Request for Empanelment (RFE)

for

BHASHINI System Integrators for Multimodal Multilingual Solution

for
Digital India BHASHINI Division

Digital India Bhashini Division

A Division under Digital India Corporation

(A section 8 company)

Contents

About DIBD

The National Language Translation Mission has been named BHASHINI. The mission BHASHINI was launched by the Hon'ble PM during Digital India week in July 2022. Later it was decided by the Ministry of Electronics and Information Technology (MeitY), that the mission should be implemented by a newly formed Independent Business Division (IBD) under Digital India Corporation (DIC).

Mission BHASHINI's commitment extends to fostering a resilient content ecosystem that is bolstered by technological support specifically tailored for Indian languages. The platform aims to facilitate widespread access to open-source data and efficient translation tools, strategically positioned to address the needs of a vast and diverse population. With a vision "harness natural language technologies to enable a diverse ecosystem of contributors, partnering entities and citizens for the purpose of transcending language barriers, thereby ensuring digital inclusion and digital empowerment in an AtmaNirbhar Bharat" the BHASHINI platform is poised to serve as a digital public good, contributing significantly to linguistic accessibility and technological empowerment on a national scale.

The purposes of the DIBD are to:

i.   Develop and maintain a public digital platform for enabling an easy and responsive ecosystem for translation among various Indian languages and English using the latest technologies.

ii. Create and nurture an ecosystem involving startups and Central/State government agencies working together to develop and deploy innovative products and services in Indian languages.

iii. Act as the nodal agency to further the above, including through evolution of a sustainable model.

The aims of the Bhashini are to:

i.   Enable all Indians easy access to the internet and digital services in their own language and increase the content in Indian languages.

ii. Build a National Public Digital Platform for languages to develop services and products for citizens by leveraging the power of artificial intelligence and other emerging technologies.

1. Section 1: Invitation of Bid

1.1. Invitation for Bids

Tenders are invited through CPP portal of Government of India, from eligible agencies for the selection of an agencies for empanelment (RFE) for BHASHINI System Integrators for Multimodal Multilingual Solution for Digital India BHASHINI Division. The agencies selected as empaneled agency that may result from this RFE will be empaneled for a period of 1 year with eligibility for extension to another year. DIBD reserves the right, to extend the empanelment duration of the project on the mutually agreed terms and conditions. Bidders are advised to note the eligibility and pre-qualifying criteria specified in the Instruction to Bidders of this bid document.

The Bidder can download the RFE/Bid document(s) from the website https://eprocure.gov.in. Bidders are advised to check for any Addendum / Corrigendum issued subsequently with respect to this RFE on https://eprocure.gov.in and ensure its compliance while submitting the Bid. A pre-bid meeting will be held as per the date specified in the factsheet in the Office of CEO, Digital India Bhashini Division, New Delhi.

Email address for official Communication: Interested \ Eligible Bidders may communicate for information at email address: ceo-dibd@digitalindia.gov.in

1.2. Definition of Terms

S. No.	Term	Definition
1.	Agreement/contract	The Agreement entered between the Digital India Bhashini Division and the Agency, including all attachments, schedules, annexure thereto and all documents incorporated by reference therein and all amendments, corrigendum /corrigenda, changes thereto
2.	Bidder	The use of the term "Bidder" in the Tender means the Single Agency offering the Bids.
3.	Selected bidder	The party which will be selected through this RFE to carry out the project activities.
4.	Bid /proposal	Offer by the Bidder to fulfil the requirement of the Client under the RFE/Contract for an agreed price. It shall be a comprehensive technical response to the Tender

S. No.	Term	Definition
5.	Confidential Information	All information (whether in written, oral, electronic or other format) which relates to the technical and business affairs, dealers, suppliers, products, developments, operations, processes, data, trade secrets, design rights, know-how, plans, budgets and personnel of each stakeholder and its affiliates which is disclosed to or otherwise learned by the other Party in the course of or in connection with this Agreement (including without limitation such information received during negotiations, location visits and meetings in connection with this Agreement);
6.	Deliverables	Product/Services agreed to be delivered by the Bidder in pursuance of the agreement as defined more elaborately in the RFE Implementation and the Maintenance phases
7.	Request for Bids/ Tender Document	Written solicitation that conveys to the Bidder, requirements for products/ services that the DIBD intends to buy and implement
8.	Tender document/RFE/ bid document	The current document through which the department intends to hire a vendor for the selection of an Agency to perform software consulting and development work.
9.	SLA	The level of service and other performance criteria which will apply to the Services delivered by the Bidder; SLA executed as part of the work order
10.	Vendor	The bidder who is qualified & successful in the bidding process and is given the award of Contract and will be referred to as Vendor
11.	Department/ State/Authority/ Purchaser/client	The use of the term "Department/ State/Authority/ Purchaser" in the Tender means Digital India Bhashini Division otherwise specifically stated.
12.	User	A user is an individual(s) who interact with a product or service developed within the scope of this system.
13.	End Client	An institution whether, government, non-government or private, availing paid services for creation of Multimodal Multilingual Solution from Digital India BHASHINI Division.

1.3. Data sheet

S. No	Information	Details
1.	RFP No. and Date of availability	**Request for Empanelment (RFE) for BHASHINI System Integrators for Multimodal Multilingual Solution for Digital India BHASHINI Division /DIBD/2024/01** *Available for download from CPP portal from 8th August 2024 at 2:00 pm onwards*
2.	Last date for submission of written queries for clarifications	**16th August 2024, 4:00 pm** **Email: ajay.rajawat@digitalindia.gov.in**
3.	Date of pre-bid conference	**13th August 2024, 11:00 am via video conference.** **(Link will be provided in corrigendum)**
4.	Bid validity period	**180 days from the last date (deadline) for submission of proposals.**
5.	Last date (deadline) for submission of bids	**23rd August 2024, 4:00 pm**
6.	Opening of Technical Bids	**24th August 2024, 5:00 pm**
7.	Consortium/JV/Sub-contracting	**Consortium Not-Permitted, Credentials/certificates of affiliated /related entities (registered in India) may be considered**
8.	Contact person for queries	**Ajay Rajawat** **ajay.rajawat@digitalindia.gov.in**

2. Section 2: Instruction to Bidders (ITB)

2.1. General

While every effort has been made to provide comprehensive and accurate background information and requirements and specifications, Bidders are free to assess and propose the solution needed to meet the requirements. All information supplied by Bidders may be treated as contractually binding on the Bidders, on successful award of the assignment by the Digital India Bhashini Division based on this RFE.

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 Digital India Bhashini Division. Any notification of preferred

bidder status by the Digital India Bhashini Division shall not give rise to any enforceable rights by the Bidder. The Digital India Bhashini Division may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of the Digital India Bhashini Division without giving any reason. This RFE supersedes and replaces any previous public documentation & communications, and Bidders should place no reliance on such communications.

2.2. Eligible Bidders

Bids may be submitted by bidders as described below.

a. The Bidder must be a company/ registered legal entity in India, which has the capabilities to deliver the entire scope of work as mentioned in the RFE.

b. The bidders qualifying the Pre-qualification/ eligibility criteria mentioned in the RFE document shall be termed as Eligible Bidders and shall be eligible for opening of their Technical Bids.

2.3. Compliant Bids/ Completeness of Response

The Bidder shall be deemed to have carefully examined the Terms & Conditions, Scope, Service Levels, Specifications, and Schedules of this RFE. If the Bidder has any doubts/clarifications, the Bidder shall submit the Pre-Bid queries before the last date and time to the purchaser seeking clarifications in writing in order that such doubt may be removed, or clarifications are provided.

Submission of the bid shall be deemed to have been done after careful study and examination of the RFE document with full understanding of its implications.

Bids should be submitted in the English language only.

Failure to comply with the requirements of this paragraph may render the Bid(s) non-compliant and the Bid may be rejected.

Bidders must:

    I.   Include all documentation specified in this RFE.

    II.   Follow the format of this RFE and respond to each element in the order as set out in this RFE.

Comply with all requirements as set out within this RFE.

2.4. Bid fee.

The Bidder will download the RFE document(s) from the website https://eprocure.gov.in. The bid fee if any of the RFE document must be submitted along with the Bids.

2.5. Bidder's Authorized Signatory

Complete bid document should be signed by authorized signatory only.

2.6. Bid Preparation Costs

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

2.7. Language

The Bid document should be filled by the Bidder in English language only. If any supporting documents submitted are in any other language other than English, translation of the same in English language should be duly attested by the Bidders. For purposes of bid evaluation, the English translation shall govern.

2.8. Conflict of Interest

Bidder shall not have a conflict of interest that may affect the Bidding Process or the Solution delivery (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the Purchaser shall forfeit the EMD, if available, and as mutually agreed genuine pre-estimated compensation and damages payable to the Purchaser for, inter alia, the time, cost and effort of the Purchaser including consideration of such Bidder's Bid, without prejudice to any other right or remedy that may be available to the Purchaser hereunder or otherwise.

The Purchaser requires that the vendor provides solutions which always hold the Purchaser's interest's paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The System Integrator shall not accept or engage in any assignment that would conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of the Purchaser.

Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:

a) The Bidder or its Associates (or any constituent thereof) and any other Bidder, or its Associate (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of a Bidder, or Associate (or any shareholder thereof having a shareholding of more than 5 per cent of the paid up and subscribed share capital of such Bidder, or Associate, as the case may be) in the other Bidder, or Associate is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof. For the purposes of this Clause, indirect shareholding held through one or more intermediate persons shall be computed as follows:

i. Where any intermediary controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this Sub-clause if the shareholding of such person in the intermediary is less than 26% (twenty six per cent) of the subscribed and paid up equity shareholding of such intermediary; or

ii. A constituent of such Bidder is also a constituent of another Bidder; or

iii. Such a Bidder or its Associate receives or has received any direct or indirect subsidy or grant from any other Bidder or its Associate; or

iv. such a Bidder has a relationship with another Bidder, directly or through common third parties, which puts them in a position to have access to each other's' information regarding this RFE, or to influence the Bid of either or each of the other Bidder; or

v. There is a conflict among this and other services assignments of the Bidder (including its personnel and other members, if any) and any subsidiaries or entities controlled by such Bidder or having common controlling shareholders. The duties of the bidder will depend on the circumstances of each case. While providing related solutions to the Purchaser for this assignment, the Vendor shall not take up any assignment that by its nature will result in conflict with the present assignment; or

b) A Bidder eventually appointed to implement the Solutions for this Project, its Associates, affiliates, shall be disqualified from subsequently providing goods or works or services related to the construction and operation of the same Project and any breach of this obligation shall be construed as Conflict of Interest, provided that the restriction herein shall not apply after a period of 12 months from the completion of this assignment.

2.9. Right to Reject bid

DIBD reserves the absolute and unconditional right to reject the response to this RFE if it is not in accordance with its requirements and no correspondence will be entertained by the department in the matter. The bid is liable to be rejected if:

a. It is not in conformity with the instructions mentioned in the RFE document.
b. It is not properly or duly signed.
c. It is received after expiry of the due date and time.
d. It is incomplete including non- furnishing the required documents.
e. It is evasive or contains incorrect information.
f. There is canvassing of any kind.
g. It is submitted anywhere other than the place mentioned in the RFE.
h. There is any form of canvassing/lobbying/influence/query regarding short listing, status etc.

2.10.   Right to terminate the process

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

3. Section 3: Pre-Qualification & Technical Evaluation

3.1. Bid Evaluation Instruction

3.1.1. Bid Evaluation process.

a. The DIBD PMU will do the primary bid evaluation and will submit the bid evaluation report to DIBD competent authority. DIBD competent authority will take decisions on the case file.
b. The decision of the DIBD in the evaluation of responses to the RFE shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the DIBD.
c. DIBD may ask for clarifications. All such clarifications will be done via electronic means only.
d. DIBD reserves the right to reject any or all Bids based on any deviations contained in them.
e. Each of the responses shall be evaluated as per the criterions and requirements specified in this RFE.

3.1.2. Bid Opening Process

a) The Bids submitted up to the last date and time mentioned in this RFE will be opened in presence of the Bid Evaluation Committee or any other officer authorized by the purchaser.

b) Purchaser reserves the right to accept/reject the bid in case a single bid is received.

3.1.3. Bid validity.

The offer submitted by the Bidders should be valid for minimum period of 180 days from the last date of submission of the Bid. If the Bidder withdraws or modifies its bid during period of validity etc., the Bidder will be suspended from participating in the tender processes of Digital India Bhashini Division (DIBD), New Delhi for a period of two years. In addition, the bidder may be blacklisted, debarred for a longer period of time and penalty may be imposed on him/ her.

3.1.4. Bid Evaluation:

a) Initial Bid scrutiny will be held and to confirm that Bids do not suffer from the infirmities detailed below. The Bid will be treated as non-responsive if a Bid is found to have been:

    i. Submitted in manner not conforming with the manner specified in the RFE document.

    ii. Received without the appropriate power of attorney.

iii. Containing subjective/ incomplete information.

iv. Submitted without the documents requested in the checklist.

v. non-compliant with any of the clauses stipulated in the RFE.

b) All responsive bids will be considered for further processing as below:

Department 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 define in this RFE document. The decision of the Committee will be final in this regard.

3.2. Criteria for Evaluation

3.2.1. Pre-Qualification (PQ) Criteria

Please note that the Bidders should submit all the documents confirming the qualification as per the eligibility criteria mentioned. The bid is liable to be rejected without submission of relevant documents. The bidder should meet the Qualifying Requirements as mentioned below:

S. No	Checklist item	Criteria	Proof/Documents Required
1	Bidder company Registration	The Company should be registered under Companies Act, 1956/2013, Govt. of India in last three years. LLP/Partnership firms are also allowed to bid. The bidder should not be subsidiary of a foreign company.	Valid copy of Certificate of incorporation and Registration Certificates. GST and PAN/TAN number.
2	Incorporation Certificate	Bidder should be an established service provider and should have been in the business for minimum 5 years (3 years for start-up and MSME) with Central/State Government or PSU or large Financial Institution / Banks / BPOs / Private Organizations.	Valid copy of Certificate of incorporation and Registration Certificates under same category. **Relaxation shall be given to the startups having valid DPIIT Certificate and MSMEs with MSME/Udyam certificate.**

S. No	Checklist item	Criteria	Proof/Documents Required
3	Non-Blacklisting	The bidder shall not be under a Declaration of Ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government agencies.	Self-Declaration in this regard by the authorized signatory of the bidder.
4	Similar Experience	The prospective Vendor must have successfully completed at least three orders /contracts /development projects in last three years, based on any one or more of the following, a. Creation of web-based interface, adaptable to mobile based interface, with AI & analytics multimodal conversational system, with Generative AI, past experience in fine tuning and training machine learning and large language models. b. The web-based interface, adaptable to mobile based interface, with AI & analytics multimodal interface enabled conversational system, with Generative AI, past experience in fine tuning and training machine learning and large	Self-certification along with screenshots, videos, demonstration documents and URL for demo.

S. No	Checklist item	Criteria	Proof/Documents Required
		language models must be integrated with an IVR.	
5	Human Capital Strength	The lead bidder must have 50 (25 for start-up and MSME) On roll manpower with experience of Data Sc/ ML and AI.	Self-Declaration Certificate with employee name, designation, and contact number. The bidder shall furnish the CVs of dedicate personnel for DIBD account management. **Relaxation shall be given to the startups having valid DPIIT Certificate and MSMEs with MSME/Udyam certificate.**
6	Net worth	The Bidder net worth should be positive in last three years.	CA Certificate with CA's Registration Number/ Seal
7	AI enabled conversational system	The bidder should have experience in creation of AI enabled conversational systems.	Self-certification and documentation of the solution including screenshot needs to be provided.
8	Certification	• Information Security Management System- ISO/IEC 27001:2013 • Privacy Information Management System- ISO/IEC 27701:2019	Copy of Certification

3.2.2. Technical Qualification Eligibility Criteria

Sr. No.	Technical Qualification Criteria	Break up of Parameters	Weightage / Score	Max. Score	Remarks
1.	Average Annual Financial Turnover in last 3 financial year	INR 100 – 199 Crore	3	10	CA Certificate with CA's Registration Number/ Seal for annual turnover. Copy of the audited profit and loss account of the company-showing turnover of the company during last three years.
		INR 200 – 299 Crore	5		
		INR 300 – 399 Crore	7		
		INR 400 Crore above	10		
	For MSME/Startup, the Average Annual Turnover Shall be:	INR 10 – 20 Crore	3		
		INR 21-30 Crore	5		
		INR 31 to 40 Crore	7		
		INR 41 to 50 Crore	10		
2.	The bidder must have developed AI based multimodal conversational system, with Generative AI, past experience in fine tuning and training machine learning and large language models/similar reference model and	3 bots	10	20	Documentation of the solution including screenshot needs to be provided. The same to be demonstrated in presentation. (Can provide link, if available)
		5 bots	15		
		10 bots	20		

Sr. No.	Technical Qualification Criteria	Break up of Parameters	Weightage / Score	Max. Score	Remarks
	experience (in last 2 years)				
3.	The bidder should have experience in implementation of analytics/AI projects in past 6 years	One project with value of INR > 0.5 Crore	5	15	Self-certification/PO /WO
		Two projects with value of INR > 0.5 Crore	10		
		Four projects with value of INR > 0.5 Crore	15		
4.	Human capital bidder must have on roll manpower with experience of Data Sc, ML and AI	25-75	5	20	Self-Declaration Certificate with employee name, designation, and contact number. The bidder shall furnish the CVs of dedicate personnel for DIBD account management.
		76-150	10		
		151-300	15		
		301 and above	20		
5.	The vendor shall have technical capability to implement/maintain functional IVR system based on automated	One project with value of INR > 0.5 Crore	5	5	Self-certification/PO /WO

Sr. No.	Technical Qualification Criteria	Break up of Parameters	Weightage / Score	Max. Score	Remarks
	voice response capability.				
6.	Presentation	• Technology stack • Open source or proprietary solution • Project management methodology • Integration methodology • Demonstration of previous similar experience shown in the "similar experience" criteria.		30	
	Total			**100**	

3.2.3. Empanelment criteria

Post evaluation process, the bidders who will score minimum 75 marks in technical qualification shall be empaneled with Digital India BHASHINI Division for one year (extendable up to 2 years)

3.2.4. Notification of Empanelment

Digital India Bhashini Division will notify the successful bidder in writing (LoI) thereby indicating that its Bid has been accepted.

3.2.5. Right to Accept Any Bid and To Reject Any or All Bid(s)

The Purchaser reserves the right to accept or reject any Bid, and to annual the Bidding Process / public procurement process and reject all Bids 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 purchaser action.

3.2.6. Change request

The change request will be applicable incase the purchaser wants to enhance the scope of work, for which the price is already discovered. It is to be noted that the Change Request (CR) will be estimated based on the quantities at the discovered price during original supply period.

3.2.7. Failure to agree with terms and conditions of RFE.

Failure of the successful bidder to agree with the Draft Legal Agreement and Terms & Conditions of the RFE shall constitute sufficient grounds for the annulment of the award, in which event DIBD may award the contract to the next best value bidder or call for new Bid from the interested bidders.

3.2.8. Dispute resolution mechanism & Arbitration

The Bidder and the Purchaser shall endeavor their best to amicably settle all disputes arising out of or in connection with the Contract in the following manner:

a) The Party raising a dispute shall address to the other Party a notice requesting an amicable settlement of the dispute within seven (7) days of receipt of the notice.

b) The matter will be referred for negotiation between Nodal Officer of Purchaser or the Purchaser and the Authorized Official of the Vendor. The matter shall then be resolved between them, and the agreed course of action documented within a further period of 15 days.

In case any dispute between the Parties, does not settle by negotiation in the manner as mentioned above, the same may be resolved exclusively by arbitration and such dispute may be submitted by either party for arbitration within 20 days of the failure of negotiations. Arbitration shall be conducted in accordance with the provisions of Arbitration and Conciliation Act, 1996 or

any statutory modification or re-enactment thereof. Each Party to the dispute shall appoint one arbitrator each and the two arbitrators shall jointly appoint the third or the presiding arbitrator.

The "Arbitration Notice" should accurately set out the disputes between the parties, the intention of the aggrieved party to refer such disputes to arbitration as provided herein, the name of the person it seeks to appoint as an arbitrator with a request to the other party to appoint its arbitrator within 45 days from receipt of the notice. All notices by one party to the other in connection with the arbitration shall be in writing and be made as provided in this tender document.

The arbitrators shall hold their sittings at "The High Court Delhi". The arbitration proceedings shall be conducted in English language. Subject to the above, the courts of law at "Delhi" alone shall have the jurisdiction in respect of all matters connected with the Contract/Agreement even though other Courts in India may also have similar jurisdictions. The arbitration award shall be final, conclusive, and binding upon the Parties and judgment may be entered thereon, upon the application of either party to "The High Court Delhi". Each Party shall bear the cost of preparing and presenting its case, and the cost of arbitration, including fees and expenses of the arbitrators, shall be shared equally by the Parties unless the award otherwise provides.

The Bidder shall not be entitled to suspend the Service/s or the completion of the job, pending resolution of any dispute between the Parties and shall continue to render the Service/s in accordance with the provisions of the Contract/Agreement notwithstanding the existence of any dispute between the Parties or the subsistence of any arbitration or other proceedings.

4. Section 4: Term of Reference

4.1. Scope of work

We are seeking proposals from qualified vendors to develop an NLP based smart interface which can but are not limited to Retrieval-Augmented Generation (RAG) based multi-modal interface conversational system, multi-language supporting IVRs, machine learning models for translation, etc. The software will integrate multiple advanced features to provide a robust, multilingual, and interactive user experience. Below are the key components and requirements that the solution must address.
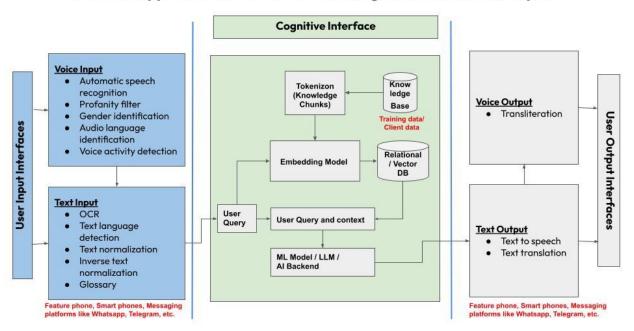
The successful bidder shall provide a single point of contact for the project, providing both a qualified workforce and comprehensive end-to-end project management. This necessitates the bidder to

possess a pre-established pool of personnel who meet the technical qualifications outlined within the RFE. In essence, the bidder will be responsible for both the technical expertise of the assigned personnel and the overall successful execution of the project.

4.1.1. Indicative approach to Multi-Modal, Multilingual Conversational System

The multi-modal, multilingual conversational system is designed to provide a seamless and intuitive user experience by integrating voice, text, document, OCR and any other mode of inputs across various languages.

Indicative Approach to MultiModal MultiLingual Conversational System

Here's a breakdown of how the system works and the key services it utilizes from the Bhashini platform: System Workflow:

a. Input Handling:

- The system shall accept voice, text, document, OCR and any other mode of inputs in any combinations from users in their preferred language.

b. Preprocessing:

- Denoiser: Reduces background noise from voice recordings to ensure clear input.
- Gender Classification: Identifies the gender of the speaker, which can be useful for personalization and analytics.

c. Language Detection:

- Audio Language Detection: Determines the language spoken by the user to route the input through the appropriate translation and processing pipelines.

d. Speech to Text Conversion:

- ASR (Automatic Speech Recognition): Converts spoken language into text, facilitating further text-based processing.

e. Translation and Glossary Management:

- Neural Machine Translation: Translates the text between different languages, enabling multilingual communication.
- Glossary: Ensures the accurate translation of domain-specific terminologies (particularly nouns and phrases) to maintain context and precision.

f. Content Filtering:

- Profanity Filter: Filters out any profane words or phrases from the user's speech, ensuring the communication remains respectful and appropriate.

g. Automated Response Generation:

- The translated and processed text is fed into an automated system that retrieves or generates an appropriate response.

h. Response Delivery:

- The response is translated back into the user's preferred language, through their preferred medium ensuring they receive the answer in a language they understand.
- The system can output the response as either text, synthesized speech, or any specified file type.

4.1.2. Components for Multi-Modal, Multilingual Conversational System

The scope focuses on utilizing Bhashini's existing infrastructure for development. The vendor will be responsible for end-to-end development and implementation of the scope given for the system. This fee will be paid by the client upon agreed milestones. The scope can broadly be divided into two phases:

a. Implementation Phase: The vendor will charge a lump sum fee which includes manpower for development which includes deployment phase, infrastructure setup, testing, and training.

b. O&M Phase: The vendor will charge quarterly fees for manpower as per the agreed contractual terms. This will include the following model training and tuning to optimize the performance of the interface.

c. Additional functionalities
   i. Integration of new languages
   ii. Latest security patches to ensure that timely action is taken on the alerts and advisories issued by CERT-IN and NIC-CERT
   iii. Any other new feature requests within the scope of the system

Bhashini wants to keep expanding its scope and support more languages. The vendors should be able to add support to the new languages added to the Bhashini system.

A. Functionality for Multi-Modal, Multilingual Solution

1. Human interface or User Interface (UI) Front End:

a. The solution must have a user-friendly interface that can either be developed as a standalone application, should include telephony-based interfaces or integrated with existing chat services such as WhatsApp, etc.

b. The UI should be intuitive and accessible, ensuring seamless interaction for users across various devices.

i. User Input Interfaces:

The solution shall support voice input features including automatic speech recognition, profanity filters, gender identification, audio language identification, and voice activity detection.

For text and document input, it should include documents, optical character recognition

(OCR), text language detection, text normalization, inverse text normalization, and glossary support.

ii. User Output Interfaces:

The output of the system should support the modes as per the user's preference which includes but not limited to audio, text or document, etc.

2. Cognitive Interface

The solution should include tokenization for knowledge chunks, an embedding model for data representation, a vector database for efficient data retrieval, and a knowledge base utilizing training data and client data to support learning and responses. User queries and contexts should be processed using machine learning models, large language models (LLMs), or other AI backends. The solution should also include model training and tuning to optimize the performance of these models.

3. Additional Requirements:

a. Input and Output Guardrails:
- Implement robust guardrails to filter out profanity and inappropriate content in both input and output.
- Ensure the system maintains a high standard of content moderation to protect users.

b. Efficient Short-term and Long-term Caching:
- Implement efficient caching mechanisms for both short-term and long-term data storage.
- Ensure the caching strategy enhances performance and reduces latency.

c. Efficient Queuing Method and Scalability:
- Design an efficient queuing method to handle incoming requests, ensuring that the system can manage high volumes of traffic seamlessly.
- Ensure the solution is scalable to accommodate growing user demands and data loads.

d. Scientific Rationale for Embedding Selection:
- Provide a clear scientific rationale for the selection of embeddings used in the Multimodal Multilingual conversational system.

- Justify the choice of embeddings in terms of performance, relevance, and scalability.

e. Cost Minimization:

- Ensure the solution is cost-effective while maintaining high performance and accuracy.

f. Dashboard and Monitoring:

- Develop a comprehensive dashboard for monitoring the multimodal multilingual conversational system, focusing on interface related (key performance indicator) KPIs metrics.
- Ensure the dashboard provides real-time insights and analytics for continuous improvement.

g. User Feedback Integration:

- Create efficient methods to update and improve the enabled conversational system based on user feedback.
- Implement mechanisms for capturing, analyzing, and incorporating feedback into the system's iterative development process.

4. Testing:

a. Unit Testing:

Test individual components of the multimodal, multilingual conversational system to ensure each part functions correctly in isolation.

b. Integration Testing:

Verify that different components of the multi-modal, multilingual conversational system work together seamlessly.

c. System Testing:

Conduct comprehensive testing of the entire multi-modal, multilingual conversational system to ensure it meets all specified requirements.

d. Load Testing:

- Simulate high user traffic to ensure the multi-modal, multilingual conversational system can handle peak loads without performance issues.
- Reports of these tests should be made available on demand to the vender while the development process of the software.

5. User Acceptance Testing (UAT)

   a. End-User Acceptance Testing:

   Test the multi-modal, multilingual conversational system with actual end-users to ensure it meets their needs and performs as expected in real-world scenarios.

   b. Feedback Incorporation:

   Gather feedback from UAT and make necessary adjustments to improve the multimodal multilingual conversational system's functionality and user experience.

6. Security Audit for Indian Law Compliance

   a. Security Assessment:

   Conduct a thorough security audit through CERT-IN empaneled Agencies of the multi-modal, multilingual conversational system to ensure compliance with Indian laws and regulations related to data protection and cybersecurity. The Cert-IN empaneled third-party agency shall be onboarded by vendor independently and associated fees shall be borne the vendor.

   b. Data Localization:

   Ensure that sensitive user data is stored within India as mandated by data localization regulations.

   c. Data Encryption:

   Implement strong encryption protocols to protect user data during storage and transmission, adhering to standards specified under Indian cybersecurity guidelines.

   d. Personal Data Protection:

   Ensure compliance with the Digital Personal Data Protection Bill (DPDP) or any other relevant legislation governing the processing and protection of personal data in India.

   e. Cybersecurity Standards:

   Adhere to cybersecurity standards prescribed by the Ministry of Electronics and Information Technology (MeitY).

7. Cloud and hardware deployment

   a. Model 1

i. Implementation Phase: Cloud and hardware deployment should be done on-premises on/the cloud-hosted infrastructure of the vendor/cloud-hosted infrastructure of the client depending on the needs of the project. The vendor has to make sure of the security and data integrity of the servers deployed. The service Provider has to provide the required infrastructure sizing considering the volumetric information identified during the study phase. The required infrastructure (development, staging, production environment). Service Provider shall be responsible for overall commissioning and assist in operations of the cloud infrastructure. Service Provider has to plan the deployment considering no single point of failure. Considering the criticality of the infrastructure, the Service Provider is expected to design the solution with a high level of redundancy and resilience to meet the uptime requirements.

ii. O&M Phase: The vendor will maintain the infrastructure and solution, and quarterly fees for infrastructure consumed will be paid on actuals by the client.

b. Model 2

i. Implementation Phase: Cloud and hardware deployment should be done on the cloud-hosted infrastructure of Bhashini. Ensure the security and data integrity of the deployed servers. Provide the required infrastructure sizing considering the volumetric information identified during the study phase. Bhashini is responsible for the overall commissioning and assistance in operations of the cloud infrastructure. Plan the deployment considering no single point of failure, with a high level of redundancy and resilience to meet uptime requirements.

ii. O&M Phase: The infrastructure will be on Bhashini, but it will be maintained by the vendor as per the agreement period, with quarterly fees for manpower.

8. Data security
   a. Data Protection:
      Ensure that all user data is handled securely, in compliance with relevant data protection regulations, to protect user privacy.

   b. Secure Authentication:

Implement robust authentication mechanisms to secure sensitive information and critical operations.

9. Data ownership:

The data collected from users for the allotted project shall be used exclusively for the same project and handled with the utmost confidentiality. The vendor shall use self-deployed instances of open-source tools. In case the empaneled vendor has to use closed-source or externally hosted open-source APIs or tools the data shall not be shared, distributed, or disclosed to any third parties without a written mandate.

Furthermore, the user data shall not be disclosed to any third party, and no server/service shall be used to transmit the data to any third party. Appropriate measures must be taken to ensure data security and compliance with relevant data protection regulations. Any use of the data outside the defined scope of this project is strictly prohibited.

10. Code Ownership:

The empaneled vendor shall provide the latest and complete source code of the actual running software which can be compiled and deployed by the end client or DIBD along with all the requisite software (Source Code, Libraries, IDEs etc.). The end client or DIBD will be the proprietor of the system developed and its Intellectual Property Rights, and any patents arising out the work shall be of the end client or DIBD, and the vendor will have no claim on the same.

4.1.3. Operational & Maintenance Support

a. Regular Updates:
Provide ongoing updates, bug fixes, and performance improvements to keep the all the components being deployed.

b. User Feedback:
Continuously incorporate user feedback to enhance the software functionality and user experience.

c. Resource Provisioning:

Ensure sufficient resources are available during the O&M phase to accommodate changes and enhancements suggested during this stage without additional costs.

d. Continuous Integration:

Maintain integration with identified departments/agencies and new information/documents to ensure the software remains comprehensive and relevant.

11. Exit Management

After the contract period is completed, the Service Provider has to ensure proper knowledge transfer, and handover of the source code, work, and documents (if any, related to the project) to the identified officials of Bhashini within 15 days before the date of expiry of the contrac

4.1.4. Evaluation Criteria for Milestones of the delivery of multimodal multilingual conversational system.

To ensure the development process is aligned with the client's expectations, the evaluation of the Multimodal Multilingual conversational system's performance will be based on specific criteria using 20 sample questions provided by the client. The desired output of those sample questions will also be provided by the client to BHASHINI for evaluation. These questions will help assess the multimodal multilingual conversational system 's responses against desired outputs. Additionally, the performance of the LLM models will be evaluated using specific metrics. The overall score for successful evaluation should be above 70%.

A. Evaluation Criteria for Voice and text interface enabled conversational system Responses:

1. **Accuracy (20%):**
   o The response should correctly address the question asked.
   o **Metric:** BLEU Score
   o Full points if the response is completely accurate, partial points if partially accurate, and no points if inaccurate.
2. **Relevance (20%):**
   o The response should be pertinent to the context of the question.
   o **Metric:** ROUGE Score

- o Full points if the response is highly relevant, partial points if somewhat relevant, and no points if irrelevant.

3. **Completeness (20%):**
   - o The response should provide a complete answer without missing critical information.
   - o **Metric:** F1 Score
   - o Full points if the response is complete, partial points if partially complete, and no points if incomplete.

4. **Clarity (20%):**
   - o The response should be clear and understandable, free of jargon or overly complex language.
   - o **Metric:** Human Evaluation Score (based on user feedback)
   - o Full points if the response is very clear, partial points if somewhat clear, and no points if unclear.

5. **Multilingual Capability (10%):**
   - o The response should accurately reflect the multilingual capabilities, if applicable.
   - o **Metric:** BLEU Score for different languages
   - o Full points if the response correctly utilizes multilingual capabilities, partial points if somewhat correct, and no points if incorrect.

6. **Response Time (10%):**
   - o The response should be provided within an acceptable timeframe.
   - o **Metric:** Latency (measured in milliseconds)
   - o Full points if the response is within the desired time frame, partial points if somewhat delayed, and no points if significantly delayed.

B. Evaluation Process of sample questions:

1. Client to provide 20 sample questions covering various scenarios and languages.
2. The vendor will input these questions into the multimodal multilingual conversational system.
3. Responses will be evaluated against the criteria listed above for multimodal multilingual conversational system evaluation.
4. Each response will be scored based on the criteria, and an overall score will be calculated.
5. The overall scores will be used to assess milestone completion.

4.1.5. Indicative recourse list

Sr.no	Profile	Eligibility with Education and Experience	No. of Profiles
1.	Technical Lead	• Subject Matter Expert with >10 years' experience • BE/B.tech/M.Tech/MCA/MSc • At least 3 Analytics projects experience • Should have experience in LLM model training and tunning	1
2.	Data Scientist	• With >8 years' experience • BE/B.tech/M.Tech/MCA/MSc • At least 5 years' experience related to data analytics. • Should have experience in LLM model training and tunning	1
3.	Data Engineer	• With >3 years' experience • BE/B.Tech/M.Tech/MCA/MSc • At least 1 certification in data engineering and 1 certification in cloud • Should have experience in LLM model training and tunning	1
4.	AI Engineer	• Experience of LLM and AI model development and implementation • Should have experience in LLM model training and tunning	2
5.	Full Stack Developer	• With >3 years' experience • BE/B.tech/M.Tech/MCA/MSc • Experience of full stack software development, with expertise in mobile and web applications	1
6.	Metaverse Developer	• With >3 years' experience • BE/B.tech/M.Tech/MCA/MSc • Experience of Unity Development, VR/AR and XR development	1
7.	DevOps Engineer	• With >3 years' experience • BE/B.tech/M.Tech/MCA/MSc • Experience of DevOps, CI/CD, Microservices	2

5. Work allotment to the empaneled vendors

A limited RFQ/RFP shall be floated to the empaneled vendors with detailed scope of work, terms and condition, deliverables and timelines, and service level agreement.

6. Annexures

6.1. ANNEXURE 1: Form for Undertaking of Total Responsibility (Company Letter head)

To:

The CEO,

Digital India Bhashini Division

Electronics Niketan, 6, CGO Complex,

Lodhi Road, New Delhi – 110003

Tender Ref.   Date:

Dear Sir,

Sub: Self certificate regarding Total Responsibility

This is to certify that we undertake total responsibility for providing the proposed resources and facilities, as per the requirements and terms and condition of the Request for Empanelment (RFE) for BHASHINI System Integrators for Multimodal Multilingual Solution for Digital India BHASHINI Division.

Thanking you,

Yours faithfully

(Signature of the Authorized signatory of the Bidding Organization)

Name   :

Designation   :

Date   :

Seal   :

Business Address   :

6.2. ANNEXURE 2: Form for Particulars of the Bidder (Company Letter head):

Ref:	Dated:			
Firm Details:				

A 1	Name of the bidding Company				
A 2	Registered Office Address				
A 3	Address of Office(s)				
B	Incorporation Status of the firm	**Public Limited**	**Private Limited**	**Partnership**	**Proprietary**
	Enter "Yes" in appropriate box				
C	Year of Establishment				
D	Date of Incorporation				
E	ROC Reference No				
F	Registration Number				
G	PAN Number				
H	Date of Commencement of Business				
I	GSTIN				
J	Details of Contact Person				
J1	Name				
J2	Address				
J3	E-mail id				
J4	Phone Number				

J5	Mobile Number	
K	Name & Designation of Authorized Signatory	
L	Address of property offered	
M	Floor number and number of total floors	

6.3. ANNEXURE 3: Pre-qualification Bid Cover Letter (Company Letter head):

To,

The CEO,

Digital India Bhashini Division

Electronics Niketan, 6, CGO Complex,

Lodhi Road, New Delhi – 110003

Sub: Submission of the response to the RFE No <> dated <> for Empanelment of Vendor for the providing Request for Empanelment (RFE) for the selection of an Agency to perform software consulting and development work at Digital India BHASHINI Division.

Dear Sir,

In response to your RFE No. _____, we hereby submit our offer herewith.

1. Bidder Name   : _____

2. Website Address   : _____

3. Email Address   : _____

4. Address for Communication   : _____

                                              _____

                                              _____

5. Telephone Number   : _____

6. Fax/Telefax Number   : _____

7. Authorized Person -   Name   : _____

Designation   : _____

Mobile No.   : _____

Email ID   : _____

8. Alternate Person   Name   : _____

Designation   : _____

Mobile No.   : _____

Email ID   : _____

9. PAN Number   : _____

10. GST Regn. No. with Address : _____

_____

11. Beneficiary's complete Bank Details.

Bank Account No.   : _____

IFSC / NEFT Code   : _____

Name of the Bank   : _____

Address of the Branch   : _____

14. Following Documents are submitted to substantiate other eligibility criteria.

  i. _____

   _____

  ii. _____

   _____

  iii. _____

   _____

DECLARATION

1. We have read and understood the terms & conditions of the above-mentioned tender and comply to all Terms & Conditions of the Tender. (In case of any deviation, the Bidder must attach a separate sheet clearly mentioning the Clause No. of the Tender and Deviation there to)

2. We certify that the information mentioned above are true and correct to best of our knowledge.

Place: Signature of Authorized Signatory with Seal

Date: Name:

Designation:

6.4. ANNEXURE 4: Pre-qualification Compliance Checklist):

S. No	Checklist item	Criteria	Proof/Documents Required	Bidder Response	Page No.
1.	Bidder company Registration	The Company should be registered under Companies Act, 1956/2013, Govt. of India in last three years. LLP/Partnership firms are also allowed to bid. The bidder should not be subsidiary of a foreign company.	Valid copy of Certificate of incorporation and Registration Certificates. GST and PAN/TAN number.		
2.	Incorporation Certificate	Bidder should be an established service provider and should have been in the business for minimum 5 years (3 years for start-up and MSME) with Central/State Government or PSU or large Financial Institution / Banks / BPOs / Private Organizations.	Valid copy of Certificate of incorporation and Registration Certificates under same category. **Relaxation shall be given to the startups having valid DPIIT Certificate and MSMEs with MSME/Udyam certificate.**		
3.	Non-Blacklisting	The bidder shall not be under a Declaration of Ineligibility for corrupt	Self-Declaration in this regard by the authorized		

S. No	Checklist item	Criteria	Proof/Documents Required	Bidder Response	Page No.
		or fraudulent practices or blacklisted with any of the Government agencies.	signatory of the bidder.		
4.	Similar Experience	The prospective Vendor must have successfully completed at least three orders /contracts /development projects in last three years, based on any one or more of the following, c. Creation of web-based interface, adaptable to mobile based interface, with AI & analytics multimodal interface enabled conversational system, with Generative AI, past experience in	Self-certification along with screenshots, videos, demonstration documents and URL for demo.		

S. No	Checklist item	Criteria	Proof/Documents Required	Bidder Response	Page No.
		fine tuning and training machine learning and large language models. d. The web-based interface, adaptable to mobile based interface, with AI & analytics multimodal interface enabled conversational system, with Generative AI, past experience in fine tuning and training machine learning and large language models must be integrated with an IVR.			

S. No	Checklist item	Criteria	Proof/Documents Required	Bidder Response	Page No.
5.	Human Capital Strength	The lead bidder must have 50 (25 for start-up and MSME) On roll manpower with experience of Data Sc/ ML and AI.	Self-Declaration Certificate with employee name, designation, and contact number. The bidder shall furnish the CVs of dedicate personnel for DIBD account management. **Relaxation shall be given to the startups having valid DPIIT Certificate and MSMEs with MSME/Udyam certificate.**		
6.	Net worth	The Bidder net worth should be positive in last three years.	CA Certificate with CA's Registration Number/ Seal		
7.	AI enabled conversational system	The bidder should have experience in creation of AI enabled	Self-certification and documentation of		

S. No	Checklist item	Criteria	Proof/Documents Required	Bidder Response	Page No.
		conversational systems.	the solution including screenshot needs to be provided.		
8.	Certification	• Information Security Management System- ISO/IEC 27001:2013 • Privacy Information Management System- ISO/IEC 27701:2019	Copy of Certification		

6.5. ANNEXURE 5: Technical qualification Compliance Checklist)

Sr. No.	Technical Qualification Criteria	Break up of Parameters	Weightage/ Score	Max. Score	Remarks	Bidder Response	Page No.
1.	Average Annual Financial Turnover in last 3 financial year	INR 100 – 199 Crore	3		CA Certificate with CA's Registration Number/ Seal for annual turnover. Copy of the audited profit and loss account of the company -showing turnover of the company during last three years.		
		INR 200 – 299 Crore	5				
		INR 300 – 399 Crore	7				
		INR 400 Crore above	10				
	For MSME/Startup, the Average Annual Turnover Shall be:	INR 10 – 20 Crore	3	10			
		INR 21-30 Crore	5				
		INR 31 to 40 Crore	7				
		INR 41 to 50 Crore	10				
2.		3 bots	10	20			

Sr. No.	Technical Qualification Criteria	Break up of Parameters	Weightage/ Score	Max. Score	Remarks	Bidder Response	Page No.
	The bidder must have developed AI based multimodal conversational system, with Generative AI, past experience in fine tuning and training machine learning and large language models/similar reference model and experience (in last 2 years)	5 bots	15		Documentation of the solution including screenshot needs to be provided. The same to be demonstrated in presentation. (Can provide link, if available)		
		10 bots	20				
3.	The bidder should have experience in implementation of analytics/AI projects in past 6 years	One project with value of INR > 0.5 Crore	5	15	Self-certification/PO/WO		
		Two projects with value of INR > 0.5 Crore	10				

Sr. No.	Technical Qualification Criteria	Break up of Parameters	Weightage/ Score	Max. Score	Remarks	Bidder Response	Page No.
		Four projects with value of INR > 0.5 Crore	15				
4.	Human capital bidder must have on roll manpower with experience of Data Sc, ML and AI	25-75	5	20	Self-Declaration Certificate with employee name, designation, and contact number. The bidder shall furnish the CVs of dedicate personnel for DIBD account management.		
		76-150	10				
		151-300	15				
		301 and above	20				

Sr. No.	Technical Qualification Criteria	Break up of Parameters	Weightage/ Score	Max. Score	Remarks	Bidder Response	Page No.
5.	The vendor shall have technical capability to implement/maintain functional IVR system based on automated voice response capability.	One project with value of INR > 0.5 Crore	5	5	Self-certification/PO/WO		
6.	Presentation	• Technology stack • Open source or proprietary solution • Project management methodology • Integration methodology • Demonstration of previous		30			

Sr. No.	Technical Qualification Criteria	Break up of Parameters	Weightage/ Score	Max. Score	Remarks	Bidder Response	Page No.
		similar experience shown in the "similar experience" criteria.					
	Total			**100**			

6.6. ANNEXURE 6: Turnover and Net worth Certificate:

S. No.	Financial Year	Annual Turnover (Rs. Crores)
1.	Financial Year 2021-22	
2.	Financial Year 2022-23	
3.	Financial Year 2023-24	

Note: The audited Financial Statement for the corresponding year must be enclosed.

S. No.	Financial Year	Net worth (Rs. Crores)
1.	Financial Year 2021-22	
2.	Financial Year 2022-23	
3.	Financial Year 2023-24	

6.7. ANNEXURE 7: Format for Project Citation Summary:

#	Project name	Client	Value (In Rs.)	Start/ End date	Current Status	Proposal Reference (Page No.)

Note: Please enclose detail for project criteria in (as mentioned in PQ/TQ) separately

6.8. ANNEXURE 8: Format for Manpower Details:

S. No.	Role	Name of the Resource	Qualifications	Overall Experience (Years)
1.				
2.				
3.				
4.				

6.9.   ANNEXURE 9: Declaration that the bidder has not been blacklisted (Company Letter head):

To,

The CEO,

Digital India Bhashini Division

Electronics Niketan, 6, CGO Complex,

Lodhi Road, New Delhi – 110003

Tender Ref   Date:

Sub: Self Declaration of not been blacklisted in response to the RFE <<**>>**

Dear Sir,

We confirm that our company,_, is not blacklisted in any manner whatsoever by any of the State/UT and/or central government in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice, or restrictive practice as on date__/__/____.

Place:

(Signature of the Authorized signatory of the Bidding Organization)

Name   :

Designation   :

Date   :

Seal   :

Business Address   :

6.10. ANNEXURE 10: Pre-Bid queries format

Sr. No.	Page Number(s) & Section of RFE	Content of RFE requiring	Points of clarification/modification	Justification (if any provided by bidder)
1.				
2.				
3.				