TATA TRUSTS

Selection of The Development Partner for RERA Software Platform

Request for Proposal

Date: 03.12.2019

Issued By:

Tata Trusts
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1. This Request for Proposal ("RFP") is issued by TATA Trust ("TT").
2. The information contained in this RFP or subsequently provided to Bidders, whether verbally or in documentary (hard/ soft) or any other form by or on behalf of TT or any of its employees or advisers, is provided to bidders on the terms and conditions set out in this RFP and all other terms and conditions subject to which such information is provided.
3. This RFP is not a contract and is neither an offer nor an invitation by TT to the prospective bidders or any other person. The information contained in this RFP has been provided to the best of knowledge of TT and in good faith; it is not and does not purport to be comprehensive or to have been independently verified. The information may not be complete and accurate in all respects and may not be exhaustive. Hence, except as otherwise provided in this RFP vis-à-vis the selected bidder, TT, nor any of its officers or employees, nor any of their advisers nor consultants accept no liability of any nature arising from reliance of any bidder upon the information contained in this RFP.
4. While reasonable care has been taken in providing information in this RFP, bidders are advised to not rely only on this information but also carry out their independent due diligence and risk assessments before submitting their response to this RFP. Further, the bidders are advised to conduct their own analysis of the information contained in this RFP, carry out their own investigations about the project, the regulatory regime which applies thereto and all matters pertaining to TT and to seek their own professional advice on the legal, financial and regulatory consequences of entering into an agreement or arrangement relating to the project.
5. The information contained in this RFP is subject to update, expansion, revision and amendment prior to the last day of submission of bids at the sole discretion of TT. In case any major revisions to this RFP are made by TT within seven days preceding the last date of submission of the proposals, TT may, at its discretion, provide reasonable additional time to bidders to respond to this RFP. Neither TT nor any of its officers, employees nor any of its advisors nor consultants undertakes to provide any Party with access to any additional information or to update the information in this RFP or to correct any inaccuracies therein which may become apparent.
6. This RFP includes certain statements, estimates, projections, targets and forecasts with respect to the implementation of Project. Such statements estimate, projections, targets and forecasts reflect various assumptions made by the management, partners and employees of TT, which assumptions (and the base information on which they are made) may or may not prove to be correct. No representation or warranty is given as to the reasonableness of forecasts or the assumptions on which they may be based and nothing in this RFP is, or should be relied on as, a promise, representation or warranty.
7. TT also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any Applicant upon the statements contained in this RFP.
8. The issue of this RFP does not imply that TT is bound to select a bidder or to appoint the selected bidder, as the case may be, for this project and TT reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.
9. The bidder shall bear all its costs associated with or relating to the preparation and submission of its proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by TT or any other costs incurred in connection with or relating to its proposal. All such costs and expenses will remain with the bidder and TT shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a bidder in preparation or in submission of the proposal, regardless of the conduct or outcome of the selection process.

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Key Abbreviations

Abbreviations	
BRD	Business Requirement Document
DP	Development Partner
D&C	Delhi & Chandigarh
ETL	Extract Transform Load
FAQ	Frequently Asked Questions
F&A	Finance and Accounts
FRS	Functional Requirement Specifications
GoI	Government of India
HLD	High Level Design
LLD	Low Level Design
PMU	Project Management Unit
RERA	Real Estate Regulatory Authority
RFP	Request for Proposal
RTI	Right to Information
SMS	Short Message Service
SRS	System Requirement Specifications
TT	Tata Trusts
UAT	User Acceptance Testing
UT	Union Territory

RERA Background

The Real Estate (Regulation and Development) Act, 2016 is an Act of the Parliament of India which seeks to protect home-buyers as well as help boost investments in the real estate industry. The bill was passed by the Rajya Sabha on 10 March 2016 and by the Lok Sabha on 15 March 2016. The Act came into force from 1 May 2016 with 69 of 92 sections notified. The key provisions of the Real Estate (Regulation and Development) Act, 2016 are as follows:

1. <u>Setting up Real Estate Regulatory Authority and Appellate Tribunal</u>

Under this Act, the appropriate Government shall establish the Real Estate Regulatory Authority for regulation and promotion of the real estate sector in the State / UTs. The Authority shall strive to facilitate the growth and advancement of a healthy, transparent, efficient and competitive real estate sector while protecting the interest of allottees, promoters, and real estate agents. The Authority shall also establish an adjudicating mechanism for speedy dispute redressal regarding registered real estate projects. The key responsibilities of the Authority shall be as follows:

- Ensuring Disclosures of Real Estate Projects by Promoters
- The Real Estate Projects Registration
- The Real Estate Agents Registration
- Complaints Redressal
- Provide recommendations to appropriate Government on matters relating to the development & promotion of the real estate sector;

The appropriate Government shall also establish Appellate Tribunal to hear appeals from the decisions, directions, or orders of the Real Estate Regulatory Authority. Any person aggrieved by any direction or decision or order made by the Authority or by an adjudicating officer may file an appeal before the Appellate Tribunal. The appeal shall be dealt with by it as expeditiously as possible, and endeavour shall be made by it to dispose of the appeal within a period of sixty days.

2. <u>Real Estate Projects Registration</u>

All commercial and residential real estate projects will have to register except in projects where

- proposed area of land for development does not exceed five hundred square meters
- proposed number of apartments for development does not exceed eight inclusive of all phases
- promoter has received a completion certificate for a real estate project before commencement of this Act
- under real estate project, the purpose of renovation or repair or re-development does not involve marketing, advertising selling or new allotment of any apartment, plot or building

Without registering the real estate project with the appropriate Real Estate Regulatory Authority, no promoter in any real estate project or part of it shall advertise, market, book, sell or offer for sale, or invite persons to purchase in any

manner any plot, apartment or building, as the case may be in any planning area within RERA Authority jurisdiction.

The promoter of ongoing real estate projects, in which all buildings as per sanctioned plan have not received Completion Certificate, shall also be required to be registered for such phase of the project, which consists of buildings not having occupation or completion certificate.

If any promoter fails to register as per Act, he shall be liable to a penalty which may extend up to ten percent of the estimated cost of the real estate project. On continued violation, he shall be punishable with imprisonment for a term which may extend up to three years or with fine which may extend up to a further ten percent of the estimated cost of the real estate project, or with both.

Apart from Registration, the promoters shall be required to provide quarterly updates on the status of the project to the authority.

3. Real Estate Agents Registration

All Real Estate Agents should register under this Act. Without obtaining registration under this section, no real estate agent shall facilitate the sale or purchase of or act on behalf of any person to facilitate the sale or purchase of any plot, apartment or building, as the case may be, in a real estate project or part of it.

If any real estate agent fails to register, he shall be liable to a penalty of ten thousand rupees for every day during which such default continues, which may cumulatively extend up to five per cent of the cost of plot, apartment or buildings, as the case may be, of the real estate project, for which the sale or purchase has been facilitated

4. Filing of complaints

Any aggrieved person may file a complaint with relevant RERA or the adjudicating officer, as the case may be, concerning any registered real estate project, for any violation or contravention of the provisions of this Act or the rules and regulations made thereunder. The Authority shall establish an adjudicating mechanism for the speedy redressal of such complaints.

Any person aggrieved by any direction or decision or order made by relevant RERA or by an adjudicating officer may file an appeal before the Appellate Tribunal. Any person aggrieved by any decision or order of the Appellate Tribunal may file an appeal to the High Court

5. Financial Discipline

The Act strives to ensure greater financial discipline in the real estate sector. Some of its provisions are as follows:

- A promoter shall not accept more than ten percent of the cost of the apartment, plot, or building as the case may be, as an advance payment or an application fee, from a person without first entering into a written agreement for sale with such person and register the said agreement for sale.
- Seventy percent of the amounts realized for the real estate project from the allottees, from time to time, shall be deposited in a separate account to be maintained in a scheduled bank to cover the cost of construction and the land cost and shall be used only for that purpose

- Withdrawal from such accounts shall be in proportion to the percentage of completion of the project, which shall be certified by an engineer, an architect, and a chartered accountant in practice.
- Promoter to compensate buyer for any false or incorrect statement with a full refund of property cost with interest
- Project Accounts to be Audited / FY. Copy to be submitted to relevant RERA
- Provision for relevant RERA to freeze project bank account upon non-compliance
- Provision for stronger financial penalties for relevant RERA non-compliances

Transparency

The Act shall drive high transparency in the real estate sector as follows by sharing:

- Sanctioned plans, layout plans, along with specifications, approved by the competent authority
- The proposed plan, proposed layout plan of the whole project and the floor space index (FSI) intended to be consumed in the entire project, as suggested by the promoter.
- The proposed vs sanctioned number of building(s) or wing(s) to be constructed.
- The stage-wise schedule of the project completion including the provisions for civic infrastructure like water, sanitation and electricity.
- Quarterly update of the list of number and types of apartments or plots, as the case may be, booked
- Quarterly update of the list of number of covered parking, garages booked; Quarterly update of the list of approvals taken and approvals which are pending subsequent to commencement certificate;
- Quarterly update of the status of the project; and such other information and documents as may be specified by the regulations made by relevant RERA.

1 INVITATION FOR BIDS

Tata Trusts (TT) is one of the oldest philanthropic institutions in India and has played a pioneering role in bringing about an enduring difference in the lives of the communities it serves. Under its Migration and Urban Habitat program, the TT has partnered with key stakeholders to promote sustainable habitats to improve their quality of life and address challenges. In the same umbrella, Tata Trusts has joined the hands of the RERA Committee to address the issues related to the effective implementation of the Real Estate Act, 2016.

The Real Estate (Regulation and Development) Act, 2016, was enacted as a consumer-centric regulation addressing the many pain points of an unregulated yet growing real estate sector. The Act has established Real Estate Regulatory Authorities (RERA) as well as Appellate Tribunals to regulate the creation of new real estate projects. The law has been successful in setting a regulatory framework for the States. However, the implementation of the law in letter and spirit needs effective and transparent operational processes.

To automate the RERA operational processes, the TT has been mandated to provide the software platform comprising two parts;

- PART A: RERA Core Application Platform (For buyers, builders, agents, and RERA Authorities functionalities such as Registration, Approvals, Updates, Dashboards, Analytics, Notifications, Document Management, Workflow Management, Grievance, Complaints, and more) to be used by individual RERAs.)

- PART B: Inter RERA Open Platform (Data Management, Data Sharing, Analytics, and more) for data/information exchange with the individual RERA applications.)

The proposed platform will be hosted, maintained, and used by the Delhi and Chandigarh (D&C) RERA as the first adopter. In the spirit of creating a public good, TT/D&C RERA may share core application with other state RERAs and enable them to also benefit from it. The developing partner would also create a "sandbox environment" for other states RERAs to trial the platform in a secure environment hosted by D&C RERA.

TT invites reputed development partners to independently quote for both of the above platforms using open source technologies, modular micro-services architecture, and interoperable data design principles. These platforms would allow homebuyers to transact efficiently, builders to comply with regulations in a more transparent manner, and enable authorities to perform their regulatory duties more efficiently.

Please note that this bid document is not for an actual award of contract/work order. The actual award of the contract will follow the conditions as per this document. This document is given for enabling the bidders to know the tender terms to guide them in filling up the bid and the quoting rates for the development and maintenance of the proposed solution.

The development partner will be selected using the Quality and Cost Based Selection (QCBS) process, which entails the evaluation of both technical and financial proposals.

2 GENERAL TERMS AND CONDITIONS, AND PREPARATION OF BIDS

2.1 General Terms and conditions and instructions to bidders:

a) All bids must be submitted via email to RERAPlatformProjects@tatatrusts.org. No physical bid will be accepted.

b) The bidder, who intends to participate in this bid, is required to follow the below mentioned stages:

    a. Pre-bid web conference

    b. Technical & Financial bid submission

    c. Evaluation of technical bid (70% weightage)

    d. Individual technical discussion with eligible bidders

    e. Evaluation of financial bids of all qualified bidders

    f. Individual commercial discussion with eligible bidders

    g. Award of LOI followed by issuance of word order & agreement signing

c) The minimum absolute technical score to qualify for commercial/financial evaluation is 70 out of a total of 100 marks for technical scoring.

d) An undertaking from the bidder stating the compliance with all the conditions and technical specifications of the bidding document will be required since no deviation will be acceptable to TT without written confirmation. Any deviation from the same will lead to disqualification.

e) The bidder achieving the height combined technical and financial score will be invited for final discussions and awarded contract.

f) "Applicable Law" means the laws and any other instruments having force of law in India as they may be issued force and in force from time to time.

g) "Proposals" means proposals submitted by bidders in response to this RFP.

h) "Tendering authority" means TT.

Following are the list of important information and dates

Sr. No.	Information	Details
1	Last date for submission of written queries for clarification by email.	Up-to 10th Dec 2019, 13:00 HRS
2	Medium, date and time for pre-bid web-conference	10th Dec 2019, 15:00 HRS Zoom Web Conference (Link will be shared with participating bidders two days before the event)
3	Last date and time for submission of pre-qualification, technical and financial bids by email	Up to 30th Dec 2019, 15:00 HRS
4	Date and time for opening of bids	On 3rd Jan 2020
5	Place, date and time for technical one to one discussion	Tentatively in 1st and 2nd week of Jan 2020. The place, date and time will be given to eligible bidders later
6	Contact person and Email for communication	Akhila Nair, Tata Trusts Tel: 022 6135 8299 Mob: +919819854455 Email: RERAPlatformProjects@tatatrusts.org
7	Place, date and time for commercial one to one discussion	Tentatively in 3rd week of Jan 2020. The place, date and time will be given to eligible bidders later
8	Award of LOI	First week of Feb 2020
9	Bid validity	180 days from last date of bid submission

2.2 Bidding Documents

2.2.1 Contents of bidding documents

The bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents in format or submission of a bid not substantially responsive to the bidding documents in every respect will bear the bidder's risk. It may result in rejection of its bid.

2.2.2 Language

The proposal should be filled by the bidders 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 documents, the English translation shall govern.

2.2.3 Authentication of bids

a. An authorized representative of the bidder shall initial all pages digitally of the Pre-qualification documents, Technical and Commercial bids.
b. Bid should be accompanied by a digital authorization in the name of the signatory of the bid. The authorization shall be in the form of a written power of attorney accompanying the bid or in any other form demonstrating that the representative has been duly authorized to digitally sign.

2.2.4 Amendment of bidding documents

To allow prospective bidders reasonable time to consider the amendments while preparing their bid, Tata Trusts at its discretion may extend the deadline for the submission of bids.

2.2.5 Deviations and Exclusions

Bids shall be submitted strictly in accordance with the requirements and terms & conditions of the RFP. The bidder shall submit a No Deviation Certificate as per the format mentioned in RFP. The bids with deviation(s) are liable for rejection.

2.3 Preparation of bids

1. The bid document and addendums (if any) together shall be considered as final.
2. Bid Prices
   - The bidder shall indicate the prices in the format mentioned in financial bid separately showing applicable taxes.
   - Following points need to be considered while indicating prices:
     a) The prices quoted should be firm, and also include transportation, insurance and other local costs incidental to delivery and deployment/ installation/commissioning of the project at the site of our first adopter.
     b) The rates of any Indian duties, GST or other taxes which will be payable by the client on the goods (if any) if this contact is awarded, and hence should be quoted separately.
     c) The taxes are extra and payable as applicable at the time of invoicing.
     d) **SLA:** shall be purely measured on the availability of the services/ reports and response time of the platform. Response time SLA:

- For website should be less than 2 sec per page
- For reports should be less than 5 sec per report

e) **Warranty:** Technical partner shall provide 12 months of warranty support for the delivery made in fulfilment of the requirements of the customization requested by Trust. The warranty support will start immediately after the Go-live. Warranty for change requests will go through the normal change management process. Small changes in the aesthetic design/technical design of the website amounting cumulatively to 15% of total effort involved in creating the application & bug resolution should be carried out without any additional payments during the warranty period. During the warranty phase, organisation shall address and resolve any defects reported by TT within the SLAs defined. Users will be provided a Helpdesk during their working hours through email and telephone support on the implemented solution.

Warranty SLA
Any Bug should be fixed within 24 hours from the time it has raised. In case organization fails to achieve this SLA, penalty of 1% (of agreement value) per day shall be levied.

f) **Branding:** There will be no brand, logo or information pertaining to the organization published on either of the websites. Any specific project related publication in journals and the press by organization is permitted only in consultation and concurrence with Tata Trusts team and only upon approval received in writing.

g) **Intellectual Property:** All intellectual property rights related to the project, codes used for the project, documentation and Rights of Ownership lie with Tata Trusts and may be passed on to other entities if needed.

3. Clarification on RFP
   a) A prospective bidder requiring any clarification on his queries submitted on date indicated under this document. Tata Trust may respond to any request for the clarification of any bidding documents individually or during pre-bid web conference as it deemed fit.
   b) The queries should necessarily be submitted in the following format:

Sr. No.	RFP Document Reference(s) – Clause & Page Number	Content of RFP requiring clarification	Points of clarification
1			
2			

2.4 Total Responsibility

Bidder should issue a statement undertaking total responsibility for the defect free RERA software platforms and its operations as per the format mentioned in RFP.

2.5 Project delivery timeline, payment and contract terms

Total project execution period will be of

- 6 months to complete the Design, development, installation, testing till GO Live

- Minimum 30 days of on-site production monitoring
- 1 year of warranty support post GO live and commissioning and subsequent
- Need for annual support & maintenance shall be assessed at the end of warranty period. In case the PMU decides to go ahead with it, annual maintenance period of one year shall start only after completion of 12 months of Warranty period.

Suggested delivery timeline is shown in the table below, the bidder may suggest different timeline with reasons:

Milestone	Timelines	Percentage payable
Cost and Payment Schedule of Part A & B will be treated independently		
On Submission of the User requirement specifications (URS), Functional Requirement Specification [FRS] document and Software Requirement Specification [SRS]	T+30	10%
Successful installation and commission of the developed solutions. Parts can be delivered progressively every week as may be possible for the development provider	T+120	30%
User acceptance testing [UAT] and submission of test reports	T+135	15%
Data migration and deployment at first adopter. Security audit report and soft launch of the complete solution	T+150	10%
Handholding & bug, enhancements, deficiencies etc. Handing over of all source code, meta data, licenses certification etc. to the organization and GO live.	T+180	10%
Submission of Systems manual and user's manual (operational manual) and completion of training activity	T+200	10%
On completion of the warranty period	T+365	15%

The bid should clearly come out with the effort estimation & timelines. Selected vendor has to abide by the milestone wise timelines agreed by both the parties. On the event of noncompliance of these timelines for any milestones 5% (of the agreement value) penalty per delayed week is to be levied. There will be cap of 20%.

Note:

- No advance payment will be made.
- Taxes are extra as applicable on actual at the time of invoicing and will be excluded from calculation of total cost of ownership and NPV calculations.
- On achieving the milestone as mentioned above the payment due to the vendor after deducting penalties, if any, shall be made by TT.
- TT reserves rights to award project for full scope as per the RFP or only part of the RFP, at its discretion. However, the financial quotes shall remain valid till the end of 1st year of the contract or date of GO live, whichever is earlier.

2.6 Change Request

Post production deployment and Go-Live of the application, additional new requirements, if any, shall be delivered following the change request process. The change requests which are not covered under warranty clause will be paid on the basis of mutually agreed effort estimation & per man day cost agreed in the contract.

2.7 Security Audit

The system should be deployed at the site of first adopter and released only after undergoing the Security Audit as per the guidelines of Government of India and TT. The service provider, at his/her cost, should submit a 3rd party audit report well

before go live. D&C RERA or TT, at their discretion, may propose empaneled security auditor of CERT-In, Govt. of India for a 2nd Security audit. Payment of the 2nd Security audit would be borne by TT. Developer should be responsible to fix the vulnerabilities found even after the hosting is completed till the completion of its contract period with TT, within reasonable time period.

2.8 Termination for Default or Otherwise

TT may, without prejudice to any other remedy for breach of contract, may terminate the contract in whole or in part by writing a notice as default to the bidder:

- If the Service provider fails to perform any or all of the design, development works within the period(s)/schedule specified in the Contract,
- If the Service provider fails to perform as per the performance standards.
- If the Services provider, in the judgment of TT has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- All notices shall be communicated in writing by as email, addressed to the signatory of this agreement with a copy to the head of the other party's' organization as well as Chief Financial officer.

2.9 Risk Purchase

In case of continued dissatisfactory performance of the service provider, TT may, at its discretion, after giving due opportunity in writing to cure the lapses, terminate the agreement with the service provider. TT shall be free to appoint another service provider for the balance of the scope of works at the Risk, Cost and consequences of the defaulting Service provider/ the Development Partner. All costs incurred by TT in getting services delivered by the new service provider shall be recovered from the dues payable to the defaulting service provider. The Service Provider will be obligated to ensure a cordial and peaceful co-operation with the new service provider for transferring the corresponding assets including code, knowledge and more within a reasonable period of time.

2.10 Conflict in Terms

In the event of any conflict between any two or more terms of this Agreement, the term more favourable for TT, shall be final.

2.11 Arbitration

Any unresolved dispute or difference whatsoever arising between the parties to this Agreement, out of or relating to the construction, meaning, scope, operation or effect of this LOA/Purchase order or the validity of the breach thereof shall be referred to a sole Arbitrator to be appointed by mutual consent of both the parties herein. The Arbitration proceedings will be held at Mumbai, India and will be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996.

The parties agree that any decision for Award of any Arbitral Tribunal pursuant to this clause shall be a domestic award subject to the provisions of clause 2.15 and final, conclusive and binding upon the parties and any person affected by it. The parties also agree that any arbitration award rendered pursuant to this clause may be enforced by any court of competent jurisdiction.

During any period of arbitration, the contractor shall no suspend its services.

2.12 Jurisdiction

This Agreement shall be subject to exclusive jurisdiction of courts at Mumbai only.

2.13 Indemnities and Limitation of Liability

The Service Provider shall indemnify TT, without limitation, against all claims, suits, liability which may arise against TT on account of any third party IPR breach or Service Provider's confidentiality breach or wilful misconduct under the contract.

TT shall be entitled to claim and the Service Provider shall indemnify TT up to the contract value against all damages and losses suffered by TT on account of Service Provider's non-performance or breach under this Agreement.

No party shall be liable for any type of consequential, indirect or incidental damages or losses, or loss of profit or good will, against another party to this contract.

Each party's aggregate liability for direct damages under this contract shall not exceed the total Contract value by the Service Provider to TT under this Agreement.

Provided that the aforesaid limitation of liability shall not be applicable in case of any:

- Confidentiality breach attributable to the Service Provider
- Wilful misconduct, by the Service Provider
- Third Party intellectual property rights' infringement attributable to the Service Provider

2.14 Contacting Tata Trusts

From the time of submission of tender to the time of awarding the contract, if a Bidder needs to contact Tata Trusts for any reason relating to this tender enquiry and / or its tender, it should do so only in writing at email mentioned in section 2.1.

In case a Bidder attempts to influence TT in TT's decision on scrutiny, comparison & evaluation of tenders and awarding the contract, the tender of the Bidder shall be liable for rejection in addition to appropriate administrative actions being taken against that Bidder, as deemed fit by TT.

2.15 Confidentiality

The Parties agree that Confidential Information exchanged shall be kept confidential and shall not be disclosed or given to any third party or made use of in any manner otherwise than for the purposes agreed herein, during and after the expiry or termination of this Agreement without the prior written consent of the disclosing Party. The aforementioned undertaking does not apply to information:

a) already known or independently obtained by the receiving Party, without an obligation to maintain its confidentiality;
b) publicly known or becomes publicly known through no breach of this Agreement;
c) required to be disclosed pursuant to a lawful order of a court or government agency or regulation of a stock exchange, provided the receiving Party provides

the disclosing Party with written notice of such order prior to disclosure and within such time as to allow the disclosing Party reasonable opportunity to oppose such disclosure before a court or agency of competent jurisdiction.

d) the information is received from a third party who lawfully acquired such information without restriction, and without a breach of this Agreement, by the Receiving Party or

e) the information independently developed by the receiving party.

The Parties shall use or permit to use Confidential Information solely in connection with the Proposal and not for its own or any third party benefit provided that the Parties shall be entitled to disclose Confidential Information to those of its employees (under equivalent confidentiality undertakings), if any, to whom and to the extent such disclosure is reasonably necessary for the purposes of this Agreement.

The employees of the successful bidder who will be deployed on the project will have to furnish a Non-Disclosure Agreement (NDA) as per RFP. NDA Format provided separately.

The obligation to protect Confidential Information under this clause shall survive any expiry or termination of this Agreement and for a period of two (2) years thereafter.

2.16 Privacy and Security Safeguards

The successful bidder shall not publish or disclose in any manner, without the Tata Trust's prior written consent, the details of any security safeguards designed, developed, or implemented by the successful bidder under this contract or existing at any RERA Authority location. The successful bidder shall develop procedures and implementation plans to ensure that IT resources leaving the control of the assigned user (such as being reassigned, removed for repair, replaced, or upgraded) are cleared of all RERA data and sensitive application software. The successful bidder shall also ensure that all its employees and associated staff who are involved in providing such security safeguards or part of it shall not publish or disclose in any manner, without the TT's prior written consent, the details of any security safeguards designed, developed, or implemented by the successful bidder under this contract. The Development Partner (IP) needs to understand that the RERA platforms are critical infrastructure at State and National level and hence there need for more comprehensive Confidentiality, Integrity, Availability & Privacy requirements.

2.17 Corrupt or Fraudulent Practices:

TT requires that the bidders under this tender observe the highest standards of ethics during the execution of such contracts. In pursuance of this policy, TT defines for the purposes of this provision, the terms set forth as follows:

- **"Corrupt practice"** means the offering, giving, receiving or soliciting of anything of value to influence the action of the TT or PMU official in the selection process or in contract execution; and
- **"Fraudulent practice"** means a misrepresentation of facts in order to influence a selection process or an execution of a contract to the detriment of TT, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive TT of the benefits of the free and open competition.

The decision of the BEC in the evaluation of proposals shall be final. No correspondence will be entertained outside the process of evaluation with the Committee. The BEC may ask for meetings with the bidders to seek clarifications or conformations on their proposals. The BEC reserves the right to reject any or all proposals. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.

The steps for evaluation are as follows:

3.4.1 Stage1: Pre-qualification

1. TT will open Email 1 marked as "Pre-Qualification Bid." Each of the pre-qualification criteria mentioned in the RFP is MANDATORY. In case the bidder does not meet any one of the conditions, the bidder will be disqualified.
2. The bidder would be informed of their qualification/disqualification based on the pre-qualification criteria mentioned in RFP through formal communication i.e., via letter/ email.

3.4.2 Stage2: Technical evaluation

1. Email 2 marked as "Technical bid" will be opened only for bidders who success in Stage 1
2. TT will review the technical bids of the short-listed bidders to determine whether the technical bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at TT's discretion.
3. The bidders' technical solutions proposed in the bid document will be evaluated as per the requirements specified in the RFP and technical evaluation framework as mentioned in RFP.
4. Bidders may be asked to give a demonstration on a few use cases to TT as per the timelines which will be shared with the bidders who qualify the Pre-Qualification Stage.
5. Each Technical bid will be assigned a technical score out of a maximum of 1000 marks. Only the bidders who get a technical score of 70 percent or more in each section and 75 percent or more overall will qualify for commercial evaluation stage. Failing to secure minimum marks shall lead to technical rejection of the bid.
6. For example: The final normalized technical score of the bidder shall be calculated as follows:

Normalized Technical Score of a bidder = {Technical Score of that bidder/Score of the bidder with the highest technical score} X 1000 (adjusted to 2 decimals)

Example table:

Bidders	Technical Score	Calculation	Normalized Technical Score (Up to 2 decimals)
Bidder-1	880	(880/950) *1000	926.31
Bidder-2	900	(900/950) *1000	947.36
Bidder-3	800	(800/950) *1000	842.10
Bidder-4	950	(950/950) *1000	1000.00

3.4.3 Stage3: Commercial evaluation

1. Email 3 marked as "Commercial bid" will be opened only for bidders who success in Stage 2

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2. All the technically qualified bids will be notified about commercial bid opening process through email/letter.
3. The commercial bids for the technically qualified bidders will then be opened and reviewed to determine whether the commercial bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at TT's discretion.
4. Commercial bids that are not meeting the condition mentioned in RFP, the bid shall be liable for rejection.
5. The bid price will include all taxes and levies and shall be in Indian Rupees and mentioned separately.
6. Any conditional bid would be rejected
7. Errors and rectification: Arithmetical errors will be rectified on the following basis:
   a. "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.
   b. If there is a discrepancy between words and figures, the amount in words will prevail."
8. The normalized commercial score of the technically qualified bidders will be calculated, while considering the commercial quote given by each of the bidders in the commercial bid as follows:

Normalized Commercial Quote of a bidder = {lowest commercial quote/ bidders quote} X 1000 (adjusted to 2 decimals)

Bidders	Commercial quote given by bidders (In lakhs)	Calculation	Normalized Technical Score (Up to 2 decimals)
Bidder-1	110	(110/110) *1000	1000
Bidder-2	140	(110/140) *1000	785.71
Bidder-3	160	(110/160) *1000	687.50
Bidder-4	130	(110/130) *1000	846.15

3.4.4 Stage4: Final score calculation through QCBS

1. The final score will be calculated through Quality and Cost selection method based with the following weightage: Technical: 70% and Commercial: 30%

*Final Score = (0.70*Normalized Technical Score) + (0.30* Normalized Commercial Score)*

Bidders	Normalized technical Score	Normalized commercial score	Final Score (70:30) (Up to 2 decimals)
Bidder-1	926.31	1000	948.41
Bidder-2	900	785.71	898.86
Bidder-3	800	687.50	795.72
Bidder-4	950	846.15	953.84

2. The bidder with the highest final score shall be treated as the successful bidder. In the above example, bidder-4 will be treated as successful bidder.
3. In the event the final scores are 'tied', the bidder securing the highest technical score will be adjudicated as the Best Value bidder for award of the project. However, the successful bidder has to match the lowest commercial price of tied bidder.

3.5 Pre-qualification criteria for bidder

The bidder meeting the following eligibility criteria will be considered for Technical Bid evaluation:

Sr. No.	Eligibility Criteria	Documents Required
1	**Registered Legal Entity:** The company should be registered under Companies Registration act 1956 (& subsequent relevant amendments) OR Limited Liability Partnership Firm under Limited Liability Partnership Firm Act 2008 OR Proprietorship firm	Copy of certificate of Incorporation / Copy of partnership deed as applicable
2	**Duration of Operation in India:** The company must be operational and engaged in IT solution and services for at least three years as on date of bid submission.	Copy of registration, MOD and copies of work orders as testimonials
3	**Financial Stability – Turnover:** The company must have an annual turnover of at least Rs. 5 Crores for each of the last three financial years from IT solutions and services, software/IT software development, data analytics. It should not include the sale of hardware infrastructure, third party-software, advertisements, licenses, or procurement projects.	Audited balance sheet, Profit and Loss Statement, and Income Tax returns for all F.Y. from 2015-16 to 2018-19), along with a copy of company PAN Card. CA Certificate from the Statutory auditor mentioning turnover from Software/IT product Development and Software Support service activities. It should certify sale is not attributed to excluded items
4	**Financial Stability – Profitability:** The company should have positive net worth as on quarter closed previously to the date of bid submission	Chief Financial Officers signed audited statement
5	**Registration with Tax Authorities:** The bidder should have the valid GST and PAN	Copy of GST Registration and PAN
6	**Project Experience:** The company should have completed/ongoing, at least two software development projects including micro-services and data analytics for government or large organization (Excluding Hardware, infrastructure software, and product supplies,) each project of value more than Rs. 50 lakhs till the date of submission of the bids.	Completion/progress certificates/emails from the client + invoices
7	**Manpower Strength:** The bidder should have at least 50 experts on its rolls in the area of software development, data analytics, business intelligence, data warehouse, micro-services, machine learning, real estate.	Certificate from Company Secretary. In-case required, Tata Trusts may request for PF details of the employees for verification
8	**Blacklisting:** The bidders/development partner or any other Firm/Company or their partner firms, who will be a service provider in this project, should not be under a declaration of ineligibility for corrupt and fraudulent practices issued by any state of the central body of Government of India and Tata Group	Anti-blacklisting declaration should be submitted as per format attached in Appendix on the company letter head

Note: for pre-qualification criteria Sr. No. 3 and 4, the company/bidder's work experience as lead OR consortium member/ join venture/ subcontractor will not be considered as supporting documents.

3.6 Pre-qualification criteria for Sub Contracting Partners

Following activities are allowed to be taken from a sub-contractor/performed by a sub-contractor. The bidder may/ may not sub-contract the specified areas as mentioned in the RFP to reputed organizations which serve the need of the project. The subcontractors cannot further subcontract these activities. Sub-contractor should be present during the entire project duration.

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A. Knowledge partner providing real estate domain experts, Statisticians, Economists etc.
B. Knowledge partner providing experts in E-Governance integration, NUIS Stack, micro-services and required application stack or tools
C. Knowledge partner for developing validation models using machine learning and AI
D. Hardware, Software Licensing and Infrastructure suggestions
E. Agency for data standardisation, geocoding engine, GIS map creation and GIS analytics

It may be noted that the

- The bidder needs to present documents showcasing relevant experience of the Sub-contractors. The bidder shall ensure that Sub-Contractors will provide suitable resources for successful implementation of the project.
- The Bidder shall be responsible for meeting all obligations of this project and the successful completion of all deliverables mentioned in this RFP.
- The Bidder should also be responsible for ensuring the successful execution and operations of the solution including meeting the required SLAs as mentioned in this RFP.
- TT will co-ordinate with the Bidder only. The bidder needs to ensure that sub-contracting has been formed with reputed and stable organisations.
- Bidder and all Sub-Contractors need to sign NDA with Tata Trusts for the RERA platforms project.
- No data of RERA authority system is allowed to be taken (in any form) outside RERA network without written permission.
- The models/ frameworks/ use cases/ algorithms developed under this project shall be proprietary property of TT. The bidder or the Sub-Contractor(s) cannot show case the above-mentioned models/ frameworks/ use cases/ algorithms as their own (during / beyond the project duration). If above is found (during / beyond the project duration), it shall invite appropriate legal action against the Bidder and sub-contractor by TT.
- The bidder and sub-contractor(s) have to take permission from TT before show casing any project citations. None of the use cases and data related to the project can be disclosed at any point of time (during / beyond the project duration).
- The pre-qualification criteria for sub-contractor(s) is as below:

Sr. No.	Eligibility Criteria	Documents Required
1	**Registered Legal Entity:** The company should be registered under Companies Registration act 1956 (& subsequent relevant amendments) OR Limited Liability Partnership Firm under Limited Liability Partnership Firm Act 2008 OR Proprietorship firm	Copy of certificate of Incorporation / Copy of partnership deed as applicable
2	**Duration of Operation in India:** The company must be operational and engaged in IT solution and services for at least three years as on date of bid submission.	Copy of registration, MOD and copies of work orders as testimonials

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5	**Registration with Tax Authorities:** The bidder should have the valid GST and PAN	Copy of GST Registration and PAN
6	**Project Experience:** The company should have completed/ongoing, at least two software development projects including micro-services and data analytics for government or large organization (Excluding Hardware, infrastructure software, and product supplies,) each project of value more than Rs. 30 lakhs till the date of submission of the bids.	Completion/progress certificates/emails from the client + invoices
7	**Manpower Strength:** A. <u>Knowledge partner providing real estate domain experts, Statisticians, Economists etc.</u> At least 5 resources in requested area of expertise B. <u>Knowledge partner providing experts in E-Governance integration, NUIS Stack, micro-services and required application stack or tools</u> At least 4 experts who are certified or proven expert in requested stack C. <u>Knowledge partner for developing validation models using machine learning and AI</u> At least 5 certified (SME) level expert D. <u>Hardware, Software Licensing and Infrastructure suggestions</u> At least 3 resources in the firm who are certified experts on the particular hardware(s)/ Infrastructure(s) etc. provided E. <u>Agency for data standardisation, geocoding engine, GIS map creation and GIS analytics</u> At least 10 resources in the firm who have certified expert (SME) level experience in GIS analytics domain.	Certificate from Company Secretary. In-case required, Tata Trusts may request for PF details of the employees for verification
8	**Blacklisting:** The Sub-Contractor(s) should not have been blacklisted or under declaration of ineligibility for corrupt or fraudulent practices by Govt. of India/State Government/Central PSU/Tata Group company at the time of bid submission date.	Anti-blacklisting declaration should be submitted as per format attached in Appendix on the company letter head. To be submitted by all Sub-Contractor(s) too.

Please note: The bidder may bid without Sub-Contractor(s), if bidder considers that they have the capability to fulfil all the obligations under this RFP by themselves.

3.7 Technical evaluation framework

The bidder's technical solution proposed in the technical evaluation bid document will be evaluated as per the evaluation criteria mentioned in the table below:

Sr. No.	Evaluation Criteria	Total Marks	Minimum Qualifying Marks (Cut-off) (70% each section)
1	Bidder Experience – Number of years in IT, Average Turnover, Number of similar projects	150	70%
2	Approach, Methodology and work plan	200	70%
3	Team composition, key personnel proposed and staffing schedule	100	70%

4	Understanding of requirements, Proposed system design, technology stack, server stack, performance SLA, scalability, reusability, configurability, proposed value additions, maintenance and support	500	70%
5	Participation, interactions and clarifications during web conference and one to one interaction	50	70%

4	Understanding of requirements, Proposed system design, technology stack, server stack, performance SLA, scalability, reusability, configurability, proposed value additions, maintenance and support	500	70%

4 AWARD OF CONTRACT

4.1 Negotiations

After completion of the evaluation process, TT may enter into negotiations with the highest Final Score (S) Bidder. TT reserves the right to award the contract, based on initial offers received or otherwise, without discussion and without conducting any further negotiations. Further, the successful bidder shall not reassign any award made as the result of this bid.

4.2 Award of Contract

a) TT will award the contract to the successful bidder decided as per the evaluation procedure mentioned in next section.

b) On acceptance of Proposal for awarding the contract, TT will notify the successful bidders in writing that their proposal has been accepted and Contract Agreement will be signed.

c) In case the successful bidder does not confirm the acceptance of the assignment within the stipulated time, TT has the right to engage the next highest Final Score (S) Bidder for the assignment and so on and so forth.

d) TT shall have the right and authority to negotiate / add certain terms with the successful bidder before signing of the Contract. After signing of the Contract Agreement, no variation in or modification of the term of the Contract shall be made except by written amendment signed by all the parties. Within 15 days of receipt of the Contract Form, the successful bidder shall sign and date the contract and return it to TT.

e) TT reserves the right to reject any or all bids OR split the job between more than one bidder OR issue work order in full or parts with respect to the scope of work without assigning any reason thereof.

f) During evaluation of bids, TT may, at its discretion, ask the Bidder for a clarification of its bid. TT may also ask for rate analysis of any or all items and if rates are found to be unreasonably low or high, the bid shall be treated as non-responsive and hence liable to be rejected. The request for a clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted.

g) An affirmative determination will be a prerequisite for the award of the contract to the Bidder. A negative determination will result in rejection of Bidder's bid, in which event TT will proceed to the next highest Final Score (S) Bidder evaluated bid to make a similar determination of the Bidder's capabilities to perform the contract satisfactorily.

h) TT shall reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices and same shall be conveyed to TT or black listed by any of the state and central department of India, Tata Trusts company, Tata Group / other organizations in competing for the contract in question.

i) Tata Trusts shall declare a firm ineligible, and blacklisted either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt and fraudulent practices in competing for, or in executing, a contract.

5 SCOPE OF THE PROJECT

Scope of project for system development is derived from the strategic objectives and the expected outcomes described in below sub sections. Every effort has been made to represent the objectives in the items of scope below, however bidders are advised to include additional items in scope, that are not listed explicitly herein below, if in their understanding, the scope given below is not covering delivery of systems for achieving the desired outcomes.

The scope of overall system development has been divided in two parts as defined below.

PART A: RERA Core Application

- To be implemented and deployed by individual state RERA(s) authorities
- Will cover functionalities for buyers, builders, agents, and RERA Authorities such as Registration, Approvals, Updates, Dashboards, Analytics, Notifications, Document Management, Workflow Management, Grievance, Complaints, and CRM, and more.

PART B: Inter RERA Open Data Platform

- Central application for data/information exchange between individual RERA systems
- Allow connection to both existing RERA systems and one based on proposed core application defined in PART A using API or ETL pipelines.
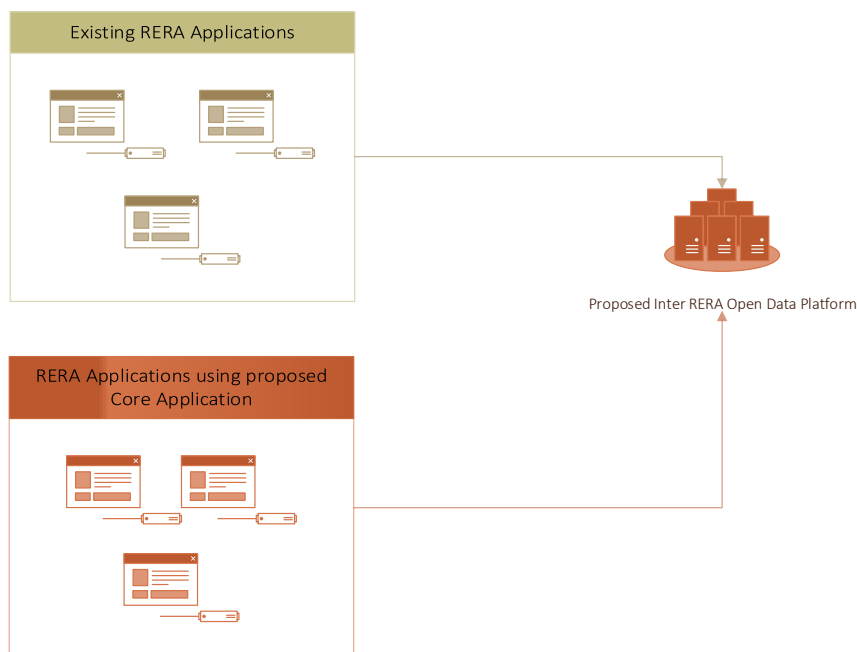
Figure 1: Overall system architecture

5.1 PART A: RERA Core Application

5.1.1 Key Stakeholders

Direct Stakeholders

- RERA management, administrative staff, and their authorised personnel
- RERA legal and appellate adjudication arm
- Project developers and promoters
- Intermediaries such as agents, lawyers, architects, engineers and chartered accountants
- Citizens and prospective property buyers

Indirect Stakeholders

- Information portals
- Development and planning authorities
- Sanctioning authorities
- Tax departments
- Financiers (banks and investors)
- Ministry of Housing and Urban Affairs

5.1.2 Key and Strategic Objectives:

Section 34 of the act mandates all the Real Estate Regulatory Authorities to establish a website portal within one year of establishment of RERA. This requirement will be satisfied by the core application.

RERA steering committee visualize the core application as template for individual state RERA applications to:

- *avoid duplication of development efforts*, as RERAs begin to operationalize key aspects of the Act such as the establishment of websites, having to start from relatively scratch and thus wasting tax-payers' money
- *infuse standardization of legal, regulatory and data structures*, leading to intelligent data analytics and improved interoperability among RERA systems
- create *standard user flows and familiar website* leading to empowered, effective, and compliant users across RERA portals
- create *scalable, modular and customizable* system to allow needed flexibility by state RERA authorities

Individual state RERA authorities further want to use information technology to minimize manual interventions for tasks that can be driven by the system and enhance the quality of processing and decision making. Following are their key objectives:

- Enhance the *effectiveness of the regulatory regime* and ease compliances.
- Enhance the *overall transparency, responsiveness, and efficiency* of the regulatory regime as well as of the real estate sector.
- Enhance *Awareness* of all the concerned stakeholders about their rights and duties through a periodic system-driven mass communication at defined triggers.

- *Development of Promoter and Project Grading System* based on objective parameters and driven by autonomous online systems, making it unbiased and accurate reflection of project compliances and promoter track record.
- *Simplification of Processes through E-files* and documents: for efficient and open governance, streamlining workflows, improving the operational efficiency and turnaround time, reducing the delay in processing, establish accountability in processing and verification, and becoming less paper office.
- *Improved and easy to use multiple interfaces for e-filing:* allow multiple formats and interfaces based on user types.
- *Enhanced Project Monitoring:* Use data analytics to Develop a reporting framework that can generate various permutation and combinations of the reports- from the numerous mentioned data sources.
- *Efficient Complaint and Grievance Management:* Develop ability to identify, categorize, group by types, auto generate unique id, referencing with project, building up tagged repository of all complaints on the property, assigning complaint for action to concerned, track the complaint to closure with linked history of all actions and judgments / interim orders etc. and making it a single point source for complete information.
- *Project Financial Tracking:* Enforcing financial Discipline in projects by Leverage information & data to identify and track utilization of the financial resources by the developer for the project with System generated alert on every deviation from the prescribed norms.
- *Improve Time Efficiency:* Track time taken for Registrations and approvals to Alterations & Extension submissions and ensure adherence to the prescribed norms
- Issue *advisories to* Urban Development Department, Ministry of Housing and Urban Affairs, other state RERA(s)
- *Build confidence* in Real Estate Sector and *encourage investments* in the sector

5.1.3 Overview of the requirements

The core application will comprise of the full-fledged web portal with content management system for static and dynamic content, e-filing and registration system, notifications engine, advance search engine, MIS reports, document management system, CRM and backend admin.

5.1.4 Available data sources

To meet the objectives of the core application, we may leverage following data sources. These data sources may expand over time:

- Registration data of all direct stakeholders of the portal
- Registration of the project
- Quarterly updates and reports by the project developer
- Notices, queries, and notifications for every property
- Interim orders, final orders, and directions in various complaints and cases
- Portals of banks and financial institutions
- Geolocation maps and data
- Relevant legal data from multiple courts and establishments

- Relevant third-party data through available web services or in the public domain data from data aggregators, government and regulatory authorities
- Social Media platforms for related news

5.1.5 Scope of the work

Scope of the work for application development is derived from the stated strategic objectives and system overview in above sub sections. Every effort has been made to represent the objectives in the items of scope below, however bidders are advised to include additional items in scope, that are not listed explicitly herein below:

1. Analyse all existing IT systems and web portals of biggest RERAs, including D&C RERA
2. Document detailed application requirements in consultation with D&C RERA
3. Undertake user requirement understanding & Requirement Analysis, System Analysis, Prototyping, software design, & development, testing, documentation, configuration, and implementation of the system covering the objectives and expected outcomes from the system.
4. Develop and design modular micro-services-based system architecture to fulfil strategic objectives and allow system connection with Inter RERA Open Data Platform
5. In consultation with D&C RERA standardize and upgrade all prescribed application forms for e-filing for various kinds as required under the act by multiple stakeholders to achieve the needed transparency and analytics outcomes. For example, in case of project registration form updates related to:
   a. Cost & Resource Loaded Baseline Schedule
   b. Cash Flow and Project Budget
   c. Approvals required and achieved stage wise
   d. Funding Mechanism/ Financial Closure
   e. Project Specifications
   f. Design Information
   g. Details of Project Amenities
6. Frontend:
   a. Integrate standard open source Content Management System (CMS) that is customizable, expandable, and multilingual to update dynamic and static content on the web portal
   b. Develop a secure user registration, login, and profile management system for portal users
   c. For registered and unregistered users develop and integrate the e-filing management system on the web portal to allow e-filings for various kinds such as registrations, filings, extensions, updates complaints and more as required under the act by multiple stakeholders, as per the forms defined or update above
   d. Dashboards for users to manage, extend, renew, track status, or communicate with authority for registered e-filings as applicable.
   e. Develop advanced search functionality to access and display all properties related to various Tribunal and RERA rulings/orders or STATE RERA rules. The display can be in the form of a color-coded list, map, GIS layers, or charts as applicable.
   f. Develop advanced search functionality to access and display all properties related to various registrations, updates, extensions, or

renewals on approval. The display can be in the form of a color-coded list, map, GIS layers, or charts as applicable.

7. Backend:
   a. Integrate or develop open-source feature-rich form builder to create a new type of registration, extension, change request, and more for a defined entity
   b. In-built API functionality in the form to allow interoperability with internal and external systems
   c. Pre-built template forms as described in point 5 using the form builder
   d. The backend admin unit to facilitate the processing of received requests/registrations/filings/extensions/updates and complaints using a digital workflow system.
   e. Digital workflow system to concern as per the assigned roles and responsibilities, a delegation of power, business rules, and communication for processing within the stipulated time frame
   f. Online Payments/ Refund processing and reconciliation System
   g. Development and integration of standard open-source Customer Relationship Management System to centralize and track various activities of all types of users
   h. Development of multiple digital delivery channels for system driven notifications and alerts to the concerned. Such as notices, non-compliances, complaints, reminders, status, and more with a copy of the record in e file for future reference.
   i. Development of feedback and suggestion management system to enable record creation, tracking, actioning, closing communication, and building a repository of all feedbacks and suggestions with responses for future reference
   j. Development of Complaints and Grievance Redressal system including Issue Tracking and Ticket Disposal System
   k. E-Courts Management System to cover following applications for filing, Scheduling Hearing, notice issuance, enabling filing of documentations, Issuance of interim orders/ Judgment, Closure of Complaints, Publishing of Judgment and Issuance of Automated Challan for Exclusive Penalty
   l. Development or Integration of open source document management systems such as Alfresco to create, sign, manage, approve, tag and search various kinds of documents across system including E-Court, Registration and more.
8. For both frontend and backend users:
   a. Development of reporting framework with data analytics/BI and dashboards to provide an integrated view of data meeting the requirement of various types of stakeholders in various permutations and combinations to track the key result areas linked with objectives
   b. Development of GIS visualization layer to show details such as but not limited to project locations and progress, geotag evidence collected during off-line field monitoring, along with external data related to town planning, infrastructure, and more.
   c. Implementation of Digital Signature for Form Signing
9. Development of validation servers and APIs for auto-validation of uploaded images and documents such as checking a face in an image, identify document type using a combination of AI and text OCR, validating uploaded image geotags, and more.

10. Development of Integration/ data exchange systems through web services for visualization, data validation using internal and external APIs
11. Implementing data security, user privacy, and risk management in system fabric as recommended by India stack
12. Recommend hardware, software licenses, and subsystems for the required functionalities and objectives.
13. Deploy the system software/ tools/ utilities for early adopter D&C RERA and support as per the defined SLAs for the period of contract
14. Deploy and develop the sandbox environment with dummy data generated using early adopter D&C RERA data, for other states RERA to trial the platform in a secure environment hosted by D&C RERA
15. Develop template ETL utility with configurable data mapping for data migration and migrate existing RERA data and documents to the core application
16. Create documentation as per IEEE /Meity/ISO Standards and share all defined documents as per the RFP
17. One Year of warranty support post Go Live
18. Improvements and enhancements in the solution warranted by a change in Act/rules/ and efficiency requirements efficiency, including regular additions, up-dates & Improvements upon directions from RERA authorities. The standard billing rate for the same should be shared.
19. Submission of Weekly progress report covering current status, new tasks added, stats of the previous task along with estimated time, and plan for closure of outstanding items for action.

5.1.6 List of key functionalities for the core application

Key functionalities and related remark for application development are derived from the stated strategic objectives above sub sections. Every effort has been made to represent the objectives in the items of scope below, however bidders are advised to include additional items or suggest change in components, that are not listed explicitly herein below:

Sr. No.	Key Functionality	Remark/Component	Section

1	Portal User Registration, Login and Services	1) For signup required fields can be validated phone number, email address, PAN number and user type
		2) PAN Number as primary key
		3) PAN Number validation using NSDL API and capturing "Name of PAN holder" as per API response during registration
		4) User types:
		  a) Individual
		  b) Other than individual
		5) Login using combination of password/OTP and Captcha
		6) View/ Download Certificates
			Frontend

2	Registration Management as stakeholders, including promoters, agents, citizens, lawyers, chartered accountant, architect, engineers and bulk data users.	1) The portal user can register as one or more stakeholders 2) Track application status 3) Registration fee calculations and payment workflow 4) Application approval workflow including clarification communication management 5) Registration withdrawal 6) Lifecycle management	Frontend

		a) update of profile - core registration fields, supporting documents, digital signatures, Aadhaar, PAN, and more b) application for cancellation, renewal, extension as applicable 7) Automatically create/link registered entity to auto generated group id using common identifier fields	
3	Promoter Dashboard	1) Promoter registration management with functionalities as defined in serial number 2 2) Functionality to register projects 3) Dashboard to track updates, notifications, progress, approvals	Frontend

4	Project Registration and Management Dashboard	1) Registration Application Submission
		  a) Project Specifications
		    i) Option to bulk upload details such list of flats or updates using CSV templates
		    ii) Auto calculations of aggregated fields such as built-up area, super-built up area, carpet area and loading factors
		    iii) Validations/Data Population using uploaded CAD file
		    iv) Auto calculations of total aggregated fields such as project area and carpet area
		  b) Verification of approvals and other government registrations
		    i) Verification using APIs and government portals
		  c) Geolocation
		    i) Interface for user selection on Google Map
		    ii) Auto capture of project polygon via satellite/drone image at defined zoom for RERA reference
		  d) Project Images
		    i) Geo tagging validated against user defined geo location
		2) Application approval workflow including clarification management
		3) Track application status
		4) Lifecycle management
		  a) review form for rejected project applications
		  b) update application of core registration fields, supporting documents, legal entity changes, changes in land area, project type, status and more
		  c) application for cancellation, renewal, extension
		  d) withdraw application
		5) Quarterly Update Management
		  a) Verification of calculations, images, and more similar to registrations
		  b) Approval management
		6) Automatic Fee Calculation and Payment Workflow
		7) Sale and Payment Management
		  a) Register sale and link or authorize it to buyer using PAN Number
		  b) Option to link non registered entity also. Sale will be automatically link to buyer when registered and request for confirmation
		  c) Option to upload/approve payment details for each buyer and property unit
		8) Register, Manage and Approve Agent, Lawyer, CA, Architect, Engineer for the property
		  a) Link or authorize using PAN Number
		  b) Option to link non registered entity also, that will be automatically linked when registered
		9) Dashboard to track updates, status-delay/track, lifecycle events, sale approvals, agent approvals, pending updates and more
			Frontend

5	Buyer Dashboard	1) Buyer registration management with functionalities as defined in serial number 2
		2) Purchase and Project Management
		  a) Register purchase or approve projects added by promoter
		  b) Upload/approve payments for purchased unit
		  c) Dashboard with property related updates using quarterly updates, project status, delays, complaints, third party sources such as litigations, social media, land title registrations, approvals
			Frontend

6	Agent Dashboard	1) Agent registration management with functionalities as defined in serial number 2
		2) Project managements
		  a) Register sale or approve sales added by promoter/buyer
		  b) Dashboard with property related updates using quarterly updates, complaints, third party sources such as litigations, social media, land title registrations, approvals
			Frontend

7	Chartered Accountant, Engineer and Architect Dashboard	1) Entity registration management with functionalities as defined in serial number 2
		2) Project managements
		  a) Register/approve linked property added by promoter
		  b) Option to upload/approve quarterly reports using digital signatures
		  c) Dashboard with property related updates using quarterly updates, complaints, third party sources such as litigations, social media, land title registrations, approvals
			Frontend

8	Bulk Data User	1) Entity registration management with functionalities as defined in serial number 2
		2) Dashboard with advance search
		  a) Option to download information in CSV or XML Format
		  b) Option to set webhooks for new information published on the portal using search endpoints
		3) Subscription management and payment workflow
			Frontend

9	Complaint Registration and Management for all types of stakeholders	1) Functionality for Online Complaint Registration for all stakeholders
		  a) Complaint with RERA Authority
		  b) Complaint with Adjudicating Officer
		2) Reporting of unregistered projects without user registration under Section 59
		  a) Validation of registered promoter or project details in the form
		  b) Linking with promoter group id based on identifier details, if registered promoter not found or RERA registration ID not available
		3) Complaint Status Tracking Dashboard
		4) Complaint Withdrawal
		5) Inward and Outward Complaint Resolution and Communication Workflow
		6) Option to make multiple stakeholders party to the complaint
			Frontend

10	Notification Management at stakeholder or project level	1) Option to set preferences for each Email, SMS, Browser
		2) Create secure webhooks to link or share data with external platforms
		3) System generated periodic alerts, updates, notifications or reminders for items to name few:
		  a) Applications deadlines
		  b) Additional information request during filing approvals
		  c) Complaints
		  d) Approvals
		  e) Payments
			Multi-channel

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		f) Renewals g) Queries h) Escalations i) To subscribed project - litigations, updates, complaints, approvals, and more	
11	Payment Management for the portal user	1) Payment History 2) On-Demand Payment using tracking code 3) Grievances against Payments	Frontend

12	Generic Form Functionalities	1) Option to bulk upload via CSV or XML wherever applicable.
		2) Common information among multiple filings should be prepopulated
		3) During various filings portal should have system-based checks and validations to ensure application submitted are complete and correct. Incomplete applications and/or applications with incorrect data should not be allowed to be submitted. All such errors should be highlighted to user in different color. Applicants should be allowed to partially save the applications.
		4) System validations through regex, web-services with other internal and/or external systems. To name few
		  a) plan approval status and details from online approval system, CC and BU permissions, scrutiny reports from ULB systems and ODPS system
		  b) PAN from Income tax NSDL system
		  c) Other financial details from registration data
		  d) Aadhaar from E-KYC APIs
		  e)
			Frontend

13	Helpdesk/Grievance Management	1) For registered user option to raise generic queries related to forms, status, concerns and more using ticket management system 2) Before registering complain auto suggest solutions using prepopulated knowledgebase 3) Incident Management to register technical issues 4) Option to choose relevant team – Authority, Legal Team, Finance Team, Helpdesk or Technical Team	Frontend

14	Public Search	Application to auto display all the properties upon approval or publication, in color codes with updates on real time basis for ease of both direct and indirect stakeholders
		1) Search Type:
		  a) Registered Real Estate projects with details such as project specifications, promoters, litigations, approvals, complaints, and quarterly updates
		  b) Registered Promoter, Agent, CA, Engineer, Architect details, status, linked projects, complaints and more
		  c) RERA Authority and Adjudicating Officer rulings/orders search engine
		  d) Defaulters list
		  e) Interim orders
		  f) Cause list
		2) Status or tag based color-coded listing
		  a) Tabular paginated results
		  b) GIS Spatial Layer to visualize data
		  c) Dashboards to simplify information for different type of users
		  d) Revision of Project Progress View for Public showcasing progressive data with photographs
		3) Search Level
		  a) Basic: Using related master data, date filters, tag clouds, and more
		  b) Advanced: Using entity details, project wise, application id wise, agent wise, project status wise, using text or geo search with date filters
		4) Webhooks and Newsletters
			Frontend

		a) Option to create webhooks b) Option to subscribe newsletters for updates	
15	Website Live Dashboards & MIS Reports	To enhance transparency reports with infographics to show key status stats such as approvals, pending, turnaround time, and more related to various registrations, complaints, helpdesk tickets and more.	Frontend

16	CMS for Dynamic and Static Pages	1) Multilingual with translation dictionary management
		2) Customizable branding/CSS/HTML using backend admin
		3) Template builder for page, header, footer, menus, widgets and more
		4) Prebuilt templates and static pages such as about RERA Authority, RERA Act, Who's Who, Contact Us, List of Offices, List of Planning Areas, Help, Media Gallery, RTI, Site Maps, Disclaimers and Policies, Services, Governor & CM Messages, FAQs, Events,
		5) Document repository with search capability using keywords, tags, dates and text. Documents published using backend DMS to share:
		   a) RERA ACT, Rules and Updates
		   b) Applications Forms
		   c) SOPs/ Processes/ Checklists,
		   d) User Manuals,
		   e) Guidelines for advertisements,
		   f) Tenders
		   g) QR Linked Registration Certificates
		   h) Notices/ Circulars and more
		6) Dynamic content management such as related to recruitment, news, photo galleries, tickers with option to links latest tenders, training videos and more
		7) Popup notifications and promotions
		8) Option to publish newsletters to subscribed users
		9) Calculator and utilities
		   a) Project Fee
		   b) Unit conversion
		10) Set Tracking codes such as google analytics for individual pages, CTA, forms and more
			Frontend

17	Form Builder	1) Option to create a new type of registration, extension, change request, and more for a defined entity
		2) Option to define rules for partial save.
		3) Option to define rules to automatically create unique group id for each registration type using common personal identifier fields such as PAN Number, Phone Number, Email id, Aadhaar, or more.
		4) Option to add/define for each field or group of fields
		   a) Validations using
		      i) Regex
		      ii) External interfaces/third party API for validation for various entities such as
		         (1) municipality systems for CCs, OCs, Property Sale Transaction, and more
		         (2) Banks for account balance and more
		         (3) PAN, Aadhaar and more
		      iii) Internal Validation APIs
		   b) Linking uploaded document with auto generated tags with DMS
		   c) Privacy settings so that related document or field itself is not visible on public portal.
		5) Full form upload using XML should be possible. In future, this will allow development of offline utilities similar to Income Tax Saral Offline Excel Utilities or upload via third party Systems
		6) Role allocation and option to define approval workflow
		7) Payment Setup
		8) Color Coded Dashboards with Turn Around Time (TAT) Matrix Setup and stage of approvals with alerts
			Backend

		9) Data Mapping to Inter RERA Export and API
		10) Customize a look and feel of Frontend Form UI
		11) Pre-Built Forms
		    i) Registration, Change Request, Renewal for Promoters, Projects, Agents, Citizen, Buyers, Lawyers, CA, Engineer, Architect, Complaints Form M/N, Complaint Section 59
		12) Development of Locking-Unlocking and Late Submission Fees Imposition System for various forms
		13) Offline Entity Registrations using bulk tools
		14) Option to manually add the new entity and let them finish other details using the link
		15) Generate QR Code Based Certificates on success and publish the same on the website
		16) Change History and View including document versioning
		17) Communication between applicant and authority for missing elements with integration with Notification Module
		    a) Option to add comments and audit trail
		    b) Publish them to frontend
		18) Intelligent validations based on trends such as validation of area to unit size (eg 120sq ft house vs 3bhk)	

18	User Management/Roles	1) Admin (Overall Admin Control, Ability to control new roles and related permissions matrix) 2) Access to various sections such as Form Builder, Reports, Dashboard, CMS Pages 3) Single Sign Layer for various reports and portals	Backend
19	Approval Workflow System	1) Option to create offline applications using bulk options 2) Option to approve, change, renew, extend, reject, archive reinstate as applicable for application 3) All form related attachments with audit trail should be available for view and acceptance by the respective approving officer as per assigned role. An indicative Check list of possible attachments for application filing for various purposes is at annexure. 4) Inter RERA Data Platform Connector a) At each entity level, the option to publish data to the portal	Backend
20	Notification and Alert System	1) Development of exception alert and notice issuance system for all non-compliances including but not limited to incomplete applications, no compliant information, offline and online complaints, Quarterly Return Cases, form 5 defaults, for processing in eCourt module integrated with approval system for Hearing Schedule, Issuance of Judgement, Closure of Complaints, Publishing of Judgement and Issuance of Automated Challan for all types of Penalty 2) Notification via SMS, Letters, Emails with audit trail	Backend
21	Authority Dashboards and Reports	1) Data categorization, tagging, cleaning, identifying error, and preparation of the database from various sources for use in reporting framework and generation of cross cutting analytical reports to deliver integrated view. 2) Analytical reports based on data from multiple sources, showing projects with signs of significant non progress/financial distress to safeguard the interests of allottees and providing early warnings on projects with deteriorating health. 3) Analyze complaint data and non-compliances and delays to identify opportunities for procedural improvements/ regulatory advisories for UDD. 4) System generated creation of project and Developers risk profile based on filing, publicly available information on websites and social media as well as	Backend

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complaints and cases. Complete history should be available with details and link to documents.

a) Development of Various Complaints/ Cases (C1 to C8) Application Pendency 1 Graph each with n Level Drill Down to obtain detailed list

b) Development of Project Status Tracking Graphs related to status on filing of quarterly updates

c) Development of system to gauge inventory wise encumbrance

d) Mapping of the Project Progress Key Fields on the Project Legends on the Maps. Linked with progress

e) Development of Parallel View of an Application vis a vis the complaints summary if filed against that Promoter Legal Entity or against any Partners/ Individual against which if there was any complaint

f) Intelligent Recommendation Note to produce Total Number of Projects by same promoter, Latest Quarter Compliance Status, Total Complaints for the Promoters and Status

g) System generated categorization rating for projects and developers based on identified parameters

h) Overall as well as category wise (big projects, affordable housing etc.) promoter performance vis a vis all projects with respect to project schedule, project stage, financial performance, complaints, bookings and notices.

i) Comparative performance of projects, grouped by type, category, purpose etc. vis a vis standard parameter like Schedule, Cost overrun, fund utilization with drill downs to go to specific project details and further to specific details of the project.

j) Tracking financial prudence/Fund Utilization during the course of the project and generating system alerts and exceptions to prevent fund diversion by promoter

k) Key Insights on issues related to Project Delay, Expense Overshoot or other issues that need regulatory intervention to protect buyer interest in the sector

l) Analytical reports of all types of Complaints raised by Citizens regarding various projects/Builders based on geography, resolution efficiency and more

5) Analyze project data to identify direction of growth for the city on real time basis with filing for registrations. Development of District wise Sold - Unsold Inventory Classification with Average Rates of Properties, on demographic data sets in real time in graphs and geo layers

6) Drill Down color-coded dashboard with Stats and Status of various applications and stages.

7) Drill Down Maps and Stats on GIS Layers.

8) Notifications depending on TAT and allocations to particular Authority Role

| 22 | Finance Management and Dashboards | 1) Fee Reconciliation and Refund Management
2) Finance Officer dashboard with a financial view - Earnings from Project Registrations by Project type, By Geo, Registrations as a % of Investment by Project type by Geography, Withdrawals Report by Projects, Estimated Cost Incurred by Projects, Amount Received, Retained & Refunded by Applicant (with reason, reference and expected refund date) and Encumbrance Reporting to RERA Authority and Authority's Acceptance Reporting | Backend |

		3)	Fee Calculators	
		4)	Raise Ad Hoc Payment Request	
23	Helpdesk/Grievance Management	1) Ticket Allocation and management 2) Status Dashboard 3) Option to convert request in the complaint and raise payment request		Backend
24	E-Court Management System	1) Workflow for Scheduling Hearing, notice issuance, enabling filing of documentations, Issuance of interim orders/ Judgment, Closure of Complaints, Publishing of Judgment and Issuance of Automated Challan for Exclusive Penalty for: a) Application to file Complaint to Authority (Form A) b) Application for Adjudicator (Form B) c) Suo-Motu Cases Processing d) Non-Compliance for Quarterly Return Cases Processing e) Non-Compliance for Form 5 Defaults Cases Processing f) Offline Complaint Filing, Processing 2) Dashboards to track various stages, pendency of cases 3) For Executives a) Color Codes List of complaints b) Option to validate complaints and recheck applicability into Form M or Form N c) Raise questions to applicant and notify the same using SMS/Email/Letters 4) For Manager/Legal Team a) View list of Validated Complaints b) Process and allocate to Authority/Adjudicating Officer c) Generating Cause List d) Option to terminate/reactivate the application e) Add tags/categories to applications f) Publish status to frontend 5) RERA Authority/Adjudicating Officer a) Process Applications and publish orders/judgments b) Calendar Management and date allocations c) Publish the same to frontend d) Option to search and view all entities similar to RERA Admin Team		Backend
25	Miscellaneous Utilities	1) Development of application and report for Issue Tracking and Ticket Disposal System for end users. Linking of Complaints with Projects/ Promoters Post Systemic Reference 2) Development of Administrative office flagging/unflagging for defaulters 3) Development of application for Capturing of Schedule 13(GDCR) Form 11 Certificate PDF at Completion of Ground, Plinth, Ground Floor, Middle Story, Last Story in Form 1 against Completion of Stages 4) Development of Plan Approving Authorities mapping across Districts and Integration with the Project Application 5) RERA portal integration with a scanning system that ensures access to the historical scanned files/documents stored on DMS System 6) Validation APIs a) Pin Code b) KYC Document Type Check c) Face API to check photos d) Custom Object APIs to identify building object and then calculate project progress e) Raster File Calculation API to validate project progress by drone images		Backend

		f) Automatic validation of property area to flat details g) Fees calculations for projects 7) Interface for citizen to able to verify if the land title is clear, any violations exist, any litigation, complaints etc. 8) External Data APIs to allow third party developers to build analytics and other use cases on top of the platform	
26	Web-services Integrations	1) Development of Web service-based data intake/ data entry on Blockwise BU Date and Certificate Capturing into project 2) The Chartered Accountant Professionals essential data is auto validated (eKYC) with ICAI systems 3) Payment Gateways 4) GIS Reporting and Validation Service 5) KYC API from Aadhaar 6) PAN 7) MCA 8) Digital Signature Validation 9) Data Validations API 10) Data Masking API	Backend
27	Data Privacy	1) No personal information and documents such as PAN/Aadhaar should be available publicly without masking	Frontend
28	Document Management System	Creation, Tracking, Publication, and Workflow for various documents including Published User Manuals, Checklists, Forms, News, Events, Tenders, Notices, Defaulter Lists, Ruling, and more.	Backend

5.2 PART B: Inter RERA Open Platform

5.2.1 Key Stakeholders

Direct Stakeholders

- RERA management, administrative staff, and their authorised personnel
- RERA legal and appellate adjudication arm

Indirect Stakeholders

- Information portals
- Citizens and prospective property buyers
- Development and planning authorities
- Sanctioning authorities
- Tax departments
- Financiers (banks and investors)
- Ministry of Housing and Urban Affairs

5.2.2 Key and Strategic Objectives:

The RERA Open Data Platform (RERA ODP) is a proposed nationally integrated platform to allow inter-operability of information and knowledge management among all state RERA(s) together. Following are the key objectives to:

- develop a *one-stop search and notification* engine for standardized Tribunal and RERA rulings/orders nationwide
- Intelligently group state-level entities to *generate nationwide master data,* enabling holistic and transparent analytics
- *enhance entity monitoring:* use data analytics to develop a reporting framework that can create various permutation and combinations of the reports- from the numerous mentioned data sources
- *provide centralized and regulated access* to the third-party users, who can develop analytics ecosystem to produce the consumable and precise information as per the need of end-users
- *issue advisories and alerts for* authorities including Urban Development Department, Ministry of Housing and Urban Affairs
- *build confidence* in Real Estate Sector and *encourage investments* in the sector

In future phases objectives may also include to:

- develop a *trusted legal-language translation marketplace* for authorities to understand Tribunal and RERA ruling/orders published in local languages nationwide
- develop *a national grading system* for entities such as promoters, agents, chartered accountant, and more
- develop *linkage to the judicial database* to check legal disputes related to the property/ builder/ agent
- supplement project details with *third party data* such as property tax database, mortgage details, cadastral maps and Record of Rights
- provide *links to other sanctioning authorities*, and real-time visibility on the status of different project approvals for particular promoter nationwide
- develop system to *check the nationwide financial health* of the promoters

5.2.3 Overview of the requirements

The core application will comprise of the full-fledged web portal with notifications engine, advance search engine, MIS reports, document management system, and backend admin.

5.2.4 Available data sources

To meet the objectives of the core application, we may leverage following data sources. These data sources may expand over time:

- Notices, queries, and notifications for every property with connected state RERAs
- Interim orders, final orders, and directions in various complaints and cases with connected state RERAs

5.2.5 Scope of the work

Scope of the work for platform development is derived from the stated strategic objectives and system overview in above sub sections. Every effort has been made to represent the objectives in the items of scope below, however bidders are advised to include additional items in scope, that are not listed explicitly herein below:

1. Document detailed platform requirements in consultation with D&C RERA
2. Undertake user requirement understanding & Requirement Analysis, System Analysis, Prototyping, software design, & development, testing, documentation, configuration, and implementation of the system covering the objectives and expected outcomes from the system.
3. Develop and design modular micro-services-based system architecture to fulfil strategic objectives
4. Create APIs, ETL Pipelines and Utilities to enable connection between Inter RERA Open Data Platform and state RERA systems.
5. Frontend:
   a. Develop a secure user registration, login, profile, API keys and subscription management system for portal users
   b. Develop multiple roles-based dashboards with defined insights in consultations with D&C RERA
   c. Develop advanced search functionality to access and display all properties related to various registrations, updates, extensions, or renewals on approval. The display can be in the form of a color-coded list, map, GIS layers, or charts as applicable.
   d. Option for authorities to define public and personal tags/notes to each Tribunal & RERA Rulings/Orders
   e. Option to subscribe to newsletter or create webhook based on search results, tags or topics
6. Backend:
   a. Integrate or develop open-source feature-rich entity builder to create a new type of entity
   b. In-built API functionality in the form to allow interoperability with internal and external systems
   c. Pre-built standardized entity for Promoters, Tribunal & RERA Authority rulings along with provision for authority defined tags, auto generated text cluster tags
   d. Provision to provide auto-generated translation & legal quality OCR documents if not available.
   e. The backend admin unit to facilitate the group promoters, update tags, topics, translations for each STATE level rulings/orders. Permission and authorization matrix along with maker/checker for the same.
   f. Digital workflow system to concern as per the assigned roles and responsibilities, a delegation of power, business rules, and communication for processing within the stipulated time frame
   g. Online Payments/ Subscriptions/ Refund processing and reconciliation System
   h. Development of multiple digital delivery channels for system driven notifications and alerts to the concerned. Such as updated for notices, non-compliances, status, and more with a copy of the record in e file for future reference.
   i. Online Payments/ Refund processing and reconciliation System
   j. Development and integration of standard open-source Customer Relationship Management System to centralize and track various activities of all types of users
   k. Development of feedback and suggestion management system to enable record creation, tracking, actioning, closing communication, and building a repository of all feedbacks and suggestions with responses for future reference

l. Development of Complaints and Grievance Redressal system including Issue Tracking and Ticket Disposal System

m. Development or Integration of open source document management systems such as Alfresco to tag and search various kinds of documents across system including documents of promoters, Tribunal and RERA rulings/orders, and more

7. For both frontend and backend users:

a. Development of reporting framework with data analytics/BI and dashboards to provide an integrated view of data meeting the requirement of various types of stakeholders in various permutations and combinations to track the key result areas linked with objectives

8. Development of Integration/ data exchange systems through web services for visualization, data validation using internal and external APIs

9. Implementing data security, user privacy, and risk management in system fabric as recommended by India stack

10. Recommend hardware, software licenses, and subsystems for the required functionalities and objectives.

11. Deploy the system software/ tools/ utilities at early adopter D&C RERA and support as per the defined SLAs for the period of contract

12. Create documentation as per IEEE /Meity/ISO Standards and share all defined documents as per the RFP

13. One Year of warranty support post Go Live

14. Improvements and enhancements in the solution warranted by a change in Act/rules/ and efficiency requirements efficiency, including regular additions, up-dates & Improvements upon directions from RERA authorities. The standard billing rate for the same should be shared.

15. Submission of Weekly progress report covering current status, new tasks added, stats of the previous task along with estimated time, and plan for closure of outstanding items for action.

5.2.6 List of key functionalities for the inter RERA platform

Key functionalities and related remark for application development are derived from the stated strategic objectives above sub sections. Every effort has been made to represent the objectives in the items of scope below, however bidders are advised to include additional items or suggest change in components, that are not listed explicitly herein below:

Sr. No.	Key Functionality	Remark/Component	Section
1	Portal User Registration, Login and Services	1) For signup required fields can be validated phone number, email address, PAN number and user type 2) PAN Number as primary key 3) PAN Number validation using NSDL API and capturing "Name of PAN holder" as per API response during registration 4) User types: a) Individual b) Other than individual 5) Login using combination of password/OTP and Captcha	Frontend
2	Notification Management at	1) Option to set preferences for each Email, SMS, Browser	Multi-channel

	stakeholder or project level	2) Create secure webhooks to link or share data with external platforms
		3) System generated periodic alerts, updates, notifications or reminders for items to name few:
		  a) RERA Rulings/Orders
		  b) Tribunal Rulings/orders
		4) To subscribed promoters, topics or tags - litigations, updates, complaints, and more	

3	Helpdesk/Grievance Management	1) Ticket Allocation and management 2) Status Dashboard	Frontend
4	Authority Dashboards and Reports	1) Data categorization, tagging, cleaning, identifying error, and preparation of the database from various sources for use in reporting framework and generation of cross cutting analytical reports to deliver integrated view. 2) Analytical reports based on data from multiple sources, showing similar rulings, promoters with significant legal proceedings to safeguard the interests of allottees and providing early warnings on promoters with deteriorating health. 3) System generated creation of promoter's risk profile based on rulings, orders, publicly available information on websites and social media as well as complaints and cases. Complete history should be available with details and link to documents. a) Analytical reports of all types of Complaints raised by Citizens regarding various projects/Builders based on geography, resolution efficiency and more 4) Drill Down color-coded dashboard with Stats and Status of various applications and stages. 5) Drill Down Maps and Stats on GIS Layers.	Backend/Frontend
5	Payment Management for the portal user	1) Payment History 2) On-Demand Payment using tracking code 3) Grievances against Payments	Frontend
6	Finance Management and Dashboards	1) Fee Reconciliation and Refund Management 2) Fee Calculators 3) Raise Ad Hoc Payment Request	Backend
7	Web-services Integrations	1) Payment Gateways 2) GIS Reporting and Validation Service 3) Data Validations API 4) Data Masking API	Backend
8	Data Privacy	1) No personal information and documents such as PAN/Aadhaar should be available publicly without masking	Frontend
9	Document Management System	1) Creation, Tracking, Publication, and Workflow for various documents including Published User Manuals, Checklists, Forms, News, Events, Tenders, Notices, Defaulter Lists, Ruling, and more.	Backend

5.3 Key Technical Requirements

Please note that all the requirements mentioned in this section are the minimum and indicative in nature.

1) Developed systems should use open source technologies. The use of Open Source Software should be as per the Framework on Open Source Software issued by Govt. of India.

(egovstandards.gov.in/sites/default/files/Framework%20for%20Adoption%20of
%20Open%20Source%20Software%20in%20e-Governance%20Systems.pdf)

2) Platform design should support deployment on a single machine as well as the distributed architecture on multiple machines

3) The availability of docker configuration to allow both vertical and horizontal scaling in the cloud should also be shared

4) Test-driven development using a code repository and CI/CD pipeline for bug-free code release

5) Non-repudiable data to enable the verifiability of data and its provenance. We invite system design using innovations such as git or blockchain

6) Faster processing- response time of less than 5 seconds for 95 % of the reports and pages

7) Configurable form builder with automatic API documentation generator

8) Configurable DMS integrated with workflow

9) Configurable organization structure via Admin utility

10) The hierarchical flow of documents based on delegation of power

11) Secure document repository with role management and audit trail

12) Compliant with office procedure manual and rules for maintenance of files.

13) Users should be able to view, extract, process, and send all analytical reports to intended recipients with a single click

14) It should also provide a Single Sign-on platform for secure access for stakeholders

15) Reports and analytics should provide a graphical as well as a tabular view

16) Reports and analytics must be parametrized and viewable as per user chosen parameters with search criteria with respect to more than, less than or equal to criteria of the parameters

17) All reports / analytics should have drill out from top view/high level aggregated view till the last level of details

18) Geo-spatial layer to visualize projects and other related information, including consumer complaints, fraudulent transactions and more. Ability to overlay RERA maps on other town planning and infrastructure maps etc.

19) Master Data Management (MDM) layer to map RERA level entities

20) Analytics, alerts, and workflows using open source engines

21) The reports should be exportable to multiple formats like PDF, excel etc. for user comfort and further analysis

22) The software should be Unicode compliant to handle language localization effectively

23) The system should comply with open standards for easy integration with other external systems viz PAN card, Company Registrar, Urban Development approval system, and more. The entire system/subsystem should be interoperable to support two-way information flow in defined hierarchical order and integration. Publish web services for the exchange of data.

24) Multilingual support for external users facing CMS

25) Web portals should be compliant with latest W3C and WCAG 2.0 standards

26) Responsive design and layout supported by modern browsers (i.e., Firefox, Internet Explorer, Opera, Google Chrome, Safari and more) on defined web, tablets and mobile platforms

27) Support for Protected Data Exchange, Open Data and Secure Data Enclaves

28) Option to handle multi-language data inputs for analytics

29) Code will be subjected to penetration test and security clearance by NIC team

5.4 DELIVERABLES

1) Docker ready updated source code git repository for both parts with deployment documentation detailing step by step for both standalone and distributed server

architecture. All programs must have explanatory notes for understanding. All old code versions to be maintained

2) Continuous integration (CI)/ continuous development (CD) pipeline setup with integrated system tests

3) **Sandbox environments with dummy data generated using first adopter D&C RERA data, for other state RERAs to trial the platform in a secure environment hosted by D&C RERA**

4) Template ETL utility for data migration of existing RERA data and documents to the core application with configurable data mapping

5) All documentation as per IEEE /Meity/ISO Standards

6) Deployment of both application parts on live server provided by first adopter D&C RERA:

    a) <u>Deployment of the core application with D&C RERA</u>

       D&C RERA would be the first adopter of the platform and will play a pioneering role in creating, testing, and demonstrating the platform to other state RERAs. Data migration of existing D&C RERA systems will be part of the scope.

       Future migrations and deployments to other state RERAs will be out of the project scope. To set future migration and deployment cost benchmark, the development partner should provide the indicative cost of the process.

    b) <u>Deployment of Inter RERA Open Platform (to be confirmed with D&C RERA)</u>

       D&C RERA may host the Inter RERA Open Platform. Hosting authority will be decided at later stage. As to the scope of the project, the development partner needs to showcase integration with deployed D&C RERA core application and at least one existing RERA system using APIs and ETL pipelines.

5.5 Operational Acceptance

Successful completion of the contract will be evaluated through a series of acceptance test performed with all the aspects of the system/ sub system / functionalities:

- The development partner must host the services from its own testing server/cloud in development and testing phase.

- In the Go-live phase, development partner will have to manage and roll out a beta version/stage where the system will be made available and restricted only to the team approved by TT through an appropriate mechanism on the web and conduct user acceptance testing of the Solution based on test cases developed by the Bidder in consultation with TT and are also validated by TT. Based on the test results, required changes will be carried out and tested. Post this, RERA Software platform shall be officially launched and operational acceptance will be complete.

- In order to accept the system, TT must be satisfied that all of the work has been completed and delivered to TT and D&C RERA's complete satisfaction and that all aspects of the system perform acceptably. The technical/ functional/ logical acceptance of the system/end to end solution will only be certified when the proposed system is installed and configured according to the design and that all the detailed procedures of operating them have been

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carried out by the Bidder in the presence of TT and D&C RERA IT & Management team.

5.6 Guidelines and compliance to be followed

The development partner (DP) shall ensure that the following Standards/Guidelines (not limited to) needs to be followed while developing the overall system.

S. No.	Component/Application/System	Prescribed Standard (where applicable)
1	Workflow Design	WFMC
2	Portal Development	W3C, GIGW, WCAG 2.0
3	Information Access/ Transfer Protocols	SOAP, HTTP/HTTPS
4	Interoperability	Open Standards
5	Document Encryption	PKCS
6	Information Security	ISO 27001
7	IT Service Management	ISO 20000
8	Project Documentation	ISO/Meity/IEEE/CMMi
9	System Design	Containers and microservices-based architecture similar to NUIS Stack, with modular components, open data standards, core services, and solution platform
10	Security Controls	Include Top ten OWSAP Proactive Controls [Link: https://www.owasp.org/index.php/OWASP_Proactive_Controls]

The overall system design should further

- adhere to data security, data privacy, and data encryption embedded design similar to India stack
- secure itself against the top 10 critical security risks to web applications as recommended by Open Web Application Security Project in the OWASP Top 10 - 2017 Release Candidate. [Link: https://www.owasp.org/index.php/Top_10_2017-Top_10]

The development partner (DP) shall also adhere to the relevant guidelines and standards issued by CERT-IN, MeiTY and Government of India including the following:

- IT Act 2000 (revised 2008)
- CERT-In security guidelines for Indian Government websites
- eSAFE Guidelines for Information Security
- eGovernance standards of MeitY for metadata and interoperability

5.7 TRAINING & DOCUMENTATION

Training sessions and user manuals of Software will help in ensuring that each TATA Trusts user is ready to start using the system. A detailed training plan shall be published by the end of 'Production' (go Live) phase.

Training shall include the complete operations of the Software including all the business processes, user account management, report generation etc. Training Session for the Trusts' one or more batches of the Master Trainer/s shall be conducted.

The system release will include system documentation as per IEEE/Meity/ISO Standards including but not limited to following:

a) Detailed project plan
b) Fortnight progress reports
c) Software and licenses requirements
d) Hardware requirements as per the load matrix
e) System Requirement Specification (SRS) document containing detailed requirement capture and analysis including Functional Requirement Specification (FRS), Interface Specifications, and application security requirements
f) Configuration management plan
   i) Which include release management plan, code version branching strategies for deployment in various environment, tooling information used for configuration management and build deployment
   ii) Rollback procedure
g) User Manual for the operation and maintenance of the platform (including hardware and software)
h) Original Security Audit report and Clearance Certificate
i) Training Manuals and literature which will include all details pertaining System Administration, CMS Tool, Website Users, Installation, Operations, Maintenance and Security policy and procedure for website including Password security, logical access security, operating system security, data classification, and application security and data backups.
j) Deployment Architecture Document
k) Test Plans and Test cases (including Unit Test Plan, System/Integration Test Plan, User Acceptance Test Plan).
l) Data models descriptions
m) Sample reports/dashboards
n) FAQ Guides
o) Toolkit guides and troubleshooting guides
p) Security Features
q) Details of open source software used
r) Migration Guidelines
s) Research documents in relation to the schemes and the data-sets integrated into the Dashboard
t) Meta-data Document

6 ANNEXURE 1 – Format for submission of the General Bid Affidavit

To,

The RERA PMU
TATA Trusts
26th Floor, Center 1,
World Trade Center,
Cuffee Parade,
Mumbai 400005

Sub: RFP Ref Number <>

Sir/Madam,

I/ We, the undersigned Bidders, herby solemnly affirm that:

1. All General Instructions, General Terms and Conditions, as well as Special Terms & Conditions laid down on all the pages of the Tender Form, have been read carefully and understood properly by me which are completely acceptable to me and I agree to abide by the same.
2. We have submitted Certificates / Documents for Pre-Bid Qualification/ Technical/Commercial Evaluation as required as per Terms & Conditions of the tender
3. All the Certificates / Permissions / Documents / Permits / Affidavits are valid and current as on date and have not been withdrawn / cancelled by the issuing authority.
4. It is clearly and distinctly understood by me that my bid is liable to be rejected if on scrutiny at any time, any of the required Certificates / Permissions / Documents / Permits / Affidavits is / are found to be invalid / wrong / incorrect / misleading / fabricated /expired or having any defect.
5. I/ We further undertake to produce on demand the original Certificate / Permission / Documents / Permits for verification at any stage during the processing of the tender as well as at any time asked to produce.
6. I/ We also understand that failure to produce the documents in "Prescribed Performa" (wherever applicable) as well as failure to give requisite information in the prescribed Performa may result in to rejection of the tender.
7. My/ Our firm has not been banned / debarred / black listed at least for three years (excluding the current financial year) by any Government Department / State Government / Government of India / Board / Corporation / Government Financial Institution/ Tata Group Company / Tata trusts in context to purchase procedure through tender.
8. I/ We confirm that I/ We have meticulously filled in, checked and verified the enclosed documents / certificates / permissions / permits / affidavits / information etc. from every aspect and the same are enclosed in order (i.e. in chronology) in which they are supposed to be enclosed. Page numbers are given on each submitted document. Important information in each document is "highlighted" with the help of "marker pen" as required.

9. The above certificates / documents are enclosed separately and not on the Performa printed from tender document.

10. I/ We say and submit that the Permanent Account Number (PAN) given by the Income Tax Department is_____, which is issued on the name of_____ [Kindly mention here either name of the Proprietor (in case of Proprietor Firm) or name of the tendering firm; 1, whichever is applicable].

11. I / We understand that giving wrong information on oath amounts to forgery and perjury, and I/We am/are aware of the consequences thereof, In case any information provided by us are found to be false or incorrect, you have right to reject our bid at any stage including cancellation of the award of contract. In this event, this office reserves the right to take legal action on me/us.

12. I / We have electronically signed & stamped all the above documents along with copy of tender documents (page no. _____ to ____).

13. I / We hereby confirm that all our quoted items meet or exceed the requirement and are absolutely compliment with specification mentioned in the bid document.

14. My / Our Company has not filed any Writ Petition, Court matter and there is no court matter filed by State Government and its Board Corporation, is pending against our company.

15. In case of breach of any tender terms and conditions or deviation from bid specification other than already specified as mentioned above, the decision of Tender Committee for disqualification will be accepted by us.

Whatever stated above is true and correct to the best of my knowledge and belief.

Yours sincerely,

(Authorised Signatory)

Signature:
Name:
Designation:
Address:
Seal:
Date:

7 ANNEXURE 2 – Formats for submission of the Pre-Qualification Bid

7.1 Pre-Qualification Bid Covering Latter

To,

The RERA PMU
TATA Trusts
26th Floor, Center 1,
World Trade Center,
Cuffee Parade,
Mumbai 400005

Sub: Submission of the Pre-Qualification bid for RFP Ref Number <>

Sir/Madam,

We, the undersigned, offer to be a development partner to TT in response to your Request for Proposal dated _____and our Proposal. We are hereby submitting our pre-qualification bid.

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

We agree to abide by all the terms and conditions of all the volumes of this RFP document. We would hold the terms of our proposal valid for the number of days as stipulated in the RFP document.

Yours sincerely,

(Authorised Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:

7.2 Bidder's Organizations Details

Sr. No.	Item		Bidder's Response
1	Informati on About Company	Company Name	
2		Year Established	
3		Incorporated in India (Yes or No)	
		Type of Company (Public Ltd, Pvt Ltd, and more)	
4		Address (Registered Office in India)	
5		Office with Technical Team in Delhi (Yes or No)	
		No. of years of Operation	
6		Pan Number	
		GST Number	
7		List of Quality Certifications	
		Name of India Clients (Govt and private) for whom the bidder has done similar projects	
		Name of International Clients (Govt and private) for whom the bidder has done similar projects	
8	Overall Employee Distributi on in India	Total Number of Employees	
9		Business Analyst	
10		Software Developers	
11		QA/Testers	
12		Designers	
13		Machine Learning/AI Experts	
14		BI/Data Analytics Experts	
		Micro-Services Experts	
15		Admin	
16		Management	

The following persons will be the authorized representative of our company/ organization for all future correspondence between the TT and our organization till the completion of the bidding process.

Role	Details	Primary Contact	Secondary Contact	Executive Contact
Authorized Signatory/ Technical/Legal/Commercial for each	Name			
	Designation			
	Company Name			
	Address			
	Phone			
	Mobile			
	Email Id			

(Authorised Signatory)

Signature:
Name:
Designation:
Address:
Seal:
Date:

7.3 Template for Project Experience Citation (Pre-Qualification/ Technical Bid)

Sr. No.	Item	Bidder's Response

1	**Proposed Product/Solution/criteria** *(for which the citation has been provided)*	
2	**Name of bidder/subcontractor entity**	
3	**Assignment Name**	
4	**Name of Client**	
5	**Country**	
6	**Contact Details** *(Contact Name, Email Id, Telephone Number)*	
7	**Approximate Value of the Contract**	
8	**Relevant value of the Contract**	
9	**Duration of Assignment (months)**	
10	**Award Date(month/year)**	
11	**Completion Date (month/year)**	
12	**Narrative description of the project**	
13	**Details of the work that defines the scope relevant to the requirement**	
14	**Documentary Evidence Attached**	

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

7.4 No Deviation Certificate

This is to certify that our offer is exactly in line with your tender enquiry/RFP (including amendments) no. _____ dated _____. This is to expressly certify that our offer contains no deviation either Technical (including but not limited to Scope of Work, Business/Functional Requirements Specification, Solution and Hardware Specification) or Commercial in either direct or indirect form.

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

7.5 Total Responsibility Certificate

This is to certify that I undertake the total responsibility for the defect free operation of the proposed solution as per the requirement of the RFP for the duration mentioned in all the volumes of the RFP.

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

7.5 Total Responsibility Certificate

7.6 Compliance to pre-qualification criteria (Should be submitted separately for both Bidder and Subcontractor)

Sr. No.	Prequalification Criteria No.	Prequalification Criteria	Documents provided	Compliance (Yes/ No)

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

8 ANNEXURE 3 – Formats for submission of the Technical Bid

8.1 Resource Deployment Plan

#	Resource Name	Resource Type (Bidder Internal/ Sub Contractor)	Area of Expertise	Job Assignment and Associated Deliverables	Phase wise and Month wise plan needs to be provided						Total Staff person hours proposed
					1	2	3	4	5	N	
1											
2											
3											
4											
5											

Note:

1) The resource deployment plan should include the proposed names of key personnel to be deployed on the project. The final list of resources may be replaced at the actual time of deployment by a similar profile after approval from TT.
2) **The resource deployment plan for both Parts should be provided separately**
3) For each resource specified in the above table CV should be shared as per prescribed format
4) The bidder should propose and justify the structure and composition of the team. The bidder should list the main disciplines of the Assignment/job, the key professional staff responsible, and the proposed technical and support staff.

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

8.2 Curriculum Vitae (CV) of Key Personnel

Sr. No.	Item			Bidder's Response
1	Name			
2	Specify role to be played in the project			
3	Name of Organization			
4	Number of years with the current organization			
5	Total Experience (In Years)			
6	Relevant Experience (In Years			
7	Relevant Experience Details			
8	**Experience in yrs. (Provide details regarding name of organizations worked for, Designation, responsibilities, tenure etc.)**			
	Name of Organization	From	To	Designation/ Responsibility
8.1				
8.2				
9	**Summarized professional experience (Relevant to the Current Project) in reverse chronological order. Detailed Tasks Assigned (list all tasks or activities assigned under this project)**			
	From	To		Client, Project, Position, Relevant Functional, Technical and Managerial experience, Location
9.1				
9.2				
10	**Educational Background, Training/Certification including institutions, % of marks, specialization areas etc.**			
	Degree	Year of Award of Degree	University	% of marks / CPI with Scale
10.1				
10.2				

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date

8.3 Work Plan

#	Activity	Phase wise and Week wise plan needs to be provided					
		1	2	3	4	5	N
1							
2							
3							
4							
5							

Note:

1) The bidder should propose and justify the main activities of the Assignment/job, their content and duration, interrelations, milestones (including interim approvals by the Employer), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the Scope and ability to translate them into a feasible working plan. A list of the final deliverables should be included here. The work plan should be consistent with the Staffing and Work Schedule.
2) **The work plan for both project parts should be provided separately**
3) The Development Partner (IP) should note that agile methodology needs to be followed during the entire project lifecycle. Activities identified for Part A and Part B shall run in parallel and Project Plan should consider the critical path and slack.

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date

8.4 Solution Stack Proposed to run the proposed platform for RERA

Sr. No.	Proposed Component	Item**	Quantity	Version & Year of Release (If applicable)	OEM (If applicable)	Brief Specifications
1	Hardware	Web Server				
2		Application Server				
3		Database Server				
4		Machine Learning Server				
5		Validation Server				
6		Storage Required				
7		Network Component Required				
8	Software	Operating System				
9		Database				
10		Middleware if required				
11		TLS Certificate				
10	Security System, firewalls, load balancers, Deployment Tech					
12	Misc. Applications	Data Integration Solutions (ETL/ELT)				
		Big Data System				
		Visualization Solution				
		Business Intelligence & Enterprise Reporting				
		Form Builder				
		Document Management System				
		Learning Management Solutions				
		Development Tools				
		Testing Tools				
		Code Versioning Software				
		Content Management Software				
		Defect Tracking Tool				

		Performance Testing Tool				
		…More as applicable…				

Note:

1) Separate specifications for both PART A and PART B. Pl Add rows as required – should include all tools /software products/ utilities that would be required to deliver the scope of work for entire contract period.
2) The mentioned items in table above are indicative in nature and the Bidder has to mention the entire stack proposed

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

9 ANNEXURE 4 – Formats for Submission of the Commercial Bid

9.1 Commercial Bid Covering Letter

(Original signed copy on company letterhead)

To,

The RERA PMU
TATA Trusts
26th Floor, Center 1,
World Trade Center,
Cuffee Parade,
Mumbai 400005

Sub: Submission of the Commercial bid for RFP Ref Number <>

Sir/Madam,

We, the undersigned, offer to provide the services for **<<<< Project Name >>>>>** in accordance with your Request for Proposal dated **<<Date>>** and our Proposal. Our attached Commercial Bid is for the amount of **<<Amount in words and figures>>**. This amount is inclusive of all the taxes.

1) PRICE AND VALIDITY
   - All the prices mentioned in our bid 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 <180 days> calendar days from the date of opening of the Bid.
   - We hereby confirm that our prices include all taxes. However, all the taxes are quoted separately under relevant sections.
   - We understand that the actual payment would be made as per the existing indirect tax rates during the time of payment.
2) Monthly Rates
   We have enclosed the monthly rates of the resources for the purpose of on account of payment beyond the contract period of 6 months, in case the contract period is extended.
3) New Integration Pricing
   We understand proposed Part A can be implemented by other state RERA in the future. We have enclosed one-time integration pricing along with annual escalation that will be valid for next 5 years beyond the contract period. Any customization required during the process will be charged as per the monthly rate of the resources.
4) RFP Pricing

- We further confirm that the prices stated in our bid are in accordance with your Instruction to bidders included in RFP documents.
- We have provided item wise modular pricing for both sections

5) <u>Qualifying Data</u>

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

6) <u>Bid Price</u>

We declare that our Bid Price is for the entire scope of the work as specified in this RFP and Annexures thereto. Our bid prices are mentioned in the submitted Commercial Bid.

Our Commercial Bid shall be binding upon us subject up to expiration of the validity period of the Proposal, i.e., [Date].

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

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

Thanking you,

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

9.2 Commercial Bid Format: Solution Cost

Sr. No.	Description	Total Amount in INR (Without Taxes)	Tax Amount (INR)	Gross Amount (INR) (A+B)
1	Part A: Cost of Analysis, Designing, Development, Documentation, Testing, Deployment till Go - Live for the entire Solution			
2	Part B: Cost of Analysis, Designing, Development, Documentation, Testing, Deployment till Go - Live for the entire Solution			
Grand Total (INR)				

Component Breakup for Each Part:

Sr. No.	Description	Efforts in Person Days	Total Amount in INR (Without Taxes)	Tax Amount (INR)	Gross Amount (INR) (A+B)
1	Analysis and URS				
2	SRS, Prototypes and Design (SDD)				
3	Software Development (For each Feature/Stack/Framework – separate Line) for example DMS, Form Builder, etc				
4	Testing and UAT				
5	Current System Migration				
6	Implementation and Deployment				

Note:

- No extra charge will be paid to the Firm/Company apart from the prices quoted above.
- The cost of the above parts should be matched with the breakup of each component as mentioned below.
- Taxes will be as applicable on actual at the time of invoicing.

Yours sincerely,

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

Proposed Hardware Cost

Sr. No.	Description	Total Amount in INR (Without Taxes)	Tax Amount (INR)	Gross Amount (INR) (A+B)
1	Part A: Cost of Hardware and/or other devices/ appliances / software/ utilities/ tools etc. in required quantities required for running the software solution			
2	Part B: Cost of Hardware and/or other devices/ appliances / software/ utilities/ tools etc. in required quantities required for running the software solution			
Grand Total (INR)				

Yours sincerely,

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

9.3 Commercial Bid Format: Monthly Cost

Implementation Cost for Part A (Breakup) applicable for future implementation with individual state RERA

Sr. No.	Description	Total Amount in INR (Without Taxes)	Tax Amount (INR)	Gross Amount (INR) (A+B)
1	Current System Migration			
2	ETL Tool Development			
3	Implementation and Deployment			
Grand Total (INR)				

Note:

- Customization will be charged as per monthly rates specified below

Monthly Rates per Resource Type

Table Fin-1: Summary of Resources and Cost category

Sr. No.	Profile	Years of Experience	Efforts in Person days	Cost category
1	Principal architect	Min 10 Years		A
2	Product manager	Min 8 Years		B
3	Back End Architect	Min 8 Years		B
4	Front End Architect	Min 8 Years		B
5	Security Architect	Min 8 Years		B
6	Technical Lead – API	Min 6 Years		C
7	Technical Lead – Portals	Min 6 Years		C
8	Technical Lead – BI & analytics	Min 6 Years		C
9	Technical Lead – Mobile App	Min 6 Years		C
10	Technical Lead – Micro-services & Ecosystem	Min 6 Years		C
11	Technical Lead – Machine Learning & AI	Min 5 Years		C
12	Program/ Project/ Delivery manager	Min 6 Years		C
13	Business Analyst	Min 4 Years		D
14	Database Admin	Min 4 Years		D
15	UI/UX/Graphics/Creative Designer	Min 3 Years		D
16	Developer – API	Min 3 Years		D
17	Developer – Portals	Min 3 Years		D
18	Developer – BI & analytics	Min 3 Years		D
19	Developer – Mobile App	Min 3 Years		D
20	Developer – Micro-services & Ecosystem	Min 3 Years		D
21	Developer – Machine Learning & AI	Min 3 Years		D
22	Tester	Min 1 years		E
23	Subject Specialist as per TT business requirement	To be specified as part of Business Requirement		F

Table Fin-2: Schedule of Rates under Cost Category

Sr. No.	Cost Categories	Cost per month (Excluding Taxes)
1	A	
2	B	
3	C	
4	D	
5	E	

Yours sincerely,

(Authorised Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

TATA TRUSTS

10 ANNEXURE 5 - Anti-Blacklisting (Self Declaration) – Should be submitted on Letter Head

To,

The RERA PMU
TATA Trusts
26th Floor, Center 1,
World Trade Center,
Cuffee Parade,
Mumbai 400005

Sub: Anti-Blacklisting (Self Declaration) RFP Ref Number <>

Sir/Madam,

Having examined the Bidding Documents, we, the undersigned, offer to provide services for **Analysis, Designing, Development, Testing, Implementation, and Integration of for RERA Software Platform.**

We undertake, if our bid is accepted, to provide services for **Analysis, Designing, Development, Testing, Implementation and Integration of for RERA Software Platforms**, by the terms and conditions in the tender document.

We agree to abide by this bid for a period of 180 days after the date fixed forbid opening under the Instruction to Bidders and shall remain binding upon us and may be accepted at any time before the expiry of that period.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding Contract between us.

We understand that in competing for (and if the award is made to us, in executing the above contract), we will strictly observe the laws against fraud and corruption in force in India, namely the Prevention of Corruption Act 1988.

We understand that you are not bound to accept the lowest or any bid you may receive.

We have not been under a declaration of ineligibility for corrupt and fraudulent practices, and/ or blacklisted or debarred at least for three years (excluding the current financial year) by any Government Department / State Government / Government of India / Board /Corporation / Government Financial Institution / Tata Group company / Tata Trusts in context to purchase procedure through tender. We have not imposed any condition in conflict with the tender condition if it is found it should be treated as withdrawn.

We have not been convicted for any criminal cases(s) by any of the Govt. Department or its PSU in India, regarding any supply and contracts with our firm/company.

We have not breached/violated any contractual conditions so far to any of the Govt. Department or Tata Group Company.

In case any of the above statements made by us are found to be false or incorrect, you have right to reject our bid at any stage including cancelling the award of contract.

Yours sincerely,

Dated this ____ day of _____ 2019

Name of the Proposer:

Stamp & Signature of the Authorized person:

Name of the Authorized Person: