

The go live for the application modules would be staggered across one Pilot and 4 Phases. Below is the list of certificates / documents that would be secured at the end of each phase –

10.1 Pilot

- Caste Certificate
- Income Certificate

10.2 Phase 1

- Class Xth Passing Certificate – Board of Secondary Education, Odisha
- Class XIIth Passing Certificate – Council of Higher Secondary Education, Odisha
- Degree, Biju Patnaik University of Technology
- Caste Certificate
- OBC Certificate
- Economically Weaker Section Certificate
- Economically backward in General Caste Certificate
- Residence Certificate

10.3 Phase 2

- Diploma certificate, Odisha State Technical Council for Education and Vocational training

- Degree, Utkal University, Bhubaneswar
- Caste Certificate
- OBC Certificate
- Economically Weaker Section Certificate
- Economically backward in General Caste Certificate
- Residence Certificate
- Legal Heir Certificate
- SC/ST Certificate
- Marriage Certificate
- Guardianship Certificate

10.4 Odisha Blockchain Sandbox

- Sandbox with APIs listed in Section 9.1

10.5 Land registration transaction data and documents

- Daily land registration transactions documents and data secured with blockchain

10.6 Timeline

S No.	Milestone	Time for completion
1	Award of Work Order (Project Kickoff)	T0
2	Inception Report	T1 = T0 + 2 months
3	FRS Document creation	T2 = T1 + 3 months
4	Pilot	T3 = T2 +3 months
5	UAT – Phase 1	T4 = T3 + 4 months
6	Go Live - Phase 1	T5 = T4 + 1 month
7	UAT – Phase 2	T6 = T5 + 4 months
8	Go Live – Phase 2	T7 = T6 + 1 month
9	Odisha Blockchain Sandbox	T8 = T7 + 2 month
10	UAT – Phase 3	T9 = T8 + 3 months
11	Go Live – Phase 3	T10 = T9 + 1 month
12	O&M	T10 onwards

11 Payment Schedule

SNo.	Milestone	Deliverables	Payment %
1	FRS Document creation	FRS document	**10%** of Financial Bid Commercials SI# A)
2	Pilot	Pilot signoff from OCBC SPOC as per scope	**15%** of Financial Bid Commercials SI# A)
3	UAT – Phase 1	UAT Phase 1 signoff from OCBC SPOC	**15%** of Financial Bid Commercials SI# A)
4	Go Live - Phase 1	Platform hosted in	**10%** of Financial Bid

		Live as per Phase 1 scope	Commercials SI# A)
5	UAT – Phase 2	UAT Phase 2 signoff from OCBC SPOC	**15%** of Financial Bid Commercials SI# A)
6	Go Live – Phase 2	Platform hosted in Live as per Phase 2 scope	**10%** of Financial Bid Commercials SI# A)
7	Odisha Blockchain Sandbox	Sandbox APIs published and circulated as per cl 9.2.4	**10%** of Financial Bid Commercials SI# A)
8	UAT – Phase 3	UAT Phase 3 signoff from OCBC SPOC	**10%** of Financial Bid Commercials SI# A)
9	Go Live – Phase 3	Platform hosted in Live as per Phase 3 scope	**5%** of Financial Bid Commercials SI# A)
10	O&M	1. Monthly Project Status Reports 2. Issue Logs 3. Exit Plan Documentation	Monthly payments (O&M amount quoted by bidder would be distributed equally across 36 months and paid against monthly invoices)

Sign Off & Go Live Criteria

Pilot signoff –

1. Pilot Blockchain network installed and configured in pilot environment.
2. Develop and deploy application for securing certificates in scope of pilot
3. Integrated with eDistrict document repository for fetching and securing digitized certificates in the scope of Pilot
4. Develop and deploy smart contracts for securing and verifying certificates in the scope of Pilot

UAT Phase 1 signoff

1. Blockchain network installed and configured in UAT environment
2. Develop and deploy applications and modules for securing certificates in scope of Phase 1
3. Integrate with academic and eDistrict repositories for fetching and securing digitized certificates in the scope of Phase 1
4. Develop and deploy smart contracts for securing and verifying certificates in the scope of Phase 1

Phase 1 – Go Live (Platform hosted in live as per Phase 1 scope)

1. Production Blockchain network setup and installed

2. Successful security audit and identified bugs fixed
3. Onchain and offchain business modules for Phase 1 deployed and installed in production environment

UAT Phase 2 signoff

1. Develop and deploy applications and modules for securing certificates in scope of Phase 2
2. Integrate with academic and eDistrict repositories for fetching and securing digitized certificates in the scope of Phase 2
3. Develop and deploy smart contracts for securing and verifying certificates in the scope of Phase 2

Phase 2 – Go Live (Platform hosted in live as per Phase 2 scope)

1. Production Blockchain network configuration for Phase 2
2. Successful security audit and identified bugs fixed
3. On-chain and off-chain business modules for Phase 2 deployed and installed in production environment

Odisha Blockchain Sandbox

1. APIs developed and hosted as per cl 9.2.4
2. API documentation for integrating sandbox APIs

UAT Phase 3 signoff

1. Develop and deploy smart contracts for securing and verifying data and documents in the scope of Phase 3
2. Integrate with 3rd party systems for fetching and securing digitized data and documents in the scope of Phase 3. Develop and deploy applications and modules for securing certificates in scope of Phase 3

Phase 3 – Go Live (Platform hosted in live as per Phase 3 scope)

1. Production Blockchain network configuration for Phase 3
2. Security audit and identified bugs fixed.
3. On-chain and off-chain business modules for Phase 3 deployed and installed in production environment.