



Tender for

Integrated Municipal eGovernance System (I-MEGS)

for

Aurangabad Municipal Corporation

Under the Aurangabad Smart City project executed by

Aurangabad Smart City Development Corporation Limited

Volume 1

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ABBREVIATIONS & DEFINITIONS

Abbreviations	Meaning / Definition
A/C	Account
ACDB	AC Distribution Board
AES	Advanced Encryption Standard
AMC	Aurangabad Municipal Corporation
API	Application Programming Interface
ASCDCL	Aurangabad Smart City Development Corporation Limited
AVL	Automatic Vehicle Locator
BOQ	Bill of Quantities
BPR	Business Process Reengineering
CAMC	Comprehensive Annual Maintenance Contract
CE	Conformité Européenne
CFCs	Citizen Facilitation Center
CMM	Capability Maturity Model
COA	Chart of Accounts
CoO	Country of Origin
COTS	Commercially off the Shelf
CPBG	Composite Performance Bank Guarantee
CRS	Civil Registration System
DMS	Document Management System
DOB	Date of Birth
DOD	Date of Death
DPI	Dots per inch
DR	Disaster Recovery
EMD	Earnest Money Deposit
EMI	Electromagnetic Interference
ERP	Enterprise Resource Planning
FCC	Federal Communications Commission
FDS	Functional Design Specification
FY	Financial Year
GB	Gigabyte
GIS	Geographic Information System
GoI	Government of India
GoM	Government of Maharashtra
GUI	Graphical User Interface
HLD	High Level Design
HO	Head Office
HQ	Head Quarter

HR	Human Resources
HVAC	Heating Ventilation and Air Conditioning
I/O	Information Outlet
ID	Identification
IEEE	Institute of Electrical & Electronics Engineers
IGBT	Insulated-Gate Bipolar Transistors
IOT	Internet of Things
IP	Internet Protocol
IP Rating	Ingress Protection Rating
IPV6	Internet Protocol Version 6
ISO	International Standards Organisation
ISP	Internet Service Provider
IT	Information Technology
JV	Joint Venture
LAN	Local Area Network
LLD	Low Level Design
LOI	Letter of Intent
MAF	Manufacturer's Authorization Form
MB	Megabyte
MCSE / MCSA	Microsoft Certified Solutions Expert / Associate
MEITY	Ministry of Electronics and Information Technology, Gol
MIS	Management Information System
MOU	Memorandum of Understanding
MPLS	Multiprotocol Label Switching
MS	Microsoft
MSDG	Mobile eGovernance Service Delivery Gateway
NAS	Network Attached Storage
NMAM	National Municipal Accounting Manual
OEM	Original Equipment Manufacturer
OF/OFC	Optical Fiber Cable
OGC	Open Geospatial Consortium
OS	Operating System
P&L	Profit & Loss
P2P	Peer-to-Peer
PBG	Performance Bank Guarantee
PC	Personal Computer
PKI	Public Key Infrastructure
PO	Purchase Order
PQC	Pre-Qualification Criteria
PVC	Polyvinyl Chloride
RAM	Random access memory
RDBMS	Relational Database Management System

RDP	Remote Desktop Protocol
RFI	Request for Information
RFP	Request For Proposal
RoHS	Restriction of Hazardous Substances
RTC	Real Time Clock
SAN	Storage Area Network
SDWAN	Software Defined Wide Area Network
SSR	State Scheduled Rates
STQC	Standardisation Testing and Quality Certification
SWM	Solid Waste Management
TSP	Telecom Service Provider
TTF	Time to first fix
UAT	User Acceptance Testing
UID	Unique Identification
ULBs	Urban Local Bodies
UPS	Uninterrupted Power Supply
USB	Universal Serial Bus
UTM	Unified Threat Management
VHF	Very High Frequency
VTS	Vehicle Tracking System
WAN	Wide Area Network

The word bidder may be variously described as agency / SI (System Integrator) in the document

1 TENDER NOTICE

Aurangabad Smart City Development Corporation Limited invites online tenders for “the Integrated Municipal E Governance System – I-MEGS” for Aurangabad Municipal Corporation.

1.1 Schedule

As per the Notice Inviting Tender (NIT).

1.2 Downloading Tender Documents

Tender documents will be available on the website upto the date and time as shown above. Tenderers who wish to participate in this tender shall have to register on web site www.mahatenders.gov.in

1.3 Online Submission of Tender

1. Payment of tender fee, tender document downloading, EMD, preparation of bids & submission of bids can be done online on www.mahatenders.gov.in
2. No written or online request in this regard shall be entertained. Tenderers shall submit their tender in electronic format only on above mentioned website and prior to the date and time mentioned above. Tender documents in any other form including in physical form shall not be accepted and the same shall be accepted in the electronic format.
3. A scan copy of all details as required shall be uploaded in electronic format only. During the opening of online technical bid if it is found that above details as mentioned are not submitted in electronic format, tenders of such tenderer shall not be considered.
4. The tender document comprises of two tenders i.e. (i) Technical bid and (ii) Commercial bid.

1.4 Submission of Tender Fees & EMD

Tender Fees (Non-refundable) shall be paid online on the eTendering website. The EMD shall be paid online on the eTendering website as per the norms.

1.5 Pre-bid meeting

Pre-tender meeting will be held at the Smart City office, Aurangabad or online through video conference, as per the published schedule for any clarifications/queries.

1.6 Tender Opening

1. Technical tenders shall be first opened online as per the published schedule at Office of the CEO, ASCDCL, Aurangabad.
2. Technical bid shall be evaluated as per procedures mentioned in the tender documents. The decision of the committee on evaluation of the bids shall be final and binding to every tenderer.
3. Commercial bid of only qualified tenderers whose technical bids are qualified shall be opened.
4. The tender documents fees for online tender document shall not be refunded under any circumstances.
5. Tenders without tender fees, EMD and which do not fulfill all or any of the conditions of tender document shall be rejected outright. Tender with incomplete details in any aspect shall also be rejected.
6. Conditional tender shall not be accepted and shall be liable for rejection.
7. This tender notice shall form a part of the tender document.
8. The tenderers are advised to read carefully all the instructions and conditions stipulated in the tender documents.
9. ASCDCL reserves the rights to reject any or all tenders without assigning any reason thereof.
10. Tenderers are bound by the latest Government rules, regulations, standards & guidelines being issued from time to time.
11. Any kinds of amendments/corrigenda shall be published only on-line and shall be final and binding to all tenderers.

2 INTRODUCTION

2.1 About Aurangabad

Aurangabad is a city in the Indian state of Maharashtra. It is the administrative headquarters of Aurangabad district and is the largest city in the Marathwada region.

According to the 2011 census, the total population of Aurangabad is 11,75,116.

The city is a tourism hub, surrounded by many historical monuments, including the Ajanta Caves and Ellora Caves, which are UNESCO World Heritage Sites, as well as Bibi Ka Maqbara (replica of Taj Mahal). It is also called as the city of gates – it has 52 heritage gates, which can be observed on the city roads.

2.2 About Aurangabad Municipal Corporation

The Aurangabad Municipal Corporation (AMC) is a Class C municipal corporation (as defined by Government of Maharashtra) governing an area of 170 sqkm with a population of 11.75 lakhs, as per Census 2011. AMC has 115 electoral wards across nine (9) administrative zones.

2.3 About Aurangabad Smart City Development Corporation Limited

The Ministry of Home and Urban Affairs (MoHuA), Government of India (GoI) has rolled out Smart City Mission (SCM). Aurangabad is one of the Urban Local Bodies (ULBs) selected under the competition of SCM based on the Smart City Plan (SCP) submitted by the City through Government of Maharashtra (GoM). Objective of the Smart Cities Mission is to drive economic growth and improve the quality of life of people by enabling local area development and harnessing technology, especially technology that leads to Smart outcomes. Area- based development will transform existing areas (retrofit and redevelop), including slums, into better planned ones, thereby improving livability of the whole City. New areas (greenfield) will be developed around cities in order to accommodate the expanding population in urban areas.

The Aurangabad Smart City Development Corporation Ltd. (ASCDCL) is the Special Purpose Vehicle (SPV) constituted as per the directives of MoUD, Govt. of India for executing Smart City Mission (SCM) in Aurangabad City.

2.4 eGovernance at AMC

As part of Government of Maharashtra's E-governance implementation policy, AMC appointed an agency in 2011-12 to implement E-governance modules. As of date, the following softwares/modules exist:

- MAINET for Accounts, Property Tax Payment/Assessment, Birth & Death Registration, and Marriage Registration;
- Legal Tracking System for Law Department;
- an internal software for Stores Department;
- Building Plan Management System for Town Planning Department;
- and Tally ERP for Accounts Department.

2.5 About IMEGS

In line with the growth & the changes in expectation levels for municipal service delivery and the pressures exerted by ever-increasing urbanization, AMC has identified a few key challenges in the near future, one of which is the use of latest information technology tools & service delivery platforms to improve organizational efficiency, enhance stakeholder satisfaction and enhance organizational image. An urgent need was felt to upgrade the existing eGovernance platform that is not ready to cope up with the technological advancements. To this effect, AMC has envisaged the implementation of an Integrated Municipal eGovernance System (IMEGS) that can act as a single solution to AMC's information needs emanating from within and without.

Project IMEGS shall integrate various organizational processes of AMC and present a one window solution to manage operations of AMC HQ and various other ward offices.

Project IMEGS will be used by all the departments of AMC as well as all the stakeholders of AMC like employees, policy-makers, citizens, vendors & contractors & other agencies etc.

The main intention of the IMEGS project is to leverage technology to improve the revenue intelligence and collection for AMC.

2.6 Operational Objectives

- To increase revenue collected in the form of various municipal taxes
- To enhance understanding of shortfalls in the municipal tax levying & collection
- To establish IMEGS as a single gateway for all the stakeholders for accessing various services.
- To make all the activities of AMC citizen-friendly
- To build financial transparency, reporting and visibility of all the municipal revenues & spendings
- To monitor & track costs and measure performance
- To eliminate variation in information at various reporting departments
- To continuously improving cost and assets optimization
- To maintain high serviceability and availability of services
- To improve utilization of Assets and reduce asset management cost
- To improve management of processes with full accountability and auditing within processes
- To reduce administration cost, errors and its rectification cost
- To supports decision making
- To continuously monitor and track employee performance
- To improve real time control leading to increase in profitability improvement in customer service levels and effective management reporting

2.7 Purpose of the Request For Proposal (RFP)

The primary purpose of this RFP is to enable ASCDCL to select an Agency that undertakes the set of activities, identified for the Agency under the proposed IMEGS project. The details of the assignment, scope of work, evaluation process are outlined in the document.

The RFP is not an offer by ASCDCL but an invitation to receive proposals from eligible and interested bidders in respect of the above mentioned project. The RFP does not commit ASCDCL to enter into a binding agreement in respect of the project with the potential bidders.

3 INSTRUCTIONS TO BIDDERS

3.1 Prequalification

The following table lists the pre-qualification criteria for the bidders. It is expected that the bidder shall furnish necessary documentation in support of every point mentioned in the table.

Sr. No.	Condition	Documents Required
A.	Bidder Qualifications	
A.1.	a. The Bidder shall be a single entity registered under the Companies Act or Partnership Act in India. b. The Bidder shall be in operation in India for a period of at least five (5) years ending the last date of the month previous to the publication of the tender.	Copy of Certificate of Incorporation or equivalent; Pan Card; GST Registration; Memorandum and Articles of Association; a board resolution OR power of attorney in the name of the person executing the bid, authorizing the signatory.
A.2.	The bidder should be in the business of providing eGovernance solutions for at least five (5) years ending the last date of the month previous to the publication of the tender.	Purchase orders and completion certificates of eGovernance projects, over the past five years.
A.3.	The average annual turnover of bidder should be at least Rs. 5 crores from the relevant area of business, during the last three consecutive financial years. (I.e. 2017-18, 2018-19, 2019-20). Relevant area of business shall mean "Supply & implementation of eGovernance software and solutions in Urban Local Bodies"	Audited balance sheets and profit and loss accounts shall be submitted for the corresponding three years. Certification from a statutory auditor, duly stamped and signed regarding the turnover being from the relevant area of

Sr. No.	Condition	Documents Required
		business shall be submitted.
A.4.	The bidder shall have a positive net worth in each of the previous three financial years	Auditor's certificate
A.5.	The bidder, its subsidiaries, its sister companies, or its OEM partners shall not be under a declaration of ineligibility issued by any state/central government department or undertaking, within India.	A self declaration to this effect shall be submitted. Details of all projects under arbitration shall be submitted. Format is provided in Annexure V
A.6.	The bidder shall have support infrastructure in Maharashtra at the time of the submission of the bid.	GST Registration
A.7.	The bidder shall possess a CMM I Level 3 certificate.	Copy of certificate
A.8.	The bidder shall possess valid ISO 9001 certification and ISO 27001 certification	Copy of certificate
B.	Bidder Work Experience	
B.1.	<p>The bidder shall have experience in implementing at least</p> <p>One (1) completed similar work of the value of at least Rs. 6,50,00,000/- (Rupees Six crores & Fifty lakhs)</p> <p>OR</p> <p>Two (2) completed similar works of at least Rs. 4,10,00,000/- (Rupees Four crores Ten lakhs) each</p> <p>OR</p> <p>Three (3) completed similar works of at least Rs. 3,30,00,000/- (Rupees Three crores Thirty lakhs) each</p> <p>“Similar work” is defined as the supply, installation, commissioning, integration with external systems, customization, testing, and maintenance of an integrated Municipal</p>	Purchase orders, work completion certificates and client contact details.

Sr. No.	Condition	Documents Required
	<p>eGovernance application including provision of an on premise / cloud-based data centre, consisting of citizen centric & non-citizen centric modules, carried out within the past five years ending the last date of the month previous to the publication of the tender. The following modules must be a part of the project that qualifies under the definition of similar work:</p> <ul style="list-style-type: none"> - Accounts - Works - Establishment - Property Tax - Water Tax - Licenses - Birth & Death Registration <p>The similar work should have been implemented in a municipal corporation.</p> <p>The value of the application software in the similar work criteria should be at least 50 % of the total project value.</p>	
B.2	<p>The bidder shall have at least 100 personnel on its rolls with the following experience & expertise:</p> <ul style="list-style-type: none"> - eGovernance Application Development - GIS - Software Application Development - Database Management - Systems Management - Hardware Design & Deployment - Networking Design - Data Center services - Facilities Management 	List of personnel & their CVs self certified by the HR department of the company
C.	eGovernance OEM Qualifications	
C.1.	The proposed eGovernance application should have been successfully implemented in at least two municipal corporations (C Class as defined by Government of Maharashtra above—in case of municipal corporations outside Maharashtra the equivalent population shall be	Project completion certificates mentioning the eGovernance OEM

Sr. No.	Condition	Documents Required
	considered), within the past five years ending the last date of the month previous to the publication of the tender	
C.2.	The proposed eGovernance application should have been integrated successfully with a GIS application in at least one municipal corporation.	Completion Certificate of the project where such integration has been carried out

3.2 Pre-Bid Meeting

1. Voluntary Pre-bid meeting will be organized as per the schedule mentioned in the Section 1 of this document.
2. However, participation in the pre-bid meeting is optional to the Bidders, and non-participation in the Pre-bid meeting will not be construed as likely non-participation of the Bidder in the tender. It is mandatory for bidders to send pre-bid meeting participation request with attendees' names to ASCDCL at the email addresses mentioned at least 2 working days prior to the meeting.
3. The language of communication for the pre-bid meeting shall be English & Marathi. However, the minutes & the clarifications shall be made in English language only. All the issues & discussion happened during the meeting shall be noted & properly addressed while issuing the clarifications.
4. All pre-bid queries sought to be answered at the pre-bid meeting must be sent by email to the email addresses mentioned in Section 3.4 by the date of the pre-bid meeting.
5. The minutes of the pre-bid meeting & ASCDCL clarifications on the queries raised during the meeting will be posted on the e-Procurement website.
6. The pre-bid queries should be submitted in excel sheet format, along with relevant justification, and with name and details of the organisation submitting the queries.
7. ASCDCL shall not be responsible for ensuring that the bidders' queries have been received by them. Any requests for clarifications post the indicated date and time shall not be entertained by ASCDCL.
8. Bidders must submit their queries as per the format mentioned in the Annexure
9. ASCDCL shall formally respond to the pre-bid queries after the pre-bid meeting. No further clarifications shall be entertained after the date and time of submission of queries.

10. ASCDCL shall endeavour to provide timely response to all queries. However, ASCDCL makes no representation or warranty as to the completeness or accuracy of any response made in good faith. ASCDCL does not undertake to answer all the queries that have been posed by the bidders.
11. Any modifications of the RFP Documents, which may become necessary because of the Pre-Bid Meeting, shall be made by ASCDCL exclusively through a corrigendum. Any such corrigendum shall be deemed to be incorporated into this RFP. However, in case of any such amendment, the bid submission date may be extended at the discretion of ASCDCL.
12. Any corrigendum/notification/addendum issued by ASCDCL, after issue of RFP, shall only be available/hosted on the website URL mentioned in the Schedule of Bidding Process. Any such corrigendum/notification/addendum shall be deemed to be incorporated into this RFP.

3.3 Bidder commitment

1. Proposals submitted in response to this invitation will be considered as a contractually binding undertaking on the part of the Bidder, should the Bidder's proposal be found acceptable to CEO, ASCDCL.
2. All materials received by CEO, ASCDCL as a result of this Bid become the property of CEO, ASCDCL and are not returnable. CEO, ASCDCL accepts no financial responsibility for any cost incurred by any Bidder in responding to this Bid. Regardless of the Bidder being selected or not, CEO, ASCDCL reserves the right to use any information presented in the Bid to CEO, ASCDCL's requirement.
3. Proposals submitted in response hereto should not be construed as an obligation on the part of CEO, ASCDCL to award the Order for any or all items/services or a combination of services or items.
4. The bids submitted by the Bidders should be clear & unambiguous. Non specification of the Make & Model of the product/s offered as a part of the proposed solution OR specifying multiple brands shall be treated as an intentional ambiguity kept with the malafide intention of post-award changes & shall be considered non-responsive.
5. The bidder shall propose the system architecture complying with the functional specifications mentioned in this tender document. The supplied bill of materials is indicative and may change based on the recommended system architecture of the OEMs.

3.4 Contact Details

All general / technical queries in connection with the tender process including submission of EMD / copies of documents in connection with credentials etc. shall be directed to:

The Additional CEO, ASCDCL	add.ceo@aurangabadsmartcity.in
The Deputy CEO, ASCDCL	dy.ceo@aurangabadsmartcity.in
Project Consultant	info@consultmipl.com

3.5 Cost of Bidding

The Bidder shall bear all the costs associated with the preparation and submission of its bid, and CEO, ASCDCL in no case, will be responsible or liable for these costs, regardless of conduct or outcome of the bidding process.

3.6 Bidding Document

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 or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of the bid.

3.7 Amendment of Bidding Documents

1. At any time prior to the deadline for submission of bids, this office may, for any reason, whether on its own initiative or in response to the clarification requested by a prospective Bidder, modify, change, incorporate or delete certain conditions in the bidding document Or issue additional data to clarify an interpretation of the provision of this RFP by issuing supplements to this RFP. Any such supplement shall be deemed to be incorporated by this reference into this RFP.
2. All prospective Bidders who have received the bidding documents will be notified of the amendment in writing, and will be binding on them.
3. In order to allow prospective Bidders reasonable time to take into consideration the amendments while preparing their bids, CEO, ASCDCL, at his discretion, may extend the deadline for the submission of bids.

3.8 Language of Bid

The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and ASCDCL shall only be in English language.

3.9 Bid Currency

Prices shall be quoted in Indian Rupees only.

3.10 Eligibility Documents

1. The Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding documents of Services, which the Bidder proposes to provide services under the contract.
2. The documentary evidence of conformity of Services to the bidding documents may be in the form of literature, drawing and data, and shall consist of a detailed description of the essential technical and performance characteristics of end products.
3. The Bidder shall note that standards for workmanship, material and equipment, and references to International brand names or catalogue numbers designated by ASCDCL in its Technical Specifications are intended to be descriptive only and not restrictive.
4. It is mandatory for the bidders to furnish the Manufacturer's Authorization Form mentioned in the Annexure of this document for all the hardware and the software proposed for this tender.

3.11 Earnest Money Deposit

1. The Earnest Money Deposit shall be in the form of an online transfer (through the e-tendering site of ASCDCL). Bid security in any other form will not be accepted.
2. Unsuccessful Bidder's EARNEST MONEY DEPOSIT will be discharged / refunded as promptly as possible. The successful Bidder's EARNEST MONEY DEPOSIT will be discharged only after the completion of the contract papers and submission of performance security. No interest is payable on the bid security amount.
3. The EARNEST MONEY DEPOSIT shall be forfeited:
 - a. If a Bidder withdraws its bid during the period of Bid validity specified by the Bidder on the Bid Form;
 - b. Or in case of a successful Bidder, if the Bidder fails: a) To sign the Contract; or b) To furnish the performance security.
4. No exemption for submitting the EMD will be given to any agency including MSME Units.
5. Any tender submitted without the earnest money deposit will be summarily rejected.
 - a. If any of the bidders modify their bid during the validity period.

- b. If any bidder tries to influence the evaluation process.
- c. In case the selected bidder fails to accept the work order / purchase order and provide the performance security within the specified time limit.

3.12 Period of Validity of Bids

1. Quoted prices shall be firm & valid for a period of **one year** from the due date, or extended due date of the tender for the placement of order. However, in case of software licenses (application & database), quoted prices shall be firm and valid for the entire duration of the project which means ten years after go-live. For successful Bidders, the quoted price shall remain firm without any escalation till execution of the complete job.
2. In exceptional circumstances, CEO, ASCDCL may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing.

3.13 Clarification to tender document

At any time after the issue of the tender documents and before the opening of the tender, CEO, ASCDCL may make any changes, modifications or amendments to the tender documents and shall send intimation of such changes to all those who have downloaded the original Tender documents.

3.14 Submission of Bids

Tender documents will be available on web site up to date and time as mentioned in the tender notice. Tenderer who wish to participate in this tender shall have to register on web site www.mahatenders.gov.in

3.15 Deadline for Submission of Bids

1. Bids must be submitted online through www.mahatenders.gov.in not later than the time and date specified in the tender notice.
2. CEO, ASCDCL may, at his discretion, extend this deadline for submission of bids by amending the bid documents, in which case all rights and obligations of CEO, ASCDCL and Bidders subject to the deadline will thereafter be subject to the deadline as extended.

3.16 Withdrawal of Bids

1. The Bidder may modify or withdraw his bid before the last date of submission of bids through the e-Tendering website www.mahatenders.gov.in.
2. No bid may be modified after the deadline for submission of the bids.
3. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of the bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval shall result in the Bidder's forfeiture of its bid EMD.

3.17 Opening of Bids

1. ASCDCL will open all bids (only Technical Bids at the first instance) through the e-Tendering website at the following address: ASCDCL Smart City Office, Aurangabad
2. The Bidder's representative who is present shall sign an attendance register evidencing their attendance. In the event of the specified date of Bid opening being declared holiday for ASCDCL, the Bid shall be opened at the appointed time and location on the next working day.
3. The Bidder's names, bid modifications or withdrawals, bid prices and the presence or the absence of requisite bid security and other details will be announced at the time of opening.
4. Financial Bids of only those Bidders who qualify on the basis of evaluation of technical bid & Demonstration will be opened at pre-specified time and date which will be communicated to the qualified Bidders well in advance.

3.18 Award Criteria

1. CEO, ASCDCL will award the contract to the successful Bidder as per the evaluation criteria mentioned in the bid evaluation section provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.
2. CEO, ASCDCL reserves the right to award the contract in parts to more than one Bidder, provided further that the Bidders(s) are determined to be qualified to perform the contract satisfactorily.

3.19 Variation in Actual Quantity

CEO, ASCDCL reserves the right to vary (increase / decrease) the component quantities in the tender, post award to the successful bidder.

3.20 Right to Accept / Reject Any or All Bids

CEO, ASCDCL reserves the right to accept or reject any bid, or to annul the bidding process and reject all bids at any time prior to the award of Contracts, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the CEO, ASCDCL action.

3.21 Notification of Awards

1. Prior to the expiry of the period of the bid validity CEO, ASCDCL will notify the successful Bidder in writing. The Bidder will confirm the same in writing.
2. The notification of award will constitute the formation of the Contract.
3. Upon the successful Bidder's furnishing of performance security, CEO, ASCDCL shall notify each unsuccessful Bidder.

3.22 Corrupt or Fraudulent Practices

1. ASCDCL requires that the agencies participating under this tender observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, ASCDCL defines for the purposes of this provision, the terms set forth as follows:
2. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of the public official in the procurement process or in contract execution; and "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or execution of a contract to the detriment of ASCDCL, 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 ASCDCL of the benefits of the free and open competition;
3. ASCDCL will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
4. ASCDCL will declare a firm ineligible, 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. The past performance of the Bidder will be crosschecked if necessary. If the facts are proven to be dubious the Bidders tender will be ineligible for further processing.

3.23 Interpretation of the clauses in the Tender Document / Contract Document

1. In case of any ambiguity in the interpretation of any of the clauses in Tender Document or the Contract Document, CEO, ASCDCL's interpretation of the clauses shall be final and binding on all parties.
2. The decision taken by CEO, ASCDCL in the process of Tender evaluation will be full and final.

3.24 Right to terminate the process

1. CEO, ASCDCL may terminate the RFP process at any time without assigning any reason. CEO, ASCDCL makes no commitments, explicit or implicit, that this process will result in a business transaction with anyone.
2. This RFP does not constitute an offer by CEO, ASCDCL. The bidder's participation in this process may result in CEO, ASCDCL selecting the bidder to engage to further discussions and negotiations towards execution of a contract. The commencement of such negotiation does not, however, signify a commitment by CEO, ASCDCL to execute a contract or to continue negotiations.
3. CEO, ASCDCL has the right to terminate this discussions and negotiations process without assigning any reason and no costs will be reimbursed to the participating bidders.

3.25 Rights to the Content of the Proposal

All the bids and accompanying documentation submitted as bids against this RFP, will become the property of ASCDCL & will not be returned after opening of the prequalified proposals. If any bidder does not qualify in pre-qualification evaluation, the technical proposal may not be evaluated. The Commercial Proposal of such bidders submitted online on www.mahatenders.gov.in shall not be opened. Also, the commercial proposals submitted online via www.mahatenders.gov.in by technically disqualified bidders shall not be opened. CEO, ASCDCL is not restricted in its rights to use or disclose any or all of the information contained in the proposal and can do so without compensation to the bidders. ASCDCL shall not be bound by any language in the proposal indicating the confidentiality of the proposal or any other restriction on its use or disclosure. CEO, ASCDCL has the right to use the services of external experts to evaluate the proposal by the bidders and share the content of the proposal either partially or completely with the experts for evaluation with adequate protection of the confidentiality information of the bidder.

3.26 Disqualification

The proposal is liable to be disqualified in the following cases:

- a. Proposal submitted without bid security;
- b. Proposal not submitted in accordance with the procedure and formats prescribed in this document or treated as non-conforming proposal;
- c. During validity of the proposal, or its extended period, if any, the bidder increases his quoted prices;
- d. The bidder qualifies the proposal with its own conditions or assumptions;
- e. Proposal is received in incomplete form;
- f. Proposal is received after due date and time;
- g. Proposal is not accompanied by all the requisite documents;
- h. A commercial/technical bid submitted with assumptions or conditions.
- i. If the bidder provides any assumptions in the commercial proposal or qualifies the commercial proposal with its own conditions, such proposals will be rejected even if the commercial value of such proposals is the lowest (best value)
- j. Proposal is not properly sealed or signed;
- k. If bidder provides quotation only for a part of the project;
- l. Information submitted in technical proposal is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period of the contract if any;
- m. Commercial proposal is enclosed with the same envelope as technical proposal;
- n. Bidder tries to influence the proposal evaluation process by unlawful/corrupt/fraudulent means at any point of time during the bid process;
- o. In case any one bidder submits multiple proposals or if common interests are found in two or more bidders, the bidders are likely to be disqualified;
- p. Bidder fails to deposit the Performance Bank Guarantee (PBG) or fails to enter into a contract within 30 working days of the date of notice of award or within such extended period, as may be specified by CEO, ASDCL;
- q. Bidders may specifically note that while evaluating the proposals, if it comes to CEO, ASDCL's knowledge expressly or implied, that some bidders may have colluded in any manner whatsoever or otherwise joined to form an alliance resulting in delaying the processing of proposal then

the bidders so involved are liable to be disqualified for this contract as well as for a further period of three years from participation in any of the tenders floated by ASCDCL;

- r. If, the bid security envelope, technical proposal and the entire documentation (including but limited to the hard and soft/electronic copied of the same, presentations during technical evaluation, clarifications provided by the bidder) submitted along with that found to contain any information on price, pricing policy, pricing mechanism or any information indicative of the commercial aspects of the bid;
- s. Bidders or any person acting on its behalf indulges in corrupt and fraudulent practices; and
- t. In case bidder fails to meet any of the bidding requirements as indicated in the RFP.

3.27 Sub-contracting

3.27.1 For the purpose of this tender a Sub Contract would mean “Any agreement, purchase order, or any such legal instrument issued by the agency for this Project / contract to a third party, the subcontractor, calling for the performance of a defined piece of work or production and/ or delivery of specified Goods or services as permitted herein.”

3.27.2 Sub-contracting or outsourcing will not be permitted. However, sub-contracting, with prior approval and consent of ASCDCL, for activities that are non-technical in nature, may be considered at the sole discretion of ASCDCL.

3.28 Tripartite Agreement

This contract will be executed as a tripartite agreement between ASCDCL, AMC and the selected bidder.

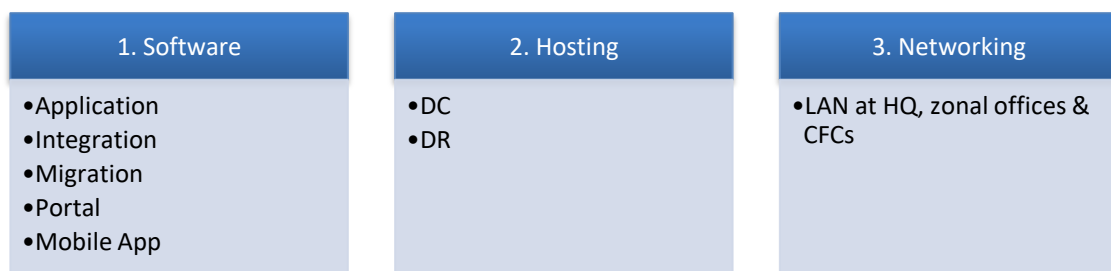
4 SCOPE & SYSTEM DESCRIPTION

4.1 Project Scope

1. The scope of this project includes the following:
 - a. Supply, installation, commissioning, testing, customisation integration, migration of software including eGovernance application, system software, database, anti-virus software and any other softwares mentioned in this tender document or required for the purpose of satisfying the functional requirements mentioned in this tender document
 - b. Provision of cloud based data center & disaster recovery services
 - c. Creation of citizen facilitation centers in AMC zonal offices
 - d. Supply, installation, commissioning, testing of networking components in AMC HQ, zonal offices & CFCs
 - e. Facility management & Training
 - f. Support for demand generation for various municipal taxes and dispatch of bills to the respective entities by post, email, sms and hand delivery. The scope shall also include support for the recovery of the taxes/cess/user fee/any other revenue source in collaboration with the respective municipal departments.
 - g. Warranty and Comprehensive Annual Maintenance
2. The eGovernance system shall contain various application modules required to fulfill the functional specifications mentioned in this document and providing post implementation support along with Software Updates / upgrades, at AMC HQ, Aurangabad & all the office locations mentioned in the tender. The supply shall include supply of eGovernance software package licenses for mentioned functional specifications and the tools, accessories, databases or any other hardware, software to make the eGovernance solution work as per the requirements of ASCDCL.
3. The project execution period shall be 6 months. The project warranty period shall be 1 year after Go-live. The Comprehensive Annual Maintenance Contract period shall be shall be 10 years, after the completion of the warranty period.
4. The bidder shall perform all such work and / or supply all such items, tools, resources, equipment and services not specifically mentioned in the scope of work but that can be reasonably inferred as being required for successful implementation and completion of this assignment without any additional cost to ASCDCL.

5. Notwithstanding anything contained in this document, regardless of what appears in the indicative schedule of quantities, it shall be the responsibility of the agency to supply, install, commission, test & maintain all the components required to make the proposed IMEGS a) total & fully functional b) function as per the functional requirements set in this document, without any financial or any other obligation to ASCDCL.
6. It will be the responsibility of the bidder to visit all the sites where activity has to be conducted to verify the site condition and build their technical proposals accordingly. The BoQ quantities mentioned for networking in zonal offices and the CFCs as well as the infrastructural provisions for the CFCs are indicative and the bidder will have to consider all the necessary equipment / cable quantities necessary to make the sites workable as per the tender document.
7. Till the software configuration, customization, migration and integration are completed, the agency shall manage the system on its own development platform (on the cloud). Once the software is ready for use, the data center on the cloud shall be deployed.
8. The system shall be seamlessly integrated with the GIS Application & all other third-party ASCDCL applications & shall work as a single system
9. IMEGS shall cater to all the business transactions happening at various AMC Departments. The IMEGS is expected to handle the entire revenue generation activities & the citizen-centric activities of AMC. The IMEGS system shall be available to all the AMC offices & over mobile devices such as laptops & smartphones.
10. The IMEGS administrative/ERP modules shall cater to various administrative and organizational procedures and processes.

The following chart specifies the scope in this tender:



5. Infra	6. DMS	7. Manpower	8. Opex	9. Revenue / Tax Collection
<ul style="list-style-type: none"> •CFC •UPS 	<ul style="list-style-type: none"> •Application •Scanning 	<ul style="list-style-type: none"> •CFC Operation •FM •Training •Demand Generation 	<ul style="list-style-type: none"> •Connectivity •Gateways 	<ul style="list-style-type: none"> •Manpower •Help Desk

4.2 IMEGS Architecture

1. The proposed architecture for IMEGS is an n-tier architecture, which is compliant to the Open Industry Standards & Protocols. However, preference will be given to the system built using open source technology stack and the database.
2. The IMEGS application is envisaged to be an n-tier architecture which has following minimum layers:
 - a. **Presentation Tier**– This tier consists of Web Server which caters to the HTTP / HTTPS requests from users (Intranet and Internet)
 - b. **Business Logic Tier** – This tier caters to the business rules requirement of the application. Application server is the main building block of this tier
 - c. **Data Tier** – Data tier stores application / transaction data to the database

4.3 System Requirements

4.3.1 General Requirements

- The software for IMEGS shall be an integrated, ready to be deployed, software suite and integrate with standard GIS Application softwares. ASCDCL is interested in having the IMEGS solution with minimal customization.
- The envisaged system should be designed to meet the relevant STQC Standards.
- The application shall confirm Indian standards of information security, published from time to time by MEITY.
- The IMEGS application should support virtualization environment & should support at least 3 popular VM softwares.
- The IMEGS shall be able to integrate with the current as well as upcoming applications in a seamless fashion. It shall be possible to login to both the applications through single sign-on for applicable users.

- The system will be centrally deployed and globally accessed. Access shall not be restricted locally.
- The system shall be designed to be scalable and extensible.
- The software, along-with all of its sub-systems shall be capable of operating in an environment requiring a single sign-on. Also, it shall have a security feature of signing-off a user after a user-defined time-period of inactivity.
- All application components shall have a browser based user interface with common look and feel and user friendliness with good looking graphical interface.
- The application shall be compatible with all popular browsers available including Chrome, Firefox, IE and Safari.
- All systems shall take into account appropriate security, performance, efficiency and maintainability issues.
- Data shall only be accessed through an application to create, update and delete transactions.
- The solution shall be compatible for printing reports and cheques with standard printers like Dot Matrix, Laser, Inkjet and line printers.
- The system shall support load balancing at the web, application and the database layers of the system.
- The application shall be workable with the Disaster Recovery IT infrastructure of the data center with functions like real time failover without data loss.
- The latest version of the software shall be quoted. Bidders are required to mention the version number of the application.
- The bidder shall prepare technical manuals to enable configuration, customization, enhancement, deployment of IMEGS and make the same available to AMC.
- The offered IMEGS product shall have Country Specific Version for India with statutory requirements incorporated and should have a localization support in terms of Aadhaar, GST, Income tax, TDS etc. specific to India.
- The bidder shall be capable of providing 24 X 7 support services on functional and technical issues, upgrades, bug fixes etc. in person or through remote arrangements with resolution time commitment of 24 hrs.
- The product OEM shall have application support roadmap for the proposed solution for a minimum period of ten years from the date of commissioning of the solution.
- The solution is required to cover all the functional requirements mentioned in the Annexure of this document and provide modularity that should support

addition/removal of one or more modules as and when required. However, these modules should be seamlessly integrated in the core application system

- The source code of application (in case proposed application is open source) / customization (in case proposed application is proprietary) shall be owned by ASCDCL. The database shall be completely owned by ASCDCL.
- The solution shall be extensible to address new or changing business scenarios and business rules without having to do major rewrite of the software components.
- The solution shall provide all the relevant leading technology (e.g. XML, Flat file, messaging etc.) to meet the integration requirements. The bidder shall specify the methodologies of the integration with the sub-systems mentioned in the tender document including products / tools required for the integration.
- The solution shall have necessary audit trails for the integrated application. It shall be possible to trace the transaction to the source application / application user through audit trails.
- The configuration recommended / proposed shall have capability of handling transactions for the next 10 years keeping in mind the application response guidelines mentioned in the tender or as finalized with the successful bidder. The bidder shall consider an increase of around 20% - 25% in the number of transactions and storage.
- The proposed system architecture / configuration shall be sized to ensure the system operations at approximately 70% utilization.
- The bidder shall consider 100% concurrency of the estimated number of users by the bidders. (The total number of users in AMC should be considered as 4000, including the AMC users in CFCs)
- The bidder shall consider adequate concurrency and system resilience for the citizen facing services, considering Aurangabad's current population, population growth and increasing dependence on the digital platform, so that the system continues to remain responsive as per the expected performance parameters, despite the increased loads. The bidder will ensure that the application software and the DC hardware shall be designed to be scalable accordingly.
- The proposed solution shall have functions for User access control, security and backup.
- The bidder shall recommend appropriate security architecture covering authentication and authorization services. The bidders are required to consider the National e-Authentication Framework Guideline released by Government of India, Department of IT and confidentiality and privacy policies and applicable laws on a global basis.

- The solution proposed by bidder shall be based on the e-Pramaan Framework on National e-Authentication for Public Services released by Ministry of Communications and Information Technology, Department of Information Technology, Government of India.
- The bidder shall propose appropriate security architecture for remote access.
- All application components of the solution shall be accessible through a Single Sign-on through encrypted password.
- “IMEGS should support PKI / Digital Certificate based two (multiple) – factor authentication for all types of users & transactions.
- The application should support / operate on the 64-bit platform
- The AMC website should have a secure functionality in that all financial transactions should take place through the https protocol.
- The solution shall have the capability to define security authorization control to the Solution through the job roles defined in the organizational structure. It shall provide the capability to define user groups and group level access control to individual or groups of applications as per the organizational structure
- The solution should permit the login of all citizens through the website / mobile app wherein a dashboard can be provided to all citizens pertaining to services availed by them from AMC. This could be based on a unique citizen / entity identification number to be decided later on.

4.3.2 eGovernance Application Customization

- ASCDCL expects an application with minimal customization.
- Changes / customizations made to the eGovernance application shall be separate from the core code of the eGovernance application.
- It shall be possible to apply updates & upgrades – major or minor, as and when released by the OEM of the application to the customized application
- The application should provide support for data entry in English and Marathi. The application should support Unicode format
- The bidder shall furnish a certification from the application vendor/s confirming the compatibility of the application/s with the future updates and upgrades without losing the customized component and without making any additional changes or configurations to the application/s.
- The eGovernance application shall enable the implementation and operationalization of various schemes by AMC, ASCDCL, GoM or GoI from time to time

- The eGovernance application shall enable cross referencing of demands across various services to ensure the capability of rejecting a particular service or reserving the right to provide the same, in case demand is outstanding against any other service.

4.3.3 Reports

- It is assumed that the eGovernance application delivers a standard set of reports from various modules.
- It is anticipated that certain customizations in the standard reports or designing of new reports may be required to fulfill AMC's functional requirement. List of such reports and specifics shall be finalized during the system study / analysis phase of the implementation effort. A list of department / module wise reports shall be finalized by the successful bidder with AMC
- In addition to the reports requirement, the IMEGS application shall have a custom report designing tool to facilitate the users to define their own reports with selectable fields across all modules and user roles.
- The application shall provide a dashboard for real time reports as per requirement of the user
- The application shall provide the ability to send alerts and notifications in the form of SMS, email, WhatsApp or any other social media channel.

4.4 Scope of Work, Deliverables & Timeline

W - Week

Scope	Deliverables	Begins (Week)	Ends (Week)
A. Application Software			
Supply Municipal eGovernance Application with required licensing as mentioned in this document.	<ul style="list-style-type: none"> • Documentation (SRS & SDD) • Application Source Code • Application Deployment on testing environment 	W1	W4

Scope	Deliverables	Begins (Week)	Ends (Week)
	(testing environment to be responsibility of bidder)		
Start citizen centric modules, portal, mobile app, payment gateways	<ul style="list-style-type: none"> Respective module customization 	W5	W12
Customise the IMEGS Application as per AMC needs	<ul style="list-style-type: none"> Documentation Application customisation Source Code Application Deployment Deployment support 	W1	W24
Integrate IMEGS application with third party systems	<ul style="list-style-type: none"> Documentation Integration source code Application Deployment Deployment Support 	W1	W24
Migrate existing legacy data into IMEGS	<ul style="list-style-type: none"> Write migration code Provide manpower for migrating legacy data 	W1	W24
Carry out User Acceptance Testing	<ul style="list-style-type: none"> UAT as per mutually agreed formats 	W20	W24
CFC development	<ul style="list-style-type: none"> 	W12	W24
LAN at HQ & Zonal Offices	<ul style="list-style-type: none"> 	W12	W24
B. Data Center & Disaster Recovery			
Establish a Tier-3 data center	<ul style="list-style-type: none"> Logical and physical design of the Data Center 	W12	W24

Scope	Deliverables	Begins (Week)	Ends (Week)
	<ul style="list-style-type: none"> Performance testing of IMEGS on live environment 	W20	W24
C. Operation & Maintenance			
Provision of DC and Disaster Recovery (DR) hosting for the IMEGS Application. Conduct DR drill every three months	Setup DR site as per technical specifications and requirements of the application	W24	End of Contract Period
Provide software updates & upgrades (all software components of IMEGS) as and when published by the respective OEM.	Installation of Software Updates / Upgrades	W24 / Go-live, whichever is later	End of Contract Period
Operate the IMEGS application for a period of 11 years (including 1 year of warranty)	Provide manpower with requisite skillsets	W24 / Go-live, whichever is later	End of Contract Period
Provide warranty (1 year) and Annual Maintenance Support (10 years), including Facilities Management Services	Provide manpower with requisite skillsets Support and maintain the existing legacy data center and application till the new application and data center are deployed Undertake preventive maintenance and routine maintenance Undertake repairs, rectification, updates, upgrades as and when necessary Provide support and maintenance at the data center and CAMC for	W24 / Go-live, whichever is later	End of Contract Period

Scope	Deliverables	Begins (Week)	Ends (Week)
	the supplied IT infrastructure and application as well as legacy hardware and software		
Provide functional & technical support for the application & its sub-systems.	Support the existing legacy applications till IMEGS is rolled out After the roll out of IMEGS, carry out changes in the IMEGS application as per AMC needs, or changes in various rules, as and when necessary Create required documentation	W24 / Go-live, whichever is later	End of Contract Period
Provide continual training to AMC employees	Create training documentation and plans Undertake regular training sessions on the job as well as in the classroom for the entire contract period	W24 / Go-live, whichever is later	End of Contract Period

4.5 IMEGS Application

- 4.5.1 The bidder shall supply requisite number of licenses for Municipal eGovernance Application for the functional requirements as mentioned in this tender document and the indicative list of eGovernance modules. The details of the license requirements are as per the industry standards.
- 4.5.2 The bidder shall provide comprehensive solution & IT infrastructure sizing, based on the information provided by ASCDCL. The sizing estimate shall include detailed server configuration, network architecture, platform to be used, data storage scheme based on number and type of users, ASCDCL's expected service levels, desired response time etc.
- 4.5.3 The bidder shall customize the Municipal eGovernance Application to suit AMC's functional and technical requirements as mentioned in this document and **identified during the requirements gathering phase at the project initialization**. Customisation shall include provision of interfaces & data entry field in Marathi language wherever applicable.
- 4.5.4 Vendor shall supply all the components mentioned in the schedule of quantities complying with the functional and technical parameters mentioned in this tender document.
- 4.5.5 It is the responsibility of the bidder to suggest, supply and commission the required database, other software / application dependencies suitable for the proposed Municipal eGovernance solution and complying with the functional / technical specifications mentioned in the tender document.

4.6 **Supply of Licenses, Tools & Accessories and Documentation**

- 4.6.1 ASCDCL expects full access licenses for Municipal eGovernance Application which can be used across modules without any restriction and shall be able to perform full or limited tasks based on the assigned role. These users shall also use transaction, employee service, and technical & system administration for the offered Municipal eGovernance Application product along with the relevant tools, accessories, and documentation as a part of the offered solution.
- 4.6.2 The number of user licenses required for ASCDCL shall be as per the prevalent industry-standard, completely meeting the current as well as the future operational requirements of AMC. The bidders are required to quote the unlimited and unrestricted licensing policy for the application software. Total number of users may be estimated by the bidders to calculate the load on the system & the rationale thus arrived should be submitted to ASCDCL as part of the technical bid.

4.7 **Implementation of IMEGS Solution**

4.7.1 The Bidder shall implement all modules, any other software to meet the technical and functional requirement as specified and approved To-Be process documentation as agreed upon.

4.7.2 The Bidder shall carry all such functions that are required to make the IMEGS solution work successfully and shall at minimum include the functions as explained in Scope of Work during the pilot as well as rollout phase.

4.7.3 The IMEGS roll out plan shall be finalized with the successful bidder. However, the bidder shall conform to the implementation SLA schedule as mentioned in the document.

4.8 Product configuration, interface design and customization

4.8.1 The Bidder shall undertake system configuration and customization based on the approved To-be processes, thereby ensuring compliance to the processes as envisaged at the business process design stage.

4.8.2 The Bidder shall conduct trial runs with the AMC database, and may further reconfigure the IMEGS solution if the results are not up to the expectations of AMC. Only the approved/ accepted solution shall be implemented in the Go-live phase.

4.8.3 The bidder shall adopt the GUI as per AMC's expectations. The customization shall involve color scheme, fonts, font sizes, images, etc.

4.9 Third Party Integrations

4.9.1 During the course of the project, it shall be the responsibility of the Bidder to ensure the IMEGS application is integrated to the third party systems. The bidder shall be responsible for liaising with service providers, other IT vendors, agencies, Govt./ Non Govt. Organisations.

4.10 Data Migration

4.10.1 This section mentions the immediate data migration requirements of AMC. Bidders are required to support AMC to migrate / enter transaction data from legacy systems pertaining to the financial year in which the implementation is undertaken. The data from existing legacy systems includes:

- Accounts & Audit
- Birth, Marriage & Death Registration
- Establishment
- Welfare Schemes
- Workshop
- Assets

- Health & Hospitals
- Works
- Solid Waste
- Property
- Water & Drainage
- Education
- License
- Municipal Transport
- Fire & Disasters
- Grievance
- Estates
- Workshop
- Secretariat
- Bureau

4.11 Master Data

4.11.1 Master data entry is the mandatory requirement of the project for the basic functioning for all the modules and is in the scope of the bidder.

4.11.2 Master as well as transaction data, which is in ISM mode, will have to be converted to Unicode, and then migrated into the new system. The bidder shall propose the method to be adopted for data extraction/ migration.

4.12 Additional Softwares

- 4.12.1 The Application OEM shall supply the latest version of the offered software package and any other software, tools and any additional supported, related application supported on the RDBMS database. The bidder shall be responsible for installation of software, database, system operating software, tools, and any other component (together referred to as IMEGS solution) required to achieve the desired functionalities as per the requirements of AMC.
- 4.12.2 All solutions, whether own or third party, not forming a part of the standard IMEGS package software, shall be defined, procured and implemented only after the prior approval of AMC/ASCDCL. These solutions, however, would be procured and supplied by the Bidder at no additional cost.
- 4.12.3 Notwithstanding anything contained in the tender document, the bidder will be responsible for the installation of all softwares, database, system operating software, client softwares, any other software components, hardware, cabling, accessories & any other components required to achieve the desired functionalities as per the functional requirements of the tender and to make the system complete and fully functional, without any obligation of cost to ASCDCL.

4.13 AMC Project Implementation Locations

The project shall be primarily undertaken at the AMC headquarters in Aurangabad. Certain implementation tasks will also be undertaken at the ward offices and the CFCs in the various wards of AMC. The agency will also be asked to provide the access to IMEGS through the Operational Command Center (OCC) being constructed by ASCDCL under the Smart city program as well as any other location specified by ASCDCL.

4.14 Mobile Governance

- 4.14.1 The IMEGS application shall have mobile governance capability built into the system.
- 4.14.2 AMC plans to use M-Governance in the IMEGS applications. At minimum, the latest versions of Android & iOS based mobile phones, with adequate backward compatibility shall be considered. The application shall be compatible with all the leading browsers available on these software platforms. Following is the list of tasks where M governance shall be used:
- Details of various municipal Taxes & charges, including payments and reports
 - Application for various municipal services
 - Complaints & grievances reporting
 - Application/Complaints status checking

- Alerts for bills generated
- Vaccination Scheduling based on registered Births
- Location based services like medical emergencies, disaster management
- Acknowledgements & notifications of case status
- Transaction alerts
- Tender alerts
- ASCDCL / AMC meeting alerts
- Infocasts (Broadcasting civic messages)
- Various alerts, e.g. escalation, for pending cases for AMC officers location-specific services like water cut etc
- Keywords information
- Any other information as will be included in this list by AMC/ASCDCL for the purpose of citizen centric services

4.14.3 Voice enabled interaction - The solution shall have one-web approach which means making, as far as possible, the same information and services available to users, irrespective of the device or the browser they are using. This implies that all Government Web sites should be compliant with mobile devices to enable users of such devices to access the same information and services (to the extent possible) as available, say, over the internet through computers.

4.14.4 The mobile application offered by the OEM shall be compliant with the Mobile Governance guidelines (Framework for Mobile Governance) issued by Government of India, Ministry of Communications and Information Technology & Department of Information Technology in its latest releases.

4.15 Data Center

- 4.15.1 The bidder shall provide Tier III Data Center services for the duration of the project. The Tier III Data Center shall meet the appropriate IEEE standards.
- 4.15.2 The bidder shall propose the application and the required hardware sizing as per the guidelines published by the OEM. The solution shall conform to the recommended level of sizing and not bare minimum level.
- 4.15.3 The server architecture shall have minimum separate servers for the Presentation, Application and Database tiers. The server infrastructure shall consider high availability clusters at all tiers mentioned here.
- 4.15.4 The bidder shall furnish a letter from eGovernance application OEM clearly certifying the proposed system architecture for the workability of the application/s as per the functional and performance requirements mentioned in this document.
- 4.15.5 The system architecture shall include production, staging / testing and development servers including RDBMS database along with the detailed hardware and software specifications as required by the solution.
- 4.15.6 The proposed solution shall have Storage Area Network based data storage.
- 4.15.7 The system architecture shall consider database and application server in the high availability mode in case of hardware failure.
- 4.15.8 The bidder shall factor future growth in transactions in providing the DC services as per requirements of AMC.
- 4.15.9 The proposed data center shall be physically within the geographical boundaries of India.

The agency shall ensure that post award of the project, the data center service provider enters into an agreement between AMC, ASCDCL and the agency.

As a part of the data centre scope, the agency shall also provide the following:

- Web hosting for websites of AMC, ASCDCL and their entities as per standards published by MEITY with adequate security (SSL) provision and as per requirements of ASCDCL & AMC.
- Web & email Administration
- Any hosting requirement for the mobile eGovernance app
- All coordination required with third party agencies pertaining to web / email / mobile app hosting for AMC / ASCDCL and their departments

4.16 Connectivity

The bidder shall be responsible to provide the connectivity between the DC and the HQ, DC and the zonal offices & CFCs. The minimum bandwidth available shall be 50 Mbps. The bidders can use either MPLS or SDWAN for the same. All networking hardware shall be configured according to the connectivity options.

The bidder shall also be responsible for providing internet services at the selected locations, with unlimited data usage and minimum bandwidth of 100 mbps.

4.17 Database Software

4.17.1 The proposed application database shall consider reputed database software in terms of the international market share mentioned in any of the latest international market statistical data published by organizations like Gartner, IDC/IHS, etc. Bidders are required to furnish relevant details as proof.

4.17.2 The proposed RDBMS software shall be of enterprise class without any restrictions on using the database for data interfacing to and from external systems apart from the application. The supplied database shall not be limited to the application. It shall be possible to use the database for multiple applications through multiple instances.

4.17.3 The proposed RDBMS shall be latest version published by the OEM and shall have at least ten years' support roadmap from the date of installation from the OEM. A certificate from the OEM to this effect shall be furnished by the bidder.

4.18 System OS

4.18.1 The proposed application OS shall be of enterprise class and shall be of the latest version published by the OEM.

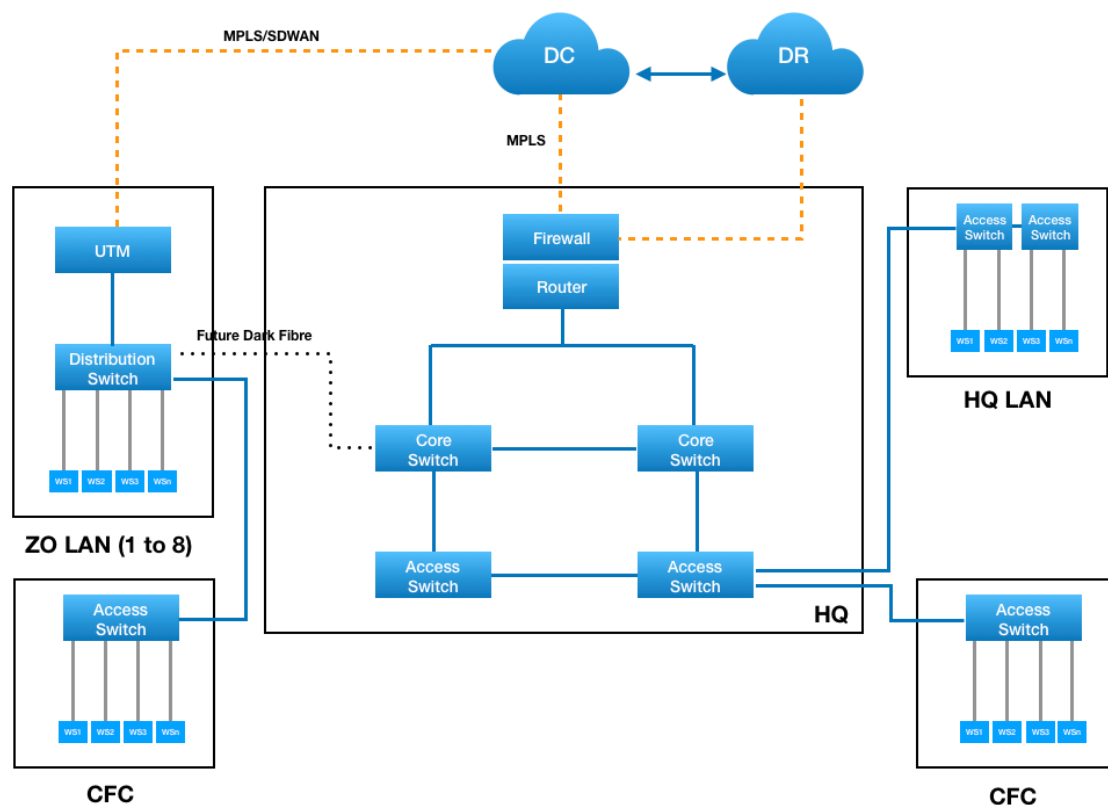
4.18.2 The OEM shall support the proposed OS/es for atleast ten years from the date of installation. A certificate from the OEM to this effect shall be furnished by the bidder.

4.19 Networking

The local networks in all the zonal offices shall be revamped to introduce structured cabling.

AMC has 10 office buildings (2 in AMC HQ & 8 zonal offices) currently within Aurangabad in which structured cabling is sought to be deployed. The CFCs within the respective zonal offices shall also be considered for the networking scope.

The basic network topology will be as follows:



The quantities of various networking equipment are mentioned in the schedule of quantities. Bidders are advised to visit the sites and ascertain the exact quantities of all cables, accessories etc. In case any of the components not mentioned in the schedule of quantities are required to be installed to meet the requirements of the tender, the same shall be done by the agency at no additional cost to ASCDCL.

A 24 core dark fibre shall be laid by the agency between the AMC HQ & Smart City office (approximate distance between the two offices is 1 km). All the necessary expenses including trenching, cabling, conduiting, laying, reinstatement, termination etc. shall be in the scope of the agency. The right of way charges for the purpose shall be waived off by ASCDCL and AMC. The cable route shall be decided as per detailed system design after the finalization of the tender.

The Smart City office network shall be connected with the AMC LAN appropriately, to access IMEGS and other computers on the Smart City network. Appropriate security provisions shall be made by the agency while integrating the two networks.

4.20 User Acceptance Testing (UAT)

The agency shall undertake UAT for all the components of the project including, software, hardware, networking and data centre. The UAT format will be mutually decided during the course of the project implementation. The UAT must be signed off

by the concerned department (incase of software), the head of the systems department, AMC, a representative from ASDCL and the Project Consultant.

4.21 Miscellaneous IT Infrastructure

4.21.1 The minimum bandwidth to be available at the proposed data center shall be 50 Mbps, provided through an MPLS / SDWAN. Any requirement of increase in the bandwidth, to meet the performance criteria, shall be in the scope of the bidder.

4.21.2 Also, the hardware provided by the bidder in the data center has to be upgraded / upscaled by the bidder at his own cost to continually meet the performance parameters, despite increasing system load year on year.

4.21.3 The bidder shall provide other miscellaneous IT infrastructure complying with the technical specifications mentioned in this document.

4.21.4 It shall be the responsibility of the bidder to integrate these IT components with the IMEGS application. E.g. the printer shall be able to print cheques from the system as required; the scanner shall scan the document in the format useful to the document management system, etc.

4.22 System Training

4.22.1 Functional Training

4.22.1.1 The Scope of Services under System functional Training shall include a) providing system operation training in English & Marathi language to all the AMC employees using the application on a continual basis during the system installation phase and thrice in every 12 months for three years, along with providing the proper training material, in soft as well as hard copies, as per the training plan approved by AMC.

4.22.1.2 The bidder shall give functional training, module-wise, to the application users at locations identified for the system implementation / locations provided by AMC. The training shall include detailed functional training of the module with the help of the printed & electronic format training materials (in English & Marathi) given to the individual employees or group of employees, department-wise.

4.22.1.3 The mode of communication of the training shall be Marathi.

4.22.1.4 The functional training schedule shall be finalized in consultation with AMC at all the locations where the system is being implemented.

4.22.2 Technical Training

4.22.2.1 The bidder shall give technical training to the identified employees of AMC. The training shall include system architecture, operating system administration, database administration, database tuning, application installation, configuration and customization training.

4.22.2.2 The database training shall include installation and configuration training along with common database administration tasks required for AMC to operate and maintain the Database system.

4.22.2.3 Application restoration, maintenance, performance monitoring activities

4.22.2.4 The successful bidder shall also supply detailed training material to AMC, to enable AMC to train more number of officers independently.

4.22.3 Change Management

- The agency shall assist AMC in managing the change across the organization.
- AMC shall form committees among employees, department wise and location wise. It shall be the responsibility of the bidder to train these employees for train the trainer concept. These employees shall be made aware of the

efficiency benefits of the application, changed, improved picture of the organization.

- These change management specific training topics shall be identified and fixed in consultation with AMC team. This shall be part of the functional training that is imparted to the employees.

4.23 Facilities Management

4.23.1 The bidder shall provide engineers / professionals for the period as mentioned in the schedule of quantities. Engineers stationed at the training center are expected to perform following tasks, but not limited to:

- Maintain and operate IMEGS software components.
- Notice and take proactive action for the continuance of the application
- Make schedule and perform system administration tasks in coordination with the AMC IT cell.
- Maintain documentation of every user request, issues, changes pertaining to the application after successful implementation of the system
- Any other work as may be required to maintain, operate the system / application, and other system administration tasks and responsibilities.
- Check system updates for critical patches
- Check security requirements of the application and ensure application / data security at periodical intervals.
- Coordinate with network / security professionals already working for AMC for mitigating any application / data related threats
- Check log generation, analyze and report all application, database hardware and software components in liaison with AMC IT cell.

4.24 Demand Generation

The agency shall support AMC and its officials in the entire process of demand generation to the recovery of that demand. This support will include, but not limited to: Printing of bills, dispatch of bills, running a helpdesk, assist with management of grievances, providing data wherever required to the tax inspectors, calling up defaulters, sending mass communication under the supervision authorization of AMC, proposing schemes etc.

All the printing accessories & consumables as well as postal costs for dispatch of the bills shall be borne by the bidder.

This support shall be provided by the agency to all tax/cess/lease/rent revenue that is generated by AMC, including property tax, water tax, license fees, etc.

4.24.1 Collection of outstanding arrears on Property tax

- i. The agency shall collect the details pertaining to total outstanding arrears from AMC.
- ii. The agency shall provide property tax collection support through the following stages:
 - The staff of the agency along with authorized AMC personnel shall visit the site and observe/measure the area under construction in the concerned building on the site.
 - The staff of the agency under the supervision of AMC officers shall verify whether the building or structure is classified as residential/commercial/authorized/unauthorized.
 - Support to the authorized personnel of AMC as they finalize the tax to be levied in accordance with applicable rules/law
 - In case an objection is raised to the tax levied by AMC, the authorized AMC officers shall hold hearings in accordance with applicable rules/law. The agency shall provide all support to AMC team as needed for conducting the hearing suggest ways for effective resolution of disputes. The support to be provided by agency shall include collecting all such objections and producing the same before the competent authority.
 - As the above-mentioned stages are completed, the agency shall generate and distribute the demand bills under the supervision/authorization of authorized AMC officers.
 - Payment of taxes: the agency shall facilitate the payment of taxes to the Aurangabad Municipal Corporation in the following ways: a.) digital modes of payment wherein the amount is paid online by tax payers and transferred directly into the bank account designated by AMC, b.) make provision for a cashier counter at CFCs where tax payers can physically deposit the cash (AMC's cashier shall be deputed at all CFCs for collection of cash payment by tax payers), and c.) agency's staff shall collect the amount directly from the doorstep of the tax payer; however for door step collection, the amount payable shall strictly be in the form of a cheque or demand draft in the name of Aurangabad Municipal Corporation—the agency shall collect the demand draft and cheque and deposit into the designated account of AMC (any

discrepancy from the tax payer side shall be reported by agency to the competent authority for appropriate action).

- iii. The agency shall generate bills, distribute bills and provide support towards collection of taxes from such property falling within the jurisdiction of AMC under the overall supervision of authorized officials of AMC.
- iv. Support towards collection of current demand and survey of new and old property for each financial year from the signing date of the contract till the expiry of contract
- v. The agency shall collect the details pertaining to current demand for the initial year from AMC. [L]
[SEP]
- vi. The agency shall do the Survey of old and new properties and provide detail measurement of same to Property tax department. [L]
[SEP]
- vii. Increase the total properties under tax net by identifying new properties as well as properties which are not covered under existing tax net but fall under the jurisdiction of AMC
- viii. To identify, evaluate and provide information report on properties paying lesser amount of tax due to change in construction area. [L]
[SEP]
- ix. Provision of details of such new properties identified under the jurisdiction of AMC to the Property Tax department of AMC from time to time. [L]
[SEP]
- x. The above-mentioned information report submitted by agency will be scrutinized by AMC. If the information provided is found correct, AMC will notify the agency along with AMC approved assessment report in order to levy tax upon the assessed property. The agency after the approval from AMC shall generate bills, distribute bills and provide support towards collection of taxes from any such properties falling within the jurisdiction of AMC under the supervision of authorized AMC officers.
- xi. The agency shall submit on daily basis the recovery statements to the Commissioner; Tax Assessor and Collector office, Accounts Department and the concerned ward offices. [L]
[SEP]
- xii. The collection system should also support “e-payment” through various wallets and all payment mechanisms mandated by the GoI as per the Digital India mission.

4.24.2 General Obligations of the agency

- The agency shall provide support towards collection of property tax at the rates fixed by the Corporation each year on properties within limits of the Corporation therein during the entire contract period.
- The agency shall work / act within the stipulated legal provisions, rules and the framework and shall comply with and shall be bound by all the provisions of

the following Acts, Rules and Regulations for the purpose of levy, imposition, and recovery of the property tax:-

- Maharashtra Municipal Corporations Act and the rules framed thereunder. [L]
[SEP]
- The resolutions passed by the Corporation from time to time for imposition, levy, and recovery of property tax and the matters incidental thereto. [L]
[SEP]
- Any other rules or Bye-laws, Standing Orders in respect of imposition, levy, and recovery of property tax and matters incidental thereto including imposition of tax. [L]
[SEP]
- New properties identified by Agent or change in area of any old property; the information for such properties will be submitted by agency to Tax Assessment division of Corporation. The information report of agency will be scrutinized and verified by officials at AMC. After verification tax shall be levied on such properties and it shall be responsibility of agency to send a demand bill to such properties owners and provide support towards collection of tax in lieu of demand bill. [L]
[SEP]
- For current demand collection for every year during ten years of agreement period, the total demand shall be calculated for each year respectively. [L]
[SEP]
- The agency shall maintain the records of properties as currently maintained by AMC and shall submit the information at the end of every month to AMC. [L]
[SEP]
- For any dispute on above conditions the Commissioner of AMC shall be final binding authority and his/her decision shall be final and binding upon both the parties. [L]
[SEP]
- It is the responsibility of the agency to make the necessary arrangement of minimum manpower for activities like survey, bill generation, bills distribution and support towards tax collection.
- The staff will also work with the authorities in publishing notices related to discovered properties, as per AMC formats, in various newspapers / public platforms. The costs for the same will also have to be absorbed by the agency.
- Till the duration of the contract, the deputed staff of the agency will generate the various demands (taxes etc.) of the AMC and ensure that the demand notes (bills) generated are dispatched to the users (citizens) on a periodic basis. All operational costs of the demand generation including printing, envelopes, dispatch (through courier) shall be absorbed by the agency.
- Once the property has been legally vetted as an admissible property within the property tax ambit, the agency will ensure that the property is registered in IMEGS.

- All the above conditions shall be applicable for the collection of all municipal taxes, cess, lease, rent, etc.
- At all times within the project contract period, the agency must strictly follow and abide by all applicable laws. Any action contrary to this will invite strict action from the corporation and ASDCL.

This RFP specifies that the agency shall provide 4 nos. resources for the process of demand generation and recovery. However, whenever necessary and as per the need of AMC and ASDCL, additional resources shall be deployed by the agency, at no additional cost.

4.25 Doorstep Delivery of Certificates

- For all certificates/NOCs issued by Aurangabad Municipal Corporation, the agency shall provide a service through which all documents shall be collected from the doorstep of the applicant and subsequently deliver the certificate or NOC to the doorstep of the applicant within 72 hours (including working days) of documents collection.
- The successful bidder shall do an assessment of all such certificates or NOCs or any other approval issued by Aurangabad Municipal Corporation for feasible implementation of doorstep delivery service.
- The agency shall submit a list of all such certificates/NOCs or any other approval issued by AMC that can be brought under the ambit of doorstep delivery service to the Commissioner AMC for his/her approval within two months of the issuance of Work Order.
- With the approval of the competent authority, the doorstep delivery shall be made functional from the date of Go-Live. It shall be the responsibility of the agency to deploy the human resources required to enable the doorstep delivery envisaged in this clause.
- For this part of the scope, the agency shall charge a fee of INR 200 per individual applicant. The fee shall be escalated by 10% on previous year's amount during each year of the contract period.
- The amount collected shall be shared in a ratio of 50:50 between Aurangabad Municipal Corporation and the agency. All costs pertaining to the doorstep delivery service shall be borne by the agency. There shall be no payment to the agency for the doorstep service as envisaged in this clause over and above the agency's share of the aforementioned fee.

- The agency shall devise an appropriate authentication mechanism (either through handheld devices or mobiles) for verification of the doorstep delivery with appropriate acknowledgment from the citizen(s).
- The agency shall provide all the available online payment channels for this payment as envisaged in this tender document.

4.26 Maintenance Summary

Component	Warranty	CAMC
IMEGS Application including GIS application	12 month comprehensive onsite support for system updates, patches & enhancements from the date of successful commissioning	120 month comprehensive onsite support for system maintenance including updates, patches and product enhancements
Database Software	12 month comprehensive onsite support for system updates, patches & enhancements from the date of successful commissioning	120 month comprehensive onsite support for system maintenance including updates, patches and product enhancements
Server OS	12 month comprehensive onsite support for system updates, patches & enhancements from the date of successful commissioning	120 month comprehensive onsite support for system maintenance including updates, patches and product enhancements

4.26.1 Network Maintenance

4.26.1.1 All network components supplied shall have 12-Month comprehensive (parts and labour) system warranty from the OEM. The warranty support shall be provided by the OEM and not the bidder. The date of warranty shall commence from the date of successful implementation of servers including OS and system tuning.

4.26.1.2 The warranty shall have same business day response from OEM and any issue related to the hardware or software shall be addressed within four hours of the complaint registration.

4.26.1.3 The maintenance cost for every year shall be mentioned separately in the schedule of quantities. The maintenance cost shall be considered in the commercial evaluation.

4.26.1.4 It is responsibility of the bidder to coordinate issues management with the OEM.

4.27 Manpower Provision

The following personnel should be deployed by the selected agency at AMC for a continuous basis during the project period, including the warranty period.

1. Operation & Maintenance Engineers

Description	<ul style="list-style-type: none">• Support, configure, maintain and update the AMC eGovernance application• Manage users, permissions and passwords within the eGovernance system• Identify and resolve bugs if any• Manage the source code• Carry out changes in the code wrt to functional requirements / changes• Manage and restore database backups• Resolve eGovernance problems reported by end user• Update the web portal on a daily basis
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Qualifications & Experience	<ul style="list-style-type: none"> • Bachelor in Computer Engineering / Sciences from a reputed university, with at least 6-8 years of working, preferably in a government setup • Experience managing web-based applications (.Net), database (Oracle) and reporting tools (Crystal Reports), open source • Understanding of open source platforms and databases • Understanding of software architectures and development
Skillsets	<ul style="list-style-type: none"> • Application development and maintenance • Technical Support • Application Design • Application Security • Training
Certifications	<ul style="list-style-type: none"> • Certifications in .Net / Oracle / Open source technologies

2. Facilities Management Engineers

Description	<ul style="list-style-type: none"> • System & Network Administration • Provide onsite support to AMC users with respect to hardware and network issues and resolution • Manage a manual or automatic ticketing system for issue generation and resolution • Provide training to various users across AMC on hardware & software • Manage the helpdesk
Qualifications & Experience	<ul style="list-style-type: none"> • Bachelor in Computer Sciences from a reputed university, with at least 6-8 years of working, preferably in a government setup • Understanding of hardware and network architecture, design and maintenance
Skillsets	<ul style="list-style-type: none"> • Technical Support

	<ul style="list-style-type: none"> • Training
Certifications	<ul style="list-style-type: none"> • Certificate as a network administrator (CCNA or equivalent)

3. Trainer

Description	<ul style="list-style-type: none"> • Train AMC Users in all aspects of eGovernance including software, hardware, networking, IT security
Qualifications & Experience	<ul style="list-style-type: none"> • Bachelor in Computer Engineering / Sciences from a reputed university, with at least 6-8 years of working, preferably in a government setup • Experience managing web-based applications (.Net), database (Oracle) and reporting tools (Crystal Reports), open source • Understanding of open source platforms and databases • Understanding of software architectures and development
Skillsets	<ul style="list-style-type: none"> • Technical Support • Application Design • Training
Certifications	<ul style="list-style-type: none"> • Certifications in .Net / Oracle / Open source technologies

The above manpower should also be qualified to carry out system administration & database administration tasks. Primarily, the tasks will consist of but not limited to, the following:

Description	<ul style="list-style-type: none"> • Provide technical support for both hardware and software (mainly operating systems) issues • Manage the configuration and operation of client-based computer operating systems • Monitor the AMC eGovernance system daily and respond immediately to security or usability concerns • Create and verify backups of data • Respond to and resolve help desk requests
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	<ul style="list-style-type: none"> • Upgrade systems and processes as required for enhanced functionality and security issue resolution • Administrate infrastructure, including firewalls, databases, malware protection software and other processes • Review application logs • Install and test computer-related equipment • Manage the IT personnel in the data center as well as in the CFCs • Provide training to AMC users in both software and hardware, as and when required • Report on tickets generated and resolution carried out on a daily basis • Manage the website & email administration • Manage the DC / DR setup • Manage the CFCs and the revenue collection
Skillssets	<ul style="list-style-type: none"> • Hardware & Software maintenance • LAN/WAN/NOC Administration • Project Management • Workflow Planning • Technical Support • Systems Installation, Configuration & Upgrading • Security Solutions • Database Design & Management (esp Oracle) • Software upgrades & updates • IT Security • NOS Patches & Updates • Training & Mentoring
Certifications	<ul style="list-style-type: none"> • MCSE / MCSA / Equivalent Open Source Certification

The bidders shall engage appropriately qualified manpower for:

- CFC operation
- Demand Generation & recovery

The minimum qualifications for the above manpower shall be:

- Graduate in Science / Commerce
- Proficiency in use of computers & applications
- Experience of 2 years in similar environments

All manpower including the manpower for demand generation shall be available for their services immediately after Go-live. ASCDCL and AMC may depute the manpower deployed at the CFC & for Demand generation & recovery interchangeably. ASCDCL

reserves the right to increase / decrease the number of persons engaged for the various tasks as per the requirement / performance.

4.28 IMEGS Application Software Maintenance

4.28.1 The bidder shall support the IMEGS application software through a team of Operations & Maintenance engineers stationed at AMC during the entire support period including the warranty period.

4.28.2 The Operations & Maintenance team shall comprise a team of qualified & experienced engineers who are able to provide following ongoing services during the support period on a continuous basis –

- a. Regular system operation & maintenance support for the software as well as hardware & networking.
- b. Software Code-level changes, debugging & Updation
- c. System / Software upgradation, monitoring, back-up & other such routine tasks
- d. System & network administration
- e. Development of newer modules & sub-systems as & when new functionalities & requirements are added during the contract period
- f. Periodic upgradation & modification of the M-Governance App, website Interface/functionality from the point of view of providing the latest & up-to-date user experience
- g. Integration with other software modules
- h. Integration of all the AMC's upcoming systems & software during the contract period
- i. System Monitoring & health check on 24x7 basis.
- j. Required Call Center support for the system
- k. The bidder shall ensure resolution of issues within same day

4.28.3 The agency shall be responsible for carrying out regular system security audit (at least once in six months) of the system regularly during the support period, from agencies specially empanelled by the Government of Maharashtra for this purpose. In addition to the regular audits, the agency shall also be required to carry out special audits as & when AMC decides or determines a need for the same. The cost for the audits shall be borne by the agency.

4.28.4 The bidder shall have support facility within Maharashtra and shall resolve telephonic queries, register complaints if complaints are not resolved by the stationed engineers at AMC.

4.28.5 The bidder shall be responsible for the license management, patch management, capacity management, release management, service level management, and security management and any other necessary support for the successful application operation pertaining to the IMEGS application.

4.29 Project Charter

4.29.1 A detailed Project charter including the detailed Project Plan, indicating all activities with resources required with their roles and responsibilities and time schedule will be required to be prepared at the start of the project and submitted to AMC/ASCDCL for approval.

4.29.2 The project charter shall also contain brief project description, approach and methodology, milestones, project organization with their roles and responsibilities, project risks and mitigation plans, dependencies etc. The implementing Agency shall also include in the program for supplying, installing and implementing the software covered under this contract.

4.29.3 The bidder shall form a project team as mentioned below. The team shall be stationed at the mentioned AMC locations till the successful implementation of the project. Please note that this is an indicative list of resources considering the application roll out timeline mentioned in this document. The successful bidder shall finalize number of resources for each category with AMC team.

Sr. No.	Position & no. of Resources Required at AMC	Experience (Years)	Domain
A	IMEGS Implementation Team (Bidder)		
1.	Project Manager (1 person)	8 – 10 years	The PM Shall have experience in implementing ERP & eGovernance solution in ULBs. The PM shall have handled similar project implementation & ERP integration projects in India. The project manager shall have

Sr. No.	Position & no. of Resources Required at AMC	Experience (Years)	Domain
			experience in all aspects of project life cycle.
2.	Team Leader (2 persons)	6 – 8 years	The team leader shall have relevant experience in implementing Municipal eGovernance solutions in at least two ULBs in India & one ULB in Maharashtra. The team lead shall have ERP implementation experience from private organizations also.
3.	Functional & Technical Team Members (Min 4 persons)	4 – 5 years	The implementation team members shall have ERP/eGovernance implementation experience from private, government, semi-government organizations.
4.	DC & DR Hosting Engineer/s (Min 1 person)	5 – 6 years	The engineer shall be certified on the proposed application infrastructure by the OEM and shall have similar experience in installation and implementation experience including the fine tuning of the hardware.
5.	Networking Engineers	5-6 years	The engineer shall be certified on the for networking systems by the OEM and shall have similar experience in networking installation and implementation.

4.29.4 The above project team shall be primarily responsible for the pre-implementation and implementation activities for IMEGS. The Project Manager shall ensure that the project is successfully handed over to the O&M team.

4.29.5 The charter shall have other project roles such as process improvement, change management, training, custom development etc.

4.30 Project Roles and Responsibilities

This project will be executed through a tripartite agreement between ASCDCL, AMC and the successful bidder.

Various project teams are envisaged to be setup comprising of representative of ASCDCL, the representatives from various departments of AMC having expertise in AMC processes, representatives of the Consultant and the Project Manager from the implementation agency. These teams shall be responsible for the coordination and finalization of the to-be processes of AMC, BPR, and Project Implementation.

The teams shall meet at regular intervals as mentioned below to identify and resolve issues, identify and mitigate project risks, keep track of the implementation schedule, check project milestones, and the next plan of action.

Role	Responsibilities	Members	Frequency of Interactions
Core Committee	<ul style="list-style-type: none"> • Ultimate decision-maker • Provide project oversight and guidance • Review/approve project elements • Resolve any Issues 	<ul style="list-style-type: none"> • CEO, ASCDCL • Commissioner, AMC • Project Consultant • Project Manager, Implementation Partner • Any other representatives appointed by CEO, ASCDCL 	<ul style="list-style-type: none"> • Monthly Meetings
Steering Committee	<ul style="list-style-type: none"> • Commit department resources • Approves resource allocation strategies, and significant changes to resource allocation • Resolves conflicts and issues • Provides direction to the Project Manager 	TBD by the CEO, ASCDCL	<ul style="list-style-type: none"> • Fortnightly Meetings

Role	Responsibilities	Members	Frequency of Interactions
	<ul style="list-style-type: none"> Review project deliverables 		
Project Manager	<ul style="list-style-type: none"> Manages project in accordance to the project plan Serves as liaison to the Steering Committee Serves as liaison to other project sub-systems Receive guidance from Steering Committee Supervises subject consultants Supervise agency(s) Provide overall project direction Direct/lead team members toward project objectives Handle problem resolution Manages the project budget, timelines and deliverables 	<ul style="list-style-type: none"> As appointed by the successful bidder 	<ul style="list-style-type: none"> NA
Project Coordinator	<ul style="list-style-type: none"> Acts as liaison among various project stakeholders, service providers, hardware OEMs, user activity coordination. Offload tasks of the Project Manager for the liaison work 	<ul style="list-style-type: none"> As appointed by the successful bidder 	<ul style="list-style-type: none"> NA

Role	Responsibilities	Members	Frequency of Interactions
	<ul style="list-style-type: none"> The role shall continue beyond IMEGS project implementation as handholding support. 		
Project Team Members	<ul style="list-style-type: none"> Understand the user needs and business processes of their area Communicate project goals, status and progress throughout the project to personnel in their area Review and approve project deliverables Creates or helps create work products Coordinates participation of work groups, individuals and stakeholders Provide knowledge and recommendations Helps identify and remove project barriers Assure quality of products that will meet the project goals and objectives 	As appointed by the successful bidder	<ul style="list-style-type: none"> As finalized by ASDCL, Consultant and Implementation Partner

Role	Responsibilities	Members	Frequency of Interactions
	<ul style="list-style-type: none"> Identify risks and issues and help in resolutions 		
Domain Experts	<ul style="list-style-type: none"> Lend domain expertise and guidance in understanding user requirements and mapping business processes to IMEGS processes 	As appointed by the successful bidder	<ul style="list-style-type: none"> As finalized by ASCDCL, Consultant and Implementation Partner
Project Management Consultant	<ul style="list-style-type: none"> Acts as liaison to AMC, Implementation Partner, External Stakeholders, Government Departments for project initialization, implementation, departmental interactions, communication between various committees, keep track of project deadlines and deliverables, scrutiny and feedback of various documentations, etc. 	IMEGS Project Consultant	<ul style="list-style-type: none"> As finalized by ASCDCL, Consultant and Implementation Partner

The following table highlights the roles of various entities envisaged in the project:

Entity	Role
ASCDCL, Project Owner	Project approvals & payment

AMC, Project Co-Owner	Project approvals, space provision, permissions for work, functional manpower for project discussions, other roles identified in the document
MIPL, Project Consultant	Project Management
Agency	Project implementation & maintenance and all roles as identified in this document

4.30.1 Communications Methodology:

The following is a list of communication events that should be established for this project:

A. Monthly Status Reports

The Project Manager shall provide monthly written status reports to the Steering Committee. The reports shall include the following information tracked against the Project Plan:

- Summary of tasks completed in previous month
- Summary of tasks scheduled for completion in the next month
- Summary of issue status and resolutions

B. Monthly Steering Committee Meeting

These status meetings shall be held at least once per month and shall be coordinated by the Project Manager. Every member of the Steering Committee shall participate in the meeting. The Project Manager shall send the status report to each member of the team prior to the meeting time so everyone shall review the same in advance.

C. Bi-Monthly Project Team Status Meeting

These status meetings shall hold every other month. Every member of the Project Team shall be invited to participate in the meeting. Project Manager shall send the status report to each member of the team prior to the meeting so everyone can review it in advance.

D. Website Use

User Group Participants and Domain Experts may be updated monthly at the discretion of the Project Manager. The information shall be posted to the project's website.

4.31 Issue Management

The information contained within the Project Plan will likely change as the project progresses. While change is both certain and required, it is important to note that any changes to the Project Plan will impact at least one of three critical success factors: Available Time, Available Resources (Financial, Personnel), or Project Quality. The decision by which to make modifications to the Project Plan (including project scope and resources) shall be coordinated using the following process:

- I. As soon as a change which impacts project scope, schedule, staffing or spending is identified, the Project Manager shall document the issue.
- II. The Project Manager shall review the change and determine the associated impact to the project and shall forward the issue, along with a recommendation, to the Steering Committee for review and decision.
- III. Upon receipt, the Steering Committee shall reach a consensus opinion on whether to approve, reject or modify the request based upon the information contained within the issue documentation, the Project Manager's recommendation and their judgment. Should the Steering Committee be unable to reach consensus on the approval or denial of a change, the issue shall be forwarded to the Core Committee, with a written summation of the issue, for ultimate resolution.
- IV. If required under the decision matrix or due to a lack of consensus, the Core Committee shall review the issue(s) and render a final decision on the approval or denial of a change.
- V. Following an approval or denial (by the Steering Committee or Core Committee), the Project Manager shall notify the original requestor of the action taken.
- VI. All decisions of the core committee shall be final and binding on the implementation partner

4.32 Training and Change Management

To make AMC employees receptive of the total computerization initiative and the new work environment, it is recommended to have a special focus on the training of

employees. The functional training shall address the knowledge of employees for using the IMEGS project. With the introduction of ICT in the day to day operations of AMC employees, it becomes absolutely necessary to introduce the AMC employees to the advantages and precautions to be taken in the computerized work place.

A soft skills training like the communication skills, leadership, understanding roles and responsibilities shall also be introduced to the AMC employees during the training to handle the computerization within the organization with positive mental attitude of the employees.

Hence the training requirements of AMC as outlined below shall consider functional as well as technical training to make the employees aware of the IMEGS software with general guidelines of using and working in the computerized applications workplace.

These trainings shall be organized at the user location to begin with and then a common training facility shall be setup for periodical trainings. The instructor may assess the knowledge levels of employees attending the training by conducting tests per and post training sessions and the results may be shared with the project steering committee to understand the user knowledge level.

Sr. No.	Training Topic	Duration
A	Application Training	Shall be continuous in nature for at least first year of the IMEGS implementation
A.1	IMEGS	
B.	ICT Training	Shall be imparted in the beginning and the frequency to be determined after first quarter of the IMEGS implementation based on employee usage pattern of applications.
B.1	Internet	
B.2	Internet & Application Security	
B.3	Basics of Networking	
C.	Soft Skills	Shall be imparted at least in the beginning and the frequency to be determined after first quarter of the IMEGS implementation based on employee acceptance level of computerization
C.1	Roles and Responsibilities	
C.2	Communication Skills	
C.3	Leadership	

The agency shall ensure that the training is always conducted in a structured format. The space for training will be provided by ASCDCL / AMC. However, all other costs required for training including projector, training handouts, trainer costs etc. will be borne by the agency.

4.33 Functional Scope

4.33.1 Please see the functional scope of the application in Annexure of this document. The list is only indicative and is aimed at providing a broad overview of the type of activities being undertaken within AMC.

4.33.2 It shall be the responsibility of the bidder to understand all the processes of AMC and map them to the application software.

4.33.3 The bidder shall provide an exhaustive list of functionalities that AMC should adopt within the organization to attain its strategic and operational goals. The bidder is expected to respond to the highlighted functional requirements outlined in the section and indicate functionalities that are not supported by its core product.

4.34 User Manual

4.34.1 The Bidder shall supply system Users' (Operations & Maintenance) Manual in Marathi & English languages in soft (MS Word and PDF) & hard format.

4.35 Documentation

4.35.1 The Bidder shall prepare & maintain proper project documentation, such as Project Management Plan (Complete as well as location-wise) system drawings, test plans, test results, minutes of the review meetings, training plans etc.

4.35.2 All project documents are to be submitted in bound hardcopy and in a softcopy/ CD format for archival

4.35.3 All project documents shall have a version number and major changes from the last submission shall be highlighted in the beginning of the revised documents

4.35.4 Project documents include but are not limited to the following:

I. Project Documentation

- Detailed project plan
- Functional Requirements specifications
- Software Requirements specifications
- Software Configuration Management Plan
- Risk Management Plan
- Architectural Design Document
- Software Detailed Design Document
- Infrastructure Requirements and Deployment Architecture specifications
- Business Continuity Plan
- DR Plan
- Source Code/Documentation

- Unit Test Plan with Test Cases
- Integration Test Plan with Test Cases
- System Test Plan with Test Cases
- Policy documents
- User Manuals
- Exit Plan including the interim take over strategy and plan
- II. HLD documents (including but not limited to)
 - Application architecture documents
 - Logical and physical network design
- III. LLD documents (including but not limited to)
 - SLA and Performance Monitoring Plan
 - Training and Knowledge Transfer Plans
 - Issue Logs

4.35.5 The agency shall submit a list of deliverables based on the methodology they propose. The agency shall prepare the formats/templates for each of the deliverables upfront based upon industry standards and the same will be approved by the ASCDCL prior to its use for deliverables.

4.35.6 All project documents are to be kept up-to-date during the course of the project.

4.36 **Third Party Inspection**

1. Third party inspection shall be arranged by the agency at their own cost by one of the following agencies - Bureau of Indian Standards / DNV / EIL / Lloyd Register of Shipping / Bureau Veritas / IRS / any other BIS registered TPI agency
2. Activities to be carried out by the third party include certifying supplies for quality & performance as per specifications approved drawings/documents & approved Quality Assurance/Test Plans (as approved by Consultant and ASCDCL).
3. TPI clearance shall be mandatory for dispatch of any material from to Site. Scanned copy of such signed Inspection Release Notes shall be e-mailed to ASCDCL & Consultant before dispatch of item/items. Copies of the same shall also form a part of Final documentation.
4. Inspection of all materials and works (at factory/vendor works/sub-vendor works) will be carried out by the TPI agency (with/without ASCDCL & Consultant) to establish conformance to the approved documents & specifications and in case the equipment and materials do not conform to the acceptance norms, they will be summarily rejected. Any cost implications as a result of deviations will be invariably to the Bidder's / agency's account.
5. TPI shall be undertaken for all components including hardware, networking components and off the shelf software

Acceptance/Clearance for dispatch shall not absolve the bidder of his responsibility to supply as per tender requirements.

4.37 Third Party Audit

ASCDCL reserves the right to undertake third party audit of the hardware and system software supplied by the implementation partner. The implementation partner will have to rectify all defects identified in the third party audit at no extra cost to ASCDCL.

4.38 Relocation of IT resources

AMC is currently in the process of designing a new headquarters. In case, during the life of the IMEGS project, the new headquarters is commissioned, the agency shall relocate the entire eGovernance infrastructure, including IT & networking components, to the new headquarters on a cost reimbursable basis. The costs for this purpose shall be approved by the agency from ASCDCL and AMC.

4.39 Country of Origin & Purchase Preference

Bidders are required to submit a statement indicating Country of Origin (CoO) for all proposed equipment along with the technical bid. The same shall be verified with the certificate of CoO required to be submitted at the time of supply. In cases where there is a discrepancy between the CoO of the supplied products and the CoO indicated during the bidding process, the said component shall stand to be rejected.

All prevalent GoI rules & regulations regarding public procurement and the country of origin shall be applicable. It will be the responsibility of the bidders to ensure that all quoted components are approved for procurement and installation by the appropriate authorities.

Any equipment manufactured in a country which currently has a land border dispute with India, or where conditions are such that supply chains & support during the project or product lifecycle are likely to be affected (to be solely determined by ASCDCL), shall not be acceptable.

4.40 System Sizing

All system requirements specified in the tender are minimum requirements. Bidders are required to propose the higher specifications based on the requirements of their solution.

Bidders are also required to provide detailed documentation pertaining to their respective system sizing in their technical proposal.

5 STANDARD CONTRACT TERMS

5.1 Project Timeline

5.1.1 The entire IMEGS project shall Go-Live within 6 months from the date of issue of the Letter of Intent.

5.1.2 Post Go-live there shall be a warranty period of 12 months

5.1.3 Post the successful completion of the warranty period, the system shall be maintained for a period of 10 years, from the completion of the warranty period.

5.2 Payment Terms

The payment terms against the scope and deliverables are as mentioned below:

Scope	Payment	Payment to be made by
A. Application Software	30 % payment to be made after delivery of software license and installation on the DC 50 % payment to be made after completion of customization, integration & migration. 10 % payment to be made after testing & Go-Live 10 % payment to be made after completion of the 1 year warranty period	ASCDCL
B. Networking, CFC & Others	40 % payment to be made on supply 40 % payment to be made on installation & commissioning 10 % payment to be made after testing & Go-Live 10 % payment to be made after completion of the 1 year warranty period	ASCDCL

C.1 CAMC Charges	Post warranty – quarterly, at the end of every quarter	ASCDCL
C.2 All Non-CAMC Charges	Post Go-live – quarterly, at the end of every quarter	ASCDCL

Please also refer the Schedule of Quantities.

5.3 Payment against deliverables & Sign-off

- Payments against all milestones shall be made only after clear sign-off from respective user departments, Consultant, the IT department of AMC and ASCDCL, and submission of firm tax invoices.
- Successful UAT of the IMEGS application will be a pre-condition for the initiation of payments for the hardware and O&M.
- In the event of any change in the rate of taxes due to any statutory notification during the term of the agreement, the consequential effect shall be borne by ASCDCL.

5.4 Liquidated Damages

In the event of the Bidder’s failure to submit the deliverables as per timelines specified in this RFP, CEO, ASCDCL may at his discretion withhold any payment until the completion of the contract as mentioned in “Payment Terms”. CEO, ASCDCL may also deduct from the payment due to the Bidder/ Agency as agreed, liquidated damages to the sum of 1% of the contract price of the corresponding milestone payment of the delayed / undelivered services for every *week*, subject to the maximum value of the liquidated damages being not more than 10% of the value of the corresponding milestone payment of the delayed / undelivered services. This right to claim any liquidated damages shall be without prejudice to other rights and remedies available to ASCDCL under the contract of law. However liquidated damages will not be claimed for the period to delay solely attributable to ASCDCL.

5.5 Termination for Default

a. In the event that CEO, ASCDCL believes that the Agency is in Material Breach of its obligations under the contract, CEO, ASCDCL may, without prejudice to any other remedy for breach of contract, terminate the Contract in whole or part upon giving a one-month’s prior written notice to the Agency. Any notice served pursuant to this Clause shall give reasonable details to the Material Breach, which could include the following events and the termination will become effective:

i. If the Agency fails to deliver any or all of the deliverables with the desired quality within the time period(s) specified in the contract, or any extension thereof granted by the CEO, ASCDCL ; or

ii. If the Agency is not able to deliver as per the project timelines defined in the RFP with the desired quality, which translates into Material Breach, then the CEO, ASCDCL will serve a thirty days written notice for curing this Material Breach. In case the Material Breach continues, after the expiry of such notice period, the CEO, ASCDCL will have the option to terminate the Contract and invoke the Performance Security / Bank Guarantee.

iii. If the Agency fails to perform any other obligation(s) under the contract.

b. In case of such a breach, CEO, ASCDCL will serve a thirty days written notice for curing this Breach. In case the breach continues, after the expiry of such notice period, the CEO, ASCDCL will have the option to terminate the Contract and invoke the Performance Bank Guarantee/ Security .

c. In the event the CEO, ASCDCL terminates the contract in whole or in part, the CEO, ASCDCL may procure, upon such terms and conditions as it deems appropriate, services similar to those undelivered, and the Agency shall be liable to the CEO, ASCDCL for any excess costs for such similar services. However, the Agency shall continue performance of the contract to the extent not terminated.

5.6 Confidentiality

a. The Agency will be exposed, by virtue of the contracted activities, to internal business, administrative or other information of ASCDCL and stakeholders. The Agency would be required to provide an undertaking that it will not use or pass to anybody the data/information derived from the project in any form. The Agency must safeguard the confidentiality of the ASCDCL's business information, application and data. For this, Agency and employees of Agency are required to sign Non-disclosure agreement with CEO, ASCDCL.

b. Disclosure of any part of the afore mentioned information to parties not directly involved in providing the services requested, unless required to do so by the court of law or other Statutory Authorities, could result in premature termination of the contract. The CEO, ASCDCL may apart from blacklisting the Agency, initiate legal action against the Agency for breach of trust. The Agency shall not make any news release, public announcements or any other reference on RFP or contract without obtaining prior written consent from the CEO, ASCDCL.

c. Agency shall use reasonable care to protect confidential information from unauthorised disclosure and use.

d. Except as otherwise permitted by the Agency, neither of the parties may disclose to third parties the contents of this Agreement or any

information/report/advice provided by or on behalf of the other that ought reasonably to be treated as confidential and/or proprietary. Parties may, however, disclose such confidential information to the extent that it: (a) is or becomes public other than through a breach of this Agreement, (b) is subsequently received by the receiving party from a third party who, to the receiving party's knowledge, owes no obligation of confidentiality to the disclosing party with respect to that information, (c) was known to the receiving party at the time of disclosure or is thereafter created independently, (d) is disclosed as necessary to enforce the receiving party's rights under the Agreement, or (e) must be disclosed under applicable law, legal process or professional regulations. These obligations shall be valid for a period of 3 years from the date of termination of this Agreement.

5.7 Project Extension

CEO, ASCDCL has the option to extend the Agreement on expiry, to avail the services of the Agency for specific work or continuation of the work carried out during the Agreement without the need to go for a separate bid process. The duration of extension will be decided by CEO, ASCDCL and will be up to a maximum of *One Year*. The decision on the extension will be taken exclusively by CEO, ASCDCL keeping in consideration a) satisfactory performance of the Agency b) technological reasons c) Where circumstances inescapably require recourse to this option.

5.8 Intellectual Property Rights

a. ASCDCL will own the copyright in all deliverable materials created under the Contract by Agency. The IPR of any deliverable which has been developed/enhanced/modified by the Agency shall belong exclusively to ASCDCL.

b. There shall be no infringement of any patent or Intellectual & industrial property rights by the Agency as per the applicable laws of relevant jurisdictions, having requisite competence, in respect of the Deliverables or any part thereof, supplied under the Contract. Agency shall indemnify the ASCDCL against all cost/claims/legal claims/liabilities arising from third party claim at any time on account of the infringement or unauthorized use of patent or intellectual & industrial property rights of any such parties.

c. Notwithstanding the above, it is agreed that nothing contained herein above shall be applicable to Agency's pre-existing materials and working papers (i.e. Materials owned by the Agency which were created and developed prior to this Agreement without direct reference to the deliverables under the Agreement), which may now be incorporated by the Agency into the final deliverable/reports or the like, supplied to the ASCDCL hereunder in the course of delivering the Services pursuant to this Agreement. However, in the event any such pre-existing material is used in the deliverables/reports provided to the ASCDCL by the Agency, the Agency hereby agrees to grant the ASCDCL an irrevocable, non-transferable, non-exclusive, paid-up, royalty free and perpetual license to use such pre-existing

material as it exists in the deliverable /reports prepared by the Agency as a part of the Agreement.

5.9 Governing law and Jurisdiction

This agreement and any dispute arising from it, whether contractual or non-contractual, will be governed by laws of India and subject to arbitration clause, be subject to the executive jurisdiction of the competent courts of India.

5.10 Limitation of Liability

a. The liability of Agency (whether in contract, tort, negligence, strict liability in tort, by statute or otherwise) for any claim in any manner related to this Agreement, including the work, deliverables or services covered by this Agreement, shall be the payment of direct damages only which shall in no event in the aggregate exceed the total contract value. The liability cap given under the Clause shall not be applicable to the indemnification obligations.

b. In no event shall either party be liable for any consequential, incidental, indirect, special or punitive damage, loss or expenses (including but not limited to business interruption, lost business, lost profits, or lost savings) even if it has been advised of their possible existence.

c. The allocations of liability in this clause represent the agreed and bargained-for understanding of the parties and compensation for the services reflects such allocations. The Agency shall indemnify ASCDCL from and against all Losses because bodily injury, death or damage to tangible personal property arising in favour of any person, corporation or other entity (including the Indemnified Party) attributable to the Agency's negligence or wilful default in performance or non-performance under this Assignment/agreement.

5.11 Performance Security Deposit

- 5.11.1 Within 15 days of the receipt of notification of award from the ASCDCL, the successful Bidder shall furnish the performance security in accordance with the conditions of the contract, in the Performance Security Form provided in the bidding document or in another form acceptable to ASCDCL, as mentioned in the relevant Section
- 5.11.2 Failure of the successful Bidder to comply with this requirement can constitute sufficient grounds for the annulment of the award and forfeiture of the bid security in which event CEO, ASCDCL may take the award to the next lowest evaluated Bidder or call for new bids.
- 5.11.3 The firm whose tender is accepted shall deposit a Bank Guarantee as Performance Security of a value of 10 % of the total quoted project cost (including the quoted capex and opex) valid till the completion of the contract expected to be of 11.5 years (6 month project completion period + 1 year of warranty + 10 years of CAMC). If additional work is allotted, the agency has to deposit the additional Performance Security accordingly. The Performance Security shall be in the form of Bank Guarantee valid for minimum duration of the contract. In case of project extension, the performance security will have to be extended accordingly.
- 5.11.4 The successful Bidder has to furnish a security deposit so as to guarantee performance of the contract.
- 5.11.5 The Performance Security shall be denominated in Indian Rupees and shall be in the form of a bank guarantee issued by a nationalized / scheduled bank in India, in the format provided in the bidding documents.

5.12 Comprehensive Annual Maintenance Contract (CAMC)

- 5.12.1 It is mandatory for all the Bidders to provide CAMC support to ASCDCL for all the supplied components & whole system at all AMC locations for a period of 10 years, beyond the completion of regular warranty period of 1 year (12 months from the date of commissioning). Bidders shall therefore quote charges towards composite rate of 10 years of CAMC, as part of its offer without which their bid will be considered invalid & summarily rejected. The post-warranty CAMC amount will be reckoned for evaluation of the bid.
- 5.12.2 Post warranty CAMC charges shall include cost of all spares, equipment, instruments & services (preventive & break-down) for maintenance during the CAMC period at all AMC locations. Bidder's service engineer shall check & service each instruments/equipment/components & its accessories and maintain them in good working condition. During CAMC period, Bidder shall maintain inventory of minimum spares at site required for such maintenance.

5.13 Service Level Agreement

5.13.1 Service Level Agreement (SLA) is the contract between CEO, ASCDCL and the successful bidder. SLA defines the terms of the Successful bidder’s responsibility in ensuring the performance of IMEGS, based on the agreed Performance Indicators as detailed in the Agreement. This section defines various Service Level Indicators for IMEGS, which will be considered by ASCDCL in the Service Level Agreement with Successful bidder. The Service Level Agreement is divided into two broad sections:

- A. **Implementation SLA:** This describes the SLA metrics and penalties involved during the implementation stage of IMEGS
- B. **Operations and Management SLA:** This describes SLA metrics and penalties involved during the Operations and management stage of IMEGS.

5.14 Implementation SLA

5.14.1 The entire work of analysis, design/development, integration, implementation, acceptance and Go-live of the IMEGS solution shall be completed within a period of 6 calendar months from the date of issuance of LOI / work order. The bidding parties are expected to adhere to the broad timeline and milestone dates while presenting their approach.

Phase	Work	Location	T = Issual of the LOI / work order
Phase I	Requirements gathering of all departments at identified by ASCDCL	Various AMC Departments / Offices	T + 4 weeks
Phase II	System Customization	AMC HQ	T + 12 weeks
Phase III	System UAT	Various AMC Departments / Offices	T + 20 weeks
Phase IV	Data Center Operationalisation	AMC HQ	T + 20 weeks
Phase VII	System handover & Go-live	AMC HQ	T + 24 weeks

5.14.2 Please note that the final implementation plan will be prepared in consultation with ASDCL, Project Consultant & the successful bidder. The plan mentioned here is indicative only and may change depending upon the solution and the architecture.

5.14.3 Penalty per week for implementation SLA: A penalty of 1% of total project cost per week shall be levied on the successful bidder who fails to achieve the SLA mentioned for implementation to a maximum of 10% of the total project value.

5.15 Operations & Maintenance SLA

5.15.1 The following table lays down the O&M SLA during the warranty period (1 year) and the CAMC period (4 years) and will be a part of the agreement with the successful bidder

Parameter	Service Level	Penalty
System Uptime	Availability of the IMEGS system through each of the service delivery mechanisms – website, mobile app and CFCs: >= 99.5%	Default will attract penalty as indicated below <99.5 % & >=99% (10% of the total quarterly payment for the respective quarter) < 99% (20% of the total quarterly payment for the respective quarter)
Availability of network links at the DC and DR	Availability for each of the network links: >= 99.5%	Default will attract penalty as indicated below <99.5 % & >=99% (10% of the total quarterly payment for the respective quarter) < 99% (20% of the total quarterly payment for the respective quarter)
DC Hardware availability	Availability for all DC hardware : >= 99.5%	Default will attract penalty as indicated below <99.5 % & >=99% (10% of the total quarterly payment for the respective quarter) < 99% (20% of the total quarterly payment for the respective quarter)
Undertaking of system security audits every six months	Provision of audit report by the end of every six months Undertaking application	Default will attract penalty as indicated below: Payment for the respective quarter will be made against submission of the system security audit report

Parameter	Service Level	Penalty
	enhancement / debugging (if required) based on the report within 15 days of submission of the audit report`	Payment for the quarter will be withheld in case audit report is not submitted or not satisfactory
Preventive Hardware maintenance	Preventive maintenance will have to be undertaken by the O&M manpower every month. Reports for the same to be submitted every quarter.	Payment for the respective quarter will be made against submission of the preventive maintenance reports
Breakdown hardware maintenance	Hardware breakdown has to be attended to within 12 hours of the breakdown	Default will attract penalty as indicated below: Hardware breakdown attended to > 12 hrs and <= 24 hrs (Rs. 10,000/-) > 24 hrs (Rs. 10,000/- per hour)

System / network / hardware downtime during periodic & mandated system maintenance will be excluded from the downtime calculations above. Such periodic & mandated system maintenance should be conducted only Sundays between 12:00 hours to 5:00 hours, not more than once every quarter.

5.15.2 The selected agency should provide tools / mechanisms to measure the SLA. The tool / mechanism should be able to provide ASDCL, information about downtime for network, and historical information about the same. **The downtime shall be calculated per month and penalty, if any, would be charged per month.** Downtime of any one of the services would result in deduction of that downtime from the total time in the month.

5.16 Operational Guarantee

5.16.1 Bidders shall give Operational guarantees covered in this document; this includes guaranteed uptime standard, system response time etc. as specified in performance criteria and scope of work. As system response time and other operational parameters are also dependent upon the hardware and network infrastructure deployed, the implementer is expected to advise ASCDCL on an appropriate systems architecture and server infrastructure requirement.

Sr. No.	Process	Time Duration
1.	System Log-in (IMEGS Application)	Less than 3 seconds
2.	Time to display results of a simple query	Less than 3 seconds
3.	Time to display results of a moderately complex query involving 4-5 database tables	Less than 5 seconds
4.	Time to display results of a complex query involving multiple database tables of IMEGS	Less than 7 sec

5.16.2 Please note that the response time mentioned above is indicative in nature and may change based on the application and the application infrastructure. This requirement shall be considered as bare minimum and bidders are encouraged to minimize response times if possible.

5.17 Insurance

All the hardware and equipment which will be deployed for the purpose of the IMEGS project shall be insured in the name of ASCDCL by the selected bidder. The insurance shall be in the name of ASCDCL and the agency shall ensure that the relevant premium payments are up to date at all times during the project.

5.18 Signing of Contract

- 5.18.1 At the same time as ASCDCL notifies the successful Bidder that its bid has been accepted, ASCDCL will send the Bidder the Contract Form/ Memorandum of the Agreement. The draft of the memorandum is attached separately to this tender document.
- 5.18.2 Within 15 days of receipt of the Contract Form the successful Bidder shall sign the contract by paying the required stamp duty & registration fees as per the latest Govt. of Maharashtra directives in this regard and return it to ASCDCL.
- 5.18.3 A representative from the bidder has to sign the contract personally at ASCDCL HQ with proper authority letter from the signing authority of the bidding company he/she is representing authorizing him / her to sign an agreement with ASCDCL.
- 5.18.4 The jurisdiction for the contract shall be Aurangabad in Maharashtra under the jurisdiction of Bombay High Court.

5.19 General

- 5.19.1 Bidders are required to accept the payment terms without any deviations, and submit priced bids accordingly.
- 5.19.2 Unconditional acceptance of the order and submission of Composite Performance Bank Guarantee is a pre-requisite for release of any payments.
- 5.19.3 It is the clear understanding of the Bidder that the complete scope as defined or, as may be required for the intended objective of this tender is included in the quoted price. No extra payment apart from the quoted price will be made in order to achieve the intended objective. Any activity not specifically mentioned in the tender enquiry/ tender but required to be carried out for achieving the intended objective, will not form basis for considering extra payments.
- 5.19.4 The bidder shall guarantee that the all data received by them during the course of the project shall remain perpetually confidential and shall not be revealed to any third party ever, without the explicit permission of ASCDCL. Any breach in this condition may lead to a suspension and / or termination of the contract and the CEO, ASCDCL shall be within his / her right to levy due penalties for such breach.
- 5.19.5 For operational expenses such as bandwidth/connectivity/internet/gateway, ASCDCL reserves the right to renegotiate quoted prices from time to time, based on then available prices from ISPs / TSPs.
- 5.19.6 ASCDCL reserves the right to:
- Vary quantities for various items

- Procure hardware, active networking devices, and cloud data centre / disaster recovery directly as per governmental rules, regulations or policies
- Defer the delivery of items as per prevalent project conditions

6 PROPOSAL SUBMITTAL AND EVALUATION

6.1 General Instructions

- 6.1.1 Proposals should be prepared simply & economically and provide a straightforward, concise description of the Bidder's capabilities to satisfy the requirements of this tender. Emphasis should be on completeness and clarity of content.
- 6.1.2 The bidders have to quote for each line item mentioned in the schedule of quantities. Partial quotes will be summarily rejected.

6.2 Proposal Format & Contents

- 6.2.1 Bidders must follow all formats and address all portions of the tender set forth herein, including all the Corrigenda issued, providing all information requested. Bidders may retype or duplicate any portion of this Tender Document for use in responding to the tender, provided that the proposal clearly addresses all of ASCDCL's information requirements.
- 6.2.2 Bidders must respond to every section/subsection of this document under the Technical (Unpriced) Proposal. All information presented in a proposal must be relevant in response to a requirement of this document, must be clearly labeled, and, if not incorporated into the body of the proposal itself, must be referenced to and from the appropriate place within the body of the Proposal. Any information not meeting these criteria shall be deemed extraneous and shall in no way contribute to the evaluation process.
- 6.2.3 All responses, as well as any reference material presented, must be written in English. All proposal pages must be numbered & sections appropriately cross-referenced in the Table of Contents.
- 6.2.4 Commercial Proposal and pricing information shall not be included in the Technical Proposal. Inclusion of Commercial Proposal amounts in the Technical Proposal shall make the proposal non-responsive and the proposal shall be rejected.
- 6.2.5 Bidders must organize their Technical Proposals as defined below to ensure consistency and to facilitate the evaluation of all responses. All the sections listed below must be included in the proposal, in the order presented with the Section Number listed. The required proposal sections are:
- Table of Contents: A table of contents providing a listing for each section of the proposal is required, including the appendices and any additional material submitted.

- **Executive Summary:** The executive summary should provide a concise summarization of the products and services being proposed to meet AMC's needs and why it is the solution AMC should decide to implement. The Bidder should also summarize how large-scale, government, public sector and private business use this product and how this experience indicates that the Bidder's solution is suitable for AMC.
- **Company Overview:** This section should provide information about the Bidder's company, services, and corporate structure -including an organizational review, key contacts, and customer relations. This section must include the following information:
 - A brief description of the company
 - Company history
 - Current size of company
 - Company location
 - Length of time in business
 - Length of time providing type of service outlined in this proposal
 - Qualifications of the company to respond to this tender
 - Names, addresses, telephone numbers, email addresses of principal company contacts for this RFP response.

6.2.6 **Experience and References:** In this section, the Bidder should discuss the firm's experience in executing similar projects, clearly indicating the date of the PO, date of completion, project value & brief description of the project. It is the bidder's responsibility to include/attach, with suitable cross-reference to, the necessary documentary evidence to substantiate the claim. Provide at least three references where the proposed solution is in operation. References must include:

- Contact Name
- Contact Address
- Contact Telephone Number
- Contact E-mail Address

6.2.7 Proposed System Overview: A brief description of the proposed system must be provided so that ASCDCL can gain a basic understanding of the standard capabilities of the system. System strengths and weaknesses should be clearly noted. The system overview should include a detailed system description, detailed system architecture diagram showing part numbers used, detailed specifications and quantities of parts / components used and solution features etc.

- Compliance/Exception to Specifications: Although the specifications in the requirements section represent ASCDCL's anticipated needs, there may be instances in which it is in ASCDCL's best interest to permit exceptions to specifications and accept alternatives. It is extremely important that Bidders make very clear where an exception is taken to the specifications and how alternatives will be provided. Therefore, exceptions, conditions, or qualifications to the provisions of ASCDCL's specifications must be clearly identified as such, together with the reasons, and inserted in this section of the proposal. If the Bidder does not make it clear that an exception is taken, CEO, ASCDCL will assume the proposal is responding to and will meet the specification as written. If, during the technical evaluation, CEO, ASCDCL finds out that some exception was not recorded with the sole intention of misleading the Technical Evaluation Committee, CEO, ASCDCL may decide, at its sole discretion, to treat such proposal as non-responsive.
- Additional Information: All additional information the Bidder deems as pertinent to their proposal, must be included in this section. This includes quality certificates, documentary evidences of various claims made, Manufacturer Authorization Letters (from the OEMs of all the system components), technical sheets & any other document required to be furnished under various sections of this RFP. This section may also include test reports, marketing materials, case studies etc. Please note that all the MAFs are mandatory and should specifically be marked to CEO, ASCDCL. A format for the MAF is provided in Annexure VI.
- The following documents are required to be submitted along-with the Technical Proposal. Non submission of any of the documents may result in the proposal being treated as non-responsive:
 - Declaration that they have not been banned/delisted/blacklisted
 - Manufacturers' Authorization Letter
 - Certificate from the OEMs certifying that the offered products are not End of Life Products

6.3 Evaluation Process

6.3.1 Pre-Qualification Criteria

- a. the bidder will be assessed on the mandatory prequalification criteria specified in clause 3.1.
- b. ASCDCL will assess the bidder's capabilities against the pre-qualification criteria.

Only those bidders' who meet / exceed the pre-qualification criteria shall proceed for technical evaluation.

6.3.2 The bids of only those Bidders shall be technically evaluated who stand qualified in the prequalification stage/criteria. All proposals shall be reviewed by the Project Consultants to determine compliance with basic proposal requirements as specified in this tender document. If the Consultant determines that a proposal may be missing one or more such requirements, they shall review the proposal to determine:

- If it meets requirements for further evaluation;
- If ASCDCL shall request clarification(s) or correction(s); or
- If ASCDCL shall determine the proposal non-responsive and reject it

- 6.3.3 All proposals will be primarily evaluated for the compliance with prequalification criteria mentioned in this tender document. Subsequently, the proposed solution of the bidder will be evaluated for compliance with functional requirements specified in this tender document. Only those bidders which have proposed a complete solution satisfying ASCDCL's functional requirements will be selected for detailed technical evaluation. The verification of the compliance of the solution with functional requirements may call for detailed presentations / solution demonstrations / PoCs / customer visits, which may be intimated to bidders at a suitable time.
- 6.3.4 CEO, ASCDCL reserves the right, at its sole discretion, to request clarifications of technical proposals or to conduct discussions for the purpose of clarification with any or all Bidders. The purpose of any such discussions shall be to ensure full understanding of the proposal. Discussions shall be limited to specific sections of the proposal identified by the Project Consultants and, if held, shall be after initial evaluation of Technical Proposals. If clarifications are made as a result of such discussion, the Bidder shall put such clarifications in writing. ASCDCL's intent in this regard shall be communicated to the Bidder/s at least 3 days in advance
- 6.3.5 Detailed technical evaluation of the proposals submitted by the Bidder will be carried out by ASCDCL alongwith the Project Consultant.
- 6.3.6 CEO, ASCDCL reserves the right to negotiate the quoted prices with lowest Bidder.
- 6.3.7 CEO, ASCDCL reserves the right to delete any of the items in the Schedule of Rates at the time of placement of Letter of Intent/Purchase Order. The decision of CEO, ASCDCL shall be final and binding.
- 6.3.8 No suo-moto reduction in prices quoted by Bidder shall be permitted after opening of the bid. If any Bidder unilaterally reduces the prices quoted by him in his bid after opening of bids, the bid (s) of such Bidder(s) will be liable to be rejected. Such reduction shall not be considered for comparison of prices but shall be binding on the Bidder in case he happens to be a successful Bidder for award of work.
- 6.3.9 ASCDCL may request:
- An interview and/or open forum meeting with the technical teams of the Bidders or the OEMs.
 - A visit to the OEM facilities or reference sites as per the benchmarking schedules set with the individual Bidder/s.
 - A reference checking meeting with the clients provided by the Bidder
 - A visit to the office/facilities of the Bidder

- Proof of Concept at the Bidder's cost. For this purpose, ASDCL shall provide adequate notice of at least 7 days in advance.
- The bids will be evaluated based on the Total Delivered cost (including the quoted CAMC cost).

6.4 Technical Evaluation Process

The evaluation process for the selection of the Bidder shall be as follows:

6.4.1 Technical Evaluation Matrix

6.4.1.1 The bids shall be assessed and evaluated based on the evaluation procedure prescribed below.

Sr. No.	Criterion	Conditions	Max. Marks
1	Bidder Qualifications		30
1.1	Number of employees in the organization in India	More than 500 employees – 5 250 to 500 employees - 4 100 employees to 250 employees – 3	5
1.2	Average Annual Turnover for the past three financial years	More than Rs. 100 crores – 5 Rs. 50 crores to Rs. 100 crores – 4 Rs. 5 crores to Rs. 50 crores - 3	5
1.3	SEI CMM Level Certification	Level 5 – 3 Level 4 – 2 Level 3 – 1	3
1.4	Experience in executing Municipal eGovernance Application projects in India. Only completed projects shall be considered.	1 mark per project	10
1.5	Experience in integrating Municipal eGovernance Application with third-party applications (e.g. Building Permissions, CRS, Town Planning Software) in India.	1 mark per project	3
1.6	Experience in integrating Municipal eGovernance Application with GIS	1 mark per project	2
1.7	Experience in providing data center & disaster recovery services	1 mark per project	2
2	Proposed Solution – IMEGS		25

Sr. No.	Criterion	Conditions	Max. Marks
2.1	Number of similar installations in municipal corporations	2 marks per project	6
2.2	Customisation needed (Please fill in Table in 6.4.1.1.a below)	More than 20 points – 8 15 to 20 points – 5 Less than 15 points - 0	8
2.3	Compliance with functional requirements (Please fill in Table in 6.4.1.1.b below)	More than 20 points – 8 10 to 20 points – 5 Less than 10 points - 1	8
2.4	Proposed Municipal eGovernance Application is open source application	Yes – 3 No - 0	3
3	Quality of Proposal		25
3.1	Conformance of the proposed system architecture with tender requirements	High - 5 Medium - 3 Low – 1	5
3.2	Completeness of the proposed technical solution in respect to system components	High – 5 Medium – 3 Low – 1	5
3.3	Project Management Plan & Approach	Satisfactory - 5 Average - 3 Poor – 1	5
3.4	Experience of the proposed project team	High – 5 Medium – 3 Low – 1	5
3.5	Quality of the presentation during solution demonstration	High – 5 Medium -3 Low - 1	5
4	Bidder Personnel		20
4.1	Number of employees in domains mentioned in the prequalification table	More than 500 - 5 200 to 500 - 4 100 to 200 – 3	5
4.2	No. of employees in Municipal eGovernance Application Domain	More than 100 – 5 50 to 100 - 4 25 to 50 - 3	5
4.3	Number of professionals with certification in project management	More than 10 – 5 5 to 10 - 4 1 to 5 - 3	5
4.4	Number of hardware engineers / solution	More than 10 – 5 5 to 10 - 4 1 to 5 - 3	5

Sr. No.	Criterion	Conditions	Max. Marks
	architects / networking specialists		
	Total		100

Please note that only those bids, which score a minimum of 60 % marks in each of the categories, mentioned in the above table and 70 % overall marks, shall be considered for further commercial evaluation.

6.4.1.1 a - Customisation Table (for marking in 2.2 in the Technical Evaluation Matrix)

	Module	Features as per Sec 9 Yes – 1 point, No – 0
1.	Accounts & Audit	
2.	Property Tax	
3.	Establishment & HR	
4.	Welfare Schemes	
5.	Workshop	
6.	Assets	
7.	Health & Hospitals	
8.	Works	
9.	Solid Waste	
10.	Water & Drainage	
11.	License	
12.	Marriage Registration	
13.	Grievance	
14.	Education	
15.	Municipal Transport	
16.	Fire & Disasters	
17.	Estates	
18.	Secretariat	
19.	Bureau	
20.	Legal	
21.	Website	
22.	Mobile App	
23.	CFC	

	Module	Features as per Sec 9 Yes – 1 point, No – 0
24.	Payment Gateway	
	Total	

- Based on the above, the following marking system to be used for 2.2 in the Technical Evaluation Matrix
 - More than 20 points – 8
 - 15 to 20 points – 5
 - Less than 15 points - 0

6.4.1.1 b – Compliance with functional requirements (for marking in 2.3 in the Technical Evaluation Matrix)

Sr. No.	Requirement	Compliance Yes – 1 point No – 0
1.	The software for IMEGS shall be commercially Off-the-Shelf software	
2.	The envisaged system should be designed to meet the relevant STQC Standards.	
3.	The application shall confirm Indian standards of information security, published from time to time by MEITY.	
4.	The application should support virtualization environment & should support at least 3 popular VM softwares.	
5.	The software, along-with all of its sub-systems shall be capable of operating in an environment requiring a single sign-on. Also, it shall have a security feature of signing-off a user after a user-defined time-period of inactivity.	
6.	All application components shall have a browser based user interface with common look and feel and user friendliness with good looking graphical interface.	
7.	Client application shall be compatible with all popular browsers available including Chrome, Firefox, IE and Safari.	

Sr. No.	Requirement	Compliance Yes – 1 point No – 0
8.	The solution shall be compatible for printing reports and cheques with standard printers like Dot Matrix, Laser, Inkjet and line printers.	
9.	The system shall support load balancing at the web, application and the database layers of the system.	
10.	The overall system shall be proposed in high availability mode	
11.	The latest version of the software shall be quoted. Bidders are required to mention the version number of the application.	
12.	The offered application shall have Country Specific Version for India with statutory requirements incorporated and should have a localization support in terms of GST, Income tax, Aadhaar etc. specific to India.	
13.	The bidder shall be capable of providing 24 X 7 support services on functional and technical issues, upgrades, bug fixes etc. in person	
14.	The solution shall have necessary audit trails for the integrated application. It shall be possible to trace the transaction to the source application / application user through audit trails.	
15.	The bidder shall recommend appropriate security architecture covering authentication and authorization services.	
16.	The application should support PKI / Digital Certificate based two (multiple) – factor authentication for all types of users & transactions.	
17.	The application should provide support for data entry in English and Marathi. The application should support Unicode format	
18.	The application shall be able to provide updates and upgrades without losing the customized component and without making any additional changes or configurations to the application/s.	

Sr. No.	Requirement	Compliance Yes – 1 point No – 0
19.	The application shall deliver a standard set of reports from various modules. It is anticipated that certain customizations in the standard reports or designing of new reports may be required to fulfill ASCDCL's functional requirement. In addition to the reports requirement, the IMEGS application shall have a custom report designing tool to facilitate the users to define their own reports with selectable fields across all modules and user roles.	
20.	The solution shall provide the relevant leading technology to meet the integration requirements. The bidder shall specify the methodologies of the integration with the sub-systems mentioned in the tender document including products / tools required for the integration.	
21.	The application shall integrate with all the external systems mentioned in the tender document	
22.	The application shall be compatible for integration with IOT devices & sensors	
23.	The application shall support IPV6, 64-bit OS, Unicode & https protocol for web interface.	
24.	The application shall support at least 4 authentication methods including Active Directory and LDAP.	
25.	An SLA measurement tool is proposed to measure SLA as per the tender	

- Based on the above, the following marking system to be used for 2.3 in the Technical Evaluation Matrix
 - More than 20 points – 8
 - 15 to 20 points – 5
 - Less than 15 points – 0

Note: Bidders are required to furnish the details with regard to their Technical Evaluation Score claims. Please note that the proposals may be evaluated solely on the basis of the documents submitted as a part of the technical bid.

6.5 Final Evaluation

The final evaluation will be based on QCBS basis.

The total techno-commercial score of each bidder will be calculated as follows:

$$TSn = \left\{ \left(\frac{Tn}{Th} \right) \times 70 \right\} + \left\{ \left(\frac{Cl}{Cn} \right) \times 30 \right\}$$

where:

TSn = Total Techno-commercial score of the bidder

Tn = Technical Score of the bidder

Th = Highest Technical Score amongst all technical qualified bidders

Cl = Lowest Total Quoted Price amongst all technical qualified bidders

Cn = Total Quoted Price of the bidder

The bidder with the highest Total Techno-commercial score will be awarded the contract.

The total quoted price will include the capital cost (Capex) and the operational cost (Opex) for the entire project duration.

7 TECHNICAL SPECIFICATIONS & COMPLIANCE STATEMENT

7.1 Municipal eGovernance Application

Sr. No.	Functional Specification	Compliance / Deviation
a.	The Municipal eGovernance Application shall have techno-functional specifications as detailed in Section 4 & 5 hereinabove, either as a COTS module or after customization.	
a.1	Integration with external systems identified in the tender document	
a.2	The application shall have integration facilities with devices like: <ul style="list-style-type: none"> I. Smart phones II. Kiosks III. IOT Devices IV. Input/output devices like sensors, detectors, annunciators etc 	
a.3	The IMEGS shall have activity log auditing tool to search and monitor specific activities, if need be	
a.4	The application shall have user access security guidelines as per the National E-Authentication guidelines published by Govt. of India	
a.5	The application shall have integrated user management feature	
a.6	The application shall work on Windows / Unix and Linux platforms.	
b.	Application Warranty	
b.1	The application shall have one year warranty from the OEM.	
b.2	The application warranty shall commence from the date of commissioning of the application	
c.	Product Lifecycle	
c.1	The product shall be latest available by the OEM	
c.2	The OEM shall have 10 years support roadmap for the application.	
c.3	The application shall be installed in at least two ULBs in India.	
	Others	
d.1	The application shall support IPV6, 64-bit OS, Unicode & https protocol for web interface.	

d.2	The application shall support at least 4 authentication methods including Active Directory and LDAP.	
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7.2 Database RDBMS Software

Sr. No.	Functional Specification	Compliance / Deviation
a.	Functional Specifications	
a.1	Shall be an enterprise class product	
a.2	Shall have high availability features with the capability of running in active-active and active-passive configurations.	
a.3	Shall have un-restricted license to integrate the database with any third party applications (shall be able to share data from existing tables or shall be able to receive data in temporary / new data tables from other applications)	
a.4	The database shall be capable of storing data files with data compression features like: <ul style="list-style-type: none"> I. Image II. Surveillance Video III. Large size images IV. Geo-spatial data 	
a.5	Shall have strong access control mechanisms to restrict database access to the authorized users.	
a.6	The software shall have web-based application management with IP address / username based access restrictions	
a.7	The software shall have audit trail functionality	
a.8	The software shall have monitoring& auditing functions, generation of periodical reports, etc.	
a.9	The database software shall run on OS platforms like Microsoft Windows/Unix/Linux natively	
a.10	Shall have activity Log auditing Tool	
b.	Warranty	
b.1	The database shall have one year warranty from the OEM which shall include patches and updates	
b.2	The database warranty shall commence from the date of successful commissioning of the software	

c.	Product Lifecycle	
c.1	The product shall be latest available by the OEM	
c.2	The OEM shall have 10 years support roadmap for the application.	

7.3 Layer 3 Switch 24 port

Features	Specifications
1. Switch	Layer-3 Managed with 24 Port 10/100/1000 Mbps, auto negotiating, auto crossover, auto polarity, FE Switch. Rack Mounted. To be IEEE802.3 compliant; with 4 10GBE Combo Ports (RJ45/SFP+) (IPv6 Compliant)
2. Switching Capacity	> 100 GBPS, >80 MPPS packet forwarding rate with 64 byte packets
3. Power Supply	Dual redundant power supply
4. Approved Makes	Cisco, HP-Procurve, Allied Telesis
5. Operating Temperature	0° C to 45° C

7.4 Layer 2 Switch 24 port

1. Features	Specifications
2. Switch	Layer-2 Managed with 24 Port 10/100/1000 Mbps FE Switch with 2 1000 Base-Fx ports (IPv6 Compliant). 1U / 2U Rack Mounted. To be IEEE802.3 compliant.
3. Switching Capacity	>50 Gbps
4. 64-Byte Packet Forwarding Rate	>50 Mpps

5. Operating Temperature	0° C to 45° C
6. Approved Makes	Cisco, HP-Procurve, Allied Telesis

7.5 NAS Storage

Rack mount	NAS storage should be rack mounted with a form factor of not more than 2U. Rack to be included
Processor	Latest generation Intel processor
Memory	16GB DDR4 RAM or higher, scalable to 96GB DDR4 RAM
Hard Drives	Shall be supplied with minimum 50TB usable space using SAS Hard drives in Raid 5 for data storage. Offered NAS Storage shall have separate dedicated drives for Operating system
Storage expandability	Shall have more than 100TB external disk scalability using SAS / SAS-NL drives by providing associated hardware whenever required.
Network Connectivity	Min. 4 X 1Gbps auto sensing NICs ports and shall be further scalable to additional 4 numbers of 10Gbps Ethernet port.
Protocols support	TCP/IP, ISCSI, FTP, CIFS, HTTP, NFS 4, WebDev etc.
Fault Tolerance	Offered NAS shall support Raid 0, Raid 1, Raid 1+0, Raid 5 and Raid 6 for additional disk enclosure. Raid controller shall have minimum of 2GB flash back write cache.
Network Client Types Support	Should support latest Windows OS
Manageability	Advanced interface with following 1. Common interface for NAS management tasks like CIFS, NFS, Volume Management etc. 2. Remote management 3. Common interface for Multi NAS management from a single console.
Operating System	Microsoft Storage Server - 64 bit edition (NAS optimized) including powered OS drivers
De-duplication	Offered NAS shall have block based De-duplication which can be enabled for all required volumes. Deduplication engine shall have: 1. Flexibility to decide the multiple schedules when de-duplication process can be run.

	<p>2. Flexibility to limit the time period of deduplication process so that production operations remains intact.</p> <p>3. Flexibility to bypass the recent files under the deduplication process so that production operations remains intact.</p> <p>4. License for De-duplication shall be provided.</p>
File screening and quota management	<p>1. Offered NAS shall have support for file screening so that administrator can ensures that users shall not be able to store unwanted files on offered NAS device.</p> <p>2. Offered NAS shall have Quota management for both Volume and Directory.</p> <p>3. Software for both File screening as well as Quata management shall be provided.</p>
File Management	<p>1. Shall have flexibility to expire or move files to different folder / Location / Volumes / drives on the basis of polices like day of creation / modification / access of on the basis of file pattern like extension.</p> <p>2. Shall also be able to expire or move files to different folder / Location / Volumes / Drives on the basis of content classification within files.</p>
Snapshots	Point in time copies of data to guard against data corruption.
Encryption and compression	Shall have support for encryption and Compression. License for both of same shall be offered.
Replication	Offered NAS shall also be offered with replication License for Disaster recovery.
HBA	Dual Port FC HBA
Power Supply and FAN	Offered NAS shall also have Hot Plug redundant power supply and FAN
Approved Makes	Dell, Hitachi, Fujitsu

7.6 UPS (5 KVA) at CFCs

Features	Specifications
Output Parameters	
1. Output Power Capacity	The minimum UPS Sizing shall be 5 KVA for CFCs, equipped to power the workstations, the lighting and the ACs.

Features	Specifications
	<p>However, appropriate UPS sizing shall be done by bidder for all electronics.</p> <p>Outputs shall be Single phase. Incomers (3 Nos) shall be 415VAC $\pm 10\%$, 50Hz $\pm 3\text{Hz}$, 3-Phase, Wall mounted ACDB with double pole isolations (for incomers & outgoing) properly selected. Sizing calculations shall be furnished component-wise for which the UPS system would be catering.</p>
2. Battery Type	Maintenance-free sealed battery leak-proof. Complete with Battery Racks. Sizing shall be done by bidder for all electronics included in the CFC with 50% spare capacity & distributions. All charging/discharging/other tests shall be in bidder's scope.
3. Typical recharge time	3 hour(s)
4. Interface Port(s)	RS-232, USB, UPS failure/incomer failure shall be annunciated.
5. Back-up	2 Hrs with SMF batteries
6.	<p>UPS & Battery: The UPS and battery system (modular) must be planned and provided considering the best practice as per Tier-III standards (including redundancy requirements for UPS as well as batteries) so that the UPS units can be scaled up tomorrow when the need arises. The UPS systems should have the following major features:</p> <ul style="list-style-type: none"> • IGBT Rectifier and Inverter • Output power factor of 0.9 • Input Power factor of 0.99 • Overall efficiency of > 94% at 100% load • True online double conversion Input THDI
7. Approved Makes	APC, Hitachi, Eaton

7.7 UTM Firewall

Features	Specifications
1. Features	Firewall appliance should have at least 6 x 10/100/1000 GE interfaces along with 4 x GE SFP slots

	<p>The Firewall should have integrated SSL VPN solution to cater minimum 500 SSL VPN concurrent users.</p> <p>The proposed system should support IPsec VPN</p> <p>The device should support at least one management interfaces to manage the firewall.</p> <p>Firewall should support IPv4 & IPv6 dual stack functionality</p> <p>Firewall should support user/admin authentication</p> <p>Firewall should support Nat66 (IPv6-to-IPv6) and Nat46 (IPv4-to-IPv6) functionality, NAT66</p> <p>Firewall should support static, dynamic and multicast routing protocol</p> <p>The device should support redundant power supplies</p> <p>Should support stateful failover of sessions in Active/Standby & Active/Active or clustering mode.</p> <p>Firewall should support creating access polices on the basis of IPv4, IPv6 objects, protocols, ports etc.</p> <p>Web Filtering: Keyword, Block Java applets, cookies, ActiveX, Block malware, phishing, pharming URL.</p> <p>Intrusion Prevention System (IPS): should be able to mitigate attacks like FTP Attack, HTTP Attack, DNS Attack, ICMP Attack, TCP/IP Attack, DOS and DDOS Attack, TelNet Attack. Signatures, IPS Policies, Automatic real-time updates, Protocol Anomaly Detection</p>
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	<p>The device should be manageable using standard protocols like HTTP, SSL, SSH, SNMP etc.</p> <p>The device should be able to send the event logs, alarms, etc. to the third - party tool</p> <p>The device should be hardware based and should be supplied with Indian Standard power cables.</p> <p>Proposed device should also perform activities like Intrusion prevention, IP Reputation, URL filtering, Antivirus from day one with required Licenses and support for 5 years.</p>
2. Throughput	<p>Firewall Throughput (UDP) (Mbps) – min 12,000</p> <p>Firewall Throughput (TCP) (Mbps) - min 9,500</p> <p>New sessions/second - min 100,000</p> <p>Concurrent sessions - min 3,200,000</p> <p>IPSec VPN Throughput (Mbps) - min 1,300</p> <p>No. of IPSec Tunnels - min 5,000</p> <p>SSL VPN Throughput (Mbps) - min 500</p> <p>WAF Protected Throughput (Mbps) - min 1,250</p> <p>Anti-Virus Throughput (Mbps) - min 2,900</p> <p>IPS Throughput (Mbps) - min 4,000</p> <p>UTM Throughput (Mbps) - min 1,700</p>
3. Management	Shall have web based secure GUI for easy management
4. General Features	Content filtering, category wise URL Blocking, Group wise user rights, GroupWise bandwidth priority, group wise URL filtering, etc. Shall be Rack mounted type
5. Supported Functions	<p>UTM Firewall, IPS (with 3 years signature updates) renewable every year by bidder until completion of CAMC (shall be considered by bidder as part of CAMC scope).</p> <p>To be IEEE compliant.</p>
6. Approved Makes	CISCO, Allied Telesis, Fortinet

7.8 Data Center on Cloud

The bidders should quote for Tier 3 data center services for the duration of the project.

Data Center Requirements

The data center should provide following functions:

1. Database management and maintenance
2. Operating system management and maintenance

3. Server hardware management and maintenance
4. Firewall, load balancer and intrusion prevention services
5. Systems backup and recovery
6. Network connectivity
7. Physical infrastructure

Database Management and Maintenance

- The database administration services include:
 - Database software installation, configuration, upgrade and migration
 - Backup, recovery monitoring and periodic testing
 - Database Performance Tuning and Monitoring
 - Authorization and access logging
 - Storage and capacity planning
 - Troubleshooting

- The data center will adhere to the Database Administration (DBA) and security standards provided by the.

- The bidder will have to provision a disaster recovery site which will adhere to the same requirements as the DC and which will be in a different seismic zone, within India.

- The databases must be monitored continuously and notification alerts must be generated when agreed parameters are exceeded. Notification alerts should be sent to the DBA of the data center, ASCDCL and the application service providers of ASCDCL as appropriate.

- Database status and management reports must be available on a weekly basis and on demand. The reports must be made available within a day of receipt of a request from ASCDCL.

- Change Management Procedure must be implemented.

Operating System and Utility Software Management and Maintenance

- The goal of operating system management and maintenance is to keep active servers current with updates and patch releases.

- This scope of work includes:
 - Loading agreed base and operational images onto servers
 - Tracking available updates and patches
 - Providing image version control and image storage
 - Notifying ASCDCL about critical patches
 - Reviewing updates with ASCDCL to determine if application service levels will be impacted
 - Testing updates in a quality assurance environment before administering to production systems
 - Administration of updates and patches to production systems
 - Monitoring server health via automated tools and reacting to alert notifications
 - Providing per server OS version reports on a monthly basis and on-demand
 - Conversion of respondent managed physical images for use in respondent managed virtual environments
 - Documentation of the Base Environment on commencement of the contract followed bi-monthly updates.

- The Utility Software includes amongst many others, the packages such as service management agents and antivirus software. The management and maintenance for utility software includes:
 - Tracking available updates and patches
 - Notifying ASCDCL about critical patches
 - Reviewing updates with ASCDCL to determine if application service levels will be impacted
 - Testing updates in a quality assurance environment before administering to production systems (excluding virus definition signature updates)
 - Administration of updates and patches to production systems
 - Monitoring and reacting to antivirus alerts

- Providing per server utility software version reports on a monthly basis and on demand
- ASCDCL will use Microsoft and Linux operating systems.
- The data center must have standard operating procedures in place for supporting the hosted operating systems. ASCDCL will review the operating procedures and make change recommendations.
- Change management procedures must be employed and all activities affecting the systems must be logged.
- The data center provider must have proven expertise in any utility software that will be loaded onto the systems hosted for ASCDCL such as back up and monitoring software. The acceptable forms of proof of expertise are the relevant certifications or suitable references from other clients provided with similar services.
- The data center provider must include the proposed OS and utility software service levels in the Bid for ASCDCL to evaluate.

Server Hardware Management and Maintenance

- The goal of server hardware management and maintenance is to keep hardware functioning at optimal levels and add capacity as requested.
- This service includes:
 - Assembling, racking and cabling servers
 - Modifying server configurations as requested
 - Monitoring the physical health of the server hardware and reacting to alerts

- Providing remote hands services
- The data center provider is required to provide Intel or Sun based servers to ASCDCL. The minimum server configuration has already been specified in this document.
- The data center provider will actively monitor and maintain all systems necessary for ASCDCL hosted environment.
- The data center provider must have technicians onsite that are proficient in replacing and adding components to common hardware platforms such as HP, Dell, Sun, IBM and Cisco.
- The data center provider must provide physical access to the ASCDCL infrastructure to ASCDCL staff and ASCDCL approved agents/software vendors. Physical access must be available at all times.
- ASCDCL may request virtual servers in addition to or as replacements to physical servers as a future requirement. The data center provider must be capable of providing the same as per ASCDCL's demand.

Firewall, Load Balancer and Intrusion Prevention Services

- ASCDCL applications will be accessed by ASCDCL, ASCDCL appointed Test Administrators, ASCDCL CFC Centers and assigned employees. Therefore, the systems providing this data must be protected and secured to prevent intrusion and to ensure integrity of information.
- The data center must be capable of providing dedicated / shared firewall services to ASCDCL on a managed basis. The firewall must be configurable with up to unlimited custom policies. The data center provider must also provide and set

default policies for the protection of the servers, wherever custom policies are not set by ASCDCL. The firewall services must be capable of providing:

- A sustained data throughput at a rate of 1 Gbps
 - Rule based logging and alerting
 - Log reports, on demand
- Auditable change management procedures must be followed for all firewall changes
- ASCDCL will utilize load balancing technologies to ensure that requests for services may be balanced across several servers. ASCDCL will also use the application layer firewall capabilities of load balancers to further protect ASCDCL's information assets. The data center must be capable of providing dedicated load balancing services to the hosted servers and applications. Load balancing service must include:
- SSL offloading including re-encryption to back-end servers
 - Session and/or cookie based persistence
 - Server, application and service health checking and load monitoring
 - Scriptable reactions to health check and load monitoring results
 - Modification of load balancing services must follow change control
 - Auditable change management procedures must be followed for all load balancer configuration changes
- The data center provider must provide Intrusion Detection and Prevention (IDP) services to alert system administrators of possible active threats. The IDP system must be configured to take preventative measures such as redirecting questionable source requests. The IDP system must also log all events and be able to produce a report for auditing purposes. The IDP service must include:
- TCP/IP and application signature awareness
 - Configurable for alert and/or suppression modes based on services and applications
 - IDP services are to be wire speed and located in-line with the application server hosting segments

- IDP hardware must fail open in the event of failure. Auditable change management procedures must be followed for all IDP configuration changes.

Systems Backup and Recovery

- Backup and recovery services must be used to recover failed systems or to retrieve data for other purposes. The frequency and type of backup performed will vary between applications. ASCDCL will provide backup parameters for all system types and applications.
- The data center must be capable of providing physical and virtual tape backup and recovery services for servers and data storage device hosted for ASCDCL. Backup and recovery services are also required for any storage services provided to ASCDCL by the data center provider. All backup and recovery activities are to be logged. The data center must be capable of providing exports of the log data to ASCDCL on demand. All backup, recovery and media logs must be available upon request to ASCDCL and identified auditors.
- All software, hardware & accessories required for backup shall be a part of the scope of the agency

Network Connectivity

- The Internet is the primary means for ASCDCL to provide information and services externally. The data center services must be stable and highly available (99.9%). Utilization of ASCDCL application and services differs day to day and the associated service will need to be flexible in order to meet service requests.
- The data center must be capable of providing routing and switching infrastructure that meets the following requirements:
 - 802.1Q VLAN tagging and trunking
 - 10/100/1000 full and half duplex interfaces

- Copper
 - Traffic prioritization and shaping capabilities
 - Port monitoring/mirroring capabilities
 - Routers must be capable of BGP routing and BGP failover
- The internet service provider must meet the following requirements:
- Dual Tier 1 providers with seamless BGP failover
 - 99.9% availability
 - 1 GB / 100 MB Internet Port with monthly data transfer of at least 1 TB
 - Traffic shaping and prioritization capabilities
- The data center provider shall provide the link monitoring facility to ASCDCL which will enable ASCDCL to monitor the links in real-time remotely. ASCDCL should be able to monitor following parameters:
- Link Latency
 - Bandwidth utilization
 - Packet loss
- The above parameters are minimum requirement. The monitoring facility shall provide other link related monitoring parameters that may be necessary and required by ASCDCL.

Physical Infrastructure

- ASCDCL expects the physical infrastructure of the data center to follow industry best practices. Physical infrastructure includes:
- Heating, ventilation and air-conditioning, including redundant systems for failures
 - Fire suppression
 - Moisture detection and control
 - Electrical power conditioning, uninterruptable power supply service and generator backup
 - Physical security including video surveillance and physical access logging

- The data center must be capable of providing the following physical security services to the environment hosted for ASCDCL:
 - Physical access management, including logging of all persons entering and leaving the ASCDCL hosted infrastructure environments, validating permission to enter the environment and maintaining an access control list generated by ASCDCL
 - Surveillance and security cameras at the entrance and within the data center

- The data center provider must be capable of providing the following environment management services to the ASCDCL hosted infrastructure:
 - HVAC services
 - Humidity control
 - Fire suppression systems

7.9 DR Hosting

Features	Specifications
1. General	Disaster Recovery (DR) hosting services/ cloud-based services for the IMEGS Application with required hardware, software, bandwidth/connectivity & Security infrastructure. The data center shall be Tier-III or above; Should be located in a different seismic zone; should be built with N+1 Redundancy for all elements; Service provider should have proven track record for handling major customers including government. They should provide the list of customers along with the proposal. A separate tri-partite agreement shall be executed by CEO, ASCDCL with the service provider.
2.	The implementation partner shall be required to conduct DR drill for one day during every six months of warranty and CAMC period. The Data Center shall be deactivated and the operations shall be taken over by the DR Site. It shall be the agency's responsibility to ensure that there is no data loss during the drill period. Backup needs to be provisioned at the DR site. Backup should be disk based.

3.	For DR, the DR service provider can remain the owner of the licenses. The DR site may not be provisioned in high availability mode.
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Please note:

- The data centre and the disaster recovery services shall be provided by agencies, which are empanelled by the GoM or GoI.

7.10 CFC Infrastructure

Features	Specifications
1. General	CFC Infrastructure including civil, Electrical, Lighting, Air conditioning, fire safety, security
2. Ceiling	Modular False Ceiling
3. Wall Painting	The existing walls & roof shall be painted in plastic/velvet. All partitions shall be 2hr fire rated. Make: Asian Paints / Nerolac / Berger /Equivalent Glass walls shall be provided with sun-reflecting opaque films. Make:3M / equivalent
4. Partitions	Fire rated Half height partitions (height 2.5 ft.) with additional 2.5 ft. of glass partition. Total quantity 50 to 60 sq. ft. per CFC
5. Doors	All entry & exit doors should be with fire rating of 2 hours & a toughened glass shatter-proof window.
6. Air-conditioners	2 Nos of 2 TR split Air-conditioning units
7. Data & Electrical Cabling	Internal electrification & cabling jobs like point wiring, internal Lighting, Distribution boards etc.; As per the relevant IS or British Standards for data center with 100% redundancy. All electrical lighting shall be of the LED type. Electrical Cabling –Finolux, Equivalent LED Lightings – Philips, Havells, Crompton Greaves, Equivalent.
8. Safety	2 Nos. Suitable Fire Extinguishers 2 nos. Fire Alarm: Intelligent microprocessor based fire detection and alarm system. The Fire Alarm Panel should be A Single Loop Analogue Addressable Type with capability to handle at least 99 Detectors & 99 Device. · Have Backlit Graphical Display of at least 4 x 40 Characters

	<ul style="list-style-type: none"> · Supporting a Event Log of at least 750 events. · Possible to give 10 Passwords in 3 Levels · Compliant with EN 54 Standards. <p>Make: Honeywell / Siemens / Equivalent</p>
9. Security	2 Nos. IP Dome IR Cameras of suitable lens with NVR. Biometric Access Control System for In/Out Doors with EM Lock & EBG Override.
10. Operator Work Desks	5 nos. Modular branded desks suitable for IT use. With provisions to mount/install wireless base stations, PA Systems & Telephones. All wiring shall be done by the bidder. Suitable Cable ducting shall be provisioned. Additional 3 Nos power points (Non UPS) per Operator Desk shall be provided for customer use (over and above the vendor's requirements & PA System Power requirements). – for all locations Make: Godrej Interio, Equivalent
11. Operator Chairs	5 nos. Comfort office chairs in net with hand rest, relaxible push-back revolving, height-adjustable Make: Godrej Interio, Equivalent
12. Office Cabinet	Modular, fire-rated / branded office cabinets. Quantity: Max. 2 Cum. With lock & key Make: Godrej Interio, Equivalent
13. Miscellaneous	1 no. Large LED/LCD display clock – wall mount - with day & date

7.11 Vehicle Tracking System

7.11.1 Unit

Parameter	Specification
General	
1. Acquisition time (TTFF)	
Hot Start	Maximum 10 seconds
Warm Start	Maximum 35 seconds
Cold Start	Maximum 50 seconds
2. Position accuracy	Position horizontal +/- 10 meters or better
3. Position update rate	Upto 2 seconds
4. Application Interface Messages	NMEA
5. Antenna	Inbuilt (Onboard)
6. Software Configuration, Update & Upgrade Capability	Over the air

7. Environmental	
8. Operating Temperature	15 0 deg C to 55 deg C
9. Storage temperature	
10. Range	15 -30 deg C to 70 Deg C
11. Humidity	95% non condensing RH
12. Electrical	To be free from interference due to EMI, RFI (incl VHF sets), Mobile handsets, lightning
13. Power	8 V to 28 V (to be wired & drawn from vehicle battery)
14. Power connector	Any standard type connector
15. Back up power	Battery inside housing (Tenderer to specify the voltage)
16. Mechanical	Unit shall be installed firmly & neatly inside the vehicle. All installations (incl antenna & Unit) & wiring shall be in bidder's scope.
17. Cable length	Suitable interconnecting cable with connectors to be provided
18. Dimensions	L+B+H should be less than 400 mm
19. Housing	Water resistant plastic metallic, IP 65 66 rated, vandal-proof & lockable
20. Certifications	CE, FCC, RoHS
21. Installation	The VTS will be mounted on ASCDCL owned vehicles and emergency vehicles. All accessories / mounting brackets / cables required for the installation should be included.

7.11.2 VTS Software

1.	Ability to provide the display of vehicle location on maps, logging of vehicle movements and provide the performance reports of the vehicle in a spreadsheet format. The application shall allow for easy scalability by addition of new VTS units without any additional License requirements (unlimited license).
2.	The movement of vehicles can be played back at any time by choosing date and vehicle IDs. What is the required recording duration??? To be specified. VTS Server sizing to consider this storage space requirement + 40% spare space.
3.	Load and calibrate maps of layered type, raster or any other type. incl Google Earth pro, Google maps, etc.
4.	Display vehicle on the maps by showing its icon in colour, identity code or alias name or any combination of them
5.	Auto scroll to keep the desired vehicle in view.

6.	Zoom in/Out.
7.	Find selected vehicle by its ID or Alias name
8.	Unlimited vehicle tracking all licenses & connectivity shall be in bidder's scope.
9.	Alerts to indicate vehicle moving over specified area.
10.	Automatic detection of vehicle starting, passing speed limits.
11.	Multimodal alarms in the control room during any deviation
12.	Vehicle history downloading including trip data, deviation history etc.
13.	Display of several vehicles on a map along with their locations, speed and direction of movement and time
14.	Record all movements, date wise, vehicle wise etc.
15.	Reporting of GPS messages in encrypted form to prevent unauthorized interception of messages
16.	Display of vehicle movements in spreadsheet format etc. for further analysis
17.	Ability to create specified route maps and geo-fences
18.	The VTS software should be hosted on the same data centre as for the IMEGS software

7.12 Passive Components

Component	Minimum Specifications
CAT-6 Cable	<p>Cat.6, U/UTP, AWG23 cable. 100 Ohm impedance. Data transmission frequencies of up to 450 MHz; metal-free ; flame-retardant; ISO/IEC 11801 ed. 2.2; IEC 61156-5 2nd ed.; EN 50173-1; EN 50288-6-1; TIA 568-C.2; Fire rating: IEC 60332-1 Compliant</p> <p>Supply of UTP CAT 6 Cable shall include cabling from Switch to individual outlets in Casing Capping/PVC Cable Duct/ Flame resistant mechanically protective Conduit as per requirement, supply & installation of Information Outlet at the equipment end, factory crimped patch cords of required length at both the patch panel end as well as equipment end, including material, fittings & fixtures, screws etc. Cable lengths & CAT-6 cabling with connections/PoE/extenders to ensure that collision detection mechanism shall work as expected & timeout errors are eliminated.</p> <p>For Outdoor: GI round wire armoured cable shall be used.</p>
OFC Cable	<p>24 core, Uni-tube, Armoured, Direct Burial 62.5 µm /125 µm MM FO Cable Four-Fibre, Uni-tube Construction, Gel Filled, Multimode Optical Fibre Cable (OFC) With 4 Nos. 62.5/125 Microns Colour Coded Fibres As Per G.651 Standards, Eccst Armour, Embedded Steel Wire / FRP Strength Members, Water swellable/Water Blocking Tape & Outer UV Resistant And Fire Retardant LSZH Sheath Having Anti-Termite And Anti-Rodent Properties, Suitable For Direct/Duct Burial</p>

Component	Minimum Specifications
Power Cable (LV)	<p>3-Core, 2.5 sq mm, with annealed electrolytic multistranded copper conductor with resistance > less than 8.2 7.41 Ohm/Km; Fire retardant, low smoke, low toxic, PVC black outer sheath meeting BS-5308, insulated (min 0.3 mm inner+1.8 mm outer sheath) Rated for 1.1KV, For Outdoor: GI round wire Armoured with galvanized steel wire with 90%+ coverage; IS 694:1990 reaffirmed 1995 or latest compliant.</p> <p>Cable drum lengths shall be adequately considered to minimise joints.</p> <p>Higher Cable sizes (if required) to meet the distance/higher current consumption requirements (from sources upto 500 mtrs away) shall be considered by the bidder instead of the 2.5 sq.mm cables indicated, at no extra cost</p> <p>Shall prevent moisture ingress even due to outer sheath damage / poorly sealed joints. Cable shall be suitable for direct burial also.</p> <p>Cable shall have its running meter stamped/marked every 1 mtr (to be resistant to damages caused by cable pulling activities). UV resistant outer insulation of Black colour.</p>
Ethernet Extenders	<p>Should support Transmission Distance >900m; Should transmit individual Ethernet data channels with Passthrough PoE over standard UTP cable; Shall meet IEEE 802.3af standard for Power over Ethernet; MTBF > 100,000 hours; Operating Temperature upto & even >55 DegC. Any power provisioning required for the same shall be in bidder's scope.</p>
LIU	<p>LIU should be provided for terminating the optic fiber cables. It shall provide minimum bending radius and the splice trays shall function as a splice cover for pigtail splicing. It shall be made of aluminum with powder coating in compliance with latest industry standard. Cable glands shall be provided for secured anchoring of incoming cables. Rubber grommets shall be provided at the cable entry point for tight sealing. The splice tray shall be made of ABS materials. 12/6 Port (All OFC cores to be terminated)</p>
Pigtails	<p>Pigtail with semi-tight buffer PA/PBT, Ø 0.9 mm, yellow, multimode G651 50/125(OM3/OM4) or single mode G652.D 9/125 µm (OS1, OS2), length 1 m. Fitted with one LC connector in acc. with IEC 61754-20. Zirconia (ceramic) ferrule with a PC polished end face geometry, connectors tuned in accordance with IEC 61755-3-1 and qualified in acc. with IEC 61753-1 for category U (uncontrolled environment). material PEI / UL 94 V-0, strain relief and white plastic dust cover Mechanical specifications: Mating cycles: delta IL < 0.2 dB after 500 mating cycles Pull-out force fiber pigtail: ≥ 5 N</p>
Optic Fiber Patch Cords	<p>24 Core ,Duplex , 50/125 micron SM fiber , SC connector at both end , length as below with factory mount ceramic connector at both end Length – 3 m / 10 m / 20 m</p>

Component	Minimum Specifications
CAT 6 I/O	The RJ45 connector shall be screened to ensure protection against EMI and for Alien cross-talk compliance. It offers the 500 MHz performance required to be used to form a 100 meters Class EA channel as specified in ISO/IEC 11801:2002/A1:2008 and EIA/TIA 568 B2-10. All outlets fitted with shutters.
CAT-6 Patch Cord	Factory-crimped Patch Cords (1m/2m/as required) CAT 6; 4 pair UTP Cable 23 AWG Solid Bare Copper polyethylene insulation
Patch Panel	12/24 Port Cat-6 Patch Panel; All Ports ISO/IES 1801:2000 &TIA/EIA 568-B.2-1 & FCC Compliant; Rear wire Manager
Field Rack 9U	Wall Mount; Height - 9 U, Width - Depth: 600mm*600mm minimum Powder quoted steel Body with front door of glass. Completely covered & have security locks Uninhibited access to all mounting points inside the racks Proper ventilated with One Two fans Power cable management One Power strips having 7 Nos - 5A/15A sockets each including 1 no additional as spare (Power strip/distribution shall meet surge & spike protection). All incoming & outgoing shall be through Double Pole isolation MCBs in addition to RCCB's. Rack shall be supplied in fully assembled condition with all hardware & components installed.
Rack 42U (Rack I)	42U; Adjustable 19" rail in the front and rear for fixing the server and networking equipment; The rack shall be floor mounted. Top and bottom cable entry facility with cable glands; Front section with glass door and lock and back cover; Cable mangers of 1U Floor mount with caster wheels- Inbuilt power distribution unit with at least 8 4 Nos of 220 VAC, 5A outlets as spare for future usage (this is in addition to the actual requirement per such Rack); Minimum 4 nos of cooling fans for proper cooling should be provided; Mounting hardware should be provided for fixing switches, patch panels and network components. Rack shall be supplied in fully assembled condition with all hardware & components installed at site. Redundant Power supply & distribution. (Power strip/distribution shall meet surge & spike protection). All incoming & outgoing shall be through Double Pole isolation MCBs in addition to RCCB's.
Rack 24U (Rack II)	24U; Adjustable 19" rail in the front and rear for fixing the server and networking equipment; The rack shall be floor mounted. Top and bottom cable entry facility with cable glands; Front section with glass door and lock and back cover; Cable mangers of 1U Floor mount with caster wheels- Inbuilt power distribution unit with at least 8 4 Nos of 220 VAC, 5A outlets as spare for future usage (this is in addition to the actual requirement per such Rack); Minimum 4 nos of cooling fans for proper cooling should be provided; Mounting hardware should be provided for

Component	Minimum Specifications
	fixing switches, patch panels and network components. Rack shall be supplied in fully assembled condition with all hardware & components installed at site. Redundant Power supply & distribution. (Power strip/distribution shall meet surge & spike protection). All incoming & outgoing shall be through Double Pole isolation MCBs in addition to RCCB's.
HDPE Conduit	2" Flame resistant mechanically protective Conduit Pipe with required accessories (couplers etc.) for underground/wall mount cable laying. The conduit shall be laid along the length of cable & shall be glanded at both ends. Supply of necessary Glands, couplers, etc. shall be part of bidder's scope. Colour shall be orange.
GI Pipe	2" C-Class GI Pipe with required accessories for road/gate/other required crossings.
CAT6 Cable (Armoured)	Same as CAT 6 Specifications; GI round wire armoured cable.

7.13 Services

1. Cable laying (Indoor)	<p>This will comprise laying of all (CAT 6, OFC, Power & Control cable) in a structured format (including fitting of casing/capping, I/Os, glanding, Crimping, Testing, Termination & Installation cost etc.) within the data center and other buildings. Laying shall include laying, casing+capping, necessary fixtures, dressing, cable tagging, ferruling & subsequent repairs for false ceiling/false flooring/walls/pavements related to the job. Supports shall be provided every 1 to 1.3 mtr interval.</p> <p>All cable laying shall include civil/mechanical/electrical works for cable laying (as required), laying, dressing, power-provisioning, drilling, clamping, supply & laying in casing+capping/conduit/GI pipe/cable duct/tray complete with fittings & supports, repairs as per procedure, glanding, ferruling, crimping, testing & recording of test results, powering-up & final commissioning.</p>
2. Cable laying (Outdoor)	<p>This will comprise laying (all labour for digging, refilling & re-surfacing) of cables in a structured format (using appropriate quality piping) from data center to various office locations (including laying of conduit, dressing, OFC, splicing, I/Os, glanding, Crimping, Testing, termination & installation cost etc.) Digging shall be by using JCB, handtools, pneumatic / electric jackhammers / as required without damage to any others in the area/vicinity. OFC Cables shall be laid at a depth of 1 mtr while LV cables shall be laid at a depth of 700 to 750</p>

	<p>mm below FFL. Refilling shall involve using sand layering, brick layering & then soil (followed by repair of any damaged roads/pavement/others) for each of the cable types. Route markers inline with existing industry standard practices shall be installed clearly marking the OFC & LV Power cables for the project every 30 mtrs.</p> <p>Hand-holes shall be provisioned with appropriate covers at every 100 meters and wherever the cabling path changes underground.</p> <p>Above ground laying shall be in cable ducts/trays. Wherever existing cable ducts/trays are being used, cable clamping & duct covers re-fixing shall be in bidder's scope. Laying of cable in other overhead locations shall involve cable trays with necessary fabrication, fixtures & installation, incl fixing of cable trays (with supports finished & painted). All cable laying shall include civil/mechanical/electrical works for cable laying (as required), laying, dressing, power-provisioning, drilling, clamping, supply & laying in casing+capping/conduit/GI pipe/cable duct/tray complete with fittings & supports, refilling of trenches as per procedure, glanding, ferruling, crimping, testing & recording of test results, powering-up & final commissioning.</p> <p>All fees, charges, costs associated with outdoor cable laying including RoW, reinstatement, trenching, refilling etc. in all kinds of soil (hard, soft etc.) and road type (concrete, bitumen etc.) will be in the scope of the agency.</p>
3. Power Provisioning	Laying of power cables from identified location in casing+capping / conduit+outdoor cable laying, including supply of necessary fittings, glanding, Crimping, Testing, termination & installation
4. Installation, Testing, Commissioning of all equipment	<p>The agency shall produce appropriate documents mentioning & equipment for the successful installation, testing and commissioning of all equipment, and take the approval of the concerned from customer & consultant.</p> <p>All the passive cabling shall be tested and certified by the OEM of the passive cabling such as Ethernet and OFC. Reports for the same shall be furnished. Vendor shall also provide OTDR reports of all site installed OFC links which shall be witnessed by customer & Consultant also.</p>
5. Documentation & Training	- The agency shall create a user manual for each process within the new system.

	<p>The agency shall also provide user manuals (including O&M Manuals) for each component in the system (incl all brought-out items)</p> <p>The agency shall provide adequate local level training to customer employees in terms of the system usage</p>
6. Site Preparation	<p>All the onsite civil, electrical and mechanical works required in terms of the laying, installation and commissioning of the various components of the project at every location will be in the scope of the agency. (including Storage, Safety & security). The agency will have to restore all sites to the original condition in case any digging activity is undertaken</p>

Any other (networking, hardware, software or any other) equipment required by the bidder to devise the solution as per the functional requirements mentioned in this document shall be the sole responsibility of the agency without any commercial impact to ASDCL.

8 SCHEDULE OF QUANTITIES

Sr. No.	Particulars	Qty	UoM	Basic Rate (INR)	GST %	GST (INR)	Unit Rate Incl GST (INR)	Total Amount (INR)
CAPEX								
A	Application Software							
1	eGovernance Suite License	1	LS					
2	Tax Assessment & Collection	1	LS					
3	Health & Hospitals	1	LS					
4	Water Supply	1	LS					
5	Town Planning (integration)	1	LS					
6	Solid Waste Management	1	LS					
7	Stores	1	LS					
8	Grievance Redressal	1	LS					
9	Municipal Utilities	1	LS					
10	Fire & Disasters	1	LS					
11	Accounts & Finance	1	LS					
12	Establishment	1	LS					
13	Engineering	1	LS					
14	Estates	1	LS					
15	Project Manager (Welfare Schemes)	1	LS					
16	Education	1	LS					
17	Licenses	1	LS					
18	Drainage	1	LS					

Sr. No.	Particulars	Qty	UoM	Basic Rate (INR)	GST %	GST (INR)	Unit Rate Incl GST (INR)	Total Amount (INR)
19	Encroachment	1	LS					
20	Law Department	1	LS					
21	Women & child Development	1	LS					
22	Municipal Secretariat	1	LS					
23	Municipal Transport (Smart Bus)	1	LS					
24	Bureau (Inward/Outward)	1	LS					
25	Aurangabad Tourism	1	LS					
26	Aurangabad Smart City	1	LS					
27	Other Departments	1	LS					
28	Document Management System	1	LS					
29	Web Portal	1	LS					
30	eOffice (Integration)	1	LS					
31	Vehicle Tracking System	1	LS					
32	City Operations Dashboard	1	LS					
33	M-Governance (Mobile app)	1	LS					
34	Payment Gateway	1	LS					
35	Integration with GIS & other third party systems	1	LS					
36	RTS & RTI							
37	Customisation, Legacy Data Conversion & Migration	1	LS					
B	Networking & CFC Infrastructure							
1	Layer 3 Core Switch at HQ DC	2	Nos					
2	Layer 2 24 port Switch at HQ DC	2	Nos					
3	Network Management System at HQ DC	1	LS					
4	Floor mounted rack in HQ DC	1	Nos					

Sr. No.	Particulars	Qty	UoM	Basic Rate (INR)	GST %	GST (INR)	Unit Rate Incl GST (INR)	Total Amount (INR)
5	UTM Firewall + Router at HQ DC	2	Nos					
6	24 port switches at HQ floors	8	Nos					
7	Wall mounted Racks at HQ Floors	8	Nos					
8	Networking Accessories at HQ DC & Floors	1	LS					
9	CAT 6A Cable at HQ	9600	m					
10	Conduits / Casing & Capping at HQ	9600	m					
11	UTM Firewall + Router at ZO	8	Nos					
12	24 port switch at ZO incl 2 spares	10	Nos					
13	Wall mounted Racks at ZO	9	Nos					
14	Networking Accessories at ZO	9	Nos					
15	24 port switch at CFC	9	Nos					
16	Wall mounted racks at CFC	9	Nos					
17	Accessories (Fibre & CAT 6 patch cords, LIUs etc.) at ZO & CFC	9	Nos					
18	CAT 6A Cable at ZO & CFC	12000	m					
19	Conduits / Casing & Capping at ZO & CFC	12000	m					
20	CFC Infra Development	9	Per CFC					
21	UPS – 5 KVA	9	Nos					
22	Dark fibre between AMC HQ & Smart City HQ		LS					
OPEX								
C.	Opex Payments							
<i>C.1</i>	<i>CAMC Charges</i>							
1	CAMC Charges for all Capex Items as per A & B	10	years					

Sr. No.	Particulars	Qty	UoM	Basic Rate (INR)	GST %	GST (INR)	Unit Rate Incl GST (INR)	Total Amount (INR)
C.2	<i>Non-CAMC Charges</i>							
2	DC Hosting Charges for the entire Application (Tier-III set-up), including applicable broadband / connectivity charges	132	Months					
3	DR Hosting Charges for the entire Application (Tier-III set-up), including applicable broadband / connectivity charges	132	Months					
4	Facility Management Support (includes providing 2 technical resources for 1 year warranty & 10 years AMC) including call center support	264	Man-months					
5	Demand Generation & Dispatch support & operational cost (4 pax for 11 years)	528	Man-months					
6	Training (1 pax for 5 years)	60	Man-months					
7	Document Scanning expenses including associated manpower, machinery & tools. Storage to be local.	50,00,000	Numbers					
8	CFC Operation (20 resources for 11 years)	2640	Man-months					
9	Bandwidth Expense - 10 locations (MPLS/SDWAN), min 50 mbps, including internet connectivity @ min 100 mbps	132	Months					

Sr. No.	Particulars	Qty	UoM	Basic Rate (INR)	GST %	GST (INR)	Unit Rate Incl GST (INR)	Total Amount (INR)
10	SMS Gateway & Recurring SMS Charges, Email Gateway, Payment Gateway, Any other gateways requiring operational expenses	132	Months					
11	Google Maps API for VTS (11 years)	132	Months					
12	SIM Card charges for VTS (Upto 100 vehicles, for 11 years)	132	Months					

- The cloud DC & DR rates will be considered for the overall commercial evaluation. However, in case ASCDCL is able to obtain lower rates for the same, CEO, ASCDCL will be free to procure the same directly.

9 ANNEXURE I – FUNCTIONAL SPECIFICATIONS

The following is a list of functional requirements for each of the modules:

Sr. No.	Department	Services
1	Tax Assessment and Collection	Permission for property transfer No Dues Certificate for arrears of property Extract of property Permission for property transfer through heredity Permission for property transfer through other modes Issuance outstanding bill New tax levy Re-levy of taxes Registration of objection Sub-division of property, division of taxes Demolition of property: Tax on reconstruction of property
2	Health & Hospitals	Birth Certificate issuance and correction Death Certificate Marriage Certificate Nursing Home /Hospital Registration Prevention of food adulteration act Health & Sanitation NOC Sonography Certificate Biomedical Waste
3	Water supply	New water connections Change in connection ownership Change in water connection charges Temporary/ Permanent disconnection Reconnect the severed connection Change in use Issue of water bill Issue of plumbing license Renewal of plumbing license Complaint registration for non-working meters Complaint against unauthorized water connection Complaint against water pressure
4	Town planning	Demand Generation Licensing Building Permission Plinth Completion Occupancy Certificate – (Full and Part)

		Building Permission Deposit and Refund Plot Layout Land Acquisition Amalgamation/ Subdivision Building Renewal Part Plan Development Plan No objection Certificate (NOC) Mobile Tower Permission` Site Visit reporting
5	Solid Waste Management	Door to door collection Segregation
6	Stores	Non DSR items purchase for corporations
7	Grievance redressal	CARE (existing online system) Manual Complaint handling
8	Garden & Swimming Pool	Tree cutting/ replantation permission Sale of trees and flowers Siddharth Garden Swimming pool
9	Sports	Managing various grounds and sports centers owned by AMC
10	Fire	Fire NOC (Provisional) Fire NOC (Final) Renewal
11	Finance	Analysis of Financial health of corporation Trend analysis Collection performance
12	Accounts	Budget preparation, Distribution and Management System Payroll system Receipts from through internet/Cash window etc Payment Management System Loan management Security Deposits/EMD management Grants Management Debt Management Accrued Payment Management Investment Management Advance Management Bank reconciliation TDS/GST register /online payment of tax Maintenance of bank account wise balance
13	Establishment Department (Administration)	Establishment I (Class IV) Establishment II (Class I, Class II & Class III) (Coverage of above two department Recruitment, Transfer,

		Suspensions, Departmental Enquiry, Medical reimbursement, Service Book of employees)
14	Engineering department	Civil (Works) including those works for sewerage and water Mechanical Electrical and street light (Lights Department)
15	Estate department	Shops /Building Plot Vegetables market Theatre Parking Marriage halls/Samaj Mandir Advertising & Hoarding
16	Environment Department	Conservation of environment (Awareness)
17	Animal Husbandry	New Meat License Renewal of meat license New Dog License Animal Adoption Scheme Aquarium park Veterinary
18	Project Manager	Programs for BPL category Self-help Group Self-Employment Skill training Hawkers Policy
19	Education	Maintenance of AMC schools Mid-day meal Free uniform Prize distribution for class 10 Supportive coaching for Class 10 Arranging seminar for high schools Training of teacher Sarva Shiksha Abhiyan Student Attendance Teacher Attendance
20	Cultural	Tourism & Heritage development Center for information guide to tourist Event organisation for various programs like Maharashtra Day, Republic Day, Kranti Day, Independence day, Corporation Foundation Day etc.
21	License	Food Licenses,

		Market Licenses, Nursing home registration, Pre conception & pre-natal diagnostic techniques licenses Hawkers licenses Business Licenses Beef License
22	Drainage	Maintenance New lines Nala safai
23	Encroachment	Illegal structures Finding out encroached properties Sending notices Taking necessary actions
24	Law Department	Handling and defending all AMC cases
25	Security Department	
26	Women and Child development	Training to children below 14 years Training to women for Self-employment (as per Maharashtra Government Resolution 2006) Mid-day meal distribution in Corporations Schools Sukanya Yojana Self-group schemes for sex workers Stitching classes for women Self-defense training Gender education for females
27	E-Tender	
28	Computer Department	
29	Municipal Secretariat	
30	Municipal Transport (Mechanical Section)	Own vehicles Hired Vehicles Transport Vehicles
31	Web Portal	

9.1 Tax Assessment & Collection (Property Tax)

- Registration of new property
 - New tax levy
 - Re-levy of taxes

- Registration of objection
- Issuance of outstanding bill
- No dues certificate for arrears of property
- Permission for property transfer
 - Permission for property transfer through heredity
 - Permission for property transfer through other modes
 - Sub-division of property, division of taxes
 - Demolition of property
- Tax on reconstruction of property
- Extract of property
- Tax assessment
- Calculation of Property Tax to be levied
- Generation of demand notice
- Payment of property tax by various modes
- Updation of property tax computations
- Generation of the details of Property Tax paid
- Maintaining Demand/Collection/Outstanding register.
- Provision of Revaluation/Revision
- Provision to capture objection against the property
- Hearing details against this objections can be captured
- The collection of the demand should be done by entering the barcode or Property code or any other identification mechanism
- The Re-assessment of the property can be done on various components
 - change of usage,
 - area change, or
 - sub division / amalgamation.
- Amalgamation and Subdivision of property - Provision of sub-division of property where in the different properties would be created with unique property code.
- Provision to capture various MIS reports like Assessment Register, Duplicate Bill, Demand Collection and Outstanding Report, details of Property Report
- Bifurcated property should have parent child relation ship where child properties calculation would be done as per the re-assessment details and accordingly demand would be re-generated for those properties.
- No Dues Certificates
- Issuance of Duplicate Bill
- Transfer of Property through heredity
- Transfer of Property through other modes

The tax assessment module will involve the door to door Household Survey, with photographs, as mentioned in the GIS module.

9.2 Health & Hospitals

- Birth Registration
 - Normal & Delayed Registration
 - Child Details – Gender, DOB, Time, Weight, Name, Birth Place etc.
 - Parent Details – Name, Address, Qualification, Occupation, Aadhaar
 - Delivery Method, Informant Details, Attachments in case of delayed registrations
 - Registration of Still Birth
 - Fetal Death Cause along with other birth registration details
 - Child Name Insertion
 - Birth Registration Correction
- Death Registration
 - Normal & Delayed Registration
 - General Details – Gender, DOD, Time, Name, Attention type, Pregnancy related, Aadhaar
 - General Details –Death place type, death place, Cemetery type, Informants Details
 - Medical Certificate Details - Death Cause, Death Manner
 - Create link with Birth Database by giving lookup while registering the death
 - Online Registration of Birth / Death by Hospitals through proper Authentication
 - Death Registration Correction
- Marriage Registration
 - Normal & Delayed Registration
 - Bride & Groom Details – Gender, DOB, Name, Place etc.
 - Parent Details – Name, Address, Qualification, Occupation
 - Registration Correction
- Hospital Management
 - Registration of patients
 - Appointments scheduling
 - Case tracking

- OPD/IPD management
- Bed & Occupancy management
- Doctors' & nurses' duty & shifts management
- Certificates management for employees
- Ambulances/vehicles management
- Special disease case tracking
- Medicines & supplies management

The module shall be integrated with the HRM module, accounts module & the vehicles module.

The Birth & Death registration module currently deployed (CRS) shall be continued to be used but integrated with the main system with respect to payment collected, reporting & dashboard.

9.3 Water Supply

Functional Requirements:

- Application for new connection
- Verification / scrutiny of the application
- Water tax calculation will be master driven and charges applicable as per factors affected.
- Water tax payment
- Issue of the work order on approval of connection
- Verification of the physical connection at the location

9.4 Town Planning

AMC is currently using the town planning module mandated by the GoM.

The same shall be continued to be used and IMEGS shall be integrated with the current town planning module, with respect to property tax numbers, Fire NOC, Legal matters etc.

9.5 Solid Waste Management

- The SWM Module shall perform all the tasks related to the garbage collection scheduling, assignment of cleaning staff, vehicle trips & routes management, garbage dumping & disposal. The module shall integrate with GIS, third party GPS & VTS systems, weigh-bridge and accounts module for billing.
- The SWM module will also encompass application development related to the VTS to be deployed on the SWM trucks within AMC. The functions of the VTS will be to identify & management the daily movement of the garbage collection trucks and to provide alerts & alarms in the case of negligence.

9.6 Stores

The inventory management system shall manage the entire stores, inventory, procurement & distribution management for AMC.

The module shall support the following functionalities:

- Indent preparation & approvals
- Indent processing, forecasting, Preparation/finalization of requirements & approvals
- E-Tendering
- Post-tender processes, PO & agreement generation
- Material receipt, acceptance/rejections recording
- Distribution
- Disposal of dead stock
- Rate contracts management

The module shall integrate with GIS, accounts & works modules.

9.7 Grievance Redressal

- Accept applications
- Generate unique grievance ID
- Acknowledgement and verify status against the ID
- Allots grievances to respective officer
- Update status when action is taken
- Integrated with other modules

9.8 Municipal Utilities

- Garden & Swimming Pool
- Sports
- Cultural
- Environment

9.9 Fire & Disasters

The fire department is responsible for the fire NOC and Audit, response in case of fire & disasters, and the preparation & maintenance of a disaster management plan.

The basic functional requirements are:

- Conduct of audit for NOC from the fire department
- Ability to raise queries / objections
- Preparation and maintenance of disaster management plan
- Task reports in case of fire / other incidents

9.10 Accounts & Finance

Key objectives of the Finance & Accounting initiatives are:

- Creation of chart of accounts as per the national accounting manual for the Municipal Corporation.
- Managing Day-to-day financial transactions covering receipts and payments.
- Bank Reconciliation
- Budget Approvals
- Finalization of accounts based on the financial year.
- Managing the fixed assets and calculation of Depreciation
- Creation of various MIS based on the National accounting Manual
- Creation of a payment gateway to receive all citizen payments online, using e-commerce and m-commerce.

The key functionalities associated with Finance & Accounting Module are

- Accounting Transaction
- Payments
- Receipts
- Fixed Assets
- Budgets.
- MIS Reports

Accounting System:

The Accounting system shall support the Chart of accounts (COA) as specified in the National Accounting manual for Municipalities (NMAM). This COA shall have five groups namely Funds, Functions, Functionaries, Field & Accounting Code. Each group shall be further subdivided in to layers to capture the data at Granular level. The structure of the COA shall follow the NMAM account coding structure covering the entire above group and the layers

Cash Collections:

The cash collections shall cover all forms of collections across the municipal corporation and shall present the same in the form daily collection register. The collections at various citizen facilitation center and against services shall be consolidated at the municipal corporation level and daily cash collection register is

prepared. The cash book module shall keep track of cheque deposits and dishonors if any. The cash book shall also manage cheque reconciliation especially against cheque bouncing / dishonoring and the interest / penalty if any thereon. The cash collections shall handle and link the collections against various demand/Bills raised by the ULB. The cash collection module shall also cover the collections against other functions such as sale of tender, sale of forms, other services, on- account from debtors etc.

Journal Entry:

The applications shall support posting journal entries. All entries pertaining to payable and receivable shall be recorded in the form of journal entry. The journal entry posting shall have validations and checks to ensure proper recording.

Consolidation and Finalization:

The accounting module shall have feature to consolidate and finalize the transaction on periodical basis and generate various MIS reports as per the NMAM manual.

Bank Reconciliation:

The system shall have feature to reconcile the bank entries against the book entries. The system shall have manual reconciling feature (Applicable for banks which cannot spare the account transaction in electronic format) and also the auto reconciliation feature.

Vouchers:

The system shall have separate vouchers for payments, receipts, contra and Journal voucher. The system shall also have feature to reset the voucher number on monthly or yearly basis.

Control Features:

The system shall have proper security along with roles and privileges to the individual user. The system shall have make checker feature to authenticate any transaction.

Payments:

The payment process in the Municipality are broadly classified as

- Salary & pension
- Contractor and suppliers
- Administrative Expense
- Statutory Payments like provident Fund, professional Tax, Tax deducted at source (TDS).

The payments process shall have interface with workflow system to support various approvals involved in the payment system. Once the cheques are paid, the system shall have feature to map/link the cheque numbers with the voucher or manually capture the cheque number with a validation for the cheque number entered. The system shall have facility to map the Bill Number/Invoice Number applicable against the payment transaction along with cost center if any.

- **Payments of Salary:**
All calculations associated with salary, wages, statutory payment shall be maintained by the Personnel/Pay roll management system. The accounting system shall capture the payments transaction as a part of salary on a departmental basis. Upon final processing of the salary calculations by the personnel management/payroll management, the Personnel management/payroll management shall post liability entry in to accounting system in the form Journal voucher. And the respective payments entries shall be posted at the time of payment.
- **Payments of Contractor & Suppliers:**
The accounting system shall maintain the supplier/contractor wise details in the form of ledger. The accounting system shall create the respective contractor ledgers based on the status of the vendor. The contractor/supplier ledger shall capture additional information's like TDS Type and section applicable, all registration number like VAT (Value Added Tax), CST (Central Sales Tax), Service Tax along with PAN (Permanent

Account Number). The TDS shall be deducted at the time of posting the liability entry.

- **Payment of Administrative Expense:**

All payments associate with Administrative expenses such as telephone expense, electricity expense shall be booked by creating the liability and linking with cost center if any. Respective payment entry shall be posted based on the accounting principle.

- **Statutory Payments:**

Statutory payment associated with employee such as provident Fund, Professional Tax and TDS shall be calculated by the Personnel /payroll management system. The accounting system shall create liability entry based on the inputs from personnel/payroll management system and the respective payments entries shall be posted at the time of payment of the same to the respective treasury or authority.

Statutory payments associated with Contractor and suppliers shall be calculated by the financial system at the time capturing the bill details and the respective payments entries shall be posted at the time of payment of the same to the respective treasury or authority.

Receipts:

The receipt process in the Municipality are broadly classified as

Property Tax, Water Tax Receipts:

- Receipts associated with property Tax and water tax against a assessee are recorded in the property tax and water tax system. The receipts entries are against these services are recorded as per the illustrative entry shown in the property tax section.

Grants:

- Receipts associated with grants are recorded on receipt information along with bank deposit details. The grants can be monitored through the respective ledgers.

Security and earnest Money Deposits (Interest Free):

- The collections under these categories are posted without raising a bill. The liability entry is created in the accounting system against the Security and earnest Money deposit against a vendor or supplier and the same shall be adjusted against the payments.

Other Collections:

- Other collections such as Hall fees, Garden and park fees are created as and when the actual collections are received. And the respective entries are posted as per the principles of Double entry accounting system.

Fixed Assets:

Accounting System should be able to maintain the Fixed Asset register. Details like asset number, location and person responsible pertaining to the asset should be captured in the register. It should be ensured that all Fixed Assets are correctly entered in the Fixed Assets Register. During purchase of any fixed asset, the account code selected will hit the General Ledger. Other details entered in the voucher will only be reflected in the Fixed Asset Register of Accounting System. During sale of any fixed asset, the account code selected for the specific asset along with profit/ loss on sale of the asset shall be posted in the General Ledger. Other details entered in the voucher will only be reflected in the Fixed Asset Register of Accounting System. Accounting System should be able to calculate the Depreciation of Assets, based on useful life calculation and straight line method. Accounting System should have the provision of revaluation, scrap, write-off and sale of assets.

Budgeting:

Accounting System should have a provision for budgeting.

- The budgets shall be prepared as per the Chart of Accounts (COA) in the Accounting System.
- Accounting System shall raise alerts messages in case the budgetary limits are exceeded.
- Accounting System shall have the provision for variance analysis between budget and actual with percentage.
- Accounting System shall have the provision to capture ward-wise budgets.
- Accounting System shall have provision to monitor the budget on a timely basis.
- Accounting System, should allow for multiple budget periods and provide for monthly/quarterly/half-yearly break-up of the actual/ budget forecasts

MIS Reports:

The accounting system shall have facility to generate following list of reports in addition to the list of reports and formats specified in the National accounting manual for Municipalities (NMAM)

- Trial Balance
- Balance sheet
- Income and expenditure statement
- Cash Flow
- Abstract register for payments and receipts
- Advance ledger
- Register of Adjustment
- Register of Investments
- Advance Ledger
- Deposit Ledger
- Loan Register
- Fixed Assets Register
- Appropriation Register
- Register of unpaid bills
- Budget
- Ward wise Accounts
- Ageing Reports for both debtor and creditor, (Ageing report should be user defined)
- Variance Analysis of Budget Vs Actual

- Party wise Statement
- Ratio analysis reports
- Revenue trend analysis statement
- Bank Reconciliation Statement

The agency shall ensure that all the historical financial data for the past 10 years is migrated to the new system. The implementation of IMEGS should ensure that the balance sheet for AMC for the previous financial year is available latest by 31 May every year.

9.11 Establishment

The Establishment module shall handle the entire management of every employee & contract labour & his/her service lifecycle. The specific tasks the module shall be required to support shall include:

- Recruitment, deputations, contracts & manpower management
- Service Records maintenance
- Time & leave management
- Promotions & transfers
- Disciplinary actions, confidential reports, departmental enquiries, demotions, suspensions
- GPF
- Payroll Management
- Medical reimbursements
- Loans, advances & deductions management
- Pensions
- Employee grievance management
- Performance Appraisals
- The HRM module shall provide employee self-help features for all the information display & transactions regarding the employee.
- The module shall integrate with the accounts, meetings & third-party Time & Attendance systems and access control systems. Currently a biometric attendance system is being deployed as a part of the Aurangabad Smart City project.

- The module shall handle all the statutory reporting/requirements in an automated manner.

9.12 Engineering

The functional requirements for the Engineering Department module shall be as follows:

The module shall allow the users to map the entire project life-cycle including project preparation, estimation, sanctions, tendering, comparative analysis (qualitative as well as quantitative), work order, agreement, project management, interim as well as final billing & project closure.

- Project Preparation stage shall include the project conceptualization, preliminary estimation, pre-sanction, survey, estimations based on the user selectable SSRs, analysis of rates, project stage definitions & the administrative approval. There shall be integration with the vendor registration, budget & meetings management modules & GIS at the appropriate points. The data from the current SSR will have to be input using an SSR master.
- The bid management shall have user-selectable options for single, double or three-envelop bids & shall also have integration with eTendering module.
- The post-tender management features shall include preparation of comparative analysis, negotiations management, administrative sanctions, work order & agreement generation & integration with accounts & meeting modules.
- The project management module shall have features of recording the project progress, generation of bills (running or final) based on the stages completed & weightages against the pre-defined stage-wise weightages, generation of work completion certificates & integration with the accounts & GIS module.
- The works management module shall also manage other sub-systems such as vendor management, architects/consultants' management etc.
- The module shall have all the features of work-flow management that shall allow the users to define the work-flow.

- The module shall offer event-based alarms & notifications management features (using SMS & email) at each stage of the process & shall be customizable by the users.
- The works related documents shall be managed using the DMS appropriately integrated with the module.

Contract Management:

Once the supplier is selected for the award of the contract, the contract is signed between the department and supplier. Thereafter the contract management activity involves tracking the RC throughout its validity period. The Rate Contract items are published in the form of catalogue with details of Product, description, unit of measure, supplier Number and price.

The rate contract validity are tracked through an alert system where the concerned authority to initiate the indent creation process for competitive bidding.

The system should allow various types of contracts as per AMC requirements and the workflow or other functionalities to be created as per the type of contract.

Rate Catalogue Management:

After completion of the Contract management, the rate contract information is updated in the form of Rate Contract catalogue with details of goods. The intended purchase has to search for item and procure item based on their profile.

Manage Catalogue Master

Catalogue master is a database of items that are rate Contracted by Municipal Corporation. The catalogue master contains list of items along with their unique codes and specification. Managing catalogue master involves addition of new item and deletion of obsolete item from the list.

Order Management:

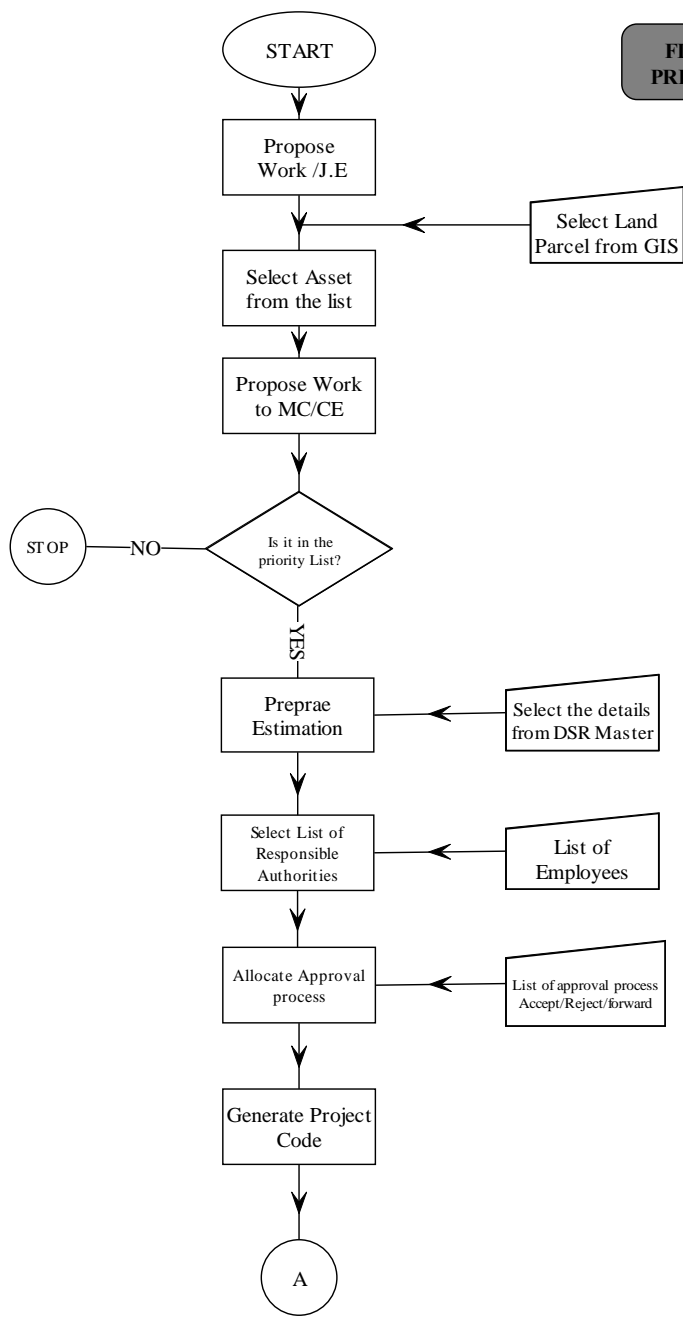
The order management covers the product requisition and purchase order to Payment functions.

- The purchasing entity logs on to the system searches for the product with specification.
- Once the item product is located, the purchasing entity creates a requisition for the item and forwards the same to the approving authority.
- The approving authority approves the request.
- The purchasing entity creates a PO with schedules of delivery.
- The supplier receives the PO and acknowledges the PO and the dispatches are arranged based on the location and schedule.
- The goods received at the receiving are verified against the PO quantity a schedule.
- Goods receipt notes are generated against the receipts. In case of damage of goods in transit, inferior quality the same shall be returned to the supplier with Goods Return Note.
- The Bills are accepted from the supplier for the goods accepted and the same is forwarded to accounts departments for payments.

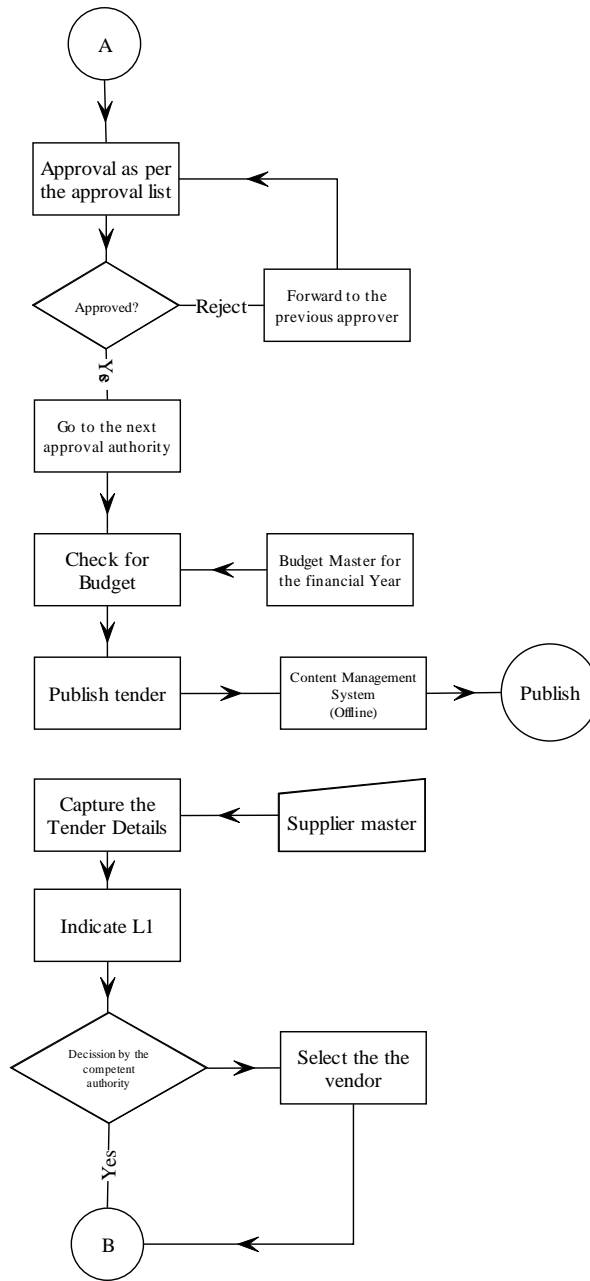
The module should integrate with the GIS & accounts module. The module should be able to generate budget wise utilization reports on a selectable period basis (day, week, month etc.) for ongoing as well as completed projects.

The following are the flow charts for a few important processes in the works department:

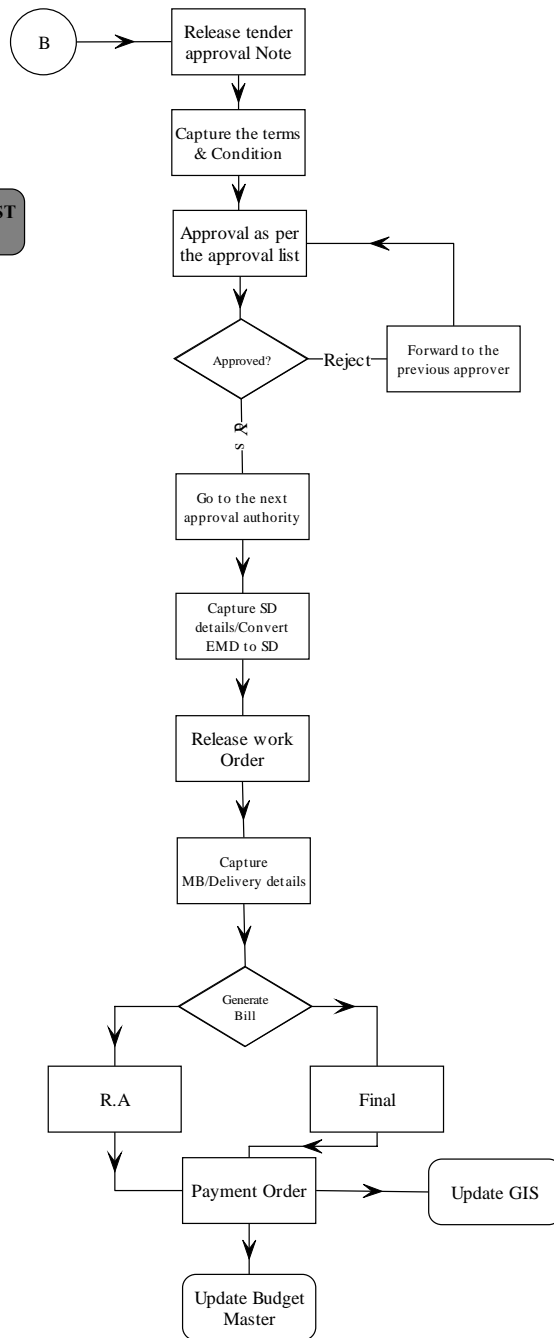
**FLOW CHART FOR
PRETENDER PROCESS**



FLOW CHART FOR TENDER PROCESS



FLOW CHART FOR POST TENDER PROCESS



9.13 Estates

The estates department takes ownership of all the properties belonging to AMC within the city boundaries. The functional requirements are:

- Acquisition & disposal of properties
- Managing the lease / rental agreements

- Providing revenue reports
- Managing all hoardings & advertisements within the city (all hoardings should be 2D barcoded, which can be scanned using an app / handheld machine)

9.14 Project Manager (Welfare Schemes)

The welfare schemes module will manage all the grants, loans and various financial schemes received by AMC from either Central / State government or any funding agency.

The module should be able to track the progress of the various schemes based on the actual progress as well as fund utilization and should provide a real time dashboard related to the same.

9.15 Education

The education module will primarily manage the primary education sector of the AMC: schools, mid-day meals, RTE, attendance, student and teacher performance, absenteeism and necessary functionalities.

The education module should also include the management of other educational institutes (such as colleges) and facilities (such as library) which are currently being provided by AMC.

The module should be able to register data related to students and teachers, all associated costs and revenues, metrics in terms of attendance and performance for all the educational institutions managed by AMC including schools & colleges. Every educational facility managed by AMC shall be provided a user id for the purpose for entry of data.

The education module should also facilitate the content generation and propagation (delivery of content) through the online medium.

9.16 Licenses

Functional Requirements:

- Addition and updation of a tree of trade categories
- Configuration of rates & fees
- Recording of applicant details
- Preparation of the inspection report with comments
- Recording the NOC / Permission

- Allow higher authorities to view / comment on the approvals
- Capturing of license fee
- Generation & printing of license with all the necessary data
- Generation of reports in terms of assessees, payment of trade license fee, non-paying assessees
- Communication with respective asseses through email / sms

9.17 Drainage

The drainage module will handle:

- New Connections
- Maintenance and
- Nala Safai

9.18 Encroachment

The encroachment module should handle:

- Illegal structures
- Finding out encroached properties
- Sending notices^[11]_{SEP}&
- Taking necessary actions

9.19 Law Department

The department is mainly involved in giving legal opinion to other departments as and when requested by the latter. It also handles the legal cases filed against the departments in court. Depending on the complexity of the case, advocate is chosen from the in-house panel or is appointed from outside. The in-house panel of advocates is also renewed periodically as and when the need arises. The objective of the department is to provide legal assistance to all the departments in an efficient and timely manner.

The functional requirements are primarily related to case management including:

- Registration of new cases, allocate advocate,
- Facility to attach various documents related to the case
- Entry of Date of Hearing

- Alerts to officers w.r.t. hearing dates
- Entry of hearing details
- Capture of judgment
- Details of payments to the advocates
- Various reports related to cases, pendency

9.20 Women & Child Development

- The functions of the women & child department include
- Training to children below 14 years
- Training to women for Self-employment (as per Maharashtra ^[1]Government Resolution 2006) ^[SEP]
- Mid-day meal distribution in Corporations Schools
- Sukanya Yojana ^[1] ^[SEP]
- Self-group schemes for sex workers
- Stitching classes for women ^[1] ^[SEP]
- Self-defense training ^[1] ^[SEP]
- Gender education for females ^[1] ^[SEP]

9.21 Municipal Secretariat

The GB & Standing Committee govern the entire functioning of AMC. The subjects discussed during the meetings & the resolutions passed shall be managed with the help of the Secretariat module.

The module shall support the following features:

- Subject list preparation
- Meeting scheduling
- Agenda finalization
- Meetings attendance recording
- Minutes of the meetings & recording resolutions

The module shall integrate with almost all the modules & sub-systems. The subjects list shall mainly be populated from the respective modules. The resolutions against the respective subjects shall automatically govern the processes within the respective modules. The meetings module shall also integrate with the DMS & accounts module (for management of corporators' honoraria & allowances)

9.22 Municipal Transport (Smart City Bus)

The MT will have to be managed as a distinct cost center, with a separate budget and a balance sheet. To this extent, all the functions of Accounts, Audit, Works, Assets, Establishment, Stores & Inventory, etc, will have to be provisioned for MT.

The basic functional requirements of MT are:

- Procurement
- Maintenance
- Stores & Inventory

9.23 Bureau (Inward / Outward)

The inward/outward department manages all the physical mail that is received / dispatched from AMC. The functional requirements are:

- Inward
 - Receiving incoming letters at counter
 - Sorting out letters
 - Sent to Head of the department
 - Distribute the letters to departments
- Outward
 - Receiving outgoing letters at counter
 - Sorting the letters in different categories
 - Dispatching the letters to its destination

Any technological solution that enables efficient sorting and reporting of incoming and outgoing mail should be encouraged.

9.24 Aurangabad Tourism

Aurangabad is a city known for its heritage tourism. ASCDCL would specifically like to develop a module targeted towards accumulating tourism related data and generating reports for the purpose of understanding tourism trends. This will include:

- Registration of tourists (Should be available through the website) to provide information pertaining to Aurangabad tourism through email / sms
- The tourist registration module should be available as a web-based version for all hotels in Aurangabad, for entering details of their guests. Every hotel should be given a client id (linked to their property registration details). The nature of the registration form will be decided with the successful bidder, however, it should broadly include fields such as:
 - o Date
 - o Time
 - o Name
 - o Age
 - o Nationality
 - o Arriving from
 - o Departing to
 - o National ID with photo & passport (Aadhaar / Driving License / Passport)
- There should be another module pertaining to tourism related data that will be available in written content & audio format, in at least the following languages
 - o Hindi
 - o Urdu
 - o Marathi
 - o English
 - o French
 - o Spanish
 - o Portuguese
 - o Chinese
 - o Japanese
 - o Sinhalese
- The audio module should have the capability to be streamed over radio / internet / GPS enabled media to create a GPS based tourist information guide. This should be available as a separate app. The app should be able to:
 - o Register users
 - o Provide ability to select language

- Provide GPS based information in audio format pertaining to the particular tourist facility on the particular lat-long
- **The content (text, audio & video) will be provided by ASCDCL**

9.25 Aurangabad Smart City

The IMEGS should be able to assign Aurangabad Smart City as a separate cost center and budget head. All the expenses and revenues of ASCDCL shall be mapped into the system. Functionalities relevant to AMC (such as Engineering, Establishment, Accounts, Schemes, Inventory, etc.) shall be available for the Aurangabad Smart City cost center separately as well jointly.

9.26 Other Departments

- Security Department
- Computer Department

9.27 Document Management System

ASCDCL wishes to build a robust document management repository to manage its internally generated documents and documents received from external sources. The DMS shall support the following functional requirements:

- The users should be able to use DMS with secured login. The password shall be encrypted and supported with audit trail feature at folder, user and cabinet level.
- The DMS shall have user creation facility based on group and all access rights shall be maintained based on the user group. The access right should not be limited to creation and access and shall support delete/EDIT/view/None.
- The DMS shall support Digital signature or digitally signing of documents. It shall support standard 3rd party digital signature software's. It shall support Digital signatures using open source software using JCA (Java Cryptography Architecture) adaptor architecture using which any third party software (Cryptography provider) like Verisign can be integrated easily depending upon ASCDCL requirements and security standards followed.
- The DMS shall support verification of digital signature for opening of document with cross verification. For each private key its corresponding public key is stored in DMS server, which can be used by different users to authenticate the digital signatures. For digitally signing the document, users will enter their Private key, user name and password and once the document is digitally signed, the complete

signature history is maintained like name of the signer, date and time when signature is executed and meaning associated with the signature like Approved, rejected etc. The signature mechanism must be totally platform and application independent i.e. any file format supported in DMS can be digitally signed and the native application need not be invoked to view the signatures

- The DMS shall support complete document life cycle management for managing online, offline, near online documents and for document archival.
- The DMS solution should support Marathi localization in addition to English.
- The scanning software shall have facility of scanning the documents from web interface. The scanning software shall support multiple pages in batch mode or manual mode. Also, facility to scan different pages of document at different DPI resolution.
- It shall support wide variety of scanners from low speed to high-speed production scanners. Flat bed and page feed scanners. It shall support high volume scanning up to 25,000 pages per day.
- Standard Image Operations such as de-skew, de-speckle, rotate, invert, zoom-in/zoom-out, zoom percentage etc.
- Automatic segregation of batch of dockets based on Barcode, Blank page, fixed page and auto Form recognition.
- Simplified Export of scanned batches into DMS with Auto folder/Subfolder creation document filing & indexing on user defined fields
- Extensive Reports & Audit trail like Report on total records scanned along with associated indexes, Records exported or not exported to EDMS etc.
- Supports document capture through Print and Email redirection.
- Scanning software must support data entry in multiple languages
- Shall support basic workflow to move the documents through a set of users for approval and corrections.
- Shall support Version control for document versions. Image and electronic document versions. Support Check in and check out for collaborative working environment. The DMS shall support Cross referencing of related documents.
- The DMS shall support OCR capabilities. i.e ability to search the content within a text image.
- The DMS shall support strong search capabilities like search on single document or entire repository. Search based on the document attributes such as creation, created by, modified, modified by, key words, owner etc.

- Search Boolean and complex logical searches like “Tel no.> 2874 5000 and Amount < 50000”
- The DMS shall support viewing of Non image document like MS word, excel, Powerpoint without native application support. Support document view through browser based plug in.
- Ability to support for annotations like highlighting, marking text, underlining, pointing arrows, putting sticky notes on documents, and support for text and image stamps. Ability to Supports creating, viewing, printing, deletion and other manipulation of “sticky notes” on documents, pages and folders without altering content of documents, including “read-only” documents and images.
- The solution should support features like Printing of Notes, Linking of Note to Notes, Linking of Notes to Document and Confidential Notes.
- The total number of documents to be scanned are around 50 lakhs, over the period of 10 years.
- All citizen documents generated from the proposed eGovernance system shall be automatically migrated to the document management system using pre-defined document characteristics.
- The DMS shall support both local storage and cloud storage.
- The agency shall provide local storage (either NAS or DAS), connected within the AMC network, for all critical data that shall be identified during the course of the project. The storage consideration (local / cloud) shall be configurable as per demand.
- The hardware (scanners & desktops) used by the agency for DMS shall be the property of the agency. AMC will provide the requisite space to conduct the digitization activity.
- At least two DMS stations are estimated to be required, however, this may increase to two more DMS stations as per demand at a later date.
- Beyond the specified volume of data, the agency shall be paid as per the rates mentioned in the bid document.

9.28 Web Portal

A new modern, tri-lingual (English, Marathi & Urdu/Hindi) AMC portal will be designed and deployed which will provide role-based access to all ULB employees and citizens. Some of the key functionalities desired are:

- Search facility for department users as well as citizens
- Citizens will be able to apply for and track status of their applications for various services
- Integrated with Payment Gateway
- Digital signature distribution and management for uploaded documents
- All RTI Services
- All RTS Services
- Service request forms, routed to the concerned officer
- Automatic SMS/email to officers and citizens

The web User Interface should satisfy the following minimum standards:

- User interface must be simple. The user should be shown only those things that she or he is supposed to see in order to accomplish a task. Special care should be taken in making sure that the user carries out the least number of interactions with application in order to execute a particular function.
- Design must prevent the user from doing something that she/he is not supposed to do. This makes the system more desirable and easy to use. Users should be prevented from performing inappropriate tasks.
- Aesthetics helps in increasing user productivity and the first impression of the web site. The user interface should be aesthetically pleasing.
- In order to have a consistent navigation scheme, system must enable user to access information or perform tasks in same manner and conditions under similar conditions.
- Static text (labels, captions) on the screen must conform to the terminology of the business that the application supports
- Static text (labels, captions) on the screen must follow consistent naming convention, that is same label must convey same meaning at all the places.
- Static text (labels, captions) on the screen must be concise, convincing, and unambiguous
- Use of icons, controls for HTML forms for different purposes like accepting text input, displaying lists, displaying calendars etc. should be consistent across the web site. That is same icon will always mean the same thing, and conversely the same thing should always be represented by the same icon.

- Link to the "Home Page" must be present on all pages.
- User's current location and the navigation path that user followed must be displayed, with hyperlinks on each sub-path, on the screen.
- Display data and information in a format that does not require conversion by the user and is localized to a region.
- Do not use unsolicited graphics and windows "pop-up" to the user.
- Whenever a user leaves the website, the user must be given a feedback clearly telling that the user is moving out of the website.
- The portal/ website should follow a well defined Security Policy for Authentication, Access rights, Delegation of Administrative Powers, Password Policy, User Accounts, Validation of content, Identity Management, Server Access Log, Cookies, Transmission Security, Encryption, Auditing, Server Hardening, Terminal Authentication, Terminal logon procedures, User Access Right on Terminals and Database

Security

- Regular Auditing - This is required to ensure that everything is working in order.
- Logs - Proper logs are to be maintained in order to trace any problems/security breaches, which can occur during normal operations.
- Intrusion Detection- Firewall should be able to detect intrusion attempts.
- Contingency Planning - In case of failure of firewall, there should be plans to recover immediately
- Firewall Access Privileges- Access privileges should be controlled by procedures defined by the organization deploying firewall.
- Disclosure of Internal Network Information- Internal network information must be confidential, proper measures must be taken to ensure confidentiality.
- Posting Updates- If some updates/patches are released for the firewall they must be installed in acceptable time from the release date.
- Monitoring Vulnerabilities- system security should be checked at regular intervals by created false attacks on the system, in order to ensure that system is secure.

- Standard Products- standard products must be used as firewall.
- 128 bit SSL certification
- Protection against web attacks (DDOS etc.)

Following measures should be taken for maintaining Physical Security Standards

- Mission critical system facilities must be located in a secure location that is locked and restricted to authorized personnel only.
- Access to "critical" computer hardware, wiring, displays and networks must be controlled by rules of least privilege.
- System configurations (i.e., hardware, wiring, displays and networks) of "critical" systems must be documented. A formal change management process must govern installations and changes to those physical configurations.
- A system of monitoring and auditing physical access to "critical" computer hardware, wiring, displays and networks must be implemented (e.g. badges, cameras, access logs).
- Low and medium risk equipment should be protected by an appropriate alarm system in addition to the correct security enclosures.
- Proper Anti Virus Security Standards
- Regular (daily) updation & periodic modification activities will have to be conducted for the website

9.29 eOffice

AMC is currently using the eoffice system mandated by the GoI & GoM. The agency shall ensure that the eOffice system is rolled out across all the AMC departments & other affiliated agencies, including the Aurangabad Smart City office and the Smart City Bus operation.

9.30 Vehicle Tracking System

AMC will deploy a vehicle tracking system for all the vehicles owned by / rented for AMC, including cars, emergency vehicles, JCBs, water tankers and so on.

The VTS should be integrated with the eGovernance system and provide a dashboard of vehicles available alongwith their location and vehicle usage pattern & history.

9.31 City Operations Dashboard

- A city operations dashboard is expected to be implemented from the point of view of providing real time information pertaining to various parameters within the city, to the key decision makers
- The dashboard should provide information pertaining to the city operations such as tax collection, transaction monitoring, budget availability etc.
- Dashboard frame work shall be a comprehensive, web-based application platform, multi site and should allow creating, managing, and deliver performance dashboards, analytical dashboards, user configurable reports and alarm management.
- The Dashboard frame work shall allow easy creation/configuration of different types of interactive dashboards for different users to monitor various inputs & indicators, and use analytical dashboards to visualize detailed data.
- The dashboard must be web based and configurable on per-user basis. The user-configurable Dashboard must be capable of displaying Real-Time and Historical content.
- System Administrators will have the option of creating standard Dashboard templates for the purpose of providing default user content.
- The software will have the ability to employ a Google-based, geographic map to overlay power quality events based upon the location.
- The software should have the ability to display web-based, real-time information and the ability to embed the web pages of the following systems into a dashboard for the purpose of providing a unified web portal
 - Data Source Management
 - Data manipulation
 - Data Quality Reporting & Management
 - Data Management
 - Object Visualization (Chart Control, Gauge Control, Maps Overlaying, Display Indicators, State Indicators, Tree Maps etc)
 - Custom Report Building
 - Software Administration Features (User Management, Alarm Management, Data Import/Export etc)

The city operations dashboard should be available as a live feed at the Operational Command Center (OCC) being setup as a part of the Aurangabad Smart City program.

The dashboard should be integrated with third party applications currently operational at AMC as also any other future third party applications that may be deployed by AMC. Currently under the Smart City project, ASCDCL is undertaking the MSI project which has software components that should be integrated with the Dashboard. The responsibility of ensuring the integration will be done will rest with the selected IMEGS agency.

9.32 M-Governance (Mobile Governance)

M-governance is a sub-domain of e-governance. It ensures that electronic services are available to people via mobile technologies using devices such as mobile phones. These services bypass the need for traditional physical networks for communications and collaboration. Mobile services are also cheaper as well as accessible in most of the rural areas in India.

M-Governance aims at providing fast and easy access of public services to citizens through mobile devices. Mobile services are quickly emerging as the new frontier in transforming government and making it even more accessible and citizen-centric by extending the benefits of remote delivery of government services and information. Delivering timely and accurate information to citizens and an established system of two-way communication between the government and people is one of the keys to strengthening democracy by facilitating enhanced utilisation of public services, participation and empowerment of citizens. The use of mobile technologies has been prominent in government departments especially in agriculture, health care, financial services, retail trading, utilities, communications, manufacturing, transportation and services. Businesses too have woken to the popularity of mobile phones and are introducing services, especially in the Banking sector. Mobile banking is the future because of its cost effectiveness and ability to reach out to customers in remote areas.

The Ministry of Electronics and Information Technology developed and notified the framework for Mobile Governance in February, 2012. The m - Governance framework of Government of India aims to utilize the massive reach of mobile phones and harness the potential of mobile applications to enable easy and round - the - clock access to public services, especially in the rural areas. The framework aims to create unique infrastructure as well as application development ecosystem for m - Governance in the country. Following are the main measures laid down by MEIT:

- Web sites of all Government Departments and Agencies shall be made mobile-compliant, using the “One Web” approach.

- Open standards shall be adopted for mobile applications for ensuring the interoperability of applications across various operating systems and devices as per the Government Policy on Open Standards for e-Governance.
- Uniform/ single pre-designated numbers (long and short codes) shall be used for mobile-based services to ensure convenience.
- All Government Departments and Agencies shall develop and deploy mobile applications for providing all their public services through mobile devices to the extent feasible on the mobile platform. They shall also specify the service levels for such services.

To ensure adoption and implementation of the framework in time bound manner the government developed the Mobile Service Delivery Gateway (MSDG) that is the core infrastructure for enabling the availability of public services through mobile devices.

Mobile Services Delivery Gateway (MSDG)

The MSDG enables delivery of public services over mobile devices through various mobile based channels, such as SMS, USSD, IVRS and mobile applications. The objective of creating the MSDG is to put in place government-wide shared infrastructure and services to enable rapid development, mainstreaming and deployment of m-Governance services. It enhances interoperability across various public services as well as reduces the total cost of operation of m-Governance services by providing a common pool of resources aggregating the demand for communication and e-Governance services, and act as a platform for various Government Departments and Agencies to test, rapidly deploy, and easily maintain m-Governance services across the country. The infrastructure is based on open standards and has been developed as a cloud based service.

MSDG supports the following delivery channels for development and deployment of mobile-based applications for Government services. As the mobile-based technologies are constantly evolving, more channels may be added in future as the need arises.

- SMS (Short Message Service)
- IVRS (Interactive Voice Response System)
- USSD (Unstructured Supplementary Service Data)

- CBS (Cell Broadcasting Services)
- LBS (Location Based Services)
- Mobile Payment Service

One Web Approach

“One Web” means making, as far as possible, the same information and services available to users, irrespective of the device or the browser they are using. This implies that all Government Web sites should be compliant with mobile devices to enable users of such devices to access the same information and services (to the extent possible) as available, say, over the Internet through computers.

Benefits of m-Governance

- Cost Saving
- Proficiency
- Transformation/modernization of public sector organizations
- Added convenience and flexibility
- Better services to the citizens
- Easy interaction

ASCDCL believes that the service delivery framework based on internet & mobile technologies shall benefit the citizens. ASCDCL has thus decided to use the mobile technology (with its “always-on” nature of connectivity) for effective utilization of the strength of mobile penetration for service delivery. The services that shall be made available to citizens include:

1. Details of various municipal Taxes & charges
2. Complaints & grievances reporting
3. Application/Complaints status checking
4. Alerts for bills generated
5. Vaccination Scheduling based on registered Births
6. Location based services like medical emergencies, disaster management
7. Acknowledgements & notifications of case status
8. Transaction alerts

9. Tender alerts
10. AMC meeting alerts
11. Infocasts (Broadcasting civic messages)
12. Various alerts, e.g. escalation, for pending cases for AMC officers location-specific services like water cut etc
13. Keywords information
14. Voice enabled interaction
15. Any other services as desired from time to time by ASDCL

M-Governance scope

- Integration of the necessary SMS engine/gateway with the eGovernance application.
- Provision of necessary hardware, software for handling incoming & outgoing SMS, database integration etc required for building the application
- Coordination with the SMS/mobile service provider for availing the required services & support.
- Coordination with respective regulatory authorities (such as TRAI) for registration

The service delivery shall be available on basic handsets – not requiring smart/feature mobile phones or any specific network.

On smart phones, the services should be available through a dedicated mobile app. The mobile app should be available for both Android and iOS platforms. The mobile app shall be updated and upgraded from time to time.

All the activities for hosting the mobile app on the respective platforms for Android or iOS including coordination with Google PlayStore or Apple Store shall be the responsibility of the agency.

9.33 Payment Gateway

There are a number of business benefits in using a payment gateway. As well as having access to the full range of features and support provided by single Payment Service Provider, the Payment Gateway will provide an additional layer of functionality and

support tailored for the use of the municipal corporation. This will help citizen to pay their taxes and other statutory payments on anytime and anywhere model.

These include:

- Help Desk Application for supporting payments queries
- Real-time updations to back office Payments made to ensure citizen and/or financial systems are up to date
- Support for fully paperless Direct Debits
- High resilience and availability

The payment gateway will enable the municipal corporation to collect payments online for their respective services from citizens and other stakeholders. Citizens will use internet banking, debit or credit cards for payments related to services available with Payment Gateway. The payments will be received using the Payment Gateway after validation and authorization only as per guidelines defined by Reserve Bank of India (RBI), Ministry of Finance, Government of Maharashtra and other financial institutions.

The payment gateway will be required to be integrated with e-Governance Applications for collection of payments from citizens. In this case the request for payment would be generated by the concerned application by sending the payment information to the payment gateway. The payment gateway will validate, authorize and collect the payment and send the response back to the respective application.

The amount collected using the payment gateway will be deposited to the respective account heads with the details of the transaction (Citizen details, payment details, Account heads etc.).

The payment gateway should also provide the query and response system feature, which should capture the queries from the users regarding the payments. These queries should be forwarded to the concerned department for necessary action and response will be made available to the citizen through the portal.

Card payments may be made using most debit and credit (VISA, MasterCard, Amex etc.) cards, configurable for each service. The Payment Gateway will support transaction in Indian Rupee (INR) only.

The Payment Gateway should also accept CVV fraud checking for card payments. This checking will help to identify and reduce the impact of fraudulent transactions. The Payment Gateway should also support paperless Direct Debit set-up and draw down.

Where the Payment Gateway is being used via internet only, reconciliation will be done with the Banks online, supported where necessary by payments information captured by the municipal corporation portal.

A help desk application will be available to Departmental Staff. The help desk will enable queries to be made against the payment database to determine the status of a payment request to be made against a payment.

The Payment Gateway will be used as a single channel for payments, integrating call center, SMS Gateway or kiosk applications through the same Gateway. Where the Payment Gateway is used in this way, consideration will need to be given to the integration of the payment details with the calling channel to ensure that business and accounting requirements (e.g. daily balancing by User) are met.

The payment gateway should be highly secure using at least a 128 bit SSL encryption and the design shall be based on international standards and appropriate Indian standards.

The payment gateway shall be designed to accept all payment modes including credit cards, debit cards, net banking, e-wallets and all UPI based payment modes as mandated by the Digital India mission.

The payment gateway should be designed in such a manner that barcodes / QR codes printed on bills / generated through the website or mobile app, should be scanned and recognized by the system for ease of payment.

9.34 Integration with third party systems

The system shall integrate with certain legacy applications (such as Property Tax / Town Planning) and shall also integrate with existing payment gateway mechanisms. The integration touch points currently defined are as follows:

Existing Module	Integration With	Functionality
Birth & Death Registration	Accounts	Collection
	Payment Gateway	Payment
Town Planning	Accounts	Demand, Collection
	Payment Gateway	Payment
	Property Tax	Property Tax number
	Legal	Legal Notices
Biometric Attendance System	Establishment	Attendance data for salary generation

The application shall also have a CFC module to be deployed in the current and future CFCs within Aurangabad.

The application shall also be integrated with other government mandated applications from time to time such as the digital locker.

9.35 RTS and RTI

The IMEGS application should provide the capability to provide all services defined under the RTS act by the appropriate authorities currently as well from time to time.

The IMEGS application should provide the capability to accumulate, respond and collate responses to all RTI applications.

9.36 Integration with GIS

The IMEGS application will have to integrate with the GIS application & survey results, with respect to all the various layers which have been defined in the GIS tender. There will be multiple points of integration – some of which are defined in this document and others will be defined during the project implementation period. The GIS survey results will have to be populated within the IMEGS software without any delay. For example properties discovered through the GIS survey should be immediately reflected in the IMEGS application instead of waiting for the entire property survey to be completed.

10 ANNEXURE II - TECHNOLOGY AND ARCHITECTURE SPECIFICATIONS

The e-Governance application (IMEGS) shall preferably be based on open standards and open source technologies. The computing and operating environment for the application shall be preferably based on open source technologies. This includes application platform, server side and client side operating systems, database server and client environment such as browser.

iMEGS shall be a web based application with Web 2.0 capabilities. The application should support Ajax and other new client side technologies and controls which constitutes Web 2.0 usability experience. The application should be browser agnostic and shall run at least on Google Chrome, Internet Explorer and Mozilla Firefox. Browser shall be the primary and the key user interface for all the modules in the e-Governance application.

iMEGS shall be based on multi-tier application platform with support for web layer, application layer and data storage layer as opposed to client-server platform and thus ensuring separation of concerns. The n-tier approach also makes sure that each layer can be scaled separately; either horizontally or vertically.

Following are some of the requirements from the development platform:

- Portability
- Scalability
- Performance
- Vendor-neutral architecture
- Myriad of Technologies, Application and Tools to Choose From
- Alignment with Internet/Web Based Application Standards and Technologies like W3C or Web Services.
- Ease of deployment and management.
- Messaging

ASCDCL prefers to use Linux for the server side deployment of the e-Governance application. However, this does not mean that the e-Governance application can use any non-portable feature which will run only in Linux environment. The e-Governance application should be portable so that it can run on Windows environment also.

The e-Governance application should be database agnostic. This shall be achieved with the use of any open source object relational mapping tool. The database server used by the e-Governance application shall be an open source, relational database.

- The database server shall support spatial data storage for GIS applications.
- The database should have transactional capabilities and clustering support.
- The database should have fine-grained access control mechanisms to define access restrictions on databases of different modules/applications.
- The database must have integrated spatial extension
- The database should support Unicode character sets and Indian language scripts.
- The database should be capable of handling the future storage requirements of the E GOVERNANCE application.
- The database should support tools for easy backup and restore.

10.1.1 Data Integration and Interoperability

- All the modules described in the e-Governance application shall be from a single OEM so that the problems associated with interoperability and data integration can be mitigated.
- Data Integration and MIS reporting for combining data from various sources is mandatory for the e-Governance application.
- Almost all the modules have to integrate to the Financial Application.
- Most of the modules need citizen and land information.
- Some of the process may be workflow driven which require intercommunication between two departments, which will be difficult to achieve without data integration and distinct process and audit information. Considering the above factors, ASDCL has decided to have all the modules and applications of the proposed e-Governance solution to be built on a single application platform with data integration achieved mainly through the database layer with proper schema design.
- Uniform Database Model for cross-cutting entities like citizen, property and land. The data model should satisfy the requirements of all the modules and should support future additions of new modules.

- Uniform Database Model for storing, managing and reporting of information based on the uniform data models of different entities.
- Framework for ensuring online and batch data flow between the applications. Some use cases are payroll information flowing to Financial Application every month, Demand and Collection summary in the Financial Application.
- Framework for authentication and authorization for data retrieval and data manipulation for shared data like citizen information.

10.1.2 Identity Management and Security

- The proposed solution should be capable for dealing with authentication, authorization, access log, data protection, identity theft and privacy.
- Single Sign-on across all the applications and modules in the eGovernance application platform.
- Decentralized, role based access control mechanism with provision for System Administrator Role. Application should allow the creation of security groups and assignment of administrator role for the security groups so that management of users within the security groups can be done by the administrator of the security group.
- Account Management facility for the users including changing the passwords or other personal information. Users with System Administrator Role should have provision to manage the users under them.
- Support for Password Ageing and Password History. Application should enforce password strength with features such as forced password changes in configurable interval and prevention of password reuse.
- Storage and transmission of passwords and other confidential information related to the users should be done in a secured manner. Standard methodologies like SSL to be adopted.
- Access Logging and Provision to log and de-activate user accounts in case of 'n' number of failed login attempts.
- All the application pages should be protected and should be accessed only after authentication and authorization procedures.
- All access attempts (successful and unsuccessful) to the application shall be tracked and checked for authentication and authorization requirements.

10.1.3 User Interface

- Role based, consistent navigation system across the applications.
- The citizen interface has to be compatible for adaption to various media of delivery such as smart phones & tablets (Android & iOS) as well as self-help citizen kiosks
- The employee interface has to be compatible for adoption to smartphones and tablets (Android & iOS)

10.1.4 Consistent and simple user interface with Web 2.0 and Ajax support.

- Precise and clear error messages with highlighting based on message severity.

10.1.5 Audit Logs

- Application should support Audit Trail for key data fields and business processes.
- Support for audit logging into database.
- Support Audit Log Viewer for easy and searchable interface.
- Application should prevent any modification to the audit information and access to audit information should be role based.

10.1.6 Alerts and Notifications

- The application platform should support alerts and notifications to the configurable channels like Email, SMS or application alerts for the business events defined in the functional requirements.
- Support for setting the severity of the alert based on the parameters of the business event.

10.1.7 Data Integration, Interoperability and Interconnectivity

- An application integration platform for E GOVERNANCE applications with support for interoperability between the AMC applications and

interconnectivity between other national, state and local body e-Governance applications outside/within AMC. This framework should support integration of disparate applications based on the workflows and rules of AMC and combined reporting from various application data.

- Identifying and designing key data models such as citizen, land etc. and establishing relationships between the data models to be used in the different E GOVERNANCE modules.
- Providing standard inbound interfaces and adapters for receiving messages for interconnectivity between other E GOVERNANCE platforms as described in the Functional specifications.
- Providing standard outbound interfaces for sending messages for interconnectivity between other E GOVERNANCE platforms as described in the Functional specifications.

10.1.8 Deployment Architecture

The application will run in a 3-tier architecture with the following configuration:

- Web Servers running the website.
- Applications servers with the business logic
- Database server running on RDBMS system

There will also be an ancillary tier for:

- Administrative purposes
- Data Backup

All servers will be configured in high availability mode.

10.1.9 Firewall

- An Intrusion Prevention (IPS) firewall at the gateway would provide the necessary security for the web servers.

- To provide layered security, there should be a firewall between each tier, which can be performed by a single firewall module.

10.1.10 Backup Process

- A backup process involving full and incremental backups is required.

11 ANNEXURE III – MANUFACTURER’S AUTHORIZATION FORM

Date:

To

The CEO
ASCDCL, Aurangabad

Dear Sir,

1. Our company is a reputed manufacturer of *(name & description of equipment)*, having manufacturing facilities at *(address of manufacturing locations)* and Indian/APAC head office at *(address)*.
2. We hereby authorize M/s *(name and address of the bidder)* to submit the bid and sign the contract with your good self for the goods manufactured by us.
3. We are aware of the model/version numbers of our products quoted for this tender and assure you that these are not end-of-life products. These version numbers are *(product name & version/model numbers)*.
4. We are willing to provide a warranty of 1 year on the above mentioned model numbers from the date of supply.
5. We assure you the availability of spare parts for the above mentioned model numbers for a period of 10 years, from the date of completion of the warranty period.
6. During the period of 10 years from the completion of the warranty period, in case the bidder fails to provide you the necessary service, we will be obliged to provide the same, at no extra cost.

Yours faithfully,
(Contact Person)
(Designation)
(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer with full address, phone number, email, and website address, and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.

12 ANNEXURE IV – BIDDER INFORMATION SHEET

About the Company

Name of the Company:	
Postal Address (Regd. Office):	
Postal Address (Local Office):	
Constitution, Registration No./Date:	
PAN	
GSTN	

About the Authorized Signatory:

Name:		Designation:	
Office Address:		Email:	
Tel. Nos.:		Cell No.:	

Company Financials/Headcount

	FY 2019-20	FY 2018-19	FY 2017-18
Turnover (INR)			
Turnover from relevant area of business as defined in the prequalification table			
Net Worth (INR)			
Total Employee Headcount			

Company Experience

Project Name	Customer Name & Address	Project Description	Project Value	Contract Period (From-To)	Project Status	Contact Person, Contact Tel. No. & Email
1						
2						
.						
N						

Company Credentials

1. QMS - Provide Details
2. Blacklisted/banned/Delisted - Provide Details as per Annexure V

13 ANNEXURE V – BIDDER’S UNDERTAKING

Date:

To,

The CEO

ASCDCL, Aurangabad

Sub: Undertaking

Dear Sir,

1. On behalf of M/s..... (Name of the Bidder), I, the undersigned, state that all the information stated above as well as in other parts of our bid is true.
2. I do hereby affirm and undertake to abide by all the terms, conditions and specifications given in the Bid Document while performing the contractual obligations relating to the IMEGS project.
3. Also, I do affirm & assure that the solution proposed by us is complete & total meeting all the functional requirements of the project as stated in the Bid Document.
4. I also confirm that our company, associates, partners or OEMs included in our bid, have never been blacklisted or put on any holiday listing by any Central / State Government / Municipal Corporation.
5. I also confirm that none of the shareholders, Directors or management of our company are involved in any capacity with any other company that is blacklisted or put on any holiday listing by any Central / State Government / Municipal Corporation

Yours faithfully,

(Authorised Signatory)

Name, Signature & Seal of the Bidder

Place:

Date:

14 ANNEXURE VI – FORMAT FOR PERFORMANCE BANK GUARANTEE

TO,
The CEO
ASCDCL
Aurangabad.

IN CONSIDERATION OF the CEO, ASCDCL having its registered office at Aurangabad (hereinafter called "ASCDCL" which expression shall include its successor in business and assigns) issued a tender on Messrs. a partnership firm/sole proprietor business/a company registered under the Companies Act, 1956 having its office at (hereinafter called "Bidder" which expression shall include its executors, administrators and assigns) against Tender no..... dated (hereinafter called "Bidder" which expression shall include any amendments/alterations to "Bidder" issued by "ASCDCL") for the supply of goods to/execution of services for ASCDCL and ASCDCL having agreed not to insist upon immediate payment of Performance Guarantee for the fulfilment of the said tender in terms thereof on production of an acceptable Bank Guarantee for an amount of Rs..... (Rupees only).

1. We, Bank having office at (hereinafter referred to as "the Bank" which expression shall include its successors and assigns) at the request and on behalf of Bidder hereby agree to pay to the ASCDCL without any demur on first demand an amount not exceeding Rs..... (Rupees only) against any loss or damage, costs, charges and expenses caused to or suffered by ASCDCL by reason of non performance and fulfillment or for any breach on the part of Bidder of any of the terms and conditions of the said "tender".

2. We, Bank further agree that ASCDCL shall be sole Judge whether the said Bidder has failed to perform or fulfill the said "tender" in terms thereof or committed breach of any of the terms and conditions of "the order" and the extent of loss, damage, cost, charges and expenses suffered or incurred or would be suffered or incurred by ASCDCL on account thereof and we waive in favour of ASCDCL all the rights and defenses to which we as guarantors and/or Bidder may be entitled to.

3. We, Bank further agree that the amount demanded by ASCDCL as such shall be final and binding on the Bank as to the Bank's liability to pay and the amount demanded and the Bank to undertake to pay ASCDCL the amount so demanded on first demand and without any demur notwithstanding any dispute

raised by Bidder or any suit or other legal proceedings including arbitration pending before any court, tribunal or arbitrator relating thereto, our liability under this guarantee being absolute and unconditional.

4. We, Bank further agree with ASCDCL that ASCDCL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said "tender"/or to extend time of performance by Bidder from time to time or to postpone for any time to time any of the powers exercisable by ASCDCL against Bidder and to forbear to enforce any of the terms and conditions relating to Bidder and we shall not be relieved from our liability by reason of any such variation or extension being granted to Bidder or for any forbearance, act or omission on the part of ASCDCL or any indulgence by ASCDCL to Bidder or by any such matter or things whatsoever which under the law relating to sureties would but for this provision have the effect of relieving us.

5. NOTWITHSTANDING anything hereinbefore contained, our liability under this Guarantee is restricted to Rs. (Rupees..... only). Our liability under this guarantee shall remain in force until expiration of twelve months from the due date of intimation to the bidder. Unless a demand or claim under this guarantee is made on us in writing within said period, that is, on or before all rights of ASCDCL under the said guarantee shall be forfeited and we shall be relieved and discharged from all liabilities thereunder.

6. We, Bank further undertake not to revoke this guarantee during its currency except with the previous consent of ASCDCL in writing.

7. We, Bank lastly agree that the Bank 's liability under this guarantee shall not be affected by any change in the constitution of Bidder.

8. "The Bank" has power to issue this guarantee in favour of ASCDCL in terms of the documents and/or the Agreement/Contract or MOU entered into between Bidder and "the Bank" in this regard. IN WITNESS WHEREOF the Bank has executed this document on this day of

For Bank
(by its constituted attorney)

(Signature of a person authorised
to sign on behalf of "the Bank")

15 ANNEXURE VII – AGREEMENT

Provided separately as Volume II

16 ANNEXURE VIII – PRE-BID QUERY FORMAT

The pre-bid queries should be **emailed only in MS Excel** format as per the following table:

S.N	Company Name	RFP Section No.	RFP Page No.	Clause	Query

17 ANNEXURE IX – DOCUMENTS TO BE SUBMITTED ALONGWITH THE BID

Sr. No.	Envelope and Title	Documents to be attached
1	Envelope 1: “Key Submissions and Techno-Commercial Bid”	
1A	Envelope 1A: “Key Submissions”	Copy of Proof of RFP Fee Payment EMD (Proof of Payment)
1B	Envelope 1B: “Techno-Commercial Bid”	<ul style="list-style-type: none"> • RFP document, Agreement and Corrigendum /Addendum, if any, signed &sealed by the authorized representative • Bidder Information Sheet • Bidder’s Undertaking • Bidder’s Similar Experience along with the necessary documents as per RFP • Manufacturer’s Authorisation Form • Financial Capability Statement as per along with Audited Annual accounts as per RFP. • Power of Attorney • Declaration of Non-blacklisting • No deviation certificate • Technical Compliance • Technical Proposal • Any other documents required as per the RFP terms. <p><i>The Price Bid / prices should not be mentioned anywhere in Envelope-1.</i></p>
2	Envelope 2: Price Bid	To be submitted online via e-tendering portal

18 ANNEXURE X - SIGN-OFF FORMAT

Date	
Pertains to	<input type="checkbox"/> Application Software <input type="checkbox"/> Data Center <input type="checkbox"/> Operations & Maintenance <input type="checkbox"/> Hardware
Scope	<input type="checkbox"/> Supply <input type="checkbox"/> Installation <input type="checkbox"/> Testing <input type="checkbox"/> Commissioning <input type="checkbox"/> Maintenance <input type="checkbox"/> Training <input type="checkbox"/> Documentation
Particulars	<i>Please describe the exact deliverable completed</i>
Documents referred	<input type="checkbox"/> Tender document <input type="checkbox"/> SRS / SDD <input type="checkbox"/> Project Management Plan <input type="checkbox"/> Any other, please specify
Target Date	
Actual Date	
Delay in days, if any	
Reasons for delay, if any	

<i>For AMC (System Manager)</i>	<i>For ASCDCL</i>	<i>For Project Consultant</i>	<i>For Bidder</i>
<i>Name & Sign</i>	<i>Name & Sign</i>	<i>Name & Sign</i>	<i>Name & Sign</i>
<i>Date</i>	<i>Date</i>	<i>Date</i>	<i>Date</i>

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