



**SELECTION OF SYSTEM INTEGRATOR FOR
INSTALLATION, COMMISSIONING & MAINTENANCE OF API
MANAGEMENT SOLUTION FOR i3MS APPLICATION
FOR DIRECTORATE OF MINES, GOVERNMENT OF ODISHA**

RFP. NO. : 6811/ DM, DATE. 06/08/2022

KEY EVENTS

Sl. No.	Events	Date, Time
1.	Start date for issue of RFP document	08.08.2022
2.	Last date and time for Submission of Queries	16.08.2022
3.	Pre-Bid Conference	19.08.2022
4.	Issue of Corrigendum, if any	23.08.2022
5.	Last date and time for Submission of Bid	29.08.2022 by 12:00 Noon
6.	Opening of Pre-Qualification/General bids	29.08.2022 by 04:30 PM
7.	Opening of Technical bids	29.08.2022 by 04:30 PM
8.	Opening of Commercial bids	12.09.2022 at 11:30 AM

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1. Request for Proposal

Sealed tenders are invited from eligible, reputed, qualified System Integrator (SI) for Installation, Commissioning & Maintenance of API Management Solution for i3MS Application as detailed out in the Terms of Reference under Section 0 of this RFP Document. The contract with the successful SI will be valid for three years from its effective date. Based on the performance of the SI if needed Directorate of mines, Government of Odisha may also extend the contract for additional period on mutual consent. This invitation to bid is open to all System Integrators meeting the minimum eligibility criteria as mentioned in Section 5.1 of this RFP Document.

2. Structure of the RFP

This Request for Proposal (RFP) document comprises of the following:

- Background Information regarding the Project and Client
- Instructions on the Bid process for the purpose of responding to this RFP. This broadly covers:
 - i. General instructions for bidding process
 - ii. Bid evaluation process including the mode of submission.
- Criteria for Eligibility and Evaluation
- Scope of Work comprising of
 - i. Technical requirements
 - ii. Service levels for the System Integrators
 - iii. Payment Terms
- Formats for Bid Submission

The System Integrator 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 SI of the Directorate of Mines for this project.

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.

3. Background Information

The Department of Steel and Mines had led the major flagship program of the Government of Odisha in mining sector - Integrated Mines and Minerals Management system (i3MS) in 2010. The project was implemented by the Directorate of Mines with the aim of automating end-to-end Mineral administration through IT intervention.

Through this RFP, the Directorate of Mines, Government of Odisha invites responses (“Tenders”) to this Request for Proposals (“RFP”) from System Integrator for Selection of System Integrator for Installation, Commissioning & Maintenance Of API Management Solution for i3MS application for performing the tasks as described in “Section 0 Terms of Reference: of this RFP”.

3.1 About the Client

3.1.1 About the Department of Steel & Mines

The Steel and Mines Department is the administrative Department of the Directorate of Mines, the Directorate of Geology and Odisha Mining Corporation Ltd.

The department works for the development of the mineral resources of the State and is the authority for mines and minerals development and regulation. It also encourages and provides support for value addition and end use of minerals in the State. Thereby creating facilities for employment, Socio-economic development and fetching more revenue for the State.

The main functions and activities of the Department of Steel and Mines are:

- Systematic survey and assessment of the mineral deposits of the State
- Exploitation of the mineral deposits of the State
- Administration of mines and mineral concession
- Enforcement measures for prevention of illegal mining and smuggling of minerals
- Assessment and collection of mining revenue
- Study of the impact of mining operation on environment
- Formulation of appropriate environmental control measures
- Research and exploitation of areas and minerals for meeting the needs of mineral based industries in the State and Country.

3.1.2 About the Directorate of Mines

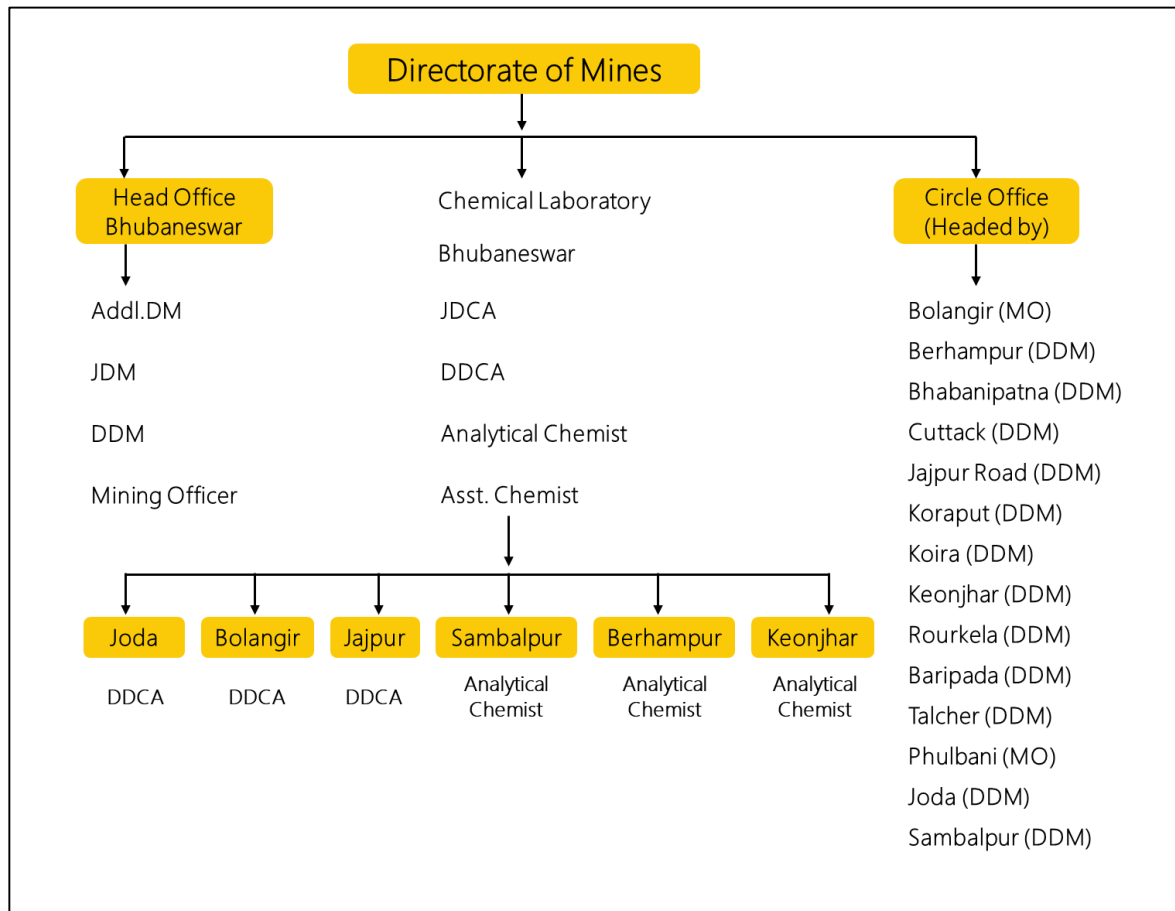
The Directorate of Mines, Odisha functions under the administrative control of Steel & Mines Department of Odisha. The major functions of the Directorate are:

- Administration of mines & minerals

- Processing of mineral concession applications
- Collection of mineral revenue
- Prevention & control of illegal mining & smuggling of minerals
- Enforcement of statutory provisions for exploration of minerals
- Peripheral development of mining areas
- Chemical analysis of ores & minerals etc.

The Directorate has its headquarter at Bhubaneswar and carries out the administrative functions through 14 circle mining offices located in different parts of the State.

Organization Chart of the Directorate



3.1.3 Project Management Committee

A Project Management Committee (PMC) has been constituted to oversee the smooth implementation of i3MS.

The committee holds the following mandate:

- Meeting on monthly basis and as often as required to submit the report to the steering committee & Government on the physical & financial progress of the project.
- Monitoring & evaluation of the software maintenance job, performance of the Project management and implementation Units on quarterly basis and as often as required.
- Development of additional software modules, software enhancement & extra effort to be put for the project would be examined & sent to steering committee for approval.
- This committee finalizes the new purchase, up gradation & maintenance of the computer servers, hardware, networking equipment's & IT accessories for Data Centre & PMU at Directorate. While doing so, guidelines of Finance Department are meticulously followed. On approval Director Mines takes necessary follow up action.

3.2 Existing Scenario

The Integrated Mines & Minerals Management System (i3MS) is a major flagship program of the Government of Odisha in mining sector which aims at inclusive end-to-end mineral administration in the state for major minerals. i3MS was conceptualized during the year 2010 with the endeavor of implementing holistic IT intervention in the mining sector in Odisha. It has been led by Department of Steel & Mines and implemented by Directorate of Mines. After its successful piloting during 2011-12 and recognized rollout, Government of Odisha decided to take it forward and consolidate its benefits over a five year period.

The core functions of the State in mining are to facilitate and regulate exploration and mining activities of investors and entrepreneurs, provision of infrastructure and tax collection. Thus, the Government wished to have a system that would have an end to end accountability of the Mineral Ore Movement originating from the State of Odisha and Integrated Mines and Minerals Management System (i3MS) was taken up as a pilot phase of IT intervention under Steel and Mines department.

i3MS is a robust platform where all transactions of the Lessees & licensees are made online covering 603 Mines, 3500 traders and end users in Odisha. The project connects all stakeholders namely the Department of Steel & Mines, Directorate of Mines, 14 Mines Circle offices, Department of Commerce and Transport, Indian Railway, Ports, Mines Owners, Traders, Industrial Units, NIC, Government Check Gates and Law enforcement Agencies to mining administration framework. It allows online application and issuance of Mineral Due Clearance Certificate, Weigh Bridge Approval, Grant/ Renew of License, transit permit, updating of Vehicle Seizure and filling of Online Returns to Govt. of India etc. i3MS platform helps in achieving the following goals:

- Enhancing productivity

- Efficient monitoring & control
- Effective information exchange
- Building a knowledge base, enabling a robust decision support system
- Effective decision making
- Effective prioritization of work
- Enabling policy based processing
- Efficient and transparent administration
- Ease of transferring data from remote locations without internet facility.
- Improving Royalty collection
- Issuing Bulk e-permits
- Auto checking of Mines statutory clearances & Curb loop holes of the system
- Generating MIS report on actual dispatch at any point of time from the system

3.2.1 Technology and Architecture used:

Currently, the i3MS Application is based on .Net Framework 4.5, ADO.NET. It is currently hosted on State Data Center and utilizes Microsoft SQL SERVER 2016 as backend. Technology Stacks used in the i3MS application are detailed below:

Server Operating System	Windows Server 2016
Web Application Framework	ASP.NET 2.0
Software Framework	.Net Framework 4.5, ADO.NET
Database Server	Microsoft SQL SERVER 2016
Programming Languages	C#.Net
Scripting Languages	AJAX, J-Query, JAVA SCRIPT

3.2.2 Problem Statement

As all the transactional data of the stakeholder are stored in i3MS, the Lessee must reproduce those data in their own ERPs and third-party software systems. As a result, there have been a lot of integration requests coming for i3MS, which are handled on a case-by-case basis. Lack of a

formal framework for accommodating such requests from the users and other entities proxy to the industry has also led to unauthorized access to the data.

3.2.3 Objectives

The primary goal of this RFP is to establish a formal framework that not only allows for data integration and access, but also allows for the achievement of the following objectives: -

- Bring in a mechanism in place for segregation of data access i.e. identity and access management, risk assessment and risk mitigation
- Prepare threat modelling around the integration configuration, as well as conduct frequent audit of the data shared with stakeholders
- Provide secured, standardized and scalable access to data through complete management and monitoring of application programming interface (APIs) and/or other service infrastructure
- Enable internal service bus for better performance of i3MS application especially for meeting the high volume of data access for certain areas
- Implement API data monetization strategy to generate revenue & accelerate digital transformation.
- Internally enable bulk data operations for generation of reports and insights

4. Instructions to the Bidders

4.1 General

- While every effort has been made to provide comprehensive and accurate background information and requirements and specifications, bidders must form their own conclusions about the solution needed to meet the requirements. Bidders and recipients of this RFP may consult their own legal advisers with regard to this RFP.
- All information supplied by bidders may be treated as contractually binding on the Bidders, on successful award of the assignment by the Directorate on the basis of 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 the Directorate. Any notification of preferred bidder status by the Directorate shall not give rise to any enforceable rights by the bidder. The Directorate may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of the Directorate without assigning any reason.

- This RFP supersedes and replaces any previous public documentation & communications, and bidders should place no reliance on such communications.

4.2 Compliant Proposals/ Completeness of Response

- 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 set out in this RFP may render the Proposal non-compliant and the Proposal may be rejected. Bidders must:
 - i. Include all documentation specified in this RFP;
 - ii. Follow the format of this RFP and respond to each element in the order as set out in this RFP
 - iii. Comply with all requirements as set out within this RFP.

4.3 Consortium

Consortium/ Joint Venture are not allowed.

4.4 Pre-Bid Meeting & Clarifications

4.4.1 Pre-bid Conference

- The Directorate shall hold a pre-bid meeting with the prospective bidders on **19.08.2022 at 04.30 PM at Conference hall of Directorate of Mines.**
- The Bidders will have to ensure that their queries for Pre-Bid meeting should reach to Dr. Umesh Chandra Jena, Additional Director of Mines, Contact No.- 0674-2393607, Email: itpmu@orissaminerals.gov.in .
- The queries should necessarily be submitted in the following format:

S. No.	RFP Document Reference (s) (Section & Page Number(s))	Content of RFP requiring Clarification(s)	Points of clarification
1			
2			
3			

- The Directorate shall not be responsible for ensuring receipt of the bidders' queries. Any requests for clarifications post the indicated date and time will not be entertained by the Directorate.

4.4.2 Responses to Pre-Bid Queries and Issue of Corrigendum

- The Nodal Officer (as per the below table) shall endeavor to provide timely response to all queries. However, the Directorate neither makes representation or warranty as to the completeness or accuracy of any response made in good faith, nor does the Directorate undertake to answer all the queries that have been posed by the bidders.
- At any time prior to the last date for receipt of bids, Directorate 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 a corrigendum.
- The Corrigendum (if any) & clarifications to the queries from all bidders will be posted on <http://www.odishaminerals.gov.in/>.
- Any such corrigendum shall be deemed to be incorporated into this RFP.
- In order to provide prospective Bidders reasonable time for taking the corrigendum into account, the Directorate may, at its discretion, extend the last date for the receipt of Proposals.

SL. No.	Items	Details
1	Nodal Officer	Dr. Umesh Chandra Jena
2	Designation	Additional Director of Mines
3	Contact No.	0674-2393607
4	Email Address	itpmu@orissaminerals.gov.in

4.5 Key Requirements of the Bid

4.5.1 Right to Terminate the Process

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

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

4.5.2 RFP Document Fees

RFP document can be downloaded from <http://www.odishaminerals.gov.in/>. The bidders are required to submit the document Fee of INR Rs.5,000/- in shape of Demand Draft in favor of Director of Mines, Odisha payable at Bhubaneswar from any of the scheduled commercial banks along with the Technical Proposal. Proposals received without or with inadequate RFP Document fees shall be rejected.

4.5.3 Earnest Money Deposit (EMD)

- Bidders shall submit, along with their Bids, EMD of INR 10,00,000/- (Rupees Ten Lakhs Only), in the shape of Demand Draft OR Bank Guarantee issued by any scheduled commercial bank in favor of Director of Mines, Odisha payable at Bhubaneswar, and should be valid for 60 days from the due date of submission of the tender / RFP. However, in case of any extension in the bid opening, the bidder shall consider another 60 days of bid validity, upon receiving written request from Directorate of Mines. The EMD should be submitted with the Technical Proposal.

Account Details for furnishing EMD is as below:

Director of Mines

SBI A/C No.10977507719

IFSC Code: SBIN0006408

- EMD of all unsuccessful bidders would be refunded by Directorate within 30 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.
- The EMD amount is interest free and will be refundable to the unsuccessful bidders without any accrued interest on it.
- The bid / proposal submitted without EMD, mentioned above will be summarily rejected.
- 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 and having faced Commercial failures etc.
- iv. If a bidder does not cooperate in providing required clarifications during the evaluation process

4.5.4 Submission of Proposals

- The bidders should submit their responses as per the format given in this RFP in the following manner:
 - i. Technical Proposal (1 Original in hard copy) in first envelope
 - ii. Commercial Proposal (1 Original in hard copy) in second envelope
- The Technical Proposal and Commercial Proposal (as mentioned in previous paragraph) should be covered in separate sealed envelopes super scribing "Technical Proposal" and "Commercial Proposal" respectively.
- Please Note that Prices should not be indicated in the Technical Proposal but should only be indicated in the Commercial Proposal.
- The two envelopes containing Technical Proposal and Commercial Proposal should be put in another single sealed envelope clearly marked as "SELECTION OF SYSTEM INTEGRATOR FOR INSTALLATION, COMMISSIONING & MAINTENANCE OF API MANAGEMENT SOLUTION FOR i3MS APPLICATION" - RFP Ref No – **6811/DM** with the wordings "**DO NOT OPEN BEFORE** <<Date of Opening>>".
- The outer envelope thus prepared should also indicate clearly 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.
- The proposal/ bid shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary to correct errors made by the bidder itself. Any such corrections must be initialed by the person (or persons) who sign(s) the proposals.
- All pages of the bid shall be initialed and stamped by the authorized person or persons who sign the bid.

- In case of any discrepancy observed by the Directorate 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.

4.6 Preparation and Submission of Proposal

4.6.1 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/ discussions/ presentations, preparation of proposal, in providing any additional information required by the Directorate to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.

The Directorate will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

4.6.2 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 the Bidders. For purposes of interpretation of the Proposal, the English translation shall govern.

4.6.3 Venue & Deadline for Submission of Proposals

Proposals, in its complete form in all respects as specified in the RFP, must be submitted to the Directorate in the address specified below:

Addressed To	DR. UMESH CHANDRA JENA, ADDITIONAL DIRECTOR OF MINES, DIRECTORATE OF MINES HEADS OF DEPARTMENT BUILDING LOCATION - UNIT - V, BHUBANESWAR - 751001
Telephone	0674-2393607
Email id	itpmu@orissaminerals.gov.in
Last Date & Time of Submission	Date.- 29/08/2022 & Time:- 12:30 PM

4.6.4 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 by telex/ telegram/ fax/ e-mail etc. shall not be considered. No correspondence will be entertained on this matter.
- The Directorate shall not be responsible for any postal delay or non-receipt/ non-delivery of the documents. No further correspondence on the subject will be entertained. It is the responsibility of the bidder to ensure that its bid/proposal is received by the Directorate within the prescribed timeline.
- The Directorate reserves the right to modify and amend any of the above-stipulated condition/criterion depending upon project priorities vis-à-vis urgent commitments.

4.7 Evaluation Process

- The Directorate will constitute a Proposal Evaluation Committee to evaluate the responses of the bidders
- The Proposal Evaluation Committee constituted by the Directorate shall evaluate the responses to the RFP and all supporting documents / documentary evidence. Inability to submit requisite supporting documents / documentary evidence, may lead to rejection of the bid.
- The decision of the Proposal Evaluation Committee in the evaluation of responses to the RFP shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the Committee.
- The Proposal Evaluation Committee may ask for meetings with the Bidders to seek clarifications on their proposals, if required.
- The Proposal Evaluation Committee reserves the right to reject any or all proposals on the basis of any deviations.
- Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.

4.7.1 Tender Opening

The Proposals submitted **up to 29.08.2022 by 12 Noon** will be opened on **29.08.2022** at 4.30 PM by Proposal Evaluation Committee, in presence of those Bidders or their representatives who may be authorized by the bidder to be present at the time of opening. The representatives of the bidders should be advised to carry the identity card or a letter of authority from the tendering firms to be identified as bona-fide for attending the opening of the proposal.

4.7.2 Tender Validity

The offer submitted by the Bidders should be valid for minimum period of 60 days from the date of submission of Tender. However, in case of any extension in the bid opening, the bidder shall consider another 60 days of bid validity, upon receiving written request from Directorate of Mines.

4.7.3 Tender Evaluation

- Initial Bid scrutiny will be held and bids shall be treated as nonresponsive if Proposals:
 - i. are not submitted as specified in the RFP document
 - ii. received without the Letter of Authorization
 - iii. are found with suppression of details
 - iv. with incomplete information, subjective, conditional offers and partial offers submitted
 - v. submitted without the documents requested in the checklist
 - vi. have non-compliance of any of the clauses stipulated in the RFP
 - vii. with lesser validity period
- All responsive Bids will be considered for further processing as below :
 - i. The Directorate will prepare a list of responsive bidders, who comply with all the Terms and Conditions of the Tender. All eligible bids will be considered for further evaluation by a Committee according to the Evaluation process defined in Section 5 of this RFP document. The decision of the Committee will be final in this regard.

5. Criteria for Evaluation

Tenders for this contract will be assessed in accordance with Quality and Cost-based Selection (QCBS) system. All bids will primarily be evaluated on the basis of Prequalification Criteria. The Proposal Evaluation Committee will carry out a detailed evaluation of only those proposals that qualify all Prequalification criteria to determine whether the technical aspects are in accordance with the requirements set forth in the RFP Documents. In order to reach such a determination, the Proposal Evaluation Committee will examine and compare the technical aspect of the Proposals on the basis of information provided by the bidder, taking into account the following factors:

- Overall completeness and compliance with the requirement.
- Proposed solution, work-plan and methodology to demonstrate that the bidder will achieve the performance standards within the time frame described in RFP documents.

- Any other relevant factors, if any, listed in RFP document or the Directorate deems necessary or prudent to take into consideration.

In order to facilitate the technical proposal evaluation, the technical criteria laid down along with the assigned weights have been presented in subsequent section. The marking scheme presented here is an indication of the relative importance of the evaluation criteria. Bidders securing a minimum of 60 marks in the technical evaluation will only be considered for further financial bid evaluation. Bids of Tenders which don't secure the minimum specified technical score will be considered technically non-responsive and hence debarred from being considered for financial evaluation.

5.1 Prequalification Criteria (General Bid)

Keeping in view the complexity & volume of the work involved, following criteria are prescribed as pre-qualification criteria for the Bidder interested in undertaking the project. Consortium is not allowed.

Sl#	Criteria	Basis of Evaluation	Documents Required
1.	Legal Entity	The bidder should be a company registered under the Indian Companies Act and must be in operation since last 10 years as on date of submission of Bid.	- Certificate of Incorporation - GST Registration Certificate - Copy of PAN - Work orders confirming 10 years of operation
2.	Turnover	The bidder must have Average Annual Turnover of Rs. 50 Crores in last three financial years ending at 31/03/2021.	Extracts from the audited Balance Sheet and Profit & Loss OR Certificate from the statutory auditor
3.	Quality Certification	The bidder must have valid ISO & CMMI (Published on CMMI Institute or SEI Website) certificate as on bid submission date.	Copy of valid CMMi & ISO Certificate
4.	Technical Capability	The bidder should have experience in implementation of following number of project(s) having software development, implementation and its support services for any State or Central Government Department / PSU of India	Work Orders / Contract Agreement and completion certificate or Go- Live certificate to be demonstrated as supporting documents

Sl#	Criteria	Basis of Evaluation	Documents Required
		<p>during last 10 years as on bid submission date.</p> <ul style="list-style-type: none"> – One project value not less than 8 Crores OR – Two projects value not less than Rs. 4 Crores each OR – Four projects value not less than 2 Crores each 	
5.		The bidder must have successfully implemented at least one project of minimum value of Rs. 2 Crores involving supply and installation of COTS product for any State or Central Government Department / PSU in India during last 10 years as on bid submission date.	Work Orders / Contract Agreement and completion certificate or Go- Live certificate to be demonstrated as supporting documents
6.	Resources	The bidder must have at least 50 full time employees in its payroll as on date of submission of bid.	Copy of the latest EPF deposit challan showing the number of subscribers
7.	Blacklisting/ Debarring	The bidder should not be blacklisted by any State or Central Government Department / PSU of India as on date of submission of bid.	Self-declaration duly signed by authorized bid signatory
8.	OEM MAF	The bidder should submit an OEM MAF as part of bid submission	Original Equipment Manufacturer Authorization Form in OEM Letter Head
9.	Tender Fees & EMD	Tender Fee of Rs. 5,000/- and EMD of Rs. 10,00,000/- in favor of Directorate of Mines, payable at Bhubaneswar	<ul style="list-style-type: none"> - Tender Fee in shape of Bank Draft - EMD in shape of Bank Draft or Bank Guarantee

5.2 Technical Evaluation Criteria

Bids shall be evaluated by the Proposal evaluation committee based on the documents submitted as a part of technical bid. Technical bid shall contain all the documents and the proposal shall be evaluated based on the parameters and marks defined in the following table. Technical proposal of only those bidders who qualify the prequalification criteria will be evaluated. During evaluation of proposals, the Directorate, may, at its discretion, ask the bidders for clarification of their Technical Proposals. In case of any non-cooperation of the bidders in providing proper clarification or justification the proposal of the bidders shall be rejected.

Sl#	Criteria & basis of evaluation	Max. Mark	Documents Required
1.	The bidder must have average annual turnover of Rs. 50 Crores in last three financial years ending at 31/03/2021. <ul style="list-style-type: none"> – Rs. 50 to Rs. 60 Crores: 4 Marks – More than Rs. 60 Crores: 5 Marks 	5	Copy of statutory auditor certificate
2.	The bidder must have valid ISO & CMMI (Published on CMMI Institute or SEI Website) or higher certificate as on date of submission of the bid. <ul style="list-style-type: none"> – CMMi Level 3: 3 Marks – CMMi Level 5: 4 Marks – ISO 9001:2015: 0.5 Mark – ISO 27001: 0.5 Mark 	5	Copy of valid certificate
3.	The bidder must have at least 50 full time employees in its payroll as on date of submission of bid. <ul style="list-style-type: none"> – 50 to 100: 4 Marks – More than 100: 5 Marks 	5	Copy of the latest EPF deposit challan showing the number of subscribers

Sl#	Criteria & basis of evaluation	Max. Mark	Documents Required
4.	<p>The bidder should have experience in implementation of project(s) having software-development/ COTS deployment, implementation & support for any State or Central Government Department / PSU in India during last 10 years as on bid submission date.</p> <p>– ≥ 2 Cr. & < 5 Cr.: 3 Marks for each Project – ≥ 5 Crores: 5 marks for each project (Maximum 2 projects to be considered for evaluation)</p>	10	Work Orders / Contract Agreement and completion certificate or Go- Live certificate to be demonstrated as supporting documents
5.	<p>The bidder should have experience in mining domain with minimum order value of Rs. 2.5 Crore for any State or Central Government Department / PSU in India during last 10 years as on bid submission date.</p> <p><i>[5 marks will be awarded for each project]</i></p>	10	Work Orders / Contract Agreement and completion certificate or Go- Live certificate to be demonstrated as supporting documents
6.	<p>The bidder should have experience in implementation of projects (Software Development, Implementation) having minimum three years continuous & support for any Department /PSU in Government of Odisha with minimum order value of INR 5 Crore during last 10 years as on bid submission date.</p> <p><i>[5 marks will be awarded for each project]</i></p>	10	Work Orders / Contract Agreement and completion certificate or Go- Live certificate to be demonstrated as supporting documents
7.	<p>The bidder should have experience in implementing projects involving integration with 3rd party software/ Government regulatory system.</p> <p><i>[3 marks will be awarded for each project]</i></p>	15	Work Orders / Contract Agreement and completion certificate or Go- Live certificate to be demonstrated as supporting documents
8.	<p>The proposed OEM solution should have been implemented for any State/ Central Government Department/ PSU in India</p> <p><i>[2.5 marks will be awarded for each project]</i></p>	5	Work Orders / Contract Agreement and completion certificate or Go- Live certificate to be demonstrated as

Sl#	Criteria & basis of evaluation	Max. Mark	Documents Required
			supporting documents
9.	Technical Proposal <ul style="list-style-type: none"> – Full compliance to technical specification (5 marks) – Comprehensiveness of the project plan (2 marks) – Approach for Supply and Installation (3 Marks) – Risk Management & Mitigation Plan (3 marks) – Approach for Technical Support Services (2 Marks) 	15	Quality of Proposal
10.	Technical Presentation <ul style="list-style-type: none"> – Demonstration of Proposed OEM solution and it's Fitment to the requirement 	20	Quality of Technical Presentation

- All the bidders who secure a Technical Score of 60 marks or more will be declared as technically qualified.
- The bidder with highest technical bid (H1) will be awarded 100% score.
- Technical Scores for other than H1 bidders will be evaluated using the following formula:
- Technical Score of a Bidder (Tn) = $\{(\text{Technical Bid score of the Bidder} / \text{Technical Bid Score of H1}) \times 100\} \%$ (Adjusted to two decimal places)
- The commercial bids of only the technically qualified bidders will be opened for further processing.

5.3 Evaluation of Financial Bid

- The Financial Bids of the technically qualified bidders will be opened on the prescribed date in the presence of bidders' representatives
- The bidder with lowest financial bid (L1) will be awarded 100% score.
- Financial Scores for other than L1 bidders will be evaluated using the following formula:
- Financial Score of a Bidder (Fn) = $\{(\text{Financial Bid of L1} / \text{Financial Bid of the Bidder}) \times 100\} \%$ (Adjusted to two decimal places)

- Only fixed price financial bids indicating total price for all the deliverables and services specified in this bid document will be considered.
- The bid price will be exclusive of all taxes and levies and shall be in Indian Rupees.
- Rectification of Errors:
- Arithmetical errors will be rectified on the following basis:
 - i. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.
 - ii. If there is a discrepancy between the rates in words and figures, the rate in words will govern.
 - iii. If the bidder does not accept the correction of errors, his bid will be rejected.

5.4 Combined Evaluation of Technical & Financial Bid

- The technical and financial scores secured by each bidder will be added using weightage of 80% (Technical) and 20% (Financial) respectively to compute a Composite Bid Score.

$$B_n = 0.80 * T_n + 0.20 * F_n$$

Where

B_n = overall score of bidder

T_n = Technical score of the bidder (out of maximum of 100 marks)

F_n = Normalized financial score of the bidder

- The bidder securing the highest Composite Bid Score will be adjudicated as the Most Responsive Bidder for award of the Project.

Composite score of the Bidders for the bid shall be worked out as under:

Bidder	Technical Score	Financial Score	Weighted Technical Score (80% of B)	Weighted Financial Score (20% of C)	Composite Score (F=D+E)
A	B	C	D	E	F

5.5 Special Conditions for Evaluation

The successful bidder shall be the agency securing the highest composite score in column 'F' above. However, in the event of two or more bidders securing exactly the same composite score, then Tendering Authority reserves the right to declare the bidder whose technical score is highest among the bidders as the successful bidder.

In case the successful bidder fails to sign the contract and furnish requisite Performance Bank Guarantee in the stipulated time, the Directorate may award the contract to the next most responsive bidder and so on. In such a case, the Directorate shall invoke the PBG or the EMD as the case may be, of the most responsive bidder.

6. Appointment of System Integrator

6.1 Award Criteria

The Directorate of Mines will award the Contract to the successful bidder whose proposal has been determined to be substantially responsive and has been determined as the most responsive bids as per the process outlined above.

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

The Directorate of Mines 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 such action.

6.3 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.
- Should the Purchaser be unsuccessful in negotiating a contract with the selected bidder, the Purchaser will begin contract negotiations with the next most responsive bidder in order to serve the best interest.
- Make typographical correction or correct computational errors to proposals

- Request bidders to clarify their proposal.

6.4 Notification of Award

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

The notification of award will constitute the formation of the contract. Upon the successful bidder's furnishing of Performance Bank Guarantee, the Directorate will notify each unsuccessful bidder and return their EMD.

6.5 Contract Finalization and Award

The Directorate of Mines shall reserve the right to negotiate with the bidder(s) whose proposal has been ranked the most responsive bid on the basis of Technical and Commercial Evaluation to the proposed Project. On this basis the contract agreement would be finalized for award & signing.

6.6 Performance Guarantee

The Directorate will require the System Integrator to provide a Performance Bank Guarantee, within 15 days from the Notification of award, for a value equivalent to 3% of the quoted project cost excluding taxes. The Performance Guarantee shall be renewed annually. The System Integrator 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 or extension of the project duration.

In case the System Integrator fails to submit performance guarantee within the time stipulated, the Directorate at its discretion may cancel the order placed on the System Integrator without giving any notice. Directorate shall invoke the performance guarantee in case the selected bidder fails to discharge their contractual obligations during the period or Directorate incurs any loss due to bidder's negligence in carrying out the project implementation as per the agreed terms & conditions.

6.7 Signing of Contract

After the Directorate notifies the successful bidder that its proposal has been accepted, the Directorate shall enter into a contract with the successful bidder taking into account the relevant clauses of RFP, pre-bid clarifications, Corrigenda, the proposal of the bidder in addition to other agreed clauses.

6.8 Failure to Agree with the Terms and Conditions of the RFP

Failure of the System Integrator to agree with the Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event the Directorate may award the contract to the next most responsive bidder or call for new proposals from the interested bidders. In such a case, the Directorate shall invoke the PBG or the EMD as the case may be, of the most responsive bidder.

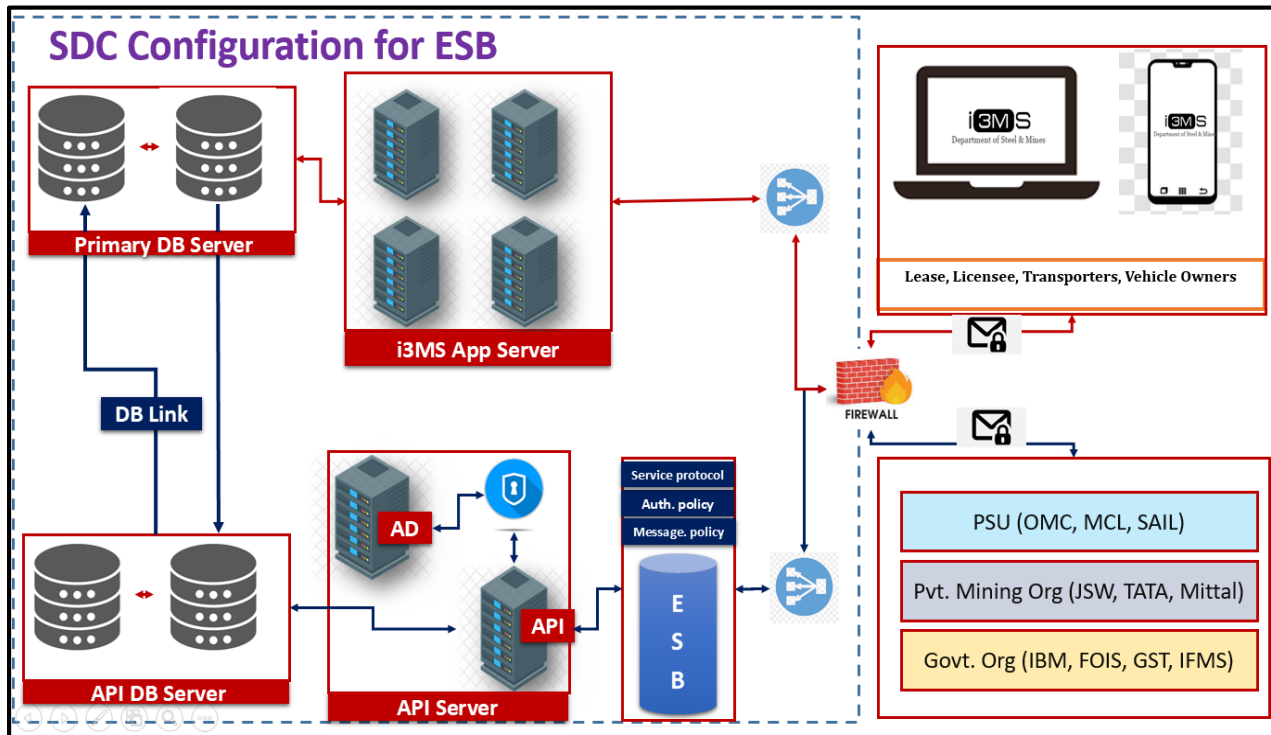
7. Terms of Reference

7.1 Scope of Work

The Directorate of Mines has envisaged the following requirements as below

- Supply of Commercial-off-the-shelf (COTS) software with Middleware & RDBMS (if any)
 - i. API gateway platform
 - API orchestration
 - Identity and access management
 - Provision for monetizing data access
 - Usage analysis
 - Testing
 - ii. Enterprise Service Bus (ESB) Integration Platform
 - Service orchestration
 - Application/Data Integration
 - Data Transformation
 - Data exchange
 - Auditing
 - Testing
 - iii. Provisioning extended Software Assurance (SA) for 3 Years including 1st year
- Development of APIs
 - i. Design Middleware & Integration with i3MS
 - ii. Provide Single Sign On Service
 - iii. Reporting and Dashboard
 - iv. Application Testing
 - v. Security Audit
 - vi. SSL Certification
 - vii. Providing Technical Support for APIs
- Installation and Commissioning
- Change Request Management

Furthermore at the State Data Center (SDC) where the i3MS solution is hosted shall also require some reconfiguration. Bidders may refer to the below tentative SDC Configuration diagram for ESB implementation for their easy understanding.



7.1.1 Supply of COTS Software

OEM shall provide the COTS solution in accordance to the Functional requirement mentioned in “Annexure I: OEM solution Technical Requirements”. OEM shall provide licenses for both Production & Non- Production environment. The Software should include licenses which shall grant Directorate of Mines the rights to run or access the purchased software. All COTS software needs to be delivered to the location within the timeline specified in the RFP from the date of receiving the work order. The System Integrator shall cater to the following requirement:

7.1.1.1 API gateway platform

API gateway platform should be able to expose different APIs for each requester type. By using the API gateway platform, user can create, secure, and monitor APIs. API Gateway should be able to give high performance & scalability. The gateway shall take all API requests from a requester, determine which services are needed, and should combine them into a unified, seamless experience for the user.

- **API Orchestration:** It should help in integrating applications into a single offering. The tool should help in creating a single API that can offer valuable functions to users, often by making multiple calls to multiple different services to respond to a single API request.
- **Identity and access management:** Identity and access management framework should control user access to critical information. Systems used for IAM should include single sign-on systems, two-factor authentication, multifactor authentication and privileged access management etc.
- **Provision for monetizing data access:** System should have in built mechanism in place to share data to third parties and monetize each APIs per transaction.
- **Usage analysis:** Should be able to capture API usage in terms of engagement & retention. It should provide information on total number of calls to all APIs for data access and request processing over a time period.
- **Testing:** API gateway platform should support testing of APIs as inbuilt features.

7.1.1.2 Enterprise Service Bus (ESB) Integration Platform

- **Service orchestration:** This shall accept all API calls, aggregate various services required to fulfill them, and return the appropriate result.
- **Application/Data Integration:** This shall enable interaction between various data, applications, and devices thus facilitating connectivity between devices and programs & delivering appropriate data.
- **Data Transformation:** Data transformation is a critical feature of data integration which shall ensure data from one application or database is intelligible to other applications and databases.
- **Data exchange:** This should allow programmatic access for reading and writing data to be shared between two different computer programs. This shall take data structured under a source schema and transform it into a target schema, so that the target data is an accurate representation of the source data.
- **Auditing:** System should have comprehensive and continuous audit logging capabilities in to ensure high level security and quality compliance.
- **Testing:** This shall support unit testing, record and replay of messages and Node/Flow level testing.

7.1.1.3 Provisioning extended Software Assurance for 3 Years including 1st year

The OEM shall provide 3 years of Software Assurance (SA) including the 1st year of operation. Software Assurance (SA) shall be effective upon the date of delivery of the requisite Licenses unless stated otherwise. The activities during this period shall be:

- Patch update
- Version update
- Technical Support

7.1.2 Development of APIs

Multiple API requests comes from Lessees, Licensees, Transporters and other stakeholders on a day to day basis. The System Integrator shall develop such APIs as per the requirement of Directorate of Mines and shall manage integration requests coming for i3MS. The APIs must adhere to standards (typically HTTP and REST), that are developer-friendly, easily accessible and understood broadly. The SI shall ensure that APIs are documented and versioned properly. The bidder shall be responsible to create 38 APIs at first, subsequent API development cost will be calculated as per man-hour basis.

7.1.2.1 Design Middleware & Integration with i3MS

A middleware is to be developed by the SI to bridge the gap between i3MS application and other third party applications and databases. The Middleware shall sit between the operating system and the applications that run on it. It should provide a method for communication and data management between applications. This should enable ease of access to the back-end data typically providing a messaging service for applications to transfer data, such as simple object access protocol (SOAP), representational state transfer (REST) or JavaScript object notation (JSON).

7.1.2.2 Provide Single Sign on Service

System should employ a common user access and authentication service to ensure Single- Sign on for the end-user. Single Sign-On (SSO) should provide the capability to use the single credentials per user to access all features/ modules/ components of envisioned solution. This would also be responsible for disallowing multiple logins to the system from different machines.

7.1.2.3 Reporting and Dashboard

API dashboard should provide an interface to view usage statistics. The interface should populate data in a graphical and tabular view. The dashboard should be able to classify the statistical data based on modules, IP address from which the call was made, method, user or time. The dashboard should arrange the APIs in a portlet format mentioning the details of APIs such as API link, purpose, version, API star rating etc.

7.1.2.4 Providing Technical Support for APIs

The SI shall provide 24*7 technical support for a period of 32 months after Go-Live. Based on the performance of the SI, if needed, Directorate of Mines, Government of Odisha may extend the contract for additional 24 months on mutual consent.

The broad activities to be covered by the SI are mentioned below:

- **Adaptive Maintenance:** Modification of the system to cope with changes in the software environment.
- **Perfective Maintenance:** Tuning of the system to improve performance.
- **Corrective Maintenance:** Diagnosing and fixing errors, possibly ones found by users after implementation
- **Preventive Maintenance:** Detect and correct latent faults in software solutions after implementation before user department finds the same
- **Source Code:** Maintaining the updated version of all source code of the application software in a source code repository and handover the source codes as and when required by the Directorate.
- **Enhancements & Defect Fixes:** System Integrator shall perform minor changes (changes in the front end application/ GUI etc.), bug fixes, error resolutions and minor enhancements that are incidental to proper and complete working of the application.
- **Deployment/Re-Deployment of Application:** Deployment and re-deployment of application in case of any upgrades to the underlying hardware or operating System and carry out any necessary testing.
- Any changes to the application code that may be required because of patches to licensed software being used (if any)
- Centralized version and configuration control of the application.
- Carry out the configuration of new stakeholders as required by Directorate.
- Ensure efficient and smooth functioning of the application
- Maintain the secrecy of data and not to act in any manner whatsoever that would jeopardize the interest of the Directorate.
- Performing Database tuning to optimize the performance to ensure higher throughput.
- The SI shall install, manage, maintain and support the database solutions and configurations.
- User account management, database problem resolution
- Provide integration and user support on all supported servers, data storage systems, etc.

- Installation and Re-installation of the Database in the event of system crash/failures
- Efficient management of Applications and Databases hosted at DC
- Updating the patches
- Coordinate with the OEM for any type of support-service for the Licenses, database, middleware etc.
- Perform Database Log Analysis

7.1.3 Security Audit

The System Integrator should carryout security audit before Go-live of application and also periodic audit & certification once in 6 months /as and when it is required. The SI shall carry out following activities:

- Coordination with the Cert-in empaneled firm for security audit and obtain the safe-to-host certification.
- Rectification of issues/ bugs suggested by auditor
- Removal of vulnerabilities/security threats identified by auditor
- Submit the report/testing documents including details of defects/bugs/errors found and corrective actions taken.

7.1.4 SSL Certification

The System Integrator shall carry out SSL certification complying with the following requirements:

- Secure connection between Client and Server through Secure protocol HTTPS
- Encryption of Data during transmission from server to browser and vice versa
- Encryption key assigned to it by Certification Authority (CA) in form of a Certificate.
- SSL Security in the application server and should have EV-Green bar functionality

7.1.5 Hosting

The bidder shall provide required hardware sizing as per proposed OEM solution. The necessary hardware, networking equipment and other non-IT infrastructure shall be provided by Directorate of Mines as per the sizing proposed by the bidder.

7.1.6 Installation and Commissioning

The SI shall supply items as per the details provided in Annexure III: Bill of Materials. SI shall also be responsible to install and commission the items at the Odisha State Data Center, Bhubaneswar and obtain delivery & installation challan/ certificates from respective nodal/ designated officer.

7.1.7 Application Testing

The System Integrator shall design the Testing strategy including Test Cases and conduct testing of various components of the API Management solution. The testing shall at least include Unit Testing, System Integration Testing, performance testing & Load testing etc.

7.1.8 UAT

After completion of development of API Management solution, Directorate of Mines will conduct the technical reviews of the development work performed by the SI as UAT. The System Integrator shall be responsible for:

- Preparation and submission of Test Strategy, Test Cases and Test results
- Demonstration of features and functionalities
- Provide support to Directorate of Mines for conducting the testing
- Rectification of issues / bugs (if any)

7.1.9 Go-Live

This solution will be deemed Go-Live after one month of successful API integration commissioning for a single mine.

7.1.10 Technology Requirements

The bidder may use the existing database of i3MS application i.e. MSSQL or they may provide RDBMS as per the OEM Solution whose cost needs to be factored in the commercial bid.

7.1.11 Change Request Management

Any requirement beyond the scope mentioned above will be treated as Change Request. The basic functionalities of the Change Request tasks are as follows:

- Development of New APIs/ Reports

The process to address the change request is as follows:

- **Documenting change request requirement**– The details of scope of change will be analyzed and documented. The System Integrator will submit the effort and timeline for incorporation of changes in the application.
- **Approval or disapproval of the change request** – The Project Management Committee constituted by the Directorate will discuss with the System Integrator and approve or disapprove the change request submitted by the selected bidder.
- **Implementation of the change Request**– After the final decision is taken System Integrator shall start the process of incorporation of changes in the application. The change will be implemented in accordance to the agreed cost, effort, and schedule.
- **Validating CR implementation**– The end user group/PMC will review the changes incorporated in the application and confirm on the same.
- **CR Cost Request**–The change request cost shall be calculated based on the man month rate finalized in the tendering process. The bidder needs to quote the man-month rate for Change Request component in the financial bid format. After receiving confirmation from the end user group/PMC the System Integrator shall raise the invoice.

Given below is a draft format for change request requirement submission.

SL	CR No.	Module/ Screen	Description in detail	Request by	Request Date	Approved by	Approved Date	Target Date	Remarks (if any)
1									
2									
3									
4									
5									

7.1.12 Exit Plan

The selected System Integrator will provide systematic exit plan and conduct proper knowledge transfer process to handover operations to the Directorate at least six months before project closure. IT resource persons of the Directorate will work closely with resource persons of System Integrator at test environment and production data center during knowledge transfer phase. The System Integrator will ensure capacity building of the IT resource persons of the Directorate on

maintenance of software and maintenance of data center. The bidder is also required to suggest an exit plan as part of its technical proposal and present the same during Technical Presentation for evaluation purpose.

7.2 Timeline & Payment Terms

Sl#	Items	Milestones	Timeline	Payment Terms
1.	Supply of COTS software along with Middleware & RDBMS (if any) including 1 st year Software Assurance (SA) – Production & Non-Production	Supply of Licenses	T0 + 30 Days = T1	<ul style="list-style-type: none"> 90% of basic cost and 100% tax amount
2.	Installation & Commissioning	Installation & Commissioning certificate	T1 + 60 Days	<ul style="list-style-type: none"> 100% of Installation & Commissioning cost
3.	Development of APIs, Testing & UAT	UAT Certificate	T0 + 110 Days	<ul style="list-style-type: none"> 80% of Development cost
4.	Go-Live	Go-Live Certificate	T0 + 120 Days = T2	<ul style="list-style-type: none"> Balance 10% of Sl. No.1 Balance 20% of Sl. No.3
5.	Software Assurance (SA) for 2 nd Year & 3 rd Year	License Copy/ Certificate from OEM	On beginning of each year	<ul style="list-style-type: none"> 100% upfront payment for each year
6.	Technical Support	Monthly Progress Report	T2 + 32 Months	<ul style="list-style-type: none"> Monthly Payment

**T0 = Date of receiving Work order

7.3 Performance Measurements & Penalty

The System Integrator is expected to meet the service levels in the normal course of carrying out the activities as per the detailed Scope of Work. In case of unjustified delay on any or all such Service Levels, the authority reserves the rights to levy penalties on the System Integrator as per the following table.

Resolution Time	“Resolution Time”, means time taken by the System Integrator to troubleshoot and fix	Critical	At least 99% calls to be resolved within 2 working days	-
			>= 97% to < 99% calls be resolved within 2 working days	3

<p>the bugs/ defect from the time the call has been recorded by the team till the delivery of the solution to the Directorate for UAT and subsequently updates the status of the call in the Help Desk system.</p> <p>It is based on Monthly measurement level.</p>	High	>= 95% to < 97% calls to be resolved within 2 working days	4
		< 95% calls to be resolved within 2 working days	5
		At least 99% calls to be resolved within 3 working days	-
		>= 97% to < 99% calls be resolved within 3 working days	3
	Medium	>= 95% to < 97% calls to be resolved within 3 working days	4
		< 95% calls to be resolved within 3 working days	5
		At least 99% calls to be resolved within 4 working days	-
		>= 97% to < 99% calls be resolved within 4 working days	3
	Low	>= 95% to < 97% calls to be resolved within 4 working days	4
		< 95% calls to be resolved within 4 working days	5
		At least 99% calls to be resolved within one business week	-
		>= 97% to < 99% calls be resolved within one business week	3
	>= 95% to < 97% calls to be resolved within one business week	4	
	< 95% calls to be resolved within one business week	5	

**** Notes:**

- Non-working days = All Saturdays, Sundays and Public Holidays
- 24*7*365 means three shifts of 8 hours every day (including 30 minutes break), for all seven days of the week, without any Non-working days
- Bugs/ Defects: This would include Software Application related problems/defects as reported

by the users to the Selected Bidder.	
d. Severity for Bugs / Defects	The severity of a bugs / defects would be based on the business impact of the problem.
Critical	Showstoppers involving major functional failure in the application. There are no usable workarounds available to troubleshoot the problem. Affects majority of the users (more than 25%).
High	Users face severe functional restrictions in the application irrespective of the cause. Workarounds are time consuming. Affects majority of the users (more than 25%).
Medium	Moderate functional restrictions in the application irrespective of the cause. Has a convenient and readily available workaround. Affects a few users. (5%-10%)
Low	Requiring cosmetic functional changes. Does not require any workaround. It may include user query / suggestions but has no business impact.

A maximum level of performance penalties is established and described below. The framework for performance penalties as a result of not meeting the service level targets are detailed below. Performance penalties shall be levied for not meeting each of the severity levels of performance as per the following table:

Severity Level	Penalty as a percentage of monthly payments applicable
5	1.0%
4	0.5%
3	0.4%
2	0.3%
1	0.2%

Maximum Penalty applicable for any month should not exceed 3% of the 'applicable fees' for the respective month.

8. Formats for Submission of Proposal

8.1 Technical Bid Cover Letter

To

Director of Mines,
Government of Odisha,
Bhubaneswar

Subject: Selection of System Integrator for Installation, Commissioning & Maintenance of
API Management Solution for i3MS Application

Reference No.: 6811/DM

Dear Sir/Madam,

We, the undersigned, offer to provide our services for Selection of System Integrator for Installation, Commissioning & Maintenance of API Management Solution for i3MS Application.

We are hereby submitting our Proposal, which includes the Technical Proposal and the Commercial Proposal sealed in separate envelopes.

We hereby declare that all the information and statements made in this Technical Proposal 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 the RFP Document.

We agree to abide by all the terms and conditions of the RFP document. We would hold the terms of our bid valid for 60 days from the date of submission of bid as stipulated in the RFP document. However in case of any extension in the bid opening, we will consider another 60 days of bid validity, upon receiving written request from Directorate of Mines.

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: _____

8.2 Self-Declaration: Not Blacklisted (in company letterhead)

To

Director of Mines,
Government of Odisha,
Bhubaneswar

In response to the RFP No. 6811/DM for RFP titled "Selection of System Integrator for Installation, Commissioning & Maintenance of API Management Solution for i3MS Application", as an owner/ partner/ Director of (organization name)_____, I/ We hereby declare that presently our Company/ firm is not under declaration of ineligibility for corrupt & fraudulent practices, blacklisted either indefinitely or for a particular period of time, or had work withdrawn, by any State/ Central government/ PSU.

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,

Name of the Bidder:

Authorized Signatory:

Signature:

Seal:

Date:

Place:

8.3 Bidder's Authorization Certificate

(Company letter head)

To

Director of Mines,
Government of Odisha,
Bhubaneswar

Subject: Selection of System Integrator for Installation, Commissioning & Maintenance of
API Management Solution for i3MS Application

Reference No.: 6811/DM

Sir,

<Name>, <Designation> is hereby authorized to attend meetings & submit technical & commercial information as may be required by you in the course of processing the above said Bid. S/He is also authorized to attend meetings & submit technical & commercial information as may be required by you in the course of processing above said application For the purpose of validation, his/ her verified signatures are as under.

Thanking you,

Name of the Bidder: -

Verified Signature:

Authorized Signatory: -

Seal of the Organization: -

Date:

Place:

8.4 Acceptance of Terms & Conditions/Clauses

To

Director of Mines,
Government of Odisha,
Bhubaneswar

Sir,

I have carefully and thoroughly gone through the Terms & Conditions contained in the RFP Document [6811/DM] regarding Selection of System Integrator for Installation, Commissioning & Maintenance of API Management Solution for i3MS Application.

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

Thanking you,

Name of the Bidder:

Authorized Signatory:

Signature:

Seal:

Date:

Place:

8.5 Format for fairness of documents

(Company letterhead)

To

Director of Mines,
Government of Odisha,
Bhubaneswar

Sir

In response to the RFP No. 6811/DM titled "Selection of System Integrator for Installation, Commissioning & Maintenance of API Management Solution for i3MS Application", as an owner/ partner/ Director of....., I/ We hereby declare that any documents or information submitted under this bid is without any doubt, true and fair, to the best of my/our knowledge.

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,

Name of the Bidder: -

Authorized Signatory: -

Seal of the Organization: -

Date:

Place:

8.6 Financial Bid Letter

(Company letter head)

To

Director of Mines,
Government of Odisha,
Bhubaneswar

Subject: Selection of System Integrator for Installation, Commissioning & Maintenance of API Management Solution for i3MS Application

Reference No.: 6811/DM

Dear Sir/Madam,

We, the undersigned, offer to provide Installation, Commissioning & Maintenance of API Management Solution for i3MS Application.

Our attached Financial Proposal is for the sum of <<Amount in words and figures>> exclusive of taxes and duties.

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 60 days from the date of opening of the Bid. However, in case of any extension in the bid opening, we will consider another 60 days of bid validity, upon receiving written request from Directorate of Mines.

We hereby confirm that our prices do not include any taxes and duties.

We understand that the actual payment would be made as per the existing tax rates during the time of invoicing.

2. TENDER PRICING

We further confirm that the prices stated in our bid are in accordance with your clauses in RFP/Tender document.

3. QUALIFYING DATA

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

4. BID PRICE

We declare that our Bid Price is for the entire scope of the work as specified.

5. 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 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.

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:

8.7 Commercial Bid Format

Sl#	Description	Unit [A]	Quantity [B]	Basic Cost [C]	Total Cost [AxBxC]
A. Cost of API Management Solution					
1.	Supply of COTS software along with Middleware & RDBMS (if any) including 1st year Software Assurance (SA) – Production & Non-Production	vCore	88		
2.	Installation & Commissioning	Lump sum	1		
3.	Development of APIs	Nos.	38		
3.1	Integration with i3MS	Lump sum	1		
4.	Load Testing	Nos.	1		
5.	Security Audit	Nos.	6		
6.	SSL Certificate	Years	3		
7.	Software Assurance (SA) for 2nd Year & 3rd Year	Years	2		
8.	Technical Support for APIs	Months	32		
Grand Total					
B. Cost of Change Request					
1.	Additional API development	Nos.	1		

- Rate quoted are exclusive of taxes.
- Taxes & duties will be paid extra at the prevailing rate during billing
- SL B “Cost of Change Request” will not be calculated during bid evaluation process.

Authorized Signatory

(With Seal)

(Name & Contact Details)"

8.8 Performance Security

To

Director of Mines,
Government of Odisha,
Bhubaneswar

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 Installation, Commissioning & Maintenance of API Management Solution for i3MS Application for the Directorate of Mines, Odisha (hereinafter called "the beneficiary")

And whereas it has been stipulated by 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 office 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. Our liability under this bank guarantee shall not exceed Rs. <Insert Value> (Rupees <Insert Value in Words> only).

- ii. This bank guarantee shall be valid up to <Insert Expiry Date>)
- iii. 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.

(Authorized Signatory of the Bank)

Seal:

Date:

8.10 Draft Contract

THIS CONTRACT AGREEMENT is made at [insert: location] on the [insert: ordinal] day of [insert: month], [insert: year].

BETWEEN

The Directorate of Mines, Odisha (hereinafter called the “Directorate”) with its office at Heads of Building, Bhubaneswar, Dist.: Khurda represented through its Director of Mines (party of the First Part)

And

[Insert: name of SI], a corporation incorporated under the Companies Act, 1956 and having its principal place of business at [insert: address of SI] (hereinafter called “the SI” who is the successful Bidder, which expression unless repugnant to the context or meaning thereof, be deemed to mean and include its beneficiaries, successors, administrators and permitted assigns).

The Directorate and are referred hereinafter individually as “**Party**” and collectively as “**Parties**”.

WHEREAS the Directorate desires to engage the System Integrator to provide Installation, Commissioning & Maintenance of API Management Solution for i3MS Application”, and the System Integrator has agreed to such engagement upon and subject to the terms and conditions appearing below in this Contract Agreement.

NOW, IT IS HEREBY AGREED by and between the parties as follows:

1. Scope of Agreement:

As per Section 0 of RFP document; to be included as Annexure – I

2. Payment Terms:

As per Section 7.2of RFP document; to be included as Annexure – II

3. Term of Contract

The contract with the successful bidder will be valid for three years from its effective date which will be renewed year on year basis. Based on the performance of the System Integrator if needed Directorate of Mines, Government of Odisha may also extend the contract for additional period on mutual consent.

4. Termination

- a. Normal termination of the contract would happen at the end of the tenure.
- b. Pre-mature termination of the contract would happen in case of insolvency of bidder or due to conditions of material breach.

5. Effects of Termination

- a. In the event of a pre-mature termination of this agreement by the Directorate, the Parties shall mutually agree upon a transition plan. The bidder shall agree to extend full cooperation in supporting the transition process.
- b. The compensation payable to bidder will be decided in accordance the transition plan and as per the payment terms of the RFP.

6. Scope of Work and Deliverables

This will be in conformity with the terms of reference specified in the RFP document and shall include the submissions made by the bidder in their proposal and work plans, further refined during the negotiations. Deliverables and milestones shall be established with a process of formal acceptance or measurable criteria.

7. Norms Governing Service Delivery

- a. Provide necessary performance guarantees on signing of the agreement;
- b. Shall deliver the services in a professional manner commensurate with accepted industry practices and/or technical standards which are generally expected of such an engagement;
- c. Bidders shall establish a formal team structure with a named Project Manager who will serve as single point of contact and staff with competent resources to provide effective and expert service delivery, in tune to the requirements;
- d. The cost of travel & accommodation during visit to various places of Odisha for various works like system study, training etc. should be borne by the bidder.

8. Fees and Payments

- a. The total fees payable to the bidder shall be exclusive of all taxes / levies. Rate of taxes will be applicable as per the rate prevailing at the time of submission of Bill.
- b. Payments for additional services in case of change in scope will also be specified.
- c. In case of a bona fide dispute regarding any invoice, the Directorate shall be entitled to delay or withhold payment of the invoice or part of it, limited to the extent of the disputed amount.

9. Audit

- a. The software and documents prepared for this project are subject to audit. The bidder should help the Directorate during preparation of compliances of audit without any additional cost.
- b. Software including source code, licenses (if any) and all technical documents/manuals shall be in favor of the Directorate and shall be submitted to the Directorate before final payment or on demand.
- c. All records pertaining to this work shall be made available to the Directorate and its authorized agencies upon request for verification and/or audit, on the basis of a written request.

10. Confidentiality

Bidder and its agents shall exercise professionally reasonable care to maintain the required confidentiality and privacy with regard to Directorate/Departmental data, wherever applicable. If required, the bidder will sign a Non-Disclosure Agreement (NDA) with Directorate/ other stakeholders of project.

11. Force Majeure

Neither Party to this agreement shall be liable to the other for delay or default in performance of its obligations or any loss or damage which may be suffered by the other directly due to a Force Majeure event provided that the affected Party notifies the other Party of such event and its likely effects and duration as soon as possible and takes all reasonable steps to mitigate the losses/disruption.

12. Dispute Resolution

- a. Any dispute or difference, whatsoever, arising between the parties to this agreement arising out of or in relation to this agreement shall be amicably resolved by the Parties through mutual consultation, in good faith and using their best endeavors. Parties, on mutual consent, may refer a dispute to a competent individual or body or institution or a committee of experts appointed for such purpose and abide by the decisions thereon.
- b. On non-settlement of the dispute, same shall be referred to the Principal Secretary to Government, Department, Government of Odisha for his decision and the same shall be binding on all parties, unless either party makes a reference to arbitration proceedings, within sixty days of such decision.
- c. Such arbitration shall be held in Bhubaneswar, Odisha. Each party to the contract shall appoint/ nominate one Arbitrator each, the two Arbitrators so appointed/ nominated by the Parties herein shall together choose the third Arbitrator, who shall be the

Presiding Arbitrator of the Tribunal. The consortium of the three Arbitrators shall form the Arbitral Tribunal. The Tribunal shall give reasoned award and the same shall be final, conclusive and binding on the parties. The fees of the arbitrator, costs and other expenses incidental to the arbitration proceedings shall be borne equally by the parties.

13. Governing Law and Jurisdiction

This agreement and all questions of its interpretation shall be construed in accordance with the Laws of India in the High Court at Cuttack having jurisdiction. Sutes, if any arising out of the contract/ agreement shall be filed by either party in a court of Law to which the Jurisdiction of the High Court of Odisha extends.

14. Intellectual Property Rights

The ownership of source code of all applications developed/customized for the i3MS, Server OS, System Tools and RDBMS license belongs to the Directorate. In the event of termination of contract, during the contractual period, System Integrator shall submit source code of all applications newly developed to the Directorate. The source code and the intellectual property rights concerning the Project shall vest with the Directorate.

15. Penalty

In the event of delay in execution of work, specified in this Contract / furnishing of deliverables, the System Integrator shall be liable to a penalty @0.5% of the value of work order in respective phases, for every week of delay up to a maximum of 10%, after which Directorate shall be at liberty to cancel the award. For the purpose of this clause, part of a week shall be considered to be a full week. Penalty will not be applicable if the delay is not attributable to the bidder. However, in such cases bidder has to communicate in writing the reason of delay. Decision of <<Authority>> in this matter is final.

IN WITNESS WHEREOF the parties hereto have signed this Agreement on the [insert: ordinal] day of [insert: month], [insert: year] herein above written.

For The Directorate of Mines		For
_____		_____
Signature:		Signature:
Name:		Name:

Designation :		Designation :
WITNESS-1		WITNESS-2
Signature: Name: _____		Signature: Name: _____
Address:		Address:

Annexure I: OEM Solution Technical Requirements

The indicative Technical requirement of the Integration framework Tool is given in the RFP to give a better understanding to the bidders about the requirements. However before executing the assignment, the System Integrator is required to conduct a detailed study of the i3MS application.

API Management Solution	
Sl. No.	Technical Requirement
1.	Speed application development and ongoing app evolution via reusable APIs
2.	Securely expose data and business applications on premise and across clouds
3.	Expand brand reach by publishing APIs to tap into a broad developer community
4.	Enable digital business through new channels for partners and monetizing data
5.	Create APIs to expose Data, micro services, enterprise applications & SaaS services using open standards
6.	Rapidly organize, publish and analyze any API through the full lifecycle from design to retire
7.	Easily apply built-in and extensible policies to secure, control and mediate the delivery of APIs protecting data and business assets
8.	Empower application developers to explore and consume your APIs using branded self-service portals
9.	Consume API Management integration capabilities in a unified integration platform
10.	Provision to Deploy on premise or any cloud
11.	Platform should have individual components to manage , Socialize & analyze the API
12.	API Data Plane can be deployed anywhere, where data & app lives
13.	Rapidly develop APIs with open standards, <ul style="list-style-type: none"> • REST (OAI 2.0 & 3.0), SOAP, • GraphQL • AsyncAPI
14.	Accelerate API development through inline code validation or quickly create in form
15.	Improve developer productivity to work independently using API Designer and Local Test Environment to develop APIs
16.	Automate API creation and testing using DevOps
17.	Improve quality with automated test generation- No code visual composer, rich dashboards, interactive test and debug, DevOps integrations
18.	Manage many types of APIs using Multiform API Management to consistently manage REST, SOAP and GraphQL APIs
19.	Provide governance and version control across the API Lifecycle from design and develop to retire

API Management Solution	
Sl. No.	Technical Requirement
20.	Package APIs into Products and tailor them to target specific consumer markets
21.	Publish and Promote across different environments to align with DevOps practices
22.	Grow go-to-market channels using subscriptions and community management
23.	Accelerate time to value with easy to apply, pre-built policies to secure, authenticate, manage traffic and provide mediation
24.	Extend base capabilities to meet unique requirements using custom policies
25.	Provide protected access to backend data and systems at runtime without increasing risk
26.	Deploy same gateway anywhere, from the DMZ to co-located with micro services maximizing security and performance
27.	Meet SLAs using a performant & scalable enterprise grade gateway
28.	Secure to the core with signed, encrypted gateway image without external dependencies to minimize risk
29.	Socialize APIs using self-service, branded Developer Portals across multiple API provider lines of businesses within an organization
30.	Deploy customized portals to address user specific requirements
31.	Engage with API consumers via community building features: blogs, forums, ratings, etc.
32.	Provide governance & autonomy to each provider organization to manage APIs, products, plans and multiple gateway endpoints independently
33.	Automate end-to-end with DevOps ready features
34.	Provide comprehensive set of Public APIs for CI/CD integration and automation
35.	Command Line Interfaces (CLIs) for each API operation facilitating end to end automation
36.	Versioning of APIs and API Products support CI/CD processes
37.	Automatically run API tests
38.	Manage/Publish APIs flawlessly
39.	Should have features to customize the developer portal
40.	Analyze APIs to gain insights
41.	Analyze API calls to get visibility and understand API consumption
42.	Drill down and build custom queries for deeper analysis
43.	Build custom dashboards to address specific reporting and visualization needs
44.	Offload usage data to external systems with deployment flexibility
45.	Provides set of security principles to drive the highest possible level of API protection
46.	Iteratively develop, test and promote APIs across environments
47.	The tool should have reliability, high performance & capabilities

API Management Solution	
Sl. No.	Technical Requirement
48.	Provide wide-range of deployment options such as on premise/ any Public or Private Cloud Hybrid Cloud
49.	Integration platform should have availability of following functions: <ul style="list-style-type: none"> • Pre-built smart app connectors • OOTB protocol connectors • Universal data transformers
50.	Solution should have transform capabilities such as: <ul style="list-style-type: none"> • Mapping Assist • DFDL Mappings • Java and user-defined nodes
51.	Testing shall support: <ul style="list-style-type: none"> • Unit Testing Framework • Record and Replay of messages • Node/Flow level testing
52.	The should be able to operate: <ul style="list-style-type: none"> • Hybrid Dashboard • Multi-processed, multi-threading • Performance fine-tuning • Highly available solution
53.	Provide the benefits to overcome integration challenges and drive new engagement models and digital transformation
54.	Leverage pre-built connectors including AI capabilities
55.	Facility to share integration assets for re-use
56.	The tool should have modern integration runtime
57.	Easy to deploy and manage <ul style="list-style-type: none"> • Operations Dashboard • Simplified problem diagnostics and tracing functionality • Support kubernetes operator based deployment
58.	Scalability and resilience <ul style="list-style-type: none"> • Individual flows can be scaled on their own • Isolated integration flows • Deploy live with no downtime and run multiple versions at once
59.	Common Services <ul style="list-style-type: none"> • Centralized logging • Common access management • Single Console to manage all integration components • Common view across workload

API Management Solution	
Sl. No.	Technical Requirement
60.	Make changes quickly
61.	Easy to build CI/CD pipeline for containerized integration solutions
62.	Build APIs in minutes with no-code model-driven approach
63.	Built-in nodes encapsulate transports, technologies and applications: <ul style="list-style-type: none"> • Connecting with client applications • Routing messages • Transforming and enriching messages • Processing events • Handling errors in message flows • Reduce the amount of custom code required • Make best use of the built-in facilities like activity log and resource statistics
64.	High performance and scalability
65.	Feature rich Message Modelling
66.	Easy, guided, intuitive, data driven tooling- create API in minutes
67.	User centric tooling enables users to start integration projects with no coding or low coding
68.	Access to hundreds of pre-built connectors so integration users can focus more on business logic
69.	Seamlessly create, secure and manage REST API implementations
70.	Single unified experience to allows users to define OpenAPI, models, API flows and Gateway policies
71.	Unified experience with API authoring
72.	No-code model-driven approach to do the REST pattern heavy lifting
73.	Define Model <ul style="list-style-type: none"> • Define schema • Define unique identifiers and relationships • Define fields and structure
74.	Configure Operations <ul style="list-style-type: none"> • Define API operations • Create, Retrieve, Update, Delete, Custom • Filtering, searching, pagination
75.	Apply security policies and perform end-to-end testing
76.	Configure security policies
77.	Configure & publish API in sandbox environment for end to end testing
78.	Other Functionalities: <ul style="list-style-type: none"> • Zero code Native

API Management Solution	
Sl. No.	Technical Requirement
	<ul style="list-style-type: none"> Batch and Bulk support Infuse AI on demand
79.	Optimized solution for multi/ hybrid deployment
80.	API Gateway should have flexibility to be deployed as container and virtual appliance
81.	API Manager should support User-role based access
82.	<p>Integration Platform shall</p> <ul style="list-style-type: none"> Support non-XML Message formats, in addition to the XML message formats Batch and Bulk support Not mandate transformation of the messages to XML format for its processing Support logging of messages without the need for coding Not be dependent on the database for processing of the messages

Annexure II: General Requirements

General Requirements	
Sl. No.	Technical Requirement
1.	<p>User friendly UI & Screen Resolution: For making the solution more user friendly and high resolution UI, following list of features needs to be incorporated.</p> <ul style="list-style-type: none"> Font adjustment Layout tweaks Image changes UI for touch and non-touch screens Portrait and Landscape modes
2.	<p>Fast Performance: The middleware will be designed in such a way that, the performance of the application will be enhanced, and the data will be indexed properly, which will reduce the retrieve time. Data should be retrieved in less than 5 seconds in an ideal environment condition.</p>
3.	<p>Reliable: To make all the solution reliable the following functionality should be incorporated as a standard practice.</p> <ul style="list-style-type: none"> High degree of fault tolerance The solution should have an audit trail mechanism for verification of the historical data or transaction data.
4.	<p>Secure: The solution should maintain high level security for the following subjects.</p> <ul style="list-style-type: none"> Disclosure of Government secrets Disclosure of privileged information about individuals Erasure of contamination of application Data

General Requirements	
Sl. No.	Technical Requirement
5.	<p>Scalability: The solution should be scalable in nature. The tool should help in easy integration with various other applications to consume services. The application will be expandable easily for the following components.</p> <ul style="list-style-type: none"> • Integration with various other application • Integration with APIs • Expansion of no of Users • Use of same application in multiple sites etc.
6.	<p>Interoperability: System should be interoperable in heterogeneous IT environments and platforms & will have multi-channel accessibility.</p>
7.	<p>Audit trail: The solution should have proper audit trail mechanism enabled to track history of a transactions. The audit trail will capture the following information</p> <ul style="list-style-type: none"> • IP address • User details of each transaction • Error log
8.	<p>Responsive design: The solution should be developed in responsive design approach. This will help the solution to detect the visitor's screen size and orientation and change the layout accordingly</p>
9.	<p>Speed: The solution should have the ability to manage an increasing workload while using different applications at the same time.</p>
10.	<p>Compatibility: The solution should be compatible in nature allowing users to have different operating systems to use the same applications.</p>
11.	<p>Usability: System should include the following components:</p> <ul style="list-style-type: none"> • Easy Navigation • Availability • Data Integrity
12.	<p>The system should be integrated with other central systems and should provide interfaces to read information from other systems as well as to provide information to other government systems to integrate with the platform.</p>
13.	<p>In other words, the platform should be planned for both consuming as well as providing information with other systems.</p>
14.	<p>The system shall be highly configurable and flexible. All the formula, calculations, specific values, Drop down and other UI Field values shall be configurable.</p>
15.	<p>The solution should</p> <ul style="list-style-type: none"> • Clearly guide the user on the next operation to be done • Show progress bars appropriately • Clearly mark Mandatory and Non Mandatory fields

General Requirements	
Sl. No.	Technical Requirement
	<ul style="list-style-type: none"> • Group related fields together • Have Clear and Explanatory Error & Success Messages • Indicate navigation path the user has followed wherever applicable
16.	<p>The following areas should be addressed comprehensively:</p> <ul style="list-style-type: none"> • Identification and authentication • Data privacy • Data integrity and non-repudiation • Authorization and access control • Audit trail accountability • Fail-safe mechanisms
17.	The solution should only be accessible via a secured link (https).
18.	The database should employ security features to prevent threats and vulnerabilities
19.	The system shall use single sign-on authentication mechanism to authenticate the users.
20.	The system shall allow users to define the access level of each designated user to the functions of the system.

Annexure III: Bill of Materials

Sl#	Items	Unit	Quantity
1.	COTS software along with Middleware & RDBMS (if any)– Production Environment	vCore	68
2.	COTS software along with Middleware & RDBMS (if any) – Non-Production Environment	vCore	20
3.	Development of APIs	Nos.	38**
4.	Integration with i3MS	Nos.	1
5.	Software Assurance (SA) of COTS software	Years	3
6.	Technical Support for APIs	Months	32

**** The bidder shall be responsible to create 38 APIs at first, subsequent API development cost will be calculated as per unit rate devised under the commercial bid.**