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To,
D y Commissioner
I T Department
Nashik Municipal Corporation

EXPRESSION OF INTEREST FOR PROPERTY TAX SOFTWARE DEVELOPMENT AND DATA ANALYSIS

Expression of interest (EOI) is invited for the property tax software development and data analysis (**vested with Nashik municipal Corporation**) the service provider are requested to go through the detail EOI form published on web site **www.nmc.gov.in** starting submission procedure, brief scope of work, pre-qualificatin condition etc. This notice is available on web site free of cost from Dt. 03/09/2024 the intrested service providers are requested to submit their EOI proposal as prescribed in detail EOI form published on website on or before date 06/09/2024 till 15.00 hrs in the office of Dy.Municipal commissioner (tax) Property Tax Department, Ground floor,Rajiv Gandhi Bhvan, Sharanpur Road,Nashik.

(Shrikant Pawar)
D y Commissioner (Tax)
Nashik Municipal Corporation

Scope of Work for Property Tax Software development and Data analysis.

1. **NMC user requirements of the modules and functionalities:**

   - **Admin Login Module**: Secure access for administrators with appropriate authentication mechanisms.
   1. **Masters Management**: A comprehensive management system for handling master data.
   2. **Role-Based User Permissions**: Customizable user permissions based on roles to ensure data security and integrity.
   3. **Assessments of Property**: Streamlined property assessment procedures integrated into the application.
   4. **Re-Assessments of Property**: Streamlined property re-assessment procedures integrated into the application.
   5. **Hearing Process**:Hearing process includes generation of Notices like Notice 127, Warrant Notices etc.
   6. **Property Management**: Efficient tools and features for managing property data and records.
   7. **Receipt Management**: End-to-end management of property tax receipts.
   8. **MIS and Other Category Reports**: Detailed reports and insights for informed decision-making.
   9. **Town Planning**: Integration of town planning functionalities to support municipal development.
   10. **Next Year Writing**: Functionality for seamless year-end closing and next-year setup.
   11. **Inward/Outward**: Management of inward and outward property tax documents.
   12. **Recovery**: Tools for managing tax recoveries and outstanding payments.
   13. **Switch Year Configuration**: Simplified switch year configuration to support annual tax processes.
   14. **Architecture Assessment**: Comprehensive assessment of the existing system architecture.
   15. **Old Completion Certificates**: Management of old property completion certificates.
   16. **Meeting Charts**: Tools for creating and managing meeting charts.
   17. **Dashboard**: An interactive dashboard for administrators to monitor and manage operations.
   18. **Orders Listing**: Efficient management and tracking of tax orders.
   19. **Management of Cron Jobs**: Automation and scheduling of cron jobs for regular maintenance tasks.
   20. **Old Legacy Data**: Migration and management of legacy data.
   21. **FY 2013 to 2024 Database**: Integration and handling of historical database records from 2013 to 2024.
   22. **CFC Side API Integration**: Integration with CFC-side APIs for extended functionalities.
   23. **March End Activities**: Specific tools and procedures for managing end-of-year activities.
   24. **API integration**: API integration as per NMC requirement.
   25. **Implementation of Monthly Shasti**.
   26. **Development of interphase for various exemptions like Solar Rebate, Ex-Services men, Rain Water harvesting, Early payment, Amnesty Scheme etc.**
   27. **Dual compatibility of the application for Desktop and Mobile (Android& iOS).**

   Citizen Side Module
   1. **Login Page**: User authentication system for citizen access.
   2. **User Dashboard**: A user-friendly dashboard for citizens to manage their property tax affairs.
   3. **Receipts**: Access to property tax receipts and payment history.
   4. **PG Integration**: Integration with payment gateways for online tax payments.
   5. **Receipt Generation**: Automatic generation of tax receipts upon payment.
   6. **Self-Assessmentfor citizens**.

2. **Customization of COTS Software:**

- **Requirement Analysis and Customization Mapping:**

  o The selected vendor shall conduct a comprehensive analysis of Nashik Municipal Corporation's (NMC) existing property tax processes, workflows, and requirements. Based on this analysis, the vendor shall map these requirements to the features available in the Commercial Off-The-Shelf (COTS) product and identify any gaps.

  o The vendor shall undertake necessary customizations to the COTS product to meet NMC's specific requirements, ensuring compliance with local regulations and operational workflows.

- **Configuration of Core Modules:**

  o The vendor shall configure core modules of the COTS software, including but not limited to:

  - **Property Tax Assessment Module:** Customization of the module to accommodate diverse property types, assessment criteria, and tax calculation methodologies as per NMC's regulations.

  - **Payment Processing Module:** Integration and configuration of multiple payment methods, including credit/debit cards, net banking, UPI, and dynamic QR codes.

  - **User Management Module:** Implementation of a role-based access control system, defining distinct roles and permissions for taxpayers, municipal officials, and system administrators.

- **User Interface Customization:**

  o The vendor shall tailor the user interface of the COTS product to reflect NMC's branding guidelines and user experience requirements, including multi-language support as necessary.

3. **Deployment of Web-Based Platform:**

- **Infrastructure and Deployment Setup:**

  o The vendor shall set up the required infrastructure for hosting the web-based platform, including server configuration, database setup, and the implementation of network security measures. The platform must be scalable to handle varying volumes of user traffic.

- **Integration with Payment Gateways:**

  o The vendor shall integrate the platform with multiple payment gateways, ensuring secure and seamless transaction processing. The integration shall cover a wide range of payment options, ensuring ease of use for taxpayers.

- **Data Migration and Integration:**

  o The vendor shall manage the migration of data from NMC's legacy systems to the new COTS platform, ensuring data accuracy, integrity, and confidentiality. The vendor shall also establish integrations with other municipal systems (e.g., GIS systems, property databases) to facilitate real-time data exchange and synchronization.

4. **Data Analytics and Visualization Tool:**

- **Dashboard Customization and Deployment:**

- The vendor shall customize and deploy data analytics and visualization tools, including interactive dashboards that provide real-time insights into key metrics such as property tax collections, payment trends, and defaulter lists. The dashboards shall support filtering and detailed analysis capabilities.

- **Data Analytics & Visualisation**

  - Understand the current data, analytical frameworks and match it with the requirement of data analytics required by the department

  - Create dashboards and representation of data for better decision making with Role based access for various department members through the COTS tool.

  - The tool should be able to support multiple users and roles with different access levels and permissions

  - The tool should be able to collect, store, process and analyse property tax data from various sources

  - The tool should be able to operate on various devices and platforms, such as desktops, laptops, tablets and smartphones with web browsers or native applications

  - Training the department stakeholders to make data backed decisions shall result in data-centric performance enhancement

  - Some possible analytical parameters for data analysis includes but not limited to the following:

  - The number and percentage of property owners who pay their taxes on time, late, or not at all.

  - The average amount of property tax paid per property owner, per zone, and per property type.

  - The trends and patterns of property tax collection over time, such as seasonal variations, year-on-year changes, and outliers.

  - The effectiveness and efficiency of the communication channels used by the department to inform, remind, and persuade property owners to pay their taxes, such as emails, SMS, phone calls, etc.

  - The feedback and satisfaction level of property owners regarding the communication and service quality of the department, such as clarity, timeliness, responsiveness, etc.

  - The challenges and opportunities for improving the data analysis and communication processes of the department, such as data quality issues, data integration challenges, communication gaps, best practices etc.

- **Automated Reporting and Notifications:**

  - The vendor shall configure the automated reporting functionalities of the COTS product to generate periodic reports on various aspects of property tax management. These reports shall be accessible to relevant stakeholders and shall support data-driven decision-making processes.

5. **Integration with Other Property Tax Systems:**

- **Interoperability and API Development:**

The vendor shall develop and implement necessary Application Programming Interfaces (APIs) to ensure interoperability and seamless integration between the COTS product and other existing property tax systems used by NMC and associated municipal bodies.

The vendor shall facilitate the consolidation and management of data from various systems, providing a unified view of property tax information for accurate assessment, billing, and collection.

6. **Testing & Acceptance**

- Functional tests to demonstrate that each component as well as entire completed system performs the functions as it is designed to function.

- Automated Test Reports are to be shared by the Bidder before Go-Live

- Test Reports for any customization done to be provided.

- Test Reports should have reference to the proof of the system working as per the functionalities desired.

- Load tests to demonstrate the ability of the system to perform without performance degradation under maximum traffic load carrying conditions as defined in the Bidder's specifications.

- Load Test, regression testing to be performed prior to Go-Live and the report to be shared with NMC.

- Performance tests are to be conducted to demonstrate satisfactory performance during the testing phase prior to Go-Live

- The bidder shall conduct the tests, rectify any problems, and provide a fully operational & efficient system.

- After complete testing by Bidder, UAT will be done by the depts. /offices of NMC.

- Bidder should obtain an official signed document accepting the system ("Final Systems Acceptance") from the NMC's authorized personnel.

7. **Additional Functional Modules:**

- **Property Search and Payment Portal:**

The vendor shall customize the COTS product to include a property search and payment portal, enabling taxpayers to search for their properties using identifiers such as property number, UPIC ID, or owner name. The portal shall provide facilities for viewing tax liabilities, making payments, and downloading payment receipts and related documents.

- **Grievance Management System:**

The vendor shall implement a grievance management module within the COTS product, enabling the registration, tracking, and resolution of grievances related to property tax matters. The system shall include features for tracking grievance status and generating resolution reports.

- **Security Features:**

The vendor shall implement comprehensive security features, including data encryption, secure login protocols, and multi-factor authentication, to ensure the protection of sensitive taxpayer and financial information.

8. **Training and Capacity Building:**

- **Training Programs:**

The vendor shall design and deliver training programs for NMC personnel, covering the usage and administration of the customized COTS software. Training shall include modules on data entry, report generation, analytics, and system maintenance.

- **Change Management Support:**

The vendor shall provide support for change management to ensure a smooth transition to the new system, including workshops, user feedback sessions, and continuous improvement strategies.

9. **Ongoing Support and Maintenance:**

- **Technical Support Services:**

The vendor shall provide ongoing technical support and maintenance services, including regular software updates, troubleshooting, and system enhancements. The Annual Maintenance Contract for providing ongoing assistance for a period of Three Years from the date of signing of contract.

During the AMC periods (3 to 5 Years as per NMC requirement), the Service Provider will provide:

- o (i) Bug fixing and updates
- o (ii) Technical support
- o Successful bidder would be responsible to deploy sufficient manpower for end-to-end operationalization of Solution. Manpower must be able to execute works of relevant domain not limited to accounts, data entry, SOP preparation, billing etc.

- **System Monitoring and Performance Review:**

The vendor shall implement system monitoring tools to track performance, user activity, and system health. Regular performance reviews and audits shall be conducted to identify and address potential issues, ensuring optimal system operation.

10. **Compliance and Security:**

- **Regulatory Compliance:**

The vendor shall ensure that the customized COTS product adheres to all relevant local and national regulations concerning property tax collection and data management. The vendor shall stay updated with regulatory changes and implement necessary updates to maintain compliance.

- **Data Privacy and Protection:**

The vendor shall implement robust data privacy protocols to safeguard personal and financial data. Regular security audits shall be conducted to ensure ongoing protection against data breaches and unauthorized access.

This detailed scope of work outlines the comprehensive responsibilities of the selected vendor in customizing, deploying, and maintaining the COTS product for NMC, ensuring that the system meets the specific needs of the corporation and enhances the efficiency and transparency of property tax management processes.

11. **Change Request Management**

- After Go-live (during AMC phase), if Nashik Municipal Corporation or Bidder wants any modification/change in any feature, interface, function, etc. of the application software, and the onsite team requires additional efforts to deliver it, then it shall raise a Change Request. The cost of change request of beyond the scope of work activities will be determined according to the rate contract submitted by the bidder.

- The change request of beyond the scope of work must be mutually agreed upon by both parties, including scope, timeline, and any associated costs, before any work begins.

- The bidder will study the Change Request of beyond the scope of work and submit Change Request Handling estimate including time and efforts in terms of "Man Hours" to Nashik Municipal Corporation

- All such Change Request Handling estimates will be discussed and approved by the Nashik Municipal Corporation.

- OIC (Officer in Charge) will coordinate with relevant officials to obtain approvals for the change requests wherever needed.

- Bidder will present Change Request Handling process and efforts in detail with relevant part of SRS, DB modules and third-party integration need (if any) to OIC.

- After receiving approval from NMC, the bidder will raise invoice for the payment as per man month rates agreed between the parties.

- Bidder must not generate the change request of beyond the scope of work until it tends to be major such as addition of any module or alteration in project solution flow.

Technical Specifications

Module	Feature	Specification
Property Search Module	Search Criteria	UPIC ID, property number, owner name, occupier name, property tax collection receipt number
Payment Module	Supported Payment Methods	Cash, POS machine, Cheque, DD, UPI, Debit Card, Credit Card, QR code
	Payment Gateways	Integration with various banks, multiple payment gateways support
	Discounts and Schemes	Time-wise, type-wise, use-wise, tax-wise, facility-wise discounts
Receipt Management Module	Receipts and Downloads	Tax receipt, Bill, Assessment abstract, NOC, Demand bills, Tax valuation sheet
	Receipt Delivery	SMS notification for payment, Email receipt to registered Email-ID
Notification System	Modes of Notification	SMS, Email
	Trigger Events	Payment confirmation, Alerts for due dates, Reminders for pending payments
Challan Generation Module	Challan Types	Day-wise, Month-wise
	Challan Features	Generation, Exporting data, Importing data, Reporting transactions
Grievance Management Module	Grievance Handling	Registration, Approval with OTP, Tracking, User-level grievance handling dashboard
	Grievance Dashboard	Total grievances registered, Status of grievances (resolved, pending), Ward-wise grievances
Dashboard Module	Dashboard Views	Daily, Monthly, Yearly, Ward-wise, Zone-wise property tax collection

	Dashboard Features	Property count, Taxpayer count, Defaulter count, Collection statistics, User-specific views
Report Generation Module	Types of Reports	Transaction reports, Tax defaulters list, Quality checking reports, Custom reports
	Report Formats	PDF, Excel, CSV
User Management Module	User Features	Create login credentials, Change password, Define user access levels
	Access Control	Role-based access control, Permissions assignment, Audit trails
Bank Management Module	Bank Features	Add new banks, Update bank details, Remove banks, Integration for payment processing
Tax Management Module	Tax Update Features	Online Wadh-Ghat approval, Online mutation module
	Taxpayer Management	Update taxpayer details, Occupier details
Alerts and Notifications Module	Alert Types	SMS alerts, Email alerts
	Notification Triggers	Payment due, Payment confirmation, System alerts (maintenance, updates)
Data Entry and Management Module	Data Entry Features	Manual data entry, Import data from external sources, Export data for reporting
	Data Management	Property type master, Zone section master, Zoning master
Photo and Plan Linking Module	Linking Features	Upload property photos, Upload property plans, Associate photos and plans with property records
Taxation Rate Masters Module	Rate Masters	Rateable value, Depreciation master, Taxes percent master
	Rate Update Features	Update rates periodically, Apply rate changes to relevant properties
Hearing and Retention Modules	Hearing Module	Data entry for hearing results, Tracking hearing status
	Retention Module	Manage retention records, Retention policies
Auto Quality Control Module	Quality Control Features	Auto generation of quality control lists, Periodic quality checks, Quality control reporting
Primary Assessment and Tax Notices Module	Assessment Features	Generate primary assessment list, Create tax notices, Generate assessment sheets
	Notice Delivery	Email, Print-ready formats
Technical Requirements	Web Interface	Responsive design, Cross-browser compatibility, HTML5, CSS3, JavaScript, AJAX

Database	Relational database (e.g., MySQL, PostgreSQL), Backup and recovery, Transaction management
Security	SSL/TLS encryption, Secure authentication, Two-factor authentication (2FA), Role-based access control (RBAC)
Integration	APIs for payment gateways, SMS, Email services, Integration with third-party services for notifications
Scalability	Scalable architecture, Load balancing
Backup & Recovery	Regular automated backups, Efficient recovery processes to prevent data loss
Performance	Optimized for high performance, Performance monitoring and tuning
Support & Maintenance	Ongoing support and maintenance services, Regular updates and patches
Training	Comprehensive training for Municipal Council staff, User manuals, Training videos, FAQs
Technology Stack	Developed on an open-source technology stack (e.g., Linux, Apache, MySQL, PHP/Python/Java)

12. Extended Scope of work

Communication Management:

- Work with NMC to conceptualize, create, Design & Deliver ATL/BTL/TTL Integrated Marketing communication campaigns as per themes, messaging finalized by NMC.

- A single campaign may include creation of content in multiple formats as per the communication channel to be used and might include periodic cycles of content creation.

- The Content shall be in Marathi or English or both English & Marathi as per requirement of the communication.

- Any tool, license, hardware, or software required to design the content shall be managed by the service provider at its own cost.

13. Exit Plan

- An exit management plan is a crucial component of project or organizational planning that outlines the steps and procedures to be followed when concluding or terminating a project, contract, or business venture. It encompasses various aspects such as the transfer of responsibilities, asset disposition, contract closure, and stakeholder communication. The goal of an exit management plan is to ensure a well-structured and efficient conclusion, minimizing disruptions and risks while safeguarding the interests of all parties involved. This plan typically includes a timeline, budget considerations, and a detailed checklist to guide the process of gracefully exiting a project or business endeavor.