



Brihanmumbai Municipal Corporation

BID DOCUMENT

For

“Supply, Installation, Testing, Commissioning and Operation & Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and Hardware for the period of 5 year”

Website – portal.mcgm.gov.in/tenders

Office of the Deputy Chief Engineer (Solid Waste Management) Planning, Fourth Floor,
Municipal Khatav Market Building, Opposite Avishkar Building, Khatavwadi, Sleater
road, Grant Road (W), Mumbai-400 007

Phone:- 022-23844450/23877691

Email- ee1swm.pl@mcgm.gov.in or dycheswmpplanning.swm@mcgm.gov.in

Issued by

Solid Waste Management Department

Prepared By

Sd/-
SE(SWM)Pl.

Checked By

Sd/-
AE(SWM)Pl.

Approved By

Sd/-
EE(SWM)Pl.

Sd/-
Dy.Ch.E.(SWM)Pl.

Table of Contents

Sr.No.		Item	Page No.
1		Glossary	7
		E-tender Notice	8-9
2		Invitation of Bid	10
	2.1	Project Background	10
	2.2	Project Objective	11
	2.3	Bid Document Notice	11
	2.4	Bid Invitation	12
3		Pre Qualification Criteria	13-16
	3.1	Pre Qualification Criteria for Bidders	13-16
4		Instructions to Bidder	16
	4.1	Bid data Sheet	16
	4.2	Purpose of Bid Document	17
	4.3	Cost of Bid Document	17
	4.4	Bidder Registration & Instructions	17
	4.5	Bid Preparation Cost	19
	4.6	Pre Bid Meeting	20
	4.7	Amendment of Bid Document	20
	4.8	Rights to Terminate the process	21
	4.9	Earnest Money Deposit (EMD) & Refund	21
	4.10	Solvency certificate	22
	4.11	Submissions of Bids	22
	4.12	Site Visits	23
	4.13	Language of Bids	23
	4.14	Bid Submission Format	23
	4.15	Documents comprising of Bids	23
	4.16	Withdrawal of Bids	24
	4.17	Evaluation Process	25
	4.18	Evaluation of Technical Bids	25-29
	4.19	Opening of Technical Bids	30
	4.20	Opening of Commercial Bids	30
	4.21	Selection Method	31

	4.22	OEM / Implementation Partner Participation Criteria	31
	4.23	Rights to Accept / Reject any or all Bids	31
	4.24	Clarification	32
	4.25	Amendment of Bid Document	32
	4.26	Notifications of Award & Signing of Contract	33
	4.27	Performance Bank Guarantee	33
	4.28	Failure to agree with the terms & conditions of the Bid / Contract	34
	4.29	Terms & Conditions of the Bid	34
	4.30	Legal & Stationary Charges	34
	4.31	Stamp Duty	35
5		Scope of Work	36
	5.1	Project Objective	36-39
	5.2	Summary of scope	40
	5.3	Proposed Scope of Work	40-48
	5.4	Implementation Scope to Go live	49-54
	5.5	Post Imp[lementation Scope for the O & M Period	54
	5.6	Project Implementation Phases	56
	5.7	Project Kick Off	56
	5.8	IT Infrastructure Requirements Definitions	56
	5.9	Implementation Schedule Table	56
	5.10	Site Locations	57
	5.11	Hardware Installations	57
	5.12	Installation, Integration & Configuration	57
	5.13	Testing & Quality Adherence	58
	5.14	Preventive Maintenance & Monitoring (O & M)	59
	5.15	Operational Acceptance Tests	59
	5.16	Co Ordination & Co Operation with FMS Service Provider of BMC	60
	5.17	Co Ordination & Co Operation with WDMS & HF RFID Reader Service Provider & other such service Providers of BMC	60
	5.18	Project Planning & Management	60
	5.19	Physical Infrastructure Management	61
	5.20	All in One Desktop Computers	61
	5.21	Scalability	62
	5.22	GIS Map	62

	5.23	Mobile application	62
	5.24	Bulk SMS	62
	5.25	Field survey & mapping Point of Interest	62
	5.26	RACI Matrix	62
	5.27	Backup & other details	63
6		Annexure I – Instruction for Pre Qualification Bid	75
	6.1	Pre Qualification Cover Letter	75
	6.2	Checklist for Documents to be submitted	76
	6.3	Format to share Bidders’ Particulars	76
	6.4	Format for the declaration by the bidder for not being blacklisted / debarred	77
	6.5	Performance Bank Guarantee Format	78
7		Annexure II – Instructions & Technical Bid Document Format	80
	7.1	General Instructions for the Technical Bid	80
	7.2	Format to share Project Details	81
	7.3	Technical Bill of Materials & Bill of quantity (To be provided by the bidder)	82
	7.4	Format for Authorization letters from OEM	84
8		Annexure III – Commercial Bid Formats	85
	8.1	Commercial Bid Cover Letter	85
	8.2	Commercial Bid Format & Instructions	87-91
9		Annexure IV – Draft Contract Agreement	92
	9.1	Definitions, Interpretations & Other Terms	92
	9.2	Interpretation	96
	9.3	Term of the Contract Agreement	97
	9.4	BMC’s Decision	97
	9.5	Delegation	97
	9.6	Communication	97
	9.7	Other Bidders	98
	9.8	Personnel	98
	9.9	BMC “s & Service Provider’s Risks	98
	9.10	BMC’s Risks	98
	9.11	Service Provider’s Risks	98
	9.12	Management Meetings	98

9.13	Tests	99
9.14	Variations	99
9.15	Payment for Variations	99
9.16	Operation & Maintenance Manuals	99
9.17	Compliance with Labour Regulations	99
9.18	Format & Signing of Applications	100
9.19	Marking of Applications	100
9.20	Clarification of Financial Bids	100
9.21	Official secrecy	100
9.22	Subsequent Legislations	101
9.23	Patent, Rights & Royalties	101
9.24	Payment, Taxes & Claims	101
9.25	Receipts to be signed in the firms name by any one of the partners	101
9.26	Proprietary data	102
9.27	Correspondence with the service providers	102
9.28	Taxes	102
9.29	Contract Execution	102
9.30	Contract may be rescinded & Performance Bank Guarantee (PBG) forfeited for bribing a Public Officers or if the contractor becomes insolvent	103
9.31	Fees	103
9.32	Work Completion Time Lines & Payment Terms	103
9.33	Service level Agreements (SLA)	106
9.34	Professional Project Management	115
9.35	Use And Acquisitions of Assets During the terms	115
9.36	Security & Safety	116
9.37	Indemnity	117
9.38	Third Party Claims	118
9.39	Publicity	119
9.40	Warrantees	119
9.41	Force majeure	121
9.42	Resolution of Disputes	121
9.43	Risk Purchase Clause	122
9.44	Limitation of Liability towards BMC	122

	9.45	Conflict of Interest	122
	9.46	Data Ownership	123
	9.47	Fraud & Corruption	123
	9.48	Exit Management	123
	9.49	Termination of Contract	125
	9.50	Termination for Convenience	126
	9.51	Miscellaneous	126
	9.52	Applicable Law	131
	9.53	Stamp Duty Payment	131
	9.54	Minimum Qualifications & Experience of Key Resources	132
10		Annexure V – List of Approved Banks	134
11		Annexure VI – Authorization letter for attending Pre Bid Meetings / Bid Openings	137
12		Annexure VII – Pre Bid Query Format	138
13		Annexure VIII – Draft Non Disclosure Agreement	139
14		Annexure IX – Project Setup Location	143
15		Annexure X – Minimum Technical Specifications for Items	144
16		Annexure XI – CV of the key manpower proposed to be submitted in the following format during implementation & during O & M	158
17		Annexure XII – Irrevocable Undertaking	159
18		Disclaimer	160

1. Glossary

Abbreviations and Acronyms	Description
AMC	Annual Maintenance Contract
BEC	Bid Evaluation Committee
BI	Business Intelligence
BOM	Bill of Material
CA	Contract Agreement
COTS	Commercial off The Shelf Product
EMD	Earnest Money Deposit
FMS	Facilities Management Service Provider
IA	Implementation Agency
IP	Intellectual Property
ISO	International Organization of Standardization
IT	Information Technology
LAN	Local Area Network
BMC	Brihanmumbai Municipal Corporation
MIS	Management Information System
O&M	Operation and Maintenance
OEM	Original Equipment Manufacturer
OS	Operating System
PAN	Permanent Account Number
PBG	Performance Bank Guarantee
PC	Personal Computer
RFP	Request For Proposal
VTMS	Vehicle Tracking and Monitoring System
UPS	Uninterrupted Power Supply

E-Tender Notice
BRIHANMUMBAI MUNICIPAL CORPORATION
Solid Waste Management Department

E-TENDER NOTICE

The Commissioner of Brihanmumbai Municipal Corporation invites e-tender for “Supply, Installation, Testing, Commissioning and operation & Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and Hardware. The bid copy can be downloaded from BMC’s portal (<https://portal.mcgm.gov.in>) under “Tenders” section.

All interested vendors, whether already registered or not registered in BMC, are mandated to get registered with BMC for e-Tendering process and obtain Login Credentials to participate in the Online bidding process. The details of the same are available on the above mentioned portal under 'Tenders'. For registration, enrollment for digital signature certificates and user manual, please refer to respective links provided in 'Tenders' tab.

The vendors can get digital signature from any one of the certifying Authorities (CA's) licensed by the Controller of Certifying Authorities namely Safescrypt, IDRBT, National Informatics Centre, TCS, Customs, MTNL GNFC and e-Mudhra. BMC has also opened a Help-desk at the CPD's office to help the vendors in this regard.

The technical and commercial bids shall be submitted online up to the end date & time mentioned below.

Sr. No	Description	E – Tender Price	EMD	Start Date & Time for Online Bid Downloading	End Date & Time for Online Bid Submission
1	Supply, Installation, Testing, Commissioning and Operation & Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and Hardware for the period of 5 years.	10,400 + 18 % GST	31,61,814.00	28/06/2022 at 11:00 Hrs	19/07/2022 at 16.00 Hrs

Note – Last date for online payment of EMD is on or before due date & time prescribed in above table.

The pre-bid meeting will be held at Ch.E.(SWM) office, venue of the same is at Conference hall, Ch.E. (SWM)' office, Third Floor, Municipal khata market building, Sleater Road, Grant Road (W), Mumbai-400 007. The prospective tenderer(s) should submit their suggestions/observations, if any, in writing / email minimum 2 days before Pre-bid meeting. Only suggestions / observations received in writing/email will be discussed and clarified in pre-bid meeting and any modification of the tendering documents, which may become necessary as a result of pre-bid meeting, shall be made by BMC exclusively through the issue of an addendum/corrigendum. The tender uploaded shall be read along with any modification. Authorized representatives of prospective tenderer(s) can attend the said meeting and obtain clarification regarding specifications, works & tender conditions. Authorized representatives should have authorization letter to attend the pre-bid meeting.

The tender document is available on BMC portal (<https://portal.mcgm.gov.in>) along with this tender notice. However, the tenderer shall have to pay "e-tender price" through online payment gateway before downloading and uploading the tender document in SRM Module.

The tenderer shall have to pay **EMD of Rs. 31,61,814/-** through online payment only.

Note: - No Exemption will be allowed for the tenderers having standing deposit with BMC. The tenderers shall have to pay the tender EMD amount through on line payment only.

The Authority (BMC) shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the tender or the Bidding Process, including any error or mistake therein or in any information or data given by the Authority.

The Municipal Commissioner reserves the right to reject all or any of the e-Tender(s) without assigning any reason at any stage.

Tenders shall note that any corrigendum issued regarding this tender notice will be published on the BMC portal only. No corrigendum will be published in the local newspapers.

Sd/-
Dy. Ch.Eng. (SWM) Planning

For detailed tender document, please scroll down

2. Invitation of Bid

The Brihanmumbai Municipal Corporation invites Tender for “Supply, Installation, Testing, Commissioning and Operation & Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and Hardware” as per the terms and conditions attached with this document and as per the provisions of the M.M.C. Act 1888 as amended till date.

Note: Bidder/ Agencies are advised to study this RFP document carefully before submitting their proposals in response to the RFP Notice. Submission of a proposal in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications.

2.1 Project Background

BMC aspires to transform Mumbai into a city of millennium, a world-class city as stated in the development plan 2005-2025. In order to achieve this, Mumbai needs to be distinctive on the dimension of quality of life by improving the quality of citizen welfare services through implementation of IT based solutions. As part of this initiative, Vehicle Tracking and Management System (VTMS) has been implemented in BMC for, tracking vehicles involved in various citizen centric services including Solid Waste Collection and disposal.

The last project for VTMS awarded to M/s. Steria with M/s. Trinity and was in operation since last more than four years. However the contract period of that project is expired. Proposed project is on the same line so as to track around 3000 vehicles operated by Solid Waste Management Dept. of BMC and Contractors for various SWM activities and monitor violations of pre-set rules on web and on video wall in the control room.

2.2 Project Objective

Through this tender, BMC intends to select an Implementation Agency for Supply, Installation, Testing, Commissioning and Operation & Maintenance of reliable Enterprise Vehicle Tracking and Monitoring System Software for tracking vehicles and IT & VTMS Hardware.

However, BMC reserves the right to change the scope and locations depending upon administrative requirements. Further, the rates discovered in this tender would hold true for procurement of various components irrespective of the finalized locations.

In order to fulfill this goal, the project has been categorized into several high level objectives as under:

Vehicle Tracking:

One of the primary objectives of the project is to track the locations of the vehicles owned by SWM Dept. of BMC and contractors at real time along with their routes on GIS map and report deviations if any through high performing enterprise vehicle tracking and monitoring system software. Managing a fleet involves coordination between all the vehicles that work under the company to that of the manger or in

some cases between a fleet and the fleet supervisor. This coordination helps the manager or supervisor to locate the nearest vehicle to an outage and send it to the place. This helps saving both money and time. Another advantage is that the records can be maintained easily, work can be assigned easily to the Fleet.

Monitoring and control:

The SWM dept. of BMC using fleets of its own & contractors' vehicles also want to monitor the vehicles along with some department specific activities like garbage collection points for compliance to the route specified and identify deviations in operations, holistic view of the fleet operating within BMC with appropriate colour codes and symbols. The monitoring and control mechanism should be capable of addressing emergencies and as well as complaints using the vehicles. A controlling mechanism for vehicles should be in place to cater to dynamic routes for a vehicle at any time.

Reporting:

When working with fleets, paper work is inevitable; hence, all the details related to a vehicle must be kept for future references. Use of tracking technologies come as a life savior for the fleet manager as it is extremely cumbersome to maintain all the work manually without mistakes. Having a Management Information System to cater to reports based on certain predefined parameters of vehicle identification, vehicle location, vehicle routes, schedule times, geographic areas, history, deviations etc. should be built-in functionalities of the desired enterprise VTMS software.

2.3 Bid Document Notice

1. This bid Document is being published by the Solid Waste management Dept. of Brihanmumbai Municipal Corporation, for the Project “**Supply, Installation, Testing, Commissioning and Operation & Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and Hardware**”.
2. Bidder agencies are advised to study this bid document carefully before submitting their bids in response to the Bid Notice. Submission of a bid in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications.
3. This bid document is not transferable.
4. The complete bidding document has been published on <https://portal.mcgm.gov.in> for the purpose of downloading. The downloaded bidding document shall be considered valid for participation in the electronic bidding process (e-Tendering) subject to the submission of required tender/ bidding document fee and EMD.
5. Bidders who wish to participate in this bidding process must register on <https://portal.mcgm.gov.in>
6. To participate in online bidding process, Bidders must procure a Digital Signature Certificate (Class - III) as per Information Technology Act-2000 using which they can digitally sign and encrypt their electronic bids. Bidders can procure the same from any CCA approved certifying agency, i.e. TCS, Safecrypt, Ncode, etc. Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC.

7. A three envelope selection procedure shall be adopted.
8. Bidders (authorized signatory) shall submit their offer online in electronic formats of technical (including prequalification documents) and financial proposal.
9. BMC will not be responsible for delay in online submission due to any reason. For this, Bidders are requested to upload the complete bid proposal, well advance in time so as to avoid issues like slow speed, choking of web site due to heavy load or any other unforeseen problems. For queries related to e-Tender, kindly contact; Tel: 022-23877691, Email: ee1swm.pl@mcgm.gov.in & dycheswmplanning.swm@mcgm.gov.in
10. Bidders are also advised to refer “Bidders Manual Kit” available at <https://etendering.mcgm.gov.in> for further details about the e-tendering process.

2.4 Bid Invitation

The Dy.Ch.Eng. (SWM) Planning, SWM Dept., Brihanmumbai Municipal Corporation invites the Bidders to submit their technical proposals and financial offers for the project “Supply, Installation, Testing, Commissioning and Operation & Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and Hardware” in accordance with conditions and manner prescribed in this Bid Document.

3. Pre-Qualification Criteria:

3.1 Pre-Qualification Criteria for Bidder:

A firm or an individual sanctioned (blacklisted/banned) by BMC in accordance with BMC Guidelines shall be ineligible to be awarded a BMC-financed contract, or to benefit from a BMC-financed contract, financially or otherwise, during such period of time as BMC shall determine.

Bidder should have at least one office in Mumbai Metropolitan Region (MMR) (Mumbai / Navi Mumbai / Thane). If not, it should open an office in the MMR region within 3 months of award of contract.

Only bidders complying the Pre-qualification Criteria shall be eligible to participate in the tender process. The minimum eligibility criteria that should be satisfied by the Bidders are mentioned below. The formats for the Pre-qualification documents are given in Annexures of this tender, unless specified otherwise.

The Prime Bidder/Lead Bidder of Consortium, herein also referred as 'Bidder', shall be primarily accountable for the implementation of the entire scope of the project. In case of consortium, the same should **not consist of more than 2 members**. One company can be a member of only one consortium. The consortia shall submit a valid Agreement on Stamp Paper among the members signed by the Authorized Signatories of the companies under consortium dated prior to the submission of the bid. The Agreement shall clearly specify the details of Prime bidder, stake of each member and outline the roles and responsibilities of each member. In the Consortium, all the members shall be jointly and severally liable to complete the project; however Prime Bidder shall give an undertaking for successful completion of the project. In case of any issues, Prime Bidder will be liable for all penalties. The agreement between the Prime Bidder and consortium partner should be for the entire period of the Project and submitted along with the Bid. The Agreement of the consortium members should be submitted for their exclusive association for this bid and joint responsibility for the respective scope.

BMC shall sign the contract with the Lead Bidder only. All payments shall be made to the Lead Bidder only. However, the names of all the consortium members shall be included in the contract.

Note: Projects submitted by the bidder as part of experience towards eligibility and technical evaluation should have been done by the bidding entity as a sole bidder or as a consortium member responsible for specific work. The bidder must submit the documentary evidence/agreement showing roles and responsibilities division among consortium members.

In case of Joint venture (J.V.) or consortium, "The average annual contractual payments received by the JV form or the arithmetic sum of average annual contractual payments received by all the members of JV firm, in proportion to

their shares in JV, in last three financial years shall be at least Rs.9.48 Crores as mentioned in the tender”.

Sr. No.	Qualification criteria	Applicability	Documentary Evidence
1	The bidder should be a company registered under Indian Companies Act, 1956 OR 2013 or undertakes to incorporate as such prior to execution of contract or a Partnership Firm registered under Indian Partnership Act, 1932 or a Proprietorship firm or Limited Liability Partnership Firm under Limited Liability Partnership Firm Act 2008.	All Bidders/ All members of the consortium	Copy of Certificate of Incorporation signed by Authorized signatory of the Bidder/certified deed of partnership
2	The Bidder should have an average annual turnover of at least Rs.9.48 Crores from IT/ITES/ITMS/VTMS over the last three financial years (i.e. 2019-20, 2020-21, 2021-22).	Together all or at least one member of the consortium	Audited Profit & Loss Statements for last three financial years (2019-20, 2020-21,2021-22) from the certified chartered accountant clearly stating average turnover from IT/ITES/ITMS/VTMS Services Business which includes Supply, Installation, Testing, Commissioning, Maintenance of software & hardware infrastructure and post implementation support.
3	The Bidder should have positive net worth (measured as paid-up capital plus free reserves) on 31st March 2022.	All Bidders/ All members of the consortium	Certificate from the Chartered Accountant clearly stating the net worth.
4	The Bidder should have executed or currently executing projects of below mentioned value for Supply, installation, Commissioning and maintenance of enterprise VTMS software & hardware with BI in last three financial years (i.e. 2019-20, 2020-21, 2021-22) in India 1. At least one project with a value not less than Rs.12.64 Crores OR	All Bidders/ All members of the consortium together should meet	Copy of Work Order & Work Completion certificate of the project from respective client clearly stating the scope, current status (percentage completion) and the contact details of the authority. In case of an ongoing

	<p>2. At least two projects with a value not less than Rs.7.90 Crores each OR</p> <p>3. At least three projects with a value not less than Rs.6.32 Crores each</p>		<p>project, the percentage of work completed must be at least 70% and bidder must have a percentage completion certificate from the respective client for the same.</p>
Sr. No.	Qualification criteria	Applicability	Documentary Evidence
5	<p>The Bidder should have executed project(s) of below mentioned value for supply, installation, commissioning and maintenance of Client-side hardware Infrastructure (involving Video wall/Server/Desktop computers/Printers/UPS etc.) in last three financial years (i.e. 2019-20, 2020-21,2021-22) in India</p> <p>1. At least one project with a value not less than Rs.4.28 Crores OR</p> <p>2. At least two projects with a value not less than Rs. 2.67 Crores each OR</p> <p>3. At least three projects with a value not less than Rs. 2.14 Crores each</p>	At least one member of the consortium	<p>Copy of Work Order & Work Completion certificate of the project from respective client clearly stating the scope, current status (percentage completion) and the contact details of the authority.</p> <p>In case of an ongoing project, the percentage of work completed must be at least 70% and bidder must have a percentage completion certificate from the respective client for the same.</p>
6	<p>The Bidder should possess the below mentioned certification.</p> <ul style="list-style-type: none"> • ISO 9001- 2015 	At least one member of the consortium	Copy of the valid certificates signed & stamped by the authorized signatory of the bidder & renewal stage document in case in process.
7	The bidder should have or shall be ready to set up a project office in Mumbai Metropolitan Region (MMR)	Lead Bidder	Rental Agreement / Utility Bill in the name of company / sale deed or declaration that the office will be set up within a period of 30 days from the date of issuance of Letter of Acceptance.
8	The bidder should have valid documentary proof of GST	All Bidders / all Members of	Copy of the GST Registration Certificate.

	Registration No.	the consortium.	
9	The bidder should not have been blacklisted by any Central / State Govt. organization or department in India at the time of submission of the bid.	All Bidders / all Members of the consortium.	Declaration by the bidder as per format given in the Bid Document.

4. Instructions to Bidder

4.1 Bid Data Sheet

Sr. No.	Information	Details
A. Introduction		
1	Project Name	Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software with BI and IT & VTMS Hardware
2	Bid No.	Bid no.-7200032861
3	Bid Type	Open Tender via e – Tendering System
4	Bid Document Price	Rs.10,400+ 18% GST
5	EMD	Rs.31,61,814/-
6	Date of issue and sale of tender	28.06.2022 From 11:00 Hrs
7	Last date & time for sale of tender & receipt of Bid security deposit	19.07.2022 Upto 16:00 Hrs
8	Submission of packet A, B & packet C (Online)	19.07.2022 Upto 16:00 Hrs
9	Opening of packet A &B	21.07.2022 After 16:00 Hrs
10	Prebid Meeting date	05.07.2022 at 3:00 PM
B. Preparation of Bids		
1	Language of Bids	English
2	Bid Validity Period	180 calendar Dates from the date of opening of bids.
3	Performance Security Validity Period	Valid up to the entire contract period (Including Defect Liability Period or payment of final Bill whichever is later)
C. Bid Presentation		
1	Query Submission	To be submitted via e mail only to ee1swm.pl@mcgm.gov.in dycheswmpplanning.swm@mcgm.gov.in Kindly refer to annexure VII for query format
2	Place & Time of Pre Bid Meeting	Ch.E.(SWM) office Grant Road(W) at 3:00
3	Contact Person for clarification of	Ex.Eng. (SWM) Planning

	queries	Fourth Floor, Office of Dy. Ch. Eng. (SWM) Planning, Khatao Market Bldg., Nausher Bharucha Marg, Grant Road (W), Mumbai – 400 007
4	Contact Information	ee1swm.pl@mcgm.gov.in dycheswmpplanning.swm@mcgm.gov.in Ph – 022-23877691
5	Place & time and date of opening of technical proposals received in response to the Bid Document Notice	Office of Dy. Ch. Eng. (SWM) Planning Fourth Floor,, Khatao Market Bldg., Nausher Bharucha Marg, Grant Road (W), Mumbai – 400 007
6	Place, Time & Date of Technical Presentations by qualified bidders	To be informed later
7	Presentation / Demo on Technical solution by Bidders	To be informed later
8	Place of opening of financial proposals received in response to the Bid Document Notice	Office of Dy. Ch. Eng. (SWM) Planning Fourth Floor,, Khatao Market Bldg., Nausher Bharucha Marg, Grant Road (W), Mumbai – 400 007
D. Evaluation of Bids & awarding of contract		
1	Commercially Lowest Bid	Lowest 1
2	Signing of contract agreement with BMC	Within 30 days from the date of receipt of LOA

4.2 Purpose of Bid Document

The purpose of this Bid Document is to select an Implementing agency for Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and IT & VTMS Hardware as per the scope defined in the scope sections. This document provides information to enable the bidders to understand the broad requirements to submit their "Bids".

4.3 Cost of Bid Document

The Cost of bid document as mentioned in Section 4.1.

4.4 Bidder Registration and Instructions

The terminology of e-Tendering is solely depending upon policies in existence, guidelines and methodology adopted since decades. The SRM is only change in process of accepting and evaluation of tenders in addition to manual. The SAP module to be used in this E-tendering is known as Supplier Relationship Module (SRM). SRM the e-tendering system is managed and technically supported by ABM Knowledge ware Ltd. who assists BMC in the complete tendering process.

NOTE: This tendering process is covered under Information Technology ACT & Cyber Laws as applicable.

- (1) In e-tendering process, some of the terms and its definitions are to be read as under wherever it reflects in online tendering process.

Start Date read as “Sale Date”
End Date read as “Submission Date”
Supplier read as “Contractor/Bidder”
Vendor read as “Contractor/Bidder”
Vendor Quotation read as “Contractors Bid/Offer”
Purchaser read as “Department/BMC”

I. Before entering into online tendering process, the bidder should complete the registration process so as to get User ID for E-tendering links. For this, the bidder can access through Supplier registration via BMC Portal. There are two methods for this registration :(II and III)

II. Transfer from R3 (registered bidders with BMC) to SRM

- a. Bidders already registered with BMC will approach to Vendor Transfer cell.
- b. Submit his details such as (name, vendor code, address, registered Email ID, pan card etc.) to Vendor transfer cell.
- c. BMC authority for Vendor Transfer, transfers the Vendor to SRM application from R3 system to SRM system.
- d. Transferred Vendor receives User ID creation link on his supplied mail ID.
- e. Vendor creates his User ID and Password for e-tendering applications by accessing link sent to his mail ID.

III. Online Self Registration (Temporary registration for applicant not registered with BMC)

- a. Vendor fills up Self Registration form via accessing BMC portal.
- b. Vendor Transfer cell (same as mentioned above) accesses Supplier Registration system and accepts the Vendor request.
- c. Accepted Vendor receives User ID creation email with Link on his supplied mail ID.
- d. Vendor creates his User ID and Password for e-tendering application

IV. Bidders BIDDING: Applicant will Quote and Upload Tender Documents

1. Access e-tender link of SRM Portal
2. Log in with User ID and Password
3. Selects desired Bid Invitation (he wants to bid)
4. To download tender documents Bidders will have to pay online Tender fee. The same can be done by accessing Pay Tender Fees option. By this one will be able to pay Tender fee through Payment Gateway-If transaction successful, Bidder can register his interest to participate. Without Registration one cannot quote for the Bid/Tender.
5. Applicant will download Tender Documents from Information from purchaser tab by accessing Purchaser document folder through collaboration ‘C’ folder link.
6. Applicant will upload ePacket A and ePacket B related Documents in ePacket A and ePacket B folder respectively by accessing these folders through “My Notes” Tab and collaboration folder link.

7. All the documents uploaded have to be digitally signed and saved. Bidder can procure their digital signature from any certified CA's in India.
8. Bid security deposit/EMD and ASD, if applicable, should be paid online as mentioned in tender.
9. For commercial details (in ePacket C) Bidders will fill data in Item Data tab in Service Line Item via details and quotes his figure.(If entered '0' it will be treated as at par. By default the value is zero only. \
10. Applicants to check the bid, digitally signs & save and submit his Bid Invitation.
11. Applicants can also save his uploaded documents/commercial information without submitting the BID for future editing through 'HOLD' option.
12. Please note that "Hold" action do not submit the Bid.
13. Applicants will receive confirmation once the Bid is submitted.
14. Bid creator (BMC) starts Bid Opening for ePacket A after reaching End Date and Time and Bid Evaluation process starts.

As per Three ePacket system, the document for ePacket A & B are to be uploaded by the tenderer in 'Vendor's document' online in ePacket A & B. Before purchasing/downloading the tender copy, tenderer may refer to Pre- Qualification criteria mentioned in Section 3.

The tenderer shall pay the EMD/Bid Security through payment gateways before submission of Bid and shall upload the screenshot of receipt of payment in ePacket 'A' instead of paying the EMD at any of the CFC centers in BMC Ward Offices.

The e-tender is available on BMC portal, <https://mcgm.gov.in>, as mentioned in Section 4.1 of this Bid document. The tenders duly filled in should be uploaded and submitted online on or before the end date of submission. The ePacket 'A', ePacket 'B' & ePacket 'C' of the tenderer will be opened as per the time-table mentioned in Section 4.1

The Municipal Commissioner reserves the right to reject all or any of the e-Tender(s) without assigning any reason at any stage. The dates and time for submission and opening the tenders are as mentioned in Section 4.1. If there are any changes in the dates, the same will be displayed on the BMC Portal (<https://portal.mcgm.gov.in>).

4.5 Bid Preparation Cost

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

2. This bid does not commit BMC to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award. All materials submitted by the Bidder shall become the property of BMC and may be returned at its sole discretion.

4.6 Pre-bid Meeting

1. BMC will host a Pre-bid Meeting for queries (if any) by the prospective bidders. Details regarding the date, time and place of the meeting are provided in Section 4.1. A maximum of three representatives of each of the bidder may attend the pre-bid meeting on the production of authority letter from the applicant at their own cost. The purpose of the pre-bid meeting is to provide a forum to the bidders to clarify their doubts / seek clarification or additional information, necessary for them to submit their bid.
2. All enquiries from the bidders relating to this bid must be submitted to the designated contact person as mentioned in section 4.1 of this bid document. The queries should necessarily be submitted in the format as given in Annexure VII as a Microsoft Word/Spreadsheet document:
3. Authorization letter in the name of the person attending the pre-bid meeting needs to be submitted on the letterhead of the Bidder during the pre-bid meeting in the format specified, refer Annexure VI.
4. Queries submitted post the specified deadline or which do not adhere to the specified format may not be responded. All the responses to the queries (clarifications / corrigendum) shall be made available on the BMC website (<https://portal.gov.in>).

4.7 Amendment of Bid Document

1. At any time before the deadline for submission of bids, BMC, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the bid document by an amendment. All the amendments made in the document would be informed to all the participating bidders through email.
2. The bidders are advised to visit the BMC website as stated in section 5.6 of this document on regular basis for checking necessary updates. BMC also reserves the rights to amend the dates mentioned in this bid for bid process. It will be assumed that the amendments have been taken into account by the Bidder in its bid.

3. In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, BMC may, at its discretion, extend the last date for the receipt of Bids.

4.8 Rights to Terminate the Process

1. BMC may terminate the bid process at any time and without assigning any reason. BMC makes no commitments, express or implied, that this process will result in a business transaction with anyone.
2. This bid document does not constitute an offer by BMC. The Bidder's participation in this process may result in BMC selecting the Bidder to engage in further discussions and negotiations towards execution of a contract. The commencement of such negotiations does not, however, signify a commitment by BMC to execute a contract or to continue negotiations. BMC may terminate negotiations at any time without assigning any reason.

4.9 BID SECURITY OR EMD

- The Bidder shall furnish, as part of the Bid, Bid Security/EMD, in the amount specified in the Bid Data Sheet. This bid security shall be in favor of the authority mentioned in the Bid Data Sheet and shall be valid till the validity of the bid.
- The tenderers shall pay the EMD online instead paying the EMD at any of the CFC centres in BMC Ward Offices.
- Any bid not accompanied by an acceptable Bid Security and not secured as indicated in sub-clause mentioned above, shall be rejected by the Employer as non-responsive.
- The Bid Security of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Security Deposits.
- The Bid Security/ EMD of L-2 and downward bidder(s)(i.e. L-3,L-4...) shall be refunded immediately after opening of financial bid.
- In case, the successful bidder becomes non-responsive or successful bidder withdraws the bid or is unwilling to extend the bid validity period, in such circumstances, if L-2 bidder is agreeable to extend the bid validity period and ready to deposit the requisite amount of bid security/EMD and ASD to the department within the stipulated time period i.e. 15 days, the department will process further as per normal procedure.
- The Bid Security may be forfeited:
 - a) if the Bidder withdraws the Bid after bid opening (opening of technical qualification part of the bid during the period of Bid validity;
 - b) In the case of a successful Bidder, if the Bidder fails within the specified time limit to:
 - i. sign the Agreement; and/or

ii. Furnish the required Security Deposits.

1. The cases wherein if the shortfalls are not complied by a contractor, will be informed to Registration and Monitoring Cell. Such non-submission of documents will be considered as 'Intentional Avoidance' and if three or more cases in 12 months are re-reported, shall be viewed seriously and disciplinary action against the defaulters such as banning/deregistration, etc. shall be taken by the registration cell with due approval of the concerned AMC.

2. No rejections and forfeiture shall be done in case of curable defects. For non-curable defects the 10% of EMD shall be forfeited and bid will be liable for rejection.

➤ Curable Defect shall mean shortfall in submission such as:

Non submission of following documents:

- ✓ Valid Registration certificate
- ✓ Valid Bank Solvency
- ✓ Goods & Service Tax (GST) registration Certificate
- ✓ Certified copies of PAN documents and photographs of individual, owners etc.
- ✓ Partnership deed and any other documents.
- ✓ Undertaking as mentioned in the tender documents

➤ Non-curable Defect shall mean shortfall in submission such as :

Non submission of following documents:

- ✓ Inadequate submission of EMD/ASD amount
- ✓ Inadequacy of technical or financial capacity with respect to eligibility criteria as stipulated in the tender.
- ✓ Wrong calculation of bid capacity
- ✓ No proper submission of experience certificate and other documents etc.

4.10 Solvency Certificate

1. A valid Bank Solvency Certificate of amount of **Rs. 1.5 Cr** issued not more than one year prior to the date of submission of bid needs to be submitted in the Pre-Qualification folder (ePacket 'A').

4.11 Submissions of Bids

1. Complete bidding process will be online (e-Bidding) in three Packets system. All the notification and details regarding terms and conditions related to this bid notice hereafter will be published online on web site <https://www.mcgm.gov.in/irj/portal/anonymous/qlBids>.
2. Bidding documents can be seen, downloaded and submitted in electronic format on the BMC website. The deadline for submission of bid is specified in section 4.1 of this document.
3. Technical bids will be opened as per the details found in section 4.1 of this document.
4. Bidder should submit information and scanned copies of all the documents in PDF format in Pre-Qualification folder (ePacket 'A') as mentioned in the Bid Document.

5. Bidder may be requested to submit original documents for verification during evaluation of technical bids as and when required.
6. Time and date of opening of financial bid will be informed by email to technically qualified bidders.
7. An authorized representative of the Bidder should have valid class II / III Digital Signature Certificate (DSC) obtained from any Certifying Authority. The authorized representative of the Bidders shall digitally sign the original Technical bid and Commercial bid. The authorization shall be in the form of a written power of attorney accompanying the bid or in any other form demonstrating that the representative has been duly authorized to sign.
8. As per BMC circular CE/PD/5268/II dated 11.08.2006, on opening the Pre-Qualification folder, if it is found that the Bidder has not submitted required documents as per Pre-Qualification folder (ePacket 'A') then the Bidder shall be intimated to comply with the said documents within 3 days from the intimation from BMC (through email), otherwise they will be treated as non-responsive
9. BMC reserves the right to accept or reject any or all the Bids without assigning any reason. Moreover, if no intimation is provided by BMC then the documents submitted cannot be deemed as accepted.

4.12 Site Visit

Bidders are welcomed to visit the site(s) and obtain additional information at their own cost and responsibility. However, a prior appointment with the concerned officials is recommended.

4.13 Language of Bids

The Application and all related correspondence and documents in relation to the Bidding Process shall be in English language. Supporting documents and printed literature furnished by the Applicant with the Application may be in any other language provided that they are accompanied by translations of all the pertinent passages in the English language, duly authenticated and certified by the Applicant. Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.

4.14 Bid Submission Format

1. The entire bid shall strictly be as per the format specified in this bid.

4.15 Documents Comprising of Bids

Sr. No.	Type of Envelope	Documents to be submitted
1	Pre-Qualification Folder (ePacket A)	<ul style="list-style-type: none"> ✓ Cover Letter ✓ Board Resolution authorizing the Bidder to sign/ execute the bid as a binding document and also execute all relevant agreements forming part of bid or Power of Attorney executed by the Bidder in

		<p>favour of the Principal Officer or the duly authorized Representative, certifying him/her as an authorized signatory for the purpose of this bid</p> <ul style="list-style-type: none"> ✓ Valid Bank Solvency Certificate as specified. ✓ Bidders' particulars as per specified format ✓ Self Declaration by authorized signatory who certify that the products quoted are not end of life for the next three years or end of sale products as well as OEM Certificate for the same as per specified format. ✓ All the documentary evidence required as per pre qualification criteria mentioned in section 3.1 (Pre Qualification Criteria) of this bid.
2	Technical Bid Folder (ePacket B)	<ul style="list-style-type: none"> ✓ Technical Bid in the format specified ✓ Technical Bill of Material To be provided by the bidder) ✓ Commercial Bid cover Letter
3	Commercial Bid Folder (ePacket C)	To be submitted on line

2. Bidders shall furnish the required information on their Pre-Qualification, Technical and Financial bids in enclosed formats only. Any deviations in format may make the bid liable for rejection. Disclosure of Commercial information of the bid in Pre-Qualification or Technical Envelope shall be sufficient grounds for rejection of the bid.
3. The bidders shall categorically provide their Email-ID in ePacket 'A'.

4.16 Withdrawal of Bids

1. A Bidder wishing to withdraw its bid shall notify to BMC by e-mail prior to the deadline prescribed for bid submission. A withdrawal notice may also be sent by electronic means such as e-mail, but it must be followed by a signed confirmation copy, postmarked no later than the deadline for submission of bids. The notice of withdrawal shall:
 - a. Be addressed to BMC at the address named in the Bid Data Sheet, and
 - b. Bear the Contract name, the <Title> and < Bid No.>, and the words "Bid Withdrawal Notice." Bid withdrawal notices received after the bid submission deadline will be ignored, and the submitted bid will be deemed to be a valid submitted bid.
2. No bid should be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period specified in the Bid Data Sheet. Withdrawal of a bid during this interval may result in the forfeiture of the Bidder's EMD.

4.17 Evaluation Process

1. The evaluation process of the bid proposed to be adopted by BMC is indicated in this section. The purpose of this section is to provide the Bidder an idea of the evaluation process that BMC may adopt.
2. BMC shall appoint a Bid Evaluation Committee (BEC) to scrutinize and evaluate the technical and commercial bids received. The BEC will examine the Bids to determine whether they are complete, responsive and whether the bid format conforms to the bid requirements. BMC may waive any informality or non-conformity in a bid which does not constitute a material deviation according to BMC.
3. The bid prices should not be mentioned in any part of the bid other than the Commercial Bid.
4. Any attempt by a bidder to influence the bid evaluation process may result in the rejection of Bid.

4.18 Evaluation of Technical Bids

1. The Technical Bids of only those Bidders, who qualify in the Pre-Qualification stage, shall be considered and will be evaluated as per the evaluation criteria in this clause. The Bid Evaluation Committee may invite each Bidder to make a presentation as part of the technical evaluation.
2. The bidders' technical solutions proposed in the bid document will be evaluated as per the requirements specified in the Bid document and adopting the evaluation criteria specified below.
3. **The evaluation parameters for the bid will be L1 based.** Bidders who scores minimum 70% in technical evaluation will qualify for financial bid opening. However, BMC reserves the right to lower the minimum required marks if none of the Bidders achieves 70% of the total marks. Only the Bids qualifying the technical evaluation will be considered for commercial evaluation.

Technical Evaluation of the bids would be carried out on following broad parameters:

- i) Bidder's Competence (20% of the total weightage)
- ii) People (10% of the total weightage)
- iii) Quality of proposal (30% of the total weightage)
- iv) Maintenance & support (30% of the total weightage)
- v) Presentation on proposal (10% of the total weightage)

The five evaluation parameters would be divided in to various sub categories as mentioned below

i) Bidders' competence (20% of the total weightage)

Evaluation Criteria	Maximum Weightage / Marks	Criteria
Capability of the Bidder to execute similar large projects	15	Experience of the bidder in implementing Vehicle Tracking Hardware & Software Projects in BMC/Semi Govt. /Govt. & Public Sector organizations with at least

		1500 Vehicles. 1 Project in last three years matching above criteria = 10 marks, 2nd similar project with 50% capacity of 1st project = 3 marks, Every Additional similar project >40% & <=50% capacity of 1 st project = 1 mark each (up to maximum 2)
Financial Capabilities of the bidder	5	Having average annual turnover in last 3 years: >= 9.5 Cr and <= 10.0 Cr – 3.5 marks > 10.0 Cr and <= 10.5 Cr – 4 marks Above _ 10.5 Cr – 5 marks

ii) People (10% of the total weightage)

Evaluation Criteria	Maximum Weightage / Marks	Criteria
Quality of Manpower in company	4	Total Strength in the company for GPS based vehicle tracking and software system integration (Strength of 50 employees including Business Analysts, Architects, Software developers, SMEs, Software Testers, DBAs, PMs, Technical Support staff (in-house and on-site), = 2 marks, Each additional 25 similar employees to carry 1 mark each up to 50 more employees
Quality of the IT Manpower involved and proposed for the project implementation & support.	6	Suitability of the proposed Project Manager in terms of relevant years of experience. (Above 8 years = 2 marks, 5 to 8 years = 1 mark)
		Average experience of key members of the team such as Minimum Education Qualification of key members such Business Analysts, Architects, Software developers, SMEs, Software Testers, DBAs, PMs, Technical Support staff (in-house and on-site). (Above 4 years = 2 marks, 2 – 4 years = 1 mark)
		Minimum Education Qualification of key members such as Business Analysts, Architects, Software developers, SMEs, Software Testers, DBAs, PMs, Technical Support staff (in-house and on-site). (B.E. or equivalent 4 years course = 2 marks,

		B.Sc. or equivalent 3 years course = 1 mark)
--	--	--

iii) Quality of Bidders' Proposal (30% of the total weightage)

Evaluation Criteria	Maximum Weightage / Marks	Criteria
Bidders 'approach	10	<p>Overall approach of the bidder to implement & maintain the Enterprise VTMS Solution (Hardware & Software) and Video wall.</p> <ul style="list-style-type: none"> ➤ Understanding of the project component , solutions & pain areas – 2 Marks ➤ Project Management Approach including integrating the components – 2 Marks ➤ Breakup of the tasks to be carried out & deliverables – 2 Marks ➤ Technology aspects & high performance architecture of the Enterprise VTMS – 2 Marks ➤ Approach for post implementation support – 2 Marks
Bidders' compliance to the indicative Functional requirement & Technical requirements	6	<p>Extent of compliance to the requirements specified in scope of work for Executive Feature Set and additional features not specified in scope that can help in adding value to the solution</p> <ul style="list-style-type: none"> ➤ Meeting 100% Functional requirements-4 Marks ➤ Meeting more than or equal to 70% of functional requirements-3 Marks ➤ Meeting 50% of Functional Requirements-1 Mark ➤ Meeting less than 50% Functional Requirements- 0 Mark ➤ Meeting 100% Technical Specifications-4 Marks ➤ Meeting less than 100% of Technical Specifications- 0 Mark
Project Management Methodology	7	<p>Completeness of the proposed project plan with proper Timelines, Responsibility Matrix, and change management (3 marks)</p> <ul style="list-style-type: none"> ➤ Detailed project plan with stakes and timelines and completeness-1 Mark ➤ Responsibility Matrix including stakeholders' Roles & responsibilities-1 Mark

		<ul style="list-style-type: none"> ➤ Clear definition of Change Management lifecycle-1 Mark
		<p>Strategy to meet implementation timelines (4 Marks)</p> <ul style="list-style-type: none"> ➤ Plan for team mobilization, inception reports, FRS/SRS creation-1 Mark ➤ Plan for all hardware & software installation-2 Marks ➤ Plan for development, UAT, Go live& training-1 Mark
Bidders' awareness of risks in the project	5	<p>Completeness of Project Risks identification and Mitigation plan (5 marks)</p> <ul style="list-style-type: none"> ➤ Risks definition & mitigation plan related to connectivity – 1 mark ➤ Risks definition & mitigation plan related to software and hardware deployment – 1 mark ➤ Risks definition & mitigation plan related to integration with external systems – 1 mark ➤ Risks definition & mitigation plan related to Maintenance – 1 mark ➤ Risk definition & mitigation plan related to GIS Map – 1 mark

iv) Implementation Services and Support of the Solution Proposed

Evaluation Criteria	Maximum Weightage / Marks	Criteria
Integration approach	15	<p>Approach on integration with Other systems like weigh bridge, Fleet Management and GIS (15 marks)</p> <ul style="list-style-type: none"> ➤ Approach & methodology for integration with external system (SAP & non SAP) and desired output-5 marks ➤ Understating of GIS usage in navigation/vehicle tracking in Solid waste management-5 marks ➤ GPS+RFID based fleet management and its functionalities in Solid Waste Management-4 Marks ➤ Approach for geo-coding/geo fencing management, alert generation-1 mark
Maintenance & support for proposed Solution	15	<p>Provide training & support for enterprise VTMS and video wall solution to BMC users (3 Marks)</p> <ul style="list-style-type: none"> ➤ Training plan-1 Mark

		<ul style="list-style-type: none"> ➤ Training modules-1 mark ➤ Review of the offered trainings & shortcomings resolution-1 marks
		<p>Approach for adherence to SLAs(12 Marks)</p> <ul style="list-style-type: none"> ➤ Approach for maintaining solution up time-6 marks ➤ Establishment of Helpdesks & its operation-3 Marks ➤ Bug resolution approach-2 marks ➤ Management of change requests-1 Mark

v) Presentation of proposal

Evaluation Criteria	Maximum Weightage / Marks	Criteria
Proposal presentation	10	<p>The bidder shall prepare a presentation on the technical proposal to be submitted for this project. The Bid Evaluation Committee shall evaluate the presentation based on the following criteria</p> <ul style="list-style-type: none"> ➤ Understanding level demonstrated about project scope ➤ Commitment towards providing the solution ➤ Quality of response against queries raised by the committee ➤ Proposed design of high performance Architecture to support 1500 plus vehicles and desired MIS generation as per user expectation ➤ Ready availability, delivered and under maintenance of similar enterprise VTMS software with BI solution at other sites ➤ The presentation shall also include the total number of points scored by the bidder for each of the four sections which shall be submitted in hard copy during the presentation meeting

Evaluation shall be done based on the information provided in the technical proposal (& subsequent clarification, if any) and Clarifications / Answers given to the BEC during the Presentation by the bidders.

Note: BMC reserves the right to alter minimum value if sufficient bidders did not qualify.

4.19 Opening of Technical Bid

1. BMC shall open the Technical Bids in public, in the presence of Bidders' designated representatives and anyone who chooses to attend, at the address, and at the date and time specified in Section 4.1.
2. Only bids that are opened and read out at the bid opening and whose EMD has been paid online through the Online EMD Application shall be considered further.
3. All the bids shall be opened one at a time, reading out the name of the Bidder, the presence of an EMD, and any other details as BMC may consider appropriate.
4. BMC shall prepare a record of the bid opening that shall include, at a minimum: the name of the Bidder and the presence or absence of EMD. The Bidders' representatives who are present shall be requested to sign the attendance sheet.
5. Authorization letter in the name of the person attending bid opening meeting needs to be submitted on the letterhead of the Bidder during bid opening in the format specified in the bid document.
6. Once the bids are opened each bid will be checked for pre-qualification criteria.

4.20 Opening of Commercial Bid

1. The Commercial bids shall not be opened by BMC until the evaluations of the Technical Bids have been completed.
2. After the technical evaluation is completed and BMC has issued its no objection (if applicable), BMC shall notify those Bidders whose proposals did not pass the technical evaluation or were considered as nonresponsive to the Bid Document and scope of work, that their Financial Proposals will not be opened.
3. BMC shall simultaneously notify in writing to bidders who have cleared the technical evaluation, the date, time and location for opening the Financial Proposals. The opening date would allow Bidders sufficient time to make arrangements for attending the opening. Bidders' attendance at the opening of Financial Proposals is optional.
4. BMC shall prepare a record of the bid opening that shall include, at a minimum: the name of the Bidder and the bid Price, and any other details as BMC may consider appropriate. The Bidders' representatives who are present shall be requested to sign the attendance sheet. A copy of the record shall be distributed to all Bidders.
5. Financial Proposals shall be opened publicly in the presence of the Technically Qualified Bidders' representatives who choose to attend. The name of the Technically Qualified Bidders shall be read aloud.
6. Commercial Bids from bidders who have failed to qualify in evaluation of the technical bid will not be opened.
7. Only bids that are opened and read out at the bid opening shall be considered further.
8. Authorization letter in the name of the person attending bid opening needs to be submitted on the letterhead of the Bidder during bid opening in the format specified in the bid document.
9. The Commercial Bids will be evaluated by BMC for completeness and accuracy.

10. Activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.

4.21 Selection Method

1. The bidder with lowest cost submitted (L1 rate) in the commercial bid opening will be awarded the contract.
2. In case of more than one L1 bidders, the contract will be awarded to the bidder who scores higher marks in technical evaluation.

4.22 OEM / Implementation Partner Participation Criteria

1. In the case of non-proprietary solution, the Bidder will be required to submit a Manufacturer's Authorization Form from the OEM stating that the Bidder in concern would be bidding for their solutions.
2. Firms with common Proprietor/Partner or connected with one another either financially or as principal and agent or as master and servant or with proprietor/partners closely related to each other such as husband, wife, father/mother and minor son/daughter and brother/sister and minor brother/sister, shall not tender separately under different names for the same contract.
3. If it is found that firms have tendered separately under different names for the same contract, all such tender(s) shall stand rejected and tender deposit of each such firm/establishment shall be forfeited. In addition, such firms/establishments shall be liable, at the discretion of the Municipal Commissioner, for further penal action including blacklisting.
4. If it is found that close relatives (as described above) have uploaded separate tenders/quotations under different names of firms/establishments but with common address for such establishments/firms and/or if such establishments/ firms, though they have different addresses, are managed or governed by the same person/persons jointly or severally, such tenders shall be liable for penal and legal action including blacklisting.
5. If after awarding the contract, it is found that the accepted tender violated any of the directions pertaining to participation as stated above, the contract shall be liable for cancellation at any time during its validity in addition to penal action including blacklisting against the contractors as well as related firm/establishment.

4.23 Rights to Accept/Reject any or all Bids

Notwithstanding anything contained in this TENDER, BMC reserves the right to accept or reject any Application and to annul the Bidding Process and reject all Applications/ Bids, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore. In the event that the Authority rejects or annuls all the Bids, it may, in its discretion, invite all eligible Bidders to submit fresh Bids hereunder.

BMC reserves the right to reject any Application and/ or Bid if:

- a) at any time, a misrepresentation is made or uncovered, or

- b) The Applicant does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Application.

In case it is found during the evaluation or at any time before signing of the Agreement or after its execution and during the period of subsistence thereof including the concession thereby granted by BMC, that one or more of the prequalification conditions have not been met by the Bidder, or the Bidder has made any misrepresentation or has given any incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Successful Bidder either by issue of the LOA (Letter of Approval) or entering into of the Agreement, and if the Bidder has already been issued the LOA or has entered into the Concession Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this TENDER, be liable to be terminated, by a communication in writing by BMC to the Bidder, without Bidder being liable in any manner whatsoever to the Bidder and without prejudice to any other right or remedy which BMC may have under this TENDER, the Bidding Documents, the Concession Agreement or under applicable law. BMC reserves the right to verify all statements, information and documents submitted by the Bidder in response to the TENDER. Any such verification or lack of such verification by BMC shall not relieve Bidder of its obligations or liabilities hereunder nor will it affect any rights of BMC there under.

The bid shall be rejected if the bidder

- a) Stipulates the validity period less than 180 days.
- b) Stipulates own condition/conditions.
- c) Does not fill and (digital) sign undertaking forms, which are incorporated, in the document.

4.24 Clarification

Bidder requiring any clarification on the tender may notify BMC in writing or by fax or e-mail. They should send in their queries before the date specified in this document. BMC shall Endeavor to respond to the queries within the period specified therein. The responses will be sent by fax and/or e-mail. BMC will forward all the queries and its responses thereto, to all purchasers of the TENDER without identifying the source of queries.

BMC shall Endeavor to respond to the questions raised or clarifications sought by the Bidder. However, BMC reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring the BMC to respond to any question or to provide any clarification, but not later than the date provided in this document.

BMC may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidder. All clarifications and interpretations issued by BMC shall be deemed to be part of the tender. Verbal clarifications and information given by BMC or its employees or representatives shall not in any way or manner be binding on the BMC.

4.25 Amendment of Bid Document

At any time prior to the deadline for submission of Application, BMC may, for any reason, whether at its own initiative or in response to clarifications requested by an Bidder, modify the tender by the issuance of Addendum.

Any Addendum thus issued will be sent in writing/ Fax/ Email to all those who have purchased the tender.

In order to afford the Bidder a reasonable time for taking an Addendum into account, or for any other reason, BMC may, in its sole discretion, extend the Application Due Date.

4.26 Notifications of awards and Signing of Contract

1. Prior to the expiration of the period of bid validity, the Bidder will be notified in writing or by FAX/email that their bid has been accepted.
2. At the time BMC notifies the successful Bidder that its bid has been accepted, BMC will send the Bidders the proforma for Contract, incorporating all clauses/agreements between the parties. The successful Bidder shall sign and date the Contract and return it to BMC. Draft Format of the contract has been included in the bid document.

4.27 Performance Bank Guarantee

1. The Bidder shall at his own expense, deposit with Corporation, within fifteen (15) working days of the notification of award of the contract an unconditional and irrevocable Performance Bank Guarantee (PBG) from the list of approved banks (specified in the bid document) as per the format given in this bid, payable on demand, for the due performance and fulfillment of the contract by the Bidder.
2. This Performance Bank Guarantee will be for an amount equivalent to 5% of the total contract value. All charges whatsoever such as premium, commission, etc. with respect to the Performance Bank Guarantee shall be borne by the Bidder.
3. Details on validity of the Performance Bank Guarantee are specified under section 4.1 of this document. The Performance Bank Guarantee letter format can be found in this document.
4. The Performance Bank Guarantee may be discharged/ returned by Corporation upon being satisfied that there has been due performance of the obligations of the Bidder under the contract. However, no interest shall be payable on the Performance Bank Guarantee.
5. In the event of the Bidder being unable to service the contract for whatever reason, BMC would evoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of BMC under the Contract in the matter, the proceeds of the PBG shall be payable to BMC as compensation for any loss resulting from the Bidder's failure to complete its obligations under the Contract. BMC shall notify the Bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the Bidder is in default.
6. The 30 day notice period shall be considered as the 'Cure Period' to facilitate the Implementation Agency to cure the breach. The PBG shall be evoked only if the breach is solely attributable to the bidder and the bidder fails to rectify the breach within the 'Cure Period'.
7. BMC shall also be entitled to make recoveries from the Bidder's bills, performance bank guarantee, or from any other amount due to the Bidder, the equivalent value of any payment made to the Bidder due to inadvertence, error, collusion, misconstruction or misstatement.

4.28 Failure to agree with the Terms and Conditions of the Bid/Contract

Failure of the Bidder to agree with the Terms and Conditions of the bid/Contract shall constitute sufficient grounds for the annulment of the award of contract, in which event the contract may be awarded to the next most responsive Bidder (i.e. L2 Bidder).

In such a case, BMC shall invoke the PBG of the most responsive Bidder.

4.29 Terms and Conditions of the Bid

1. Bidder is required to refer to the draft Contract Agreement, provided in this bid, for all the terms and conditions (including project timelines) to be adhered by the successful Bidder during Project Implementation and Post implementation period. Please note that one needs to read the Contract Agreement as a whole document; and the Annexure mentioned there-in may not correspond to the bid Annexure.

4.30 Legal and Stationery Charges

Legal + Stationary Charges: (As per applicable circular)

Successful tenderer shall pay the Legal Charges +Stationary charges as below or as per latest applicable Circular at the time of award of contract (currently the amounts mentioned here are as per circular u/no. Circular No. 10318 dtd.24.03.2022)

Contract Value						Legal + Stationary Charges
from	Rs.	10,001	To	Rs.	50,000/-	Nil
From	Rs.	50,001/-	To	Rs.	100000/-	Rs. 6290/-
From	Rs.	100001/-	To	Rs.	300000/-	Rs. 10380/-
From	Rs.	300001/-	To	Rs.	500000/-	Rs. 12470/-
From	Rs.	500001/-	To	Rs.	1000000/-	Rs. 14510/-
from	Rs.	10,00,001/-	To	Rs.	20,00,000/-	Rs. 16570/-
From	Rs.	20,00,001/-	To	Rs.	40,00,000/-	Rs. 18660/-
From	Rs.	40,00,001/-	To	Rs.	1,00,00,000/-	Rs. 20720/-
From	Rs.	1,00,00,001/-	To	Rs.	10,00,00,000/-	Rs. 24450/-
from	Rs.	10,00,00,001/-	To	Rs.	20,00,00,000/-	Rs. 28220/-
From	Rs.	20,00,00,001/-	To	Rs.	30,00,00,000/-	Rs. 31980/-
From	Rs.	30,00,00,001/-	To	Rs.	40,00,00,000/-	Rs. 35740/-
From	Rs.	40,00,00,001/-	To	Rs.	50,00,00,000/-	Rs. 39470/-
from	Rs.	50,00,00,001/-	To	Rs.	1,00,00,00,000/-	Rs. 47000/-
From	Rs.	1,00,00,00,001/-	To	Rs.	2,00,00,00,000/-	Rs. 58270/-

From	Rs.	2,00,00,00,001/-	To	Rs.	3,00,00,00,000/-	Rs. 65770/-
From	Rs.	3,00,00,00,001/-	To	Rs.	4,00,00,00,000/-	Rs. 75120/-
From	Rs.	4,00,00,00,001/-	To	Rs.	5,00,00,00,000/-	Rs. 84510/-
From	Rs.	5,00,00,00,001/-	To	Rs.	Any limit	Rs. 93920/-

4.31 Stamp Duty

1. The stamp duty payable for the contract shall be borne by the Implementation Agency IN WITNESS whereof the parties hereto have signed this on the day, month and year written as part of the agreement.
2. As per the provision made in Article 63, Schedule I of Bombay Stamp Act 1958, stamp duty is payable for “works contract” that is to say, a contract for works and labour or services involving transfer of property in goods (whether as goods or in some other form) in its execution and includes a sub-contract, as under:

Contract Value Stamp Duty

A	Where the amount or value set forth in such contract does not exceed rupees ten lakh.	Five Hundred rupees stamp duty
B	Where it exceeds rupees ten lakhs	Five hundred rupees plus 0.1% of amount above rupees ten lakhs subject to the maximum of Rs. twenty five Lakhs stamp duty.
C	Stamp duty on BG	0.5% on amount of BG paid by successful contractor.

3. The successful bidder shall pay stamp duty on BG as well as extended BG @0.5% of the BG amount as per BMC Circular no. Ch.E./BM/17800/II dated 07/01/2016
4. The successful Bidder shall enter into a contract agreement with BMC within 30 days from the date of issue of Work Order and the same should be adjudicated for payment of Stamp Duty by the successful Bidder.
5. Further shortfall if any, in amount of stamp duty paid as against prescribed amount for the documents executed in Mumbai City and Mumbai Suburban District be recovered from the successful bidder and to deposit the deficit or unpaid Stamp Duty and penalty by two separate Demand Draft or Pay Order in favour of “Superintendent of Stamp, Mumbai” within 15 days from intimation thereof.
6. All legal charges and incidental expenses in this respect shall be borne and paid by the successful Bidder.

5. Scope of Work

5.1 Project Objective

The BMC wishes to engage an agency (hereafter referred to as “Service Provider”, “Implementation Agency”, “Selected Agency”, “Vendor”, and “Bidder”) for a period of Five (5) years for the Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and IT & VTMS Hardware of Solid Waste Management department according to the requirements, specifications and bill of quantities mentioned in the bid document.

The main objectives of this project are as mentioned below.

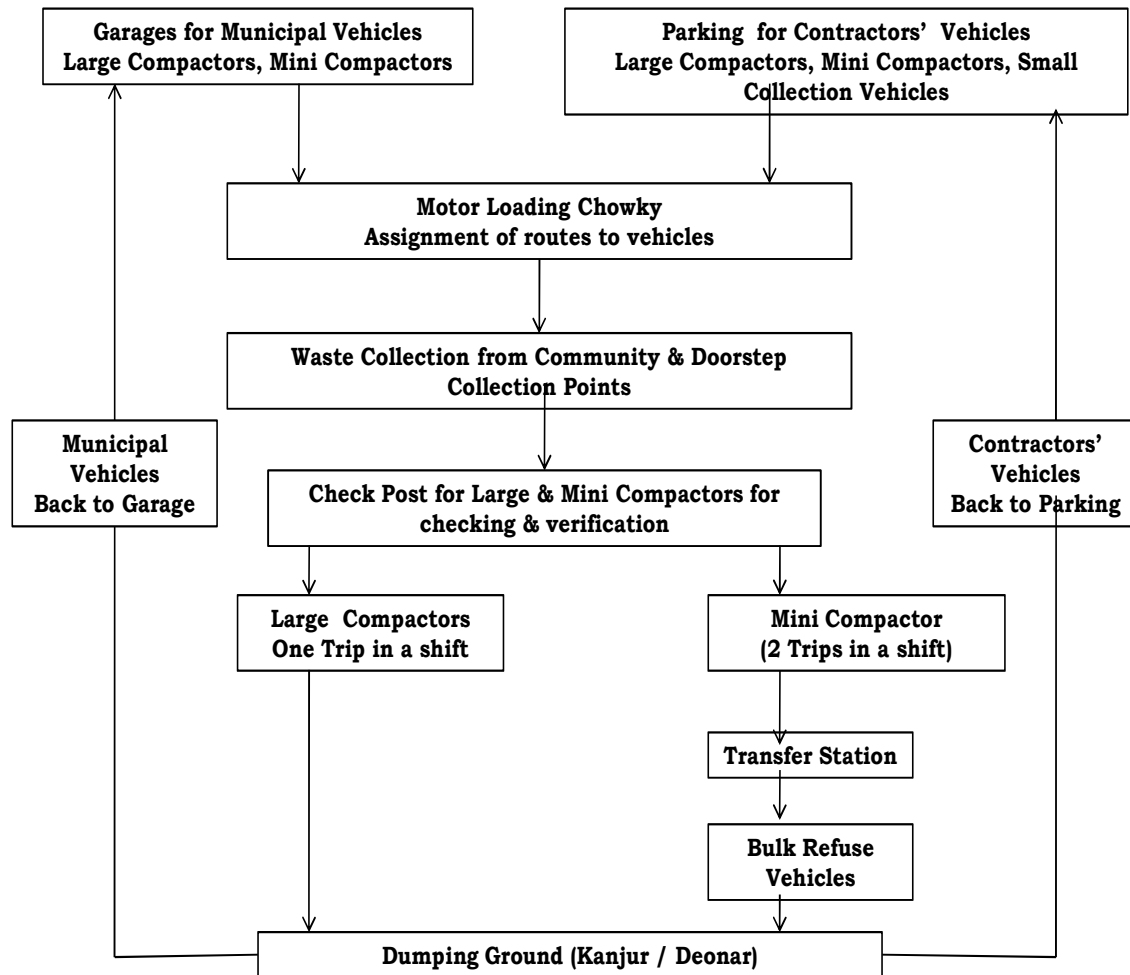
- To manage routes and vehicles dynamically through an automated system.
- Real time management of missed garbage collection points.
- Efficient monitoring and management of waste collection bins.
- Route optimization can be done which will help in reduction of trip time, fuel saving and serving more locations.
- To reduce the human intervention in monitoring process.
- To keep history of vehicle routes, attended sites and other details.
- To integrate the dumping ground and transfer station facilities like weighbridges with the centralized locations.
- To keep history of weight carried over to the Dumping Ground & Transfer Stations thereby assisting in efficient use of resources & plan for the upcoming days accordingly.
- To monitor Road Sweeping Vehicles.
- To ensure complete coverage of door to door and community collections.
- To monitor and track other BMC vehicles under Solid Waste Management Dept. like Ambulances, Dumpers, and Water Supply Vehicles etc.
- Reporting of vehicles, garbage collected and other SWM details to higher authorities from any location at any time.
- Integrate the VTMS solution with other external systems like SAP Fleet Management.

- To develop robust MIS to help the administrators in effective decision making & have a better understanding about the use of the resources.
- To establish a command & control center with video wall, control work stations at which MIS Reports & other outputs from the system can be projected.
- To develop an mobile application for easily monitoring and management of the project.
- To deliver the information with the help of SMS to senior officials.
- Manpower support for efficient monitoring and management of the project.

5.1.1 Existing Process for Vehicle Usage for Solid Waste Collection & Transportation

Solid Waste Management Dept. of BMC is catering to the Waste Management needs of Mumbai City. Nearly 6300 MT of waste collected, transported & disposed off at Dumping Grounds every day. This huge operation is performed by means of fleets of Municipal & contractors' vehicles. In addition to the Waste Collection & Transportation SWM Dept. operates other vehicles also like Ambulances, Hearses, and Pick Up vans for various civic duties, Personnel Vehicles etc. There are around 3000 plus such vehicles which need to be tracked in this project.

5.1.2 The generalized arrangement for waste collection, transportation is as described below.



One of the primary vehicle type used under SWM is the refuse collecting vehicle. Its main activity is to collect and transport garbage / refuse from different locations allocated to them within wards and then dispose the garbage in the dumping grounds. There is defined process by the SWM department for the vehicle to collect refuse from various locations within wards. Described below is the process for refuse vehicle's operation in each ward for SWM.

1. Parking / Garages

The refuse collection vehicles from BMC's own fleet are parked in Transport Garages of SWM Dept. There are around 23 Nos. of garages where these vehicles are parked.

The contractors' vehicles are parked in their own parking places.

2. Motor Loading Chowkys

The refuse collecting vehicles start from the parking/garages and reach the motor loading chowkys in the wards where they **get the pre-defined routes to be followed for the day**. A **log sheet** is prepared by a **Junior Overseer** at the Motor Loading Chowkies. This log sheet has the details of the route to be travelled by the refuse vehicle to collect the garbage for various collection points and community collection. This Log sheet is a **hard copy sheet and is given to the Mukadam** who accompanies the Refuse vehicle during the garbage collection process.

The Large Compactors unload their waste directly at the dumping ground and does a single trip.

Mini Compactors unload their waste at the Transfer station and do two (2) Trips.

Whereas the Small Closed Vehicles of capacity 600 Kg. unload their waste in the Compactors.

3. Collection Process

Following the route received by each vehicle, garbage is collected either from **Community collection points & from door to door**. The Mukadam accompanies the driver through the route. The Mukadam keeps a check on the garbage collected at various locations as per the **Log Sheet** given to the Mukadam by the **Junior Overseer (JO) at the Chowky & Garages**

4. Checking, Verification and Transfer of Refuse

Once the refuse is collected by the vehicles they come to check post. In the check posts, the **log sheets** updated by the Mukadam are **then verified to ensure** that the correct route was followed and proper garbage was collected in terms attending every collection point.

5. Disposal of Refuse.

Once verified, Large Compactor vehicles go to the **dumping grounds to dispose off the garbage**. Once the big compactors are properly loaded, they move to the dumping grounds.

Mini compactors reach the **transfer stations** after the collection process, where the garbage is transferred from these mini compactors to the Bulk Refuse Carrying vehicles. The mini compactors perform two (2) trips from the garbage collection sites to the transfer stations.

Computerized Weigh Bridges are provided at both Dumping Ground & Transfer Stations. There is an online reporting system called "WMS" Weighbridge Management System which gives live on line information about weight of each & every vehicle coming to the weighbridge.

6. Back to Garages & Parking Places

Once the refuse is unloaded at the dumping ground / transfer station, the Municipal Vehicles go back to their respective garages & contractors' vehicles go to their respective parking places. by the big vehicles like big compactors they go back to the

Parking, SWM Garages & transfer Stations. The mini compactors and skip vehicles also travel back to the parking and garages after finishing number of trips and transferring the garbage in transfer stations. This entire job is carried out in multiple shifts. Each shift has multiple trips. Mini compactors make 2-3 visits per shift. However, Skip Vehicles make 4-7 trips per shift.

5.2 Summary of Scope

Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and IT Hardware of Solid Waste Management department as per the table given in **section 7.3**.

5.3 Proposed Scope of Work

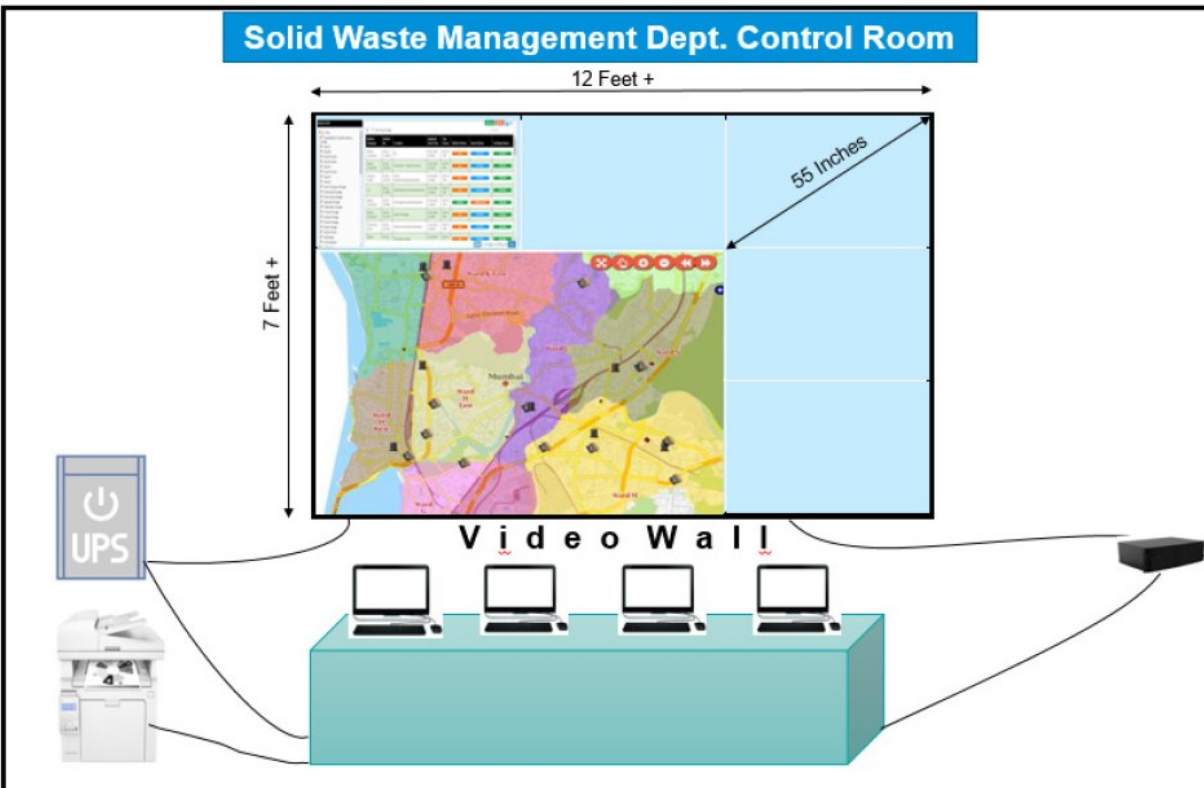
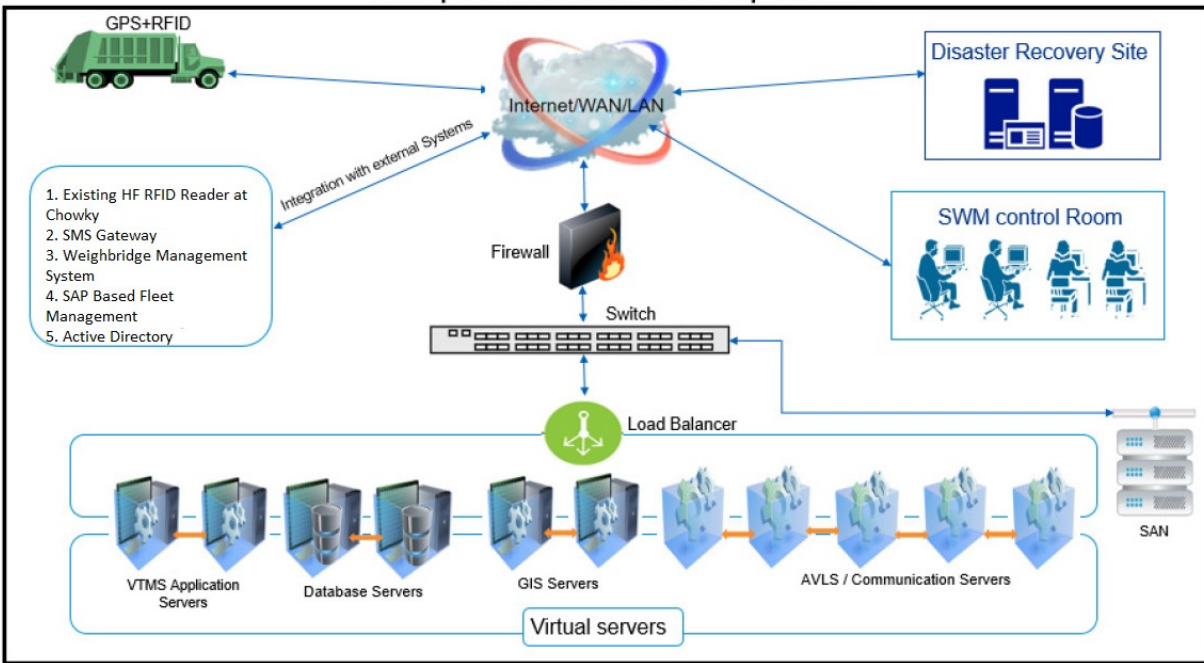
BMC wishes to utilize the services of an Implementation Agency (hereafter referred to as “Implementation Agency”/“IA”/“Selected Agency”/“Vendor”/“Bidder”) for Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and IT & VTMS Hardware for BMC’s Vehicle Tracking and Monitoring System (VTMS) of Solid Waste Management department. The project is envisaged for implementation, operations & Maintenance for 5 years from the date of issuance of LOA. The timeline to implement the project is defined in the relevant section of this document.

The high-level scope for the Implementing Agency is as mentioned below:

1. Supply of Vehicle Tracking and Monitoring System Hardware as per requirement.
2. Supply of Vehicle Tracking and Monitoring System Software and Mobile application with BI as per requirement
3. Network connectivity of supplied VTMS Hardware with the servers.
4. Cloud server to host enterprise VTMS Software with BI
5. GIS Map of BMC jurisdiction to be used in Enterprise VTMS Software.
6. To develop an Application for easily monitoring & management of the project.
7. Integration with existing VTMS devices on contractors’ vehicles & other external systems like Weight Management Systems & HF RFID Readers installed at Chowkies.
8. Supply, Installation and Commissioning of IT and supporting Non-IT Infrastructure
9. Operation and Maintenance of all project items within the scope of this tender for five (5) years

The conceptualized architecture of Enterprise VTMS Software & Video wall is as shown below.

Conceptual IT Architecture of enterprise VTMS



The dimension is 10 feet wide x 6 feet height.
 Since 2015 SWM Dept. of BMC is utilizing Vehicle Tracking & Management System.
 The old contract is expired in Sept.- 2021.

The details of the Operational Scenario, existing status & proposed work under this project are as explained below.

Sr. No	Operational Scenario	Expected Response in this project	Existing Status	Work to be carried out in this project
1	Tracking of vehicles. (Municipal Vehicles)	<ul style="list-style-type: none"> Vehicle shall be tracked in real time basis by means of GPS Device. 	All the vehicles have GPS Devices. However they are more than 05 yrs old & need to be replaced.	Replacement of approx. GPS Devices of 1700 vehicles as per specifications.
	Tracking of vehicles. (Contractual Vehicles)	<ul style="list-style-type: none"> Vehicle shall be tracked in real time basis by means of GPS Device. 	All the vehicles have GPS Devices.	<ul style="list-style-type: none"> It is the responsibility of the vehicle supplying contractor to provide GPS Devices. The GPS Devices need to be integrated with the proposed software solution.
2	Start of the shift. (Municipal Vehicles)	<ul style="list-style-type: none"> Vehicle crosses geo fence of the respective garage Garage Representative will assign the vehicle in the system to the particular ward 	Geo Fencing of all the garages is already done. The data is readily available.	Necessary software solution to be developed.
	Start of the shift. (Contractual Vehicles)	<ul style="list-style-type: none"> Vehicle crosses the geo fence of the respective Motor Loading Chowky Driver / Cleaner on the vehicle will flash the RFID Card at the HF RFID Reader installed at the chowky. 	<ul style="list-style-type: none"> All the Motor Loading Chowkys have been provided with HF RFID Reader. All the vehicles have their RFID Tag card 	<ul style="list-style-type: none"> There is a separate vendor who has installed HF RFID Readers at the ML Chowkys. It is the responsibility of the vehicle supplying contractor to give RFID Card to every vehicle. Integration of HF RFID

				Readers need to be done with the proposed solution software to fetch the data.
3	Assigning route to the vehicle (Municipal Vehicles)	<ul style="list-style-type: none"> • Vehicle crosses geo fence of the Motor Loading Chowky • The Junior Overseer at the Ward Motor Loading Chowky will get a notification in the system about the vehicle. He will further assign the route to the vehicle in the system only. 	Geo Fencing of all the Motor Loading Chowky is already done. The data is readily available.	Necessary software solution to be developed.
	Assigning route to the vehicle (Contractual Vehicles)	<ul style="list-style-type: none"> • Once the vehicle crosses geo fences of 30 to 40% collection points of a specific route, the system will automatically assign that route to the vehicle. 	Though the geo survey of collection point is done, geo mapping of all the routes is not carried out.	Geo Mapping of Collection Routes to be carried out from the available data of geo survey of collection points.
4	Collection of Waste (Municipal & Contractual Vehicles both)	<ul style="list-style-type: none"> • The vehicle will cross the geo fence of the collection point and will remain there for specific amount of time. 	Geo Fencing of most of the collection points is already done. However due to dynamicity of the attributes geo survey of some points need to be carried out.	Geo survey of 11000 points need to be carried out. Which will include community as well as doorstep collection points.
5	Identification of Bins (Municipal & Contractual Vehicles both)	<ul style="list-style-type: none"> • RFID Reader installed on the vehicle will identify the RFID Bin Tag 	<ul style="list-style-type: none"> • 4000 Nos. of RFID Tags were installed earlier on the community collection bins. However they might have become inoperative over the period & hence need to be replaced. • All the Municipal Compactors carry RFID Reader. However they have 	<ul style="list-style-type: none"> • Installation of 6000 Nos. of RFID Tags on the bins. Each community collection bin will carry two nos. of RFID Tags. • Around 250 Nos. of RFID Readers need to be replaced on Municipal Vehicles.

			<p>installed 05 years back & may need a replacement. There are 212 compactor vehicles of BMC which have RFID Readers mounted on them.</p> <ul style="list-style-type: none"> All the contractual Compactors have been provided with RFID Readers. 	<ul style="list-style-type: none"> It is the responsibility of the contractor supplying vehicles to provide RFID Readers on their vehicles. However RFID Readers on the contractual vehicles need to be integrated with proposed software solution.
6	Verification & Checking (Municipal & Contractual Vehicles both)	<ul style="list-style-type: none"> Vehicle crosses the geo fence of the Check Post 	Geo Fencing of all the check post in the wards is done. The data is readily available.	Necessary software solution need to be developed.
7	Weighing of vehicle & unloading of waste. (Municipal & Contractual Vehicles both)	<ul style="list-style-type: none"> Vehicle crosses the geo fence of the D/Ground or Transfer Station. RFID Reader installed at the weighbridge identifies the vehicle by means of RFID Windscreen Tag on the vehicle. Weight Management System records the weight on real time basis. Camera System at the weighbridge takes still image of the vehicle featuring registration number. 	<ul style="list-style-type: none"> Geo fencing of all the D/Grounds & Transfer Stations is done. The data is readily available. RFID Readers are already provided at all the D/Grounds & T/ stations. WMS is live & working at all the weighbridges. Camera System is live & working at all the weighbridges. Windscreen RFID Tags for BMC vehicles have been installed 5 yrs. Back hence may need a replacement. 	<ul style="list-style-type: none"> Necessary software solution needs to be developed. Integration of WMS with the proposed software solution. Integration of Camera System with the proposed software solution. Around 250 Nos. of Windscreen tags to be replaced.
8	End of the shift. (For Municipal	<ul style="list-style-type: none"> Vehicle crosses the geo fence of the garage. 	Geo Fencing of all the check post in the wards is done. The	Necessary software solution need to be developed.

	Vehicles)		data is readily available.	
	End of the shift. (For Contractors' Vehicles)	<ul style="list-style-type: none"> • Vehicle gets weighed at the Weighbridge of D/Ground & T/station 	<ul style="list-style-type: none"> • WMS is live & working at all the weighbridges. 	Necessary software solution needs to be developed.
9	VTMS Application & MIS	<ul style="list-style-type: none"> • The software application will provide real time tracking of vehicles on map view. • The application will give MIS with dashboard as mentioned in the specifications. 	<ul style="list-style-type: none"> • At present there is no software application running to monitor the vehicles. 	Necessary software solution with own map of the IA needs to be developed.
10	Hosting of VTMS Application	<ul style="list-style-type: none"> • The software application will be hosted on cloud server. 	<ul style="list-style-type: none"> • At present there is no software application running to monitor the vehicles 	Hosting of VTMS application shall be carried out by the IA on cloud server provided by IA.
11	Command & Control Room	<ul style="list-style-type: none"> • The command & control room will be established in the office of Ch.Eng. (SWM). • The required hardware & software as per specifications will give the desired results. 	<ul style="list-style-type: none"> • There is no command & control room for SWM. 	Command & Control Room to be provided with required hardware & software by the IA as per specifications.
12	Integration with external system like SAP.	<ul style="list-style-type: none"> • The software application so developed will be integrated with SAP to give desired MIS reports 	<ul style="list-style-type: none"> • At present there is no software application running to monitor the vehicles 	Integration with SAP needed to be done for getting the desired MIS Reports.

The scope of work envisaged for the Implementation Agency is categorized as Implementation and Post-Implementation as under:

5.3.1 Components of Proposed Architecture

Details and role of the components of the expected solution architecture will be as follows:

Tracking Device

The GPS based tracking device has a powerful microprocessor based mechanism and a GPS receiver and a GSM/GPRS (SIM card) or higher module which obtains location information and relays it back to a central internet web server over mobile phone network. This keeps a track of the entire route of the vehicle. This information will include the location, the speed, the trip start and finish time, direction etc of the vehicle. The vehicle will be tracked using GPS (Global Positioning System) to find the location and time information at any instance of time. So reports will be generated about the time of collection of garbage, the route followed for the collection, the speed of the trucks. Also the information from the RFID reader will be fed to the tracking device.

RFID Tags

3000 (Only community collection) bins of BMC will have to be installed with an RFID tag to identify each object associated with the tag. Each tag will contain a unique identification code. This will help in the tracking of the bins individually. The RFID readers will be installed in each vehicle which will read the radio frequency signals of the tags installed on the bins from which the garbage is collected. The information pertaining to the collection of the garbage and the garbage bins being covered will be sent to the tracking device for creating the reports about the bins covered by the garbage collection vehicles giving the identification code of each bin being covered.

Information transmission

The information will be collected by the tracking device and this information will be sent to the tower using the GPRS 1 for the transmission of the information. The GPRS or higher module signal tower will communicate with the cloud server using the transfer protocol to transfer the information collected from the various vehicles. The cloud server will be equipped with the database server and the application server to collect the data and to produce the reports. The central server will also have digital maps which will allow seeing BMC user about the location of the vehicles on that map. The cloud server will post the information over the internet which will then be visible to the BMC users through mobiles or computers.

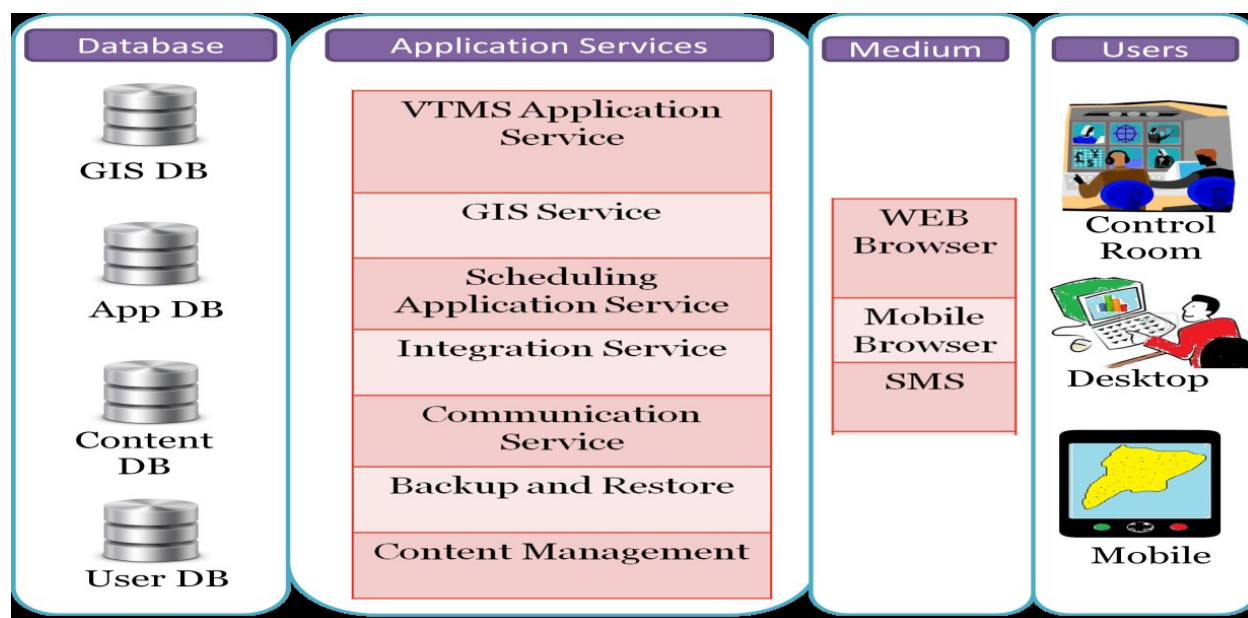
Control / Command Centre

The Implementing agency will have to setup a control room for the SWM department. Initially the command and control centre will be taken care of by the IA along with the BMC users and simultaneous training will be given to the BMC users for using the same. The command/control centre will be given 24x7 accesses to the VTMS solution where all the BMC officers will be able to track, monitor and manage the vehicles as well the jobs to be carried out. Allocation of jobs, reporting emergencies, real time and dynamic work allocation etc. will be done from the control room. The entire reporting, printing and publishing task related to VTMS can be carried out here. The control room will also have authorities to give access of VTMS to other users based on role and tasks to be carried out.

Cloud Server

The VTMS solution has to be hosted on cloud server. This will act as a hub for storing, managing, maintaining and backing up all the data that is received from the vehicles, RFID readers, BMC offices, control rooms and devices using VTMS. All the databases and services will be hosted on the cloud server and hence it is an integral part of the entire solution. The Implementing agency shall carry out a detailed sizing of the cloud server for hosting the VTMS solution. The implementing agency shall provide cloud server of required capacity for the hosting of VTMS solution. The agency shall carry out task related to operation & maintenance of the cloud server over the entire contract period.

Conceptualized below will be the expected logical components of VTMS.



Geo-coding / surveying of all of the Ward Offices, Garages, Motor Loading Chowkys, Check Posts, and Dumping Ground & Transfer Stations has been already carried out. The data is available with BMC. Further the survey of some of the collection point is also done. However in order to complete the task fully, a provision of geo survey of around 11000 nos. of POI is made in this project.

Geo-coding / surveying of the following components shall be done by the implementing agency:

- a. Garbage Collection points
- b. Bin locations
- c. Others (as per BMC request)

The accuracy of these locations should be 3 to 5 meters. The implementing agency shall use these locations along with already surveyed locations over the maps and shall deliver the same on their own GIS Base Map.

Hardware Installation & Hosting

The solution developed for vehicle tracking system will have to be hosted on cloud server provided by the IA. **The selected bidder will provide the cloud server required for the hosting of the solution and will maintain the same during the post implementation period. A detailed sizing of cloud servers is to be done by the selected bidder. However, Bidder should consider application servers and Database servers separately to be installed for the solution which should meet the mentioned SLAs in the bid document.**

Also apart software solution, there will be set of hardware devices that will be supplied and installed by the selected bidder in the vehicles as well as at department locations. The list of the same is as below. The list below is indicative and will have to be confirmed by the bidder with the department at the time of actual supply and installations.

Considerations for devices installation:

- a. The GPS device inside vehicle should be **tamper proof**. Also it shall be installed in the dashboard of the vehicle. The GPS device shall also **generate notifications** in case of any tampering activity.
- b. The GPS device should not use the **inside vehicle battery** to an extent that it drains out the vehicle battery. It should have a facility to go in a standby mode. The bidder should arrange **added battery** in case of the GPS device and sensors are using more battery from the vehicle. The bidder should also arrange for charging and maintenance of the added battery.
- c. The RFID readers should be tamper proof. The reader should also generate notifications in case of any tampering activity. The readers should be installed in the vehicle such that the garbage bins are at the minimum distance at the time of garbage lifting. The **location of the fitting of RFID readers** should be finalised only after consultation and proper approval of the BMC – SWM officials.
- d. The implementing agency will responsible for installing and maintaining & operating all the required in vehicle units for execution of VTMS which includes GPS device, Data connection card (GSM,CDMA,3G,2G,4G, 5G Card), RFID readers, and RFID tags. The payments and responsibility of smooth operations of the above mentioned in vehicle units will of the implementing agency.
- e. The RFID tags will be installed in both **metal bins as well as other non metal bins**. It is suggested that the RFID tags should be installed on the bins **with screw rivets or any other equivalent strong method** without damaging the garbage bin. However other suggestions from the selected bidder can be considered for installation method if the suggested method / approach help in creating no damage of the bin and avoids tampering / stealing of RFID tags from the bins.
- f. RFID tags should be fixed on the garbage bins in such a way that the RFID reader in the garbage vehicle reads the RFID tag with a minimum distance at the time of lifting the garbage.
- g. RFID Windscreen Tags should be fitted on the windscreen glass of the vehicles such that it shall be easily readable by the RFID Reader installed at the weighbridge of Dumping Ground & Transfer Station.

The apprx. count of devices to be mounted on the vehicles & bins

Sr.No.	Component	Qty.
1	GPS Tracking Devices	1700
2	RFID Readers	250
3	RFID Tags for Bins	6000
4	RFID Windscreen Tags	250

5.4 Implementation Scope till Go-Live

- a) Submission of Inception report
- b) It will be the responsibility of the successful bidder to prepare and submit the FRS document after incorporating all the desired functionality received, after the consultation with the SWM department
- c) Supply Out-of-box and Implement Web Based Vehicle Tracking Application software & hardware and further integrate with existing GPS, RFID tag/readers, Weighbridge application, Existing HF RFID Readers at Chowky and SAP based Fleet management and complaint management modules with below mentioned minimum software functionalities:

Enterprise VTMS software functionalities	Integration required with
User Management: The proposed system software should manage users for SWM Department as per roles	Integration with BMC's Active Directory , E-mail & live video stream from CCTV.
Executive Dashboard with below mentioned minimum real-time information in different charts, graphs, pie-charts etc.: i) Total vehicles BMC/Contractor with different status of vehicles i.e. Running, Idle or Standby etc. ii) Vehicle type wise status e.g. Garbage, water tanker, debris etc. iii) Scheduled routes of the vehicles iv) Adherence to the routes v) Total and individual vehicles routes violations vi) GPS Devices, RFID status vii) Vehicle incidents / messages viii) Separate authentication based vehicle tracking module. ix) There shall be an aggregated view of all the vehicles, its location, movement and other real time details shall be available. x) There should be a facility to club the area specific and category specific vehicles in groups. xi) Zone name, Ward Name, Vehicle No,	<ul style="list-style-type: none"> ➤ Integration with newly provided & existing VTMS Hardware, RFID Readers and Tags ➤ View of this application dashboard on video wall

<p>Vehicle Type, Current Location & Last Updated Date & Time of each vehicle.</p> <p>xii) It should give alert message if GPS device gets disconnected from a vehicle.</p> <p>xiii) Dashboard should have search parameter where different searches i.e. Vehicle Number wise, Zone & Ward wise, running / idle / standby, vehicle wise and “No communication” wise searches can be done.</p> <p>xiv) It should also give an indication regarding the running speed of the vehicle i.e. Normal speed, Alarming speed and above Alarming speed.</p> <p>xv) There should be provision to see a particular vehicle on map.</p> <p>xvi) Facility for MIS report about Weight Transported to Dumping ground (DG)/Transfer Station (TS) and ward wise backlog</p>	
<p>Map Based Analysis</p> <p>i) Comprehensive view of the vehicles with status on map</p> <p>ii) Creating buffers along the emergency site, working site.</p> <p>iii) Creating Geo-fence and sending alerts in case of vehicle moves out of the geo-fence.</p> <p>iv) Halt time within the geo-fences.</p> <p>v) Geo-fences creation at every collection bin and station / dumping locations, mark the presence of the vehicle and generating alerts.</p> <p>vi) Geo-routing the assigned routes and sending alerts in case of route deviation.</p> <p>vii) Dynamic route creation and assignment to vehicles</p> <p>viii) The Map should have facility to flash or show messages sent by the vehicle communication unit.</p> <p>ix) Bin collection / Missing / Deviations.</p> <p>x) Vehicle entering Geo Fence and the operator / driver of the vehicle flashing the HF RFID Card to the HF RFID Reader installed at ML Chowky - combination of these two (smart logic)</p>	<p>SMS gateway provided by BMC</p>

<p>will signify start of the SHIFT</p> <p>xi) UHF RFID reader on the vehicle will mark the unloading of the bins in to the vehicle.</p> <p>xii) Bins affixed with RFID tag should be marked as attended when the vehicle lifts the bin along with crossing of Geo-Fence of the collection point. In case of Small Closed Vehicles, the RFID Reader on the compactor will identify each unloading trip of the Small Closed Vehicle.</p> <p>xiii) After collection of waste as per the route assigned to it, the vehicle will then go to check post. The presence of the vehicle will be marked by the geofence thereat.</p> <p>xiv)</p>	
<p>Vehicle Maintenance</p> <p>i) Maintenance of vehicle data regarding the end of life, maintenance schedule.</p> <p>ii) History data for vehicle maintenance schedule.</p> <p>iii) Details of vehicle purchase and other registrations.</p>	<p>Integration with SAP or other BMC software -Fleet Management for BMC vehicles.</p>
<p>Area based details for Solid Waste Management Dept.</p> <p>i) Area information (Zone / ward / Colony / Society)</p> <p>ii) Population details – based on availability</p> <p>iii) Volume of the Solid waste which includes Wet & Dry waste (Recycled & Non Recycled)</p> <p>iv) Resources required</p> <p>v) Collection procedure (i.e. Primary : House to House & Secondary : Community Bin to Garbage transport center or mix)</p>	
<p>Garbage Collection Scheduling</p> <p>i) Assign SWM Vehicles to pick-up the Garbage. Category wise assignment like A: Highly in demand, B: Medium, C: Low Demand.</p> <p>ii) Assignment of dynamic routes using the vehicle’s initial route and bins attended or fresh.</p>	

<ul style="list-style-type: none"> iii) Location-wise assignment of Sanitation Staff. iv) Scheduling of garbage collection and cleaning activities with the objective of maximizing citizen friendliness on the one hand and optimum use of resources on the other. 	
<p>Primary Garbage Collection & Disposal</p> <ul style="list-style-type: none"> i) Record the volume of garbage collected and disposed on a daily basis. ii) Linkage with Garbage Bins / Land Fill Sites, in case of Citizen Grievance iii) Keeping certain Checks as per environmental regulations, like minimum frequency of lifting garbage etc. iv) At Dumping Ground / Transfer Station when the vehicle will cross the geo fence, the reader there will identify the vehicle having windshield RFID tag. v) The UHF RFID reader at Dumping Ground/Transfer Station will mark the presence of the vehicle by reading Vehicle Windshield Tag as well as by geofence. vi) Integration with WMS software that will generate the weigh slip with photo. The RFID Windshield Tag will trigger weighbridge Management System. vii) After weighing, VTMS will mark the end of the shift & generate the Payment Certificate with Photo, Weight slip & time stamps at various places 	<ul style="list-style-type: none"> i) Weighbridge Management System (WMS) ii) VTMS of contractual vehicles
<p>Reports (MIS & GIS Based)</p> <ul style="list-style-type: none"> i) Monitor the deployment of pickup trucks and personnel based on the schedule originally drawn. ii) Location information of Land Fill Sites – based on available information iii) Land fill site: How much garbage received? – Based on available information iv) Generation of registers like: Site Register (landfills), vehicle register etc. v) SWM Contract Wise Status Reports, Site Wise Progress Summary, Contractor wise Performance Analysis, 	

etc. Comparison of expenditure on SWM activities over different geographical areas, years, agencies, etc.

- vi) Show all Point of Interests e.g. bin locations, ML Chowky etc.
- vii) Stoppage Report (Halt Start Time, End Time, Halt Location, and total Halt time for any selected vehicle for specific date)
- viii) Vehicle Tracking History (Total distance covered, alerts, violations, average speed, high speed between start and end date (on weekly and monthly basis) for Vehicle) and replay on map
- ix) Ward Wise Weight Reports.
- x) Refuse Transfer Station (RTS) wise Weight Reports.
- xi) Bin report (Attended and missed)
- xii) Garage log sheet report
- xiii) Garage report
- xiv) POI report
- xv) Garage traction report
- xvi) Stoppage report
- xvii) Vehicle history report
- xviii) Vehicle status report
- xix) Weight report transported by vehicle
- xx) Shift Wise Route Summary Report
- xxi) Individual Route Report
- xxii) Weight Transported Summary Report (Summary Payment, Weight Transported & Penalty Report. (Penalty calculation logic will be shared with successful IA)
- xxiii) Payment Certificate Vehicle Report (Payment Certificate)
- xxiv) Summary Reports to be generated based on Ward / Zone / Division / City / Contractor Level.
- xxv) All the MIS reports should be developed using Business Intelligence Analytics (BI) tool.

- d) Sizing & providing cloud server for supporting Vehicle Tracking & Monitoring System in production.

- e) Supply, installation, integration, testing, and commissioning of LED technology based 10x 6 feet video wall with supporting infrastructure including controller, Desktop computers and Printers at the designated locations by BMC.
- f) All the components of video wall of 10 feet x 6 feet size should be tested for its operability with enterprise VTMS software and compliance with the specifications.
- g) All-in-One desktop machines – 04 nos. should be tested for compliance to specification, OS compatibility, software and drivers etc.
- h) All-in-One Printer (print, scan and photocopy) – 02 nos. should be tested for compliance to specifications, compatibility, software and drivers etc.
- i) Supplier should take care of all installation and support issues that are faced by the end user, for all hardware and software supplied as part of the Purchase Order. This would include installation and support for Operating System, Security Functions, Anti-Virus Configuration, Printer /Scanner driver installations etc.

Note: All activities related to video wall Implementation and commissioning need to be completed in control room of Office of Chief Engineer, Solid Waste Management department, Sleater Road, Grant Road (W), Khatavwadi Mumbai and enterprise VTMS software to be deployed in BMC suggested locations.

5.5 Post Implementation Scope for the Operation and Maintenance Period

During Warranty and Annual Technical Support for enterprise VTMS software, video wall and supporting infrastructure including controller, desktop computers, printers for a period of 5 years, following minimum activities will be performed by the Implementation Agency:

- Maintenance of GPS Equipment, RFID Reader, RFID Tags
 - ✓ Maintenance of the GPS Equipment supplied by IA in the warranty & post implementation period of the project such that the vehicles shall be tracked all the time on real time basis.
 - ✓ Maintenance of the RFID Readers supplied by IA in the warranty & post implementation period.
 - ✓ Replacement of RFID Bin & RFID Windshield tags if damaged.
- Maintenance of enterprise VTMS software will include:
 - ✓ Maintenance of system software for optimum performance and carryout regular health checks of the system including software, hardware, open source database, network etc. and provide regular health check status reports to BMC
 - ✓ Monitoring system performance and optimization and fine tuning
 - ✓ Minor (less than 5 days efforts approved by both parties) modifications in software suggested by users without any cost. Any additional requirement that requires more than 5 days of development efforts will be treated as Change Request for which Implementing Agency will submit commercials for completion. Maintenance to all functionalities under Change Request will be considered under maintenance of main application and No additional cost will be paid for this
 - ✓ Periodic Backup of VTMS database and restoration
 - ✓ Design and Maintenance of the system database using industry standard encryption algorithms

- ✓ Support BMC for necessary compliance mainly audit, backup drills, restoration drills, documentation, presentations and meetings etc. to adhere to the IT policies
 - ✓ Bug / defects fixing
 - ✓ Root cause analysis and documentation
 - ✓ Reinstallation of software/application/database whenever required
 - ✓ Disaster Recovery: The Implementation Agency shall arrange for Disaster Recovery (DR) for creating Business Continuity plan for enterprise VTMS solution for BMC
- Maintenance of the video wall and all its integrated accessories throughout its life of 5 years and keep it running for at optimal efficiency including but not limited to:
 - ✓ Maintain the brightness of entire video wall cabinet without any visible difference
 - ✓ Maintain display content in right position
 - ✓ NO double showing the proportion of the cabinet
 - ✓ NO chaotic display of the objects
 - ✓ Maintaining colour depth throughout the screen
 - ✓ Maintain the object display throughout screen
 - Installation, configuration, testing, operationalization and carry out maintenance.
 - Desktop computers and Printers should be connected to Local Area Network, configured and carry out operation and maintenance.
 - Desktop computers firewall (inbuilt feature of OS etc.) should be made active along with client antivirus software that denies all unnecessary incoming network connection attempts
 - The supplier shall disable unnecessary services, protocols, and ports.
 - When installing software, ensure that only required software is installed and the latest versions of all software including all recommended security patches are updated as per SLA given in the document.
 - Unnecessary software (including application, system utilities and network services) should be removed or disabled.
 - The selected bidder shall provide a centralized helpdesk/ customer care center telephone number/ E-mail/ fax number for attending user requests / complaints. The helpdesk/customer care center shall operate complying with BMC's office hours and as per exigency for the support period. A detailed escalation plan shall have to be submitted before the commissioning of the services, consisting of not more than 4 tiers from helpdesk to Global/Country Service Manager. BMC will only provide space with furniture and power supply facilities to the selected bidder for setting up the dedicated helpdesk. The selected bidder shall arrange the other infrastructures to setup the helpdesk. Also the proposed team should serve the purpose of supporting the solution without any non-compliance of Service Level Agreements mentioned in SLA section.
 - Incident Management: The selected bidder shall provide an incident tracking system via a web interface / mail / IVR; available in real-time which will issue a trouble ticket once a complaint is booked successfully. The Implementation Agency shall ensure that if any tickets pertain to action from their end, these calls are fully responded by the professional team. The Implementation Agency needs to maintain a separate log book for the issues reported by BMC for the contract period. The

updated status of each ticket should be made available on a web based/incident management system for tracking. This trouble ticket system shall generate monthly/quarterly/half yearly/yearly reports.

- These incident reports should be submitted to SWM department for approval. Based on the approval payment during maintenance will be processed.

5.6 Project Implementation Phases:

Project within the scope of this tender document should be implemented in below mentioned phases:

5.7 Project Kick – Off

During Project Initiation and Setup stage, Implementing Agency will designate a project manager/SPOC (single point of contact) to serve as the principal point-of-contact for the Project. The project manager will:

- i) Conduct a Project Kick-Off meeting to introduce all stakeholders
- ii) Deliver Kick-off Presentation including risks with mitigation plan
- iii) Develop a Project Schedule in consultation with SWM department
- iv) Conduct risk assessment
- v) Documentation and obtain sign-off on Project Management Plan from SWM department

Deliverables:

- I. Project Inception Report
- II. Project Management Plan mutually agreed by Implementation Agency and SWM department
Implementation Agency should get the above listed deliverables approved from SWM department before initiating the project execution.

5.8 IT Infrastructure Requirements Definition

During this stage, Implementing Agency will conduct various workshops with BMC & other stakeholders to gather the requirements mainly:

- I. Sizing of Cloud Server to support enterprise VTMS software for 3000 plus vehicles
- II. Identify and define installation requirements
- III. Identify and define inter-connection/integration requirements of existing VTMS software with Video wall system
- IV. Implementation of fingerprint based biometric access control in control room to authorized users so as to protect it from unauthorized access
- V. Any other requirement to complete the scope of work

5.9 Implementation Schedule Table

The project within the scope of this tender should be completed within five (5) calendar months for COTS as per the details mentioned in the table below:

No.	System / Items	Site / Location	Time Required in days
1	Supply, installation, testing and	Cloud based Server	Within 120 days of

	UAT of enterprise VTMS software supporting 3000 plus vehicles		the issue of the Purchase Order.
2	Supply, installation, testing & commissioning of VTMS Hardware (GPS, RFID Reader etc.)	Various Transport Garages under establishment of Ch.Eng. (SWM)	Within 150 days of the issue of the Purchase Order
3	Supply & Delivery of Hardware of Command & Control Room with Video wall.	Office of Ch.Eng. (SWM)	Within 120 days of the issue of the Purchase Order
4	Installation / testing of Hardware	Transport Garages & Office of Ch.Eng. (SWM)	Within 150 days of the issue of the Purchase Order
5	Operational Acceptance of the Hardware	Transport Garages & Office of Ch.Eng. (SWM)	Within 02 days of installation
6	Documentation and manuals	Transport Garages & Office of Ch.Eng. (SWM)	Within 7 days of installation

5.10 Site locations

The enterprise VTMS software is to be installed on cloud server of IA and Video wall is to be installed at 4th floor, Office of Chief Engineer (Solid Waste Management department), Brihanmumbai Municipal Corporation), Slater Road, Grant Road (W), Khatawadi, Mumbai.

5.11 Hardware Installation

It will be bidder's responsibility to supply, configure, install commission, integrate and test enterprise VTMS software and IT & VTMS Infrastructure at the site locations mentioned in section 5.9.

Enterprise VTMS software supporting cloud server with specific sizing will have to be provided by the IA for implementation of solution.

Delivery acceptance and signing off of installation will be provided by SWM department of BMC

5.12 Installation, Integration & Configuration

After making the necessary installation of enterprise VTMS software, VTMS Hardware, video wall with controller, desktop computers, printers and UPS individually and in integrated mode, individual components are to be configured and tested in integrated environment as a complete solution.

Deliverables:

- I. VTMS software with source code
- II. Testing report with supporting documents
- III. User Manual (from OEM)

- IV. Maintenance Manual (from OEM)
- V. CD/DVD of OS, Recovery Media for all installed hardware etc.

5.13 Testing & Quality Adherence

The Implementation Agency shall ensure that the enterprise VTMS Software and supplied hardware is thoroughly tested as per standard process defined here under or by BMC evolved over the contract period. BMC requires thorough and well-managed test methodology to be followed. The Implementation Agency must build up an overall plan for testing and acceptance of system, in which specific methods and steps should be clearly indicated and approved by BMC. The Implementation Agency is required to incorporate all suggestions / feedback provided after the elaborate testing of the enterprise VTMS Software and IT Infrastructure supplied, within a pre-defined, mutually agreed timeline.

The Implementation agency needs to keep track of the suggestions that deviate from the original requirements before classifying them as change request / enhancement. This classification shall be performed in separate meetings where all stakeholders will agree on the level of change and the revised timeline to implement it. All fixes should be done to comply with the specified requirements in defined timelines with no extra cost to BMC.

The Implementation Agency shall undertake following broad level activities:

1. Outline the methodology that will be used for testing and fine-tuning the system
2. Define various levels or types of testing that will be performed for system
3. Provide necessary checklist & documentation that will be required for testing the system
4. Describe any techniques, test cases/ scenarios / scripts that will be used for testing the system
5. Describe & submit the testing methodology that will conform the functionalities of each module
6. Indicate/demonstrate to BMC that all out-of-box, custom developed applications that are installed in the system have been tested
7. Testing of video wall with accessories and secured access control to control room
8. The Implementing Agency shall provide a workflow for sign-off on test deliverables that is mutually agreed by both the parties

Competent Authority from BMC shall issue appropriate acceptance certificate to the Implementation Agency for successful deployment of the system. The testing levels should include Unit Testing, Integration Testing, System Testing and Acceptance Testing (including performance testing and fine-tuning). These tests should also include security testing, performance testing, Usability testing, Concurrency testing, etc. The Implementation Agency must work closely with BMC and provide a detailed deployment, testing and acceptance plan, including but not limited to, application/system

Version control and load of all applications, assignment of user rights and security, and verification of correct functionality.

5.14 Preventive Maintenance & Monitoring (O & M)

The Implementation Agency will have to ensure operation and maintenance services of the Project software and infrastructure supplied within the scope of this tender and during the contract period. O & M of the project will include “The Project’s Operations and Maintenance includes but not limited to enterprise VTMS software with BI, Hardware, System Software and other supporting Infrastructure for a period of 5 years after acceptance of the items”.

5.15 Operational Acceptance Test

1. Operational Acceptance for GPS / RFID Readers & RFID Bin Tags shall be provided when
 - a. Verification of installation & commissioning of devices (GPS units, RFID Readers, RFID Tags, SIM cards)
 - b. Signoff from the Transport Section of SWM Dept. verifying all vehicles are located and being tracked on the VTMS solution running on production.
 - c. Verification of all the number of bins and its unique RFID tag been read by all the trucks having RFID readers.
 - d. Verification of all the trucks going on weigh bridge and been read by RFID readers on the weigh bridges with its weight information. The same should be true for all trucks having RFID tags and all the weighbridges having RFID readers.
2. The enterprise VTMS software with BI and infrastructure should be considered as commissioned after submission of Operational Acceptance test report which shall be conducted for 7 days on the installed infrastructure. Operational Acceptance test report will only be provided after UAT has been performed and signed-off by SWM department of BMC.
3. The implementation agency will have to facilitate the operational acceptance tests. Operational acceptance tests will be performed by BMC, however implementation agency will have to facilitate operation acceptance testing during commissioning of the system (or subsystem[s]), to ascertain whether the system (or major component or Subsystem[s]) conforms to the scope of work, including, but not restricted to, the functional requirements. The implementation agency will have to facilitate the testing of all applications from BMC’s SWM departmental users during the operational acceptance.
4. After completion of Operational Acceptance Test, SWM department, shall issue an Operational Acceptance Certificate OR Notify the Implementation agency in writing of any deficiencies or other reason for the failure of the Operational Acceptance Tests
5. Once deficiencies have been addressed, the implementation agency shall notify BMC with all supporting documents to carry out retesting of the System or Subsystem. After successful conclusion of the Operational Acceptance Test, the Implementation agency shall again request SWM Dept.
The procedure set out in this clause shall be repeated, as necessary, until an Operational Acceptance Certificate is issued.

6. If the Implementation agency fails to achieve Operational Acceptance within the specified time period, then BMC may impose penalty as per SLA clauses to the Implementation Agency.

5.16 Coordination and Cooperation with FMS Service provider of BMC

1. During project implementation and O & M, the Implementation Agency shall get full cooperation from the Facility Management Services (FMS) provider of BMC as and when required. Since the project infrastructure has to be fully integrated with the BMC's IT Environment, the Implementation agency will require support from FMS and vice versa.
2. BMC shall ensure that FMS & IT service provider shall cooperate with the implementation agency and provide all necessary support, configuration settings, and access to requisite and necessary IT assets.

5.17 Coordination and Cooperation with VTMS Service provider of Contractors' vehicles & External System Providers

1. During project implementation and O & M, the Implementation Agency shall coordinate with VTMS service provider of contractor's vehicles for integration of VTMS Equipments with the enterprise VTMS. Further the IA shall also coordinate with external system providers of Weight Management System & HF RFID Readers.
2. BMC shall ensure that the above mentioned agencies shall cooperate with the Implementation Agency and provide all necessary support, configuration settings, and access to requisite and necessary IT assets.

5.18 Project Planning & Management

The success of the project depends on the proper project planning and management, hence Implementation Agency shall plan the project implementation in detail and should provide a micro level view of the tasks and activities required to be undertaken in consultation with BMC. Initial list of planning related tasks and procedures (along with corresponding documentation) that Implementation Agency should submit include:

- Project Schedule: A detailed timeline indicating various activities to be performed along with completion dates and resources required for the same
- Progress Monitoring Plan: Detailed Daily, Weekly, Monthly Progress Report formats along with issue escalation format. The format shall be approved by BMC to the successful bidder before start of the project.
- Risk Mitigation Plan: List of all possible risks and steps to mitigate them.
- Escalation Matrix & Incident Management: A detailed list of key contact persons with contact details with escalation hierarchy for resolution of issues and problems. This has to be in an Incident Management system.

5.19 Physical Infrastructure Management

Given below is an initial list of tasks to be performed by the Implementing Agency for support services during the contract period of five (5) years:

- Operation & maintenance of VTMS Equipments supplied by IA and supporting infrastructure.
- Operation & maintenance of Cloud Server Infrastructure needed for Enterprise VTMS Software.
- Operation and maintenance of video wall and supporting infrastructure.
- Operation and maintenance of desktop computers
- Operation and maintenance of printers
- Operation and maintenance of secured (fingerprint based biometric) access control at control room.
- Operation and maintenance of the UPS and related equipment's check for UPS loading, neutral current and back up time and record them
- As & when required, visual inspection for batteries for any abnormalities to be intimated to company immediately
- Need to co-ordinate with vendors for carrying out maintenance of equipment under AMC or warranty with 3rd party
- Any breakdown/malfunctioning of the equipment shall be attended as per procedures of the original manufacturers and suppliers of UPS & associated equipment(s).
- Preparation of weekly reports on UPS loading and back up time with battery condition keep updated to BMC
- Ensure 100 % uptime for UPS. This shall be monitored on quarterly basis
- All the Monthly, Quarterly, Half Yearly and Annual Reports and Checklists to be adhered to 100 %
- The Implementing Agency needs to conduct quarterly systems & equipment health audits and submit a health status report to the BMC for all supplied items.

5.20 All in one Desktop Computers

Given below is an initial list of tasks to be performed by the Implementing Agency during support services. BMC may direct bidder to perform any additional/similar tasks, as per its requirement during the contract period:

- Installation, re-installation and un-installation of Operating System Software, Office automation. Installation / Up gradation of packages, patches of Operating System & any driver software for any peripherals like printers, scanners, photocopiers etc. attached to the Desktop Computer or any devices connected in the Local Area Network.
- Performing any install, move, add, delete or change of hardware/software at client site.
- Maintenance / troubleshooting shall include determining/ rectification of any fault whether due to hardware or software problem, identifying unserviceable parts, replacing parts, if required and resolving the issue.
- Coordinating with the Original Equipment Manufacturer (OEM) for repair / replacement of parts and retrieve the data and transfer to the new disk replaced by OEM, in case of hardware failure which is under warranty or AMC by 3rd party.

- Cleaning of registry from remnant of viruses/worms, incompletely un-installed programs etc. The Implementation Agency shall use registry maintenance tools of their own after obtaining necessary approvals from BMC.
- Providing proactive Disk Space Management.
- Re-organizing the disk space whenever required.
- Cleanup and maintenance of Disk and file system.
- Any other desktop / printing related services not listed above but required for smooth functioning of application as directed by BMC.
- Liaison with the concerned OEM in case of any issue for all those hardware which is within warranty / maintenance period.

5.21 Scalability

The proposed enterprise VTMS software with BI and video wall integrated system should be scalable up to 50% for additional no. of VTMS users, additional no. of vehicles, and increase in video wall matrix size to accommodate the future expansions and should support future image processing & live video camera feeds as per requirement.

5.22 GIS Map

The Implementing Agency shall use its own Base Map.

5.23 Mobile Application

The Implementing Agency shall make a mobile application and uploading the same on play store with SSL.

5.24 Bulk SMS

The Implementing Agency shall send bulk SMS (Min.100 SMS per day) to senior officials. All the data/information sent with the help of SMS.

5.25 Field survey and mapping point of interests

IA is expected to carry out field survey using good quality GPS instruments to capture latitude and longitude of Bin locations and point of interest required to support VTMS for solid waste management. The accuracy of these locations should be within 3 to 5 meters.

Using these locations, IA should generate geo-fence and routes as per requirement and implement it in VTMS for production.

5.26 RACI Matrix

Sr. No	Activity	Selected Vendor	BMC	FMS Vendor	Other Vendor
	GPS Equipment as per specifications	R & A	C & I		
	RFID Reader as per specifications	R & A	C & I		
	RFID Bin Tag as per specifications	R & A	C & I		
	RFID Windscreen Tag as per specifications	R & A	C & I		
1	Enterprise Vehicle Tracking and Monitoring System Software (VTMS) to support 3000	R & A	C & I	C & I	I

	Plus vehicles. The software license should be genuine, full use and perpetual in the name of BMC for unlimited users including Business Intelligent reports				
2	Supply of Desktop Computers – All-in-One	R & A	C & I	I	-
3	Video wall including controller for the wall size 10 feet wide x 6 feet height (LED technology with size 55 inches diagonal)	R & A	C & I	I	-
4	All in one Laser Printers	R & A	C & I	I	-
5	UPS supporting the video wall mentioned in point no.3	R & A	C & I	I	-
6	Fingerprint based Biometric access control at Control Room	R & A	C & I	I	-
7	Maintenance / Warranty services for all the hardware items supplied within the scope of this tender document (Per year for 5 years from the date of GO-Live)	R & A	C & I	I	-
8	Maintenance / Warranty services for VTMS software with BI tool supplied within the scope of this tender document (Per year for 5 years from the date of GO-Live)	R & A	C & I	I	-
9	Open Source RDBMS supply, installation and maintenance for 5 years	R & A	C & I	-	-
10	User level Training with documentation	R & A	C & I	-	I
11	Manpower support for 5 years	R & A	C & I	-	-
12	Field survey for Bins (House to House / Community), Offices, Chowky, dumping grounds, transfer stations etc. mapping and geofence creation and route mapping	R & A	C & I	-	-
13	Integration with different modules / systems and support	R & A	C & I	C	R & A
14	Vulnerability and penetration test (from a third party testing agency which may be CERT-IN empanelled) on the proposed enterprise VTMS solution in every 6 months and submit reports to BMC	R & A	C & I	-	-

For the above table, R= Responsible, A= Accountable, C= Consulted and I= Informed.

5.27 Backup

Business sustains on data.... if data, in any case is lost business suffers . data is subject to loss due to any technical or non- technical accidents and human errors. Hence even if organization’s day to day activities are running smoothly, it cannot risk of not being prepared for undesirable situations which incurs data loss and eventually

affect business. Backing up all your mission critical data is one of the most important things you can remember to do. Without a good backup option, if the worst happens, chances are you may lose out on all your important data.

1. Backup Policies:-

In backup, recovery a set of controls that are used to track information about the items that are being backed up, when they are being backed up, and where they are being backed up. Backup policy is a combination of the concepts of control group and media policy. Backup policy takes into consideration various factors like maximum permissible data loss, maximum recovery time, data availability, action to be taken in the event of backup failures and backup strategy that makes sure zero impact i.e. backup do not harm the performance of the database servers. With proper understanding of the business process and requirement, residence engineer team will take care of the backup policies and backup strategies. As there are no such standards for backup strategy it solely depends upon the business data importance and availability.

2. Backup Strategy: The sample backup strategy can be seas show below:

- a) Local backup copy
- b) Backup method (Incremental, Full)
- c) Backup Frequency (Daily & weekly)
- d) Retention policy (week & month)
- e) Backup monitoring and reporting

Sr.No.	Description	Backup Type	Retention period
1	Daily	Incremental backup	1 week
2	Weekly	Full backup	1 Month
3	Monthly	Full backup	2 Months

*Depending upon the BMC needs IA needs to modify the strategy as and when required.

3. Typical methodology for backup:

As per requirement, the backup needs to be carry out in two stages:

1. Backup of data at data centre- Local copy
2. Reporting of daily, weekly & monthly backup logs

1. Backup of data at data centre- Local copy
 - Installation & configuration of backup software
 - Installation & configuration of backup software's
 - Scheduling of backup
 - Backup schedule will be as per the discussion after finalization of contract.
2. Reporting of daily, weekly & monthly backup logs
 - Restoration and testing of backup periodically.
 - Backup activities will be monitored on daily basis

Monitoring and status report will be maintained and submitted on monthly basis/ as & when required.

Enterprise VTMS solution Hosting

The implementation agency shall host the enterprise VTMS solution at a third party private location as mutually agreed for which the necessary agreement entered with the hosting service provider shall be shared with BMC. The data centre (DC) for enterprise VTMS shall be within Metropolitan Region (MMR) (Mumbai/Navi Mumbai/Thane). The disaster recovery (DR) site shall be in a different seismic zone. The minimum distance between DC and the DR shall be 100 KMs and the DR shall be within India. Apart from the production environments as well in the same third party location. The software application shall be developed / customized in a suitable environmental. The application shall be developed /customized and hosted utilising industry standard with commercially available tools. The IA shall list all tools to be used to develop, customize and maintain the application, as well as the hosting platform, hardware and software, and seek prior approval of BMC. The implementation agency shall be responsible for providing the business continuity plan, Disaster recovery for the Enterprise VTMS and disaster recovery operational plan. The details of the requirement are provided under section 2& 3.

1. Data Centre requirement

The implementation agency shall host the enterprise VTMS application centrally at a third party location. However, the rights of the data will lie with BMC. The IA shall ensure that data centre should have TIER III or above data centre certification or compliant and comply with TIA 942 norms. The entire capacity of data centre may not be required on day one but IA shall have a plan to augment the capacity required at the data centre as per the implementation plan. The specifications must be futuristic with at least a three year horizon to start with. The core infrastructure shall provide:

Performance:- The system shall provide fast and steady response times (Quality of service). The speed and efficiency of the system shall not be affected with growing volumes, especially during search operations, reporting, MIS online processes and batch processes.

High Availability:- All the components of enterprise VTMS shall provide adequate redundancy with no single point of failure to ensure high availability. The systems shall be designed for 24 x 7 operations and meet all SLA requirement. Designing for availability assumes that the systems will fail, and therefore the systems must be configured to recover from component or server failures with minimum application outage. All the components of enterprise VTMS shall support single network management protocol (SNMP) for the effective monitoring and management.

Security:- The implementation of enterprise VTMS components shall comply with the standard guidelines of information security management (ISMS). The data centre where the application will be hosted shall be ISO 27001 and TIER-III or above data centre certification or compliant certified. The implementation shall ensure the end to end security for application, services, data and the infrastructure from malicious attacks and theft from internet or intranet hackers. The communication between application and the end users shall be through secured channel. The implementation shall have well defined antivirus mechanism at the application level and at the client level which shall be centrally monitored by the IA. While providing the specification of end point

client infrastructure in the site survey report, IA shall ensure that the expected anti-virus mechanism required for the client infrastructure are also specified.

Manageability (version Control and management):- The system shall have versioning features to track, document and process revisions made in the system.

Scalability:- All components of the Enterprise VTMS shall support to provide continuous growth to meet the requirement of demands of BMC. A scalable system is one that can handle increasing number of requests without adversely affecting the response time and throughput of the system. Enterprise VTMS solution shall support vertical scalability (the growth within one operating environment) and horizontal scalability (leveraging multiple systems to work together in parallel) by the use of load balancers and high available servers. A scalable enterprise VTMS solution shall easily be expanded or upgraded on-demand. Scalability is important because new proposed components users, the implementation agency will be asked to scale the hardware infrastructure as per requirement.

Inter- operability and integration- The entire system shall be interoperable and must seamlessly integrate with other applications such as the applications already operational or being developed in BMC/ already developed by Government of India as well as Government of Maharashtra for similar purposes. Operating systems and storage technologies from several suppliers must interact well with each other.

Server Based Computing – The computing architecture shall be server based. The applications will reside in the servers and will be accessed to the users through other accessed to the users through other browser based computing facility/ technology.

All the applications shall be enabled in virtualization mode making planning in such a way that peak resource requirements of different applications fall at different times so that resources of applications with lean requirements can be diverted elastically to applications whose peak time has occurred. The implementation agency shall consider using technologies like virtualization for optimum utilization. The IA shall submit the BOQ of the centralized infrastructure required for hosting the Enterprise VTMS solution.

The cloud hosting shall include the following:

- a. All the compute infrastructure like web servers, application servers, database servers, etc.
- b. Software licenses (Database, Application, etc.)
- c. SAN storage/ software with SAN switch.
- d. Backup Solution (including servers and software)
- e. Networking components like high availability switches, routers, firewall, etc.
- f. Load Balancing components

System Administration shall be allowed only through remote access in both DC and DR site. The ownership of the Enterprise VTMS data remains fully with BMC. The DB Management shall be the responsibility of IA.

2. Acceptance Criteria for Data Centre

Once the centralized third party location is ready for hosting the application, the service level parameters related to the Data Centre shall be tested for at least 7 days. After successful testing, the Enterprise VTMS application will be hosted for live usage. After successful commissioning all the concerned service level parameters shall be tested for at least 7 days. The implementation Agency shall also provide documentation related to the support required at the hosting environment, which shall follow the ITIL (Information Technology Infrastructure Library) standards.

Minimum list of documents include:

- a. Computing infrastructure bill of material
- b. Details of the Manpower Support
- c. Process documentation: The IA shall be responsible for preparing process documentation related to the operation and maintenance of the Enterprise VTMS application at primary site. The prepared process document shall be approved by BMC before completion of Operational Acceptance. The initial list of the Process Documentation are:
 - i. Data Backup policy and the Security
 - ii. Security Policy
 - iii. Configuration details of Routers, Switches, Firewall IPS, etc.

BMC may modify the list time to time based on the policies. The Implementation Agency shall adhere to the polices drafted and enforced by BMC, like security policy, etc. Tests such as infrastructure testing, data integrity testing, etc. as explained under section 6.6.5 shall be conducted on the Data Centre during its acceptance. Proper documented evidences shall be submitted by the Implementation Agency on the above test results for the acceptance of DC.

3. Business Continuity Plan (BCP)

Disaster recovery will be a subset of business continuity. While business continuity will involve planning for keeping all aspects of a business functioning in the midst of disruptive events, disaster recovery will focus on the IT or technology systems that will support business functions. In case of disaster, the prioritization of services that shall be available and accessible to the Enterprise VTMS users shall include web services, patient administration modules, clinical modules, supporting modules and reporting/basic MIS only. The decision to change the prioritization of services will solely lie with BMC. The Implementation agency shall design the Business Continuity solution in a manner that the Recovery Time Objective (RTO) and Recovery Point Objective (RPO) defined in the next section are achieved. System shall be designed to remove all single point failures. Appropriate redundancy shall be built to all critical components to provide the ability to recover from failures. The Bill of Quantity (BOQ) of DR shall also be provided along with the DC BOQ.

The implementation Agency shall detail out in its technical proposal and provide a comprehensive BCP solution for all the entities. The implementation Agency in its technical proposal shall bring out clearly the following:

- i. Scenarios (instance/trigger points) and level at which the DR is activated
- ii. Details on the complete process prior to declaration of disaster
- iii. Communication interventions and mode as to which services will be available at the time of failure
- iv. Roles and responsibilities of the implementation Agency and BMC at the time of implementing BCP measures

The implementation Agency shall submit the Business continuity plan prior to implementation of the Enterprise VTMS. As part of the BCP, there shall be an effective alternate process for handling the BMC Enterprise VTMS facility operations in the event of any disaster. For example, maintaining registers which can be used if the solution is down. The Implementation Agency shall conduct mock drills every six months, to ensure that the operations are not affected by any contingencies and the application fails over to the DR effectively. These drills shall be held after taking required prior approvals from the BMC Administration.

The damage caused by either natural or man-made can make the data centre non-functional for several minutes to months depending upon the magnitude of damage. Since the data centre is going to be a repository of essential data of Enterprise VTMS services, it shall be ensured that adequate measures are taken for restoration of services within the defined RTO and RPO. The data centre team has to be sensitive to this issue and ensure that adequate

measures are taken by the BMC for ensuring business continuity depending upon the impact assessment analysis.

4. Design, Configuration, Installation and Set Up of Disaster Recovery

The DR site shall be planned by the Implementation Agency at a third party location at a Tier 3 or above DR site (different seismic zone). The minimum distance between DC and the DR shall be 100 KMs and the DR shall be within India. The disaster recovery site will be required from the first implementation of Enterprise VTMS. The entire capacity of disaster recovery may not be required on day one but Implementation Agency shall have a plan to augment the capacity required at the disaster recovery as per the implementation plan. The DR solution shall identify the important IT and Non IT layers required for the smooth operations of BMC Enterprise VTMS, their criticality and disaster recovery strategy for the same. These different layers are as follows:

- Applications – Used for functioning of the business functions
- Data Centre – Used for hosting and running applications
- Network – Used for making the available services to the users
- People – Another layer required for smooth functioning and availability of all the

Identified IT layers.

Having identified the different layers, the next step shall be to understand and examine the criticality of the applications, data centre components and network required to run these applications along with the requisite people and approach for availability of these different layers. Following are the phases that need to be covered under design, configuration and installation and setup of DR site.

- a. Infrastructure and Application Analysis – Under this phase the Implementation Agency will examine the Data Centre Infrastructure and Enterprise VTMS application to arrive at equivalent capabilities in suitable operating system environment.
- b. Readiness and Risk Analysis – considering the criticality of the project to BMC, the Implementation Agency shall study and submit a report of challenges envisaged from organizational readiness standpoint, application readiness standpoint, integration standpoint and risk standpoint. Successfully identifying and mitigating both technical and organization risk is a critical factor for setting up disaster recovery site, Creating a comprehensive risk mitigation strategy outlining both preventative and compensatory actions will be necessary.
- c. Implementation Plan – The Implementation Agency shall prepare and submit a detailed plan for implementation. Mapping of detailed hardware at Primary site and DR site shall be prepared with detailed analysis including the following parameters:

- i. CPU calculations
- ii. RAM calculations
- iii. Disk calculations
- iv. Network interfaces requirement
- v. Network throughput requirement
- vi. Backup requirement

Detailed planning of hardware deployment and configuration shall be submitted to BMC. The configuration planning shall include but not be limited to following details:

- i. Firewall configuration planning
- ii. Backup methodology
- iii. Failover mechanism for replication links

The implementation Agency shall prepare detailed plan of system exports from Primary site to DR site. This planning would require following details:

- i. On line and full off line backup of existing system
- ii. Notification of downtime to end users
- iii. System export window
- iv. Replication tool configuration
- v. Transfer time of data from DC to DR
- vi. Data restoration at DR site
- vii. Application restoration at DR site
- viii. Data Sync times and dependencies if any
- ix. Switching on DC servers and notifying end users

The Implementation Agency shall be responsible for including but not limited to the below mentioned activities and parameters:

- a. It is recommended to adopt disaster recovery plan as given below to maintain the availability of Enterprise VTMS application. The Implementation Agency shall perform business impact analysis of the application, prior to designing the DR set up, to identify the most critical modules that require synchronous data replication.
 - Recovery Time Objective (RTO): 2 hours
 - Recovery Point Objective (RPO): 30 Minutes
- b. The disaster recovery site shall not be in the same seismic zone as the primary site.
- c. It is also suggested that the disaster recovery site shall maintain service levels similar to the primary site. For better performance, it is suggested to have the hardware and software of similar configuration and architecture at both the primary and secondary site. The operating

systems at both the primary and secondary site shall be of same versions, including the patches.

- d. The Disaster Recovery site shall be connected through dedicated and redundant leased lines to the primary site.
- e. The Disaster Recovery site shall be able to take the actual production load at the event of disaster within the defined RTO.
- f. The Disaster Recovery Sites shall operate in Active-passive mode. If the primary site fails, the secondary site will automatically take over. High availability and redundancy are not expected with respect to the components of the DR Site. The Implementation agency shall use technologies like virtualization to the DR Site. The Implementation agency shall use technologies like virtualization to improve the cost effectiveness of the solution.
- g. The Implementation Agency shall also ensure the information security and data integrity at disaster recovery through various data protection technologies.
- h. The Implementation Agency of its hosting agency shall also be responsible for arranging the DR Management Solution. The DR management solution shall be capable of real time application level computation, monitoring of RPO and RTO. Monitoring DR Enterprise VTMS, generation of alerts in case of any deviations, automating DR drills, generating audit report compliant with ISO 22301 standard and monitoring connectivity link.
- i. DR Hardware and Software shall be 100% for critical applications in production. The storage shall be 100% of the DC. The application in Production shall be 100% replicated at the DR. 100% replication of archived data will be required at the DR.
- j. Provisioning of adequate connectivity required for replication between DC and DR shall be the responsibility of the Implementation Agency.

5. Test Plan at DR Site

Following hardware deployment, the testing of application at DR site becomes very important. Therefore the Implementation Agency must perform following testing either directly or through third party:

- i. Infrastructure testing – The Implementation Agency shall perform various testing procedures listed below on infrastructure (server, storage and network infrastructure).
 - Disk IO testing
 - Network throughput testing
 - CPU and RAM benchmarking testing
 - Read/Write latency testing

- ii. Functional Testing – Once system is exported, data is migrated to DR site and application starts to function, the functional testing of application will be done by Implementation Agency.
 - Software Module testing as per functional requirement
 - User authentications testing
 - Users add/delete, reports generations
 - Heavy application transactions on DR servers
 - Backup exports
 - Backup restoration
- iii. Data Integrity Testing – Data integrations will be very important factor in overall process. Since data will be replicated over any platform including same database at both end, the data integrity testing would become crucial. Data integrity testing will be performed by Implementation Agency and this includes:
 - Amount of data verification at DR and DC
 - Table size and records testing
 - User’s status at both ends
 - Invoices/transactions verification at both ends
 - Data in log files
- iv. Reverse Replication testing – The reverse replication from DR site to DC site needs to be verified by Implementation Agency. The testing shall include:
 - Uninterrupted replication to DC servers
 - Lag in replication due to any unforeseen errors
 - Process of recovering from lags if any
 - Data integrity test of DC servers
 - Switch over of applications from DC to DR
 - Switch back of applications from DR to DC
- v. Switch over testing – The final operation acceptance will only be provided after demonstrating successful switchover testing. The switchover testing would include:
 - Switch over of application from DC to DR as per defined RTO and RPO
 - Switch over applications from DR to DC as predefined RTO and RPO
 - Complete Data Replication and Reverse Data Replication as per RPO

Proper documented evidences shall be submitted by the Implementation agency on the above test results for the acceptance of DR. The implementation agency will be responsible for recovery of lost data from the data centre. All Costs related to the data recovery shall be borne by the Implementation Agency.

Security Compliance Point for Web Application

The following compliance needs to done by Implementation agency:

1. Data Protection:-
 - i. Use SSL everywhere from a reputable CA.
 - ii. Disable HTTP access for all SSL enabled resources
 - iii. Store user passwords using a strong, iterative, salted hash
 - iv. Sit up secure key management processes
 - v. Disable weak SSL ciphers on servers
 - vi. Limit the use and storage of sensitive data
2. Configuration and Operation:-
 - i. Establish a rigorous change management process
 - ii. Define security requirements
 - iii. Conduct a design review
 - iv. Perform code reviews
 - v. Perform security testing
 - vi. Define an incident handling plan
 - vii. Educate the team on security
3. Authentication:-
 - i. Don't hardcode credentials
 - ii. Develop s strong password reset system
 - iii. Implement a strong password policy
 - iv. Implement account lockout against brute force attacks
 - v. Don't disclose too much information in error messages
 - vi. Store database credentials securely
 - vii. Applications and Middleware should run with minimal privileges

Server Monitoring System

1. Tool should integrate with network performance management system and support operating system monitoring for various platforms supplied as part of this Project.
2. Tool must provide information about availability and performance for target server nodes.

Tool should be able to monitor various operating system parameters such as processors, memory, files, processes, file systems, etc. where applicable

6. Annexure I: Instructions for Pre-Qualification Bid

6.1 Pre-Qualification Cover Letter

Date: dd/mm/yyyy

To,

Dy. Chief Engineer (SWM) Planning,
4th Floor, Khatao Market Bldg., Nausher Bharucha Marg,
Grant Road (W), Mumbai -400007

Sub : Selection of Implementation Agency for the Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software with BI and Hardware

Ref : Bid No: <No> Dated <DD/MM/YYYY>

Dear Sir,

Having examined the Bid Document (and the clarification / corrigendum issued thereafter, if any), the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the Bid Document for the Appointment of Implementation Agency for the Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software with BI and Hardware.

We attach hereto our responses to pre-qualification requirements and technical & commercial proposals as required by the Bid Document. We confirm that the information contained in these responses or any part thereof, including the exhibits, and other documents and instruments delivered or to be delivered to Brihanmumbai Municipal Corporation, is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the department in its short-listing process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so.

We agree for unconditional acceptance of all the terms and conditions set out in the Bid Document (& subsequent clarification / corrigendum, if any) document and also agree to abide by this tender response for a period of 180 days from the date fixed for bid opening. We hereby declare that in case the contract is awarded to us, we shall submit the contract performance guarantee bond in the form prescribed the Bid Document.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Signature of Authorized Signatory (with official seal)

Name :

Designation :

Address :

Telephone and Fax :

E-mail address :

6.2 Check-list for the documents to be submitted

Pre-Qualification (ePacket A)

Note: A table of content as mentioned in section 4.15

Technical Proposal (ePacket B)

Note: A table of content as mentioned in section 4.15

Commercial Proposal (ePacket C)

Commercial Bid in e-tender filing (As per format in 8.2)

6.3 Format to share Bidder's Particulars

Sr. No.	Description	Details (To be filled by the responder to the bid)
1	Name of the company	
2	Official address	
3	Phone No. And Fax No.	
4	Corporate Headquarters Address	
5	Phone No. And Fax No.	
6	Web Site Address	
7	Details of Company's Registration (Please enclose copy of the company registration document)	
8	Name of Registration Authority	
9	Registration Number and Year of Registration	
10	ISO certifications and its validity	
11	GST registration No.	
12	Permanent Account Number (PAN)	
13	Company's Revenue for last 3 years (Year wise)	

Please submit the relevant proofs for all the details mentioned above along with your bid response.

Contact Details of officials for future correspondence regarding the bid process:

Details	Authorized Signatory	Secondary Contact
Name		
Title		
Company Address		
Phone No.		
Mobile No.		
Fax No.		
E Mail		

6.4 Format for Declaration by the Bidder for not being Blacklisted / Debarred

(On Stamp Paper of Rs. 500)

DECLARATION CUM-INDEMNITY BOND

Date: dd/mm/yyyy

I, _____ of _____, do hereby declared and undertake as under.

1) I declared that I have submitted certificates as required to Executive Engineer (Monitoring) at the time of registration of my firm / company _____ and there is no change in the contents of the certificates that are submitted at the time of registration.

2) I declared that I _____ in capacity as Manager / Director / Partners / Proprietors of _____ has not been charged with any prohibitory and /or penal action such as demotion, suspension, black listing / de-registration or any other action under the law by any Government and / or Semi Government and/ or Government Undertaking.

3) I declared that, I have perused and examined the tender document including addendum, condition of contract, specification, drawings, bill of quantity etc. forming part of tender and accordingly, I submit my offer to execute the work as per tender documents at the rates quoted by me in capacity as _____ of _____.

4) I further declared that if, I am allotted the work and I failed to carry out the allotted work in accordance with the terms and conditions and within the time prescribed and specified, BMC is entitled to carry out the work allotted to me by any other means at my risk and cost, at any stage of the contract.

5) I also declared that I will not claim any charge / damages / compensation for non-availability of site for the contract work at any time.

6) I Indemnify Municipal Commissioner and the other officers of BMC or their agents for any Damages, Loss, or Injury, any legal suit, proceeding or legal action whatsoever that may be caused at any time by me or any other staff of _____ company, for the work undertaken and all such damage, damages, injury or loss, legal suit, legal action, I shall be solely responsible in individual as well as official capacity and such loss, damages, injury shall be made good and/ or as the case may be shall be paid immediately by me / Company to the satisfaction of the BMC.

Dated _____ day of _____, 20__

Identified by me

Before me

Advocate

6.5 Performance Bank Guarantee Format

(For a sum of 5% of the value of the contract)

(With Stamp duty of 0.5 % on the total amount)

Ref. No. :

Date :

Bank Guarantee No. :

To

<Insert complete postal address>

THIS INDENTURE made this ----- day of -----20---- BETWEEN THE -----
-----BANK incorporated under the English / Indian Companies Acts
and carrying on business in Mumbai (hereinafter referred to as 'the bank' which
expression shall be deemed to include its successors and assigns) of the first part -----

inhabitants carrying on business at -----

in Mumbai under the style and name of Messrs -----

(hereinafter referred to as 'the contractors') of the second part Shri-----

THE MUNICIPAL COMMISSIONER FOR GREATER MUMBAI (hereinafter referred to as
'the Commissioner' which

expression shall be deemed, also to include his successor or successors for the time
being in the said office of Municipal Commissioner) of the third part and THE
BRIHANMUMBAI MUNICIPAL CORPORATION (hereinafter referred to as 'the
Corporation') of the fourth part WHEREAS the contractors indemnify and keep
indemnified the Corporation against any loss or damage that may be caused to or
suffered by the Corporation by reason of any breach by the contractors of any of the
terms and conditions of the contract that will be entered subsequently (within 15
days) and/or in the performance thereof against Letter of Intent number -----
----- dated ----- for the project

**Supply, Installation, Testing,
Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring
System Software and Hardware** of ----- department having
tender No. << >> tender amount _----- and the terms of such
tender / contract require that the contractors shall deposit with the Commissioner as
earnest money and/ or the security a sum of _----- (Rupees-----
-----)

AND WHEREAS if and when any
such tender is accepted by the Commissioner, the contract to be entered into in
furtherance thereof by the contractors will provide that such deposit shall remain with
and will be appropriated by the Commissioner towards the Security Deposit to be
taken under the contract and be redeemable by the contractors, if they shall duly and
faithfully carry out the terms and provisions of such contract and shall duly satisfy all
claims properly chargeable against them there under AND WHEREAS the contractors

are constituents of the Bank and in order to facilitate the keeping of the accounts of the contractors, the Bank with the consent and concurrence of the contractors has requested the Commissioner to accept the undertaking of the Bank hereinafter contained, in place of the contractors depositing with the Commissioner the said sum as earnest money and/or the security as aforesaid AND WHEREAS accordingly the Commissioner has agreed to accept such undertaking. NOW THIS AGREEMENT WITNESSES that in consideration of the premises, the Bank at the request of the contractors (hereby testified) UNDERTAKES WITH the Commissioner to pay to the Commissioner upon demand in writing, whenever required by him, from time to time, so to do, a sum

not exceeding in the whole Rs. ----- (Rupees-----

-----) under the terms of the said tender and/or the contract.

The B.G. is valid up to-----

We agree that the decision of the Corporation, whether any breach of any of the terms and conditions of the contract and/or in the performance thereof has been committed by the Bidder and the amount of loss or damage that has been caused or suffered by the Corporation shall be final and binding on us and the amount of the said loss or damage shall be paid by us forthwith on demand and without demur to the Corporation.

“Notwithstanding anything what has been stated above, our liability under the above guarantee is restricted to Rs. ---- only and guarantee shall remain in force up to -----unless the demand or claim under this guarantee is made on us in writing on or before-----all your right under the above guarantee shall be forfeited and we shall be released from all liabilities under the guarantee thereafter”.

IN WITNESS WHEREOF

WITNESS (1) -----

Name and -----

Address -----

WITNESS (2) -----

Name and ----- the duly constituted Attorney Manager

Address -----

The Bank and the said Messrs-----

----- (Name of the bank)

WITNESS (1) -----

Name and -----

Address -----

WITNESS (2) ----- for Messrs -----

Name and ----- (Name of the contractor)

Address -----

Have here into set their respective hands the day and year first above written.

7. Annexure II: Instructions and Technical Bid Document Formats

7.1 General Instructions for the Technical Bid

Bidders have to submit a very structured and organized technical bid, which will be analysed by the Technical Evaluation Committee for different compliances with regards to the requirements of the project.

Bidder is expected to divide its Bid in following sections / documents:

A) Bidder's Competence to execute the project

This document should bring about the capability of the firm to execute this project. Some of the required documents are as follows:

- Financial Capability of the Bidder in required formats and supporting documents
- Experience of Bidder of implementation and supply of similar/same hardware components
- Experience of Bidder in India in required formats and supporting documents
- Quality of IT and domain experts available with the firm

B) Proposed Team for the Project

As specified in the Technical Bid Evaluation Framework, the department would like to give importance to the right people proposed for the project. Bidder may propose different people for different skill-sets required and different responsibilities (during Project Implementation and Post-Implementation). Following documentation is expected in this section:

- Overall Project Team (for both Project Implementation and Support phases)
- Escalation Chart for the entire Project Duration
- Summary Table giving Qualification, Experiences, Certifications, Relevance
- Detailed CVs in the format attached as Annexure XI

C) Technical Solution Proposed for the Project

Broad areas to be covered in the Technical Solution documentation are given below:

1. **Bill of Material:** This document should give details of all the proposed IT and Non-IT components, without specifying the costs. Please note that the bid shall get disqualified if Bidder gives price details in the technical document.
2. Describe the proposed Technical Solution in a structured manner. Following should be captured in the same:
 1. Clear articulation and description of the design, technical solution with various components
 2. Reasoning for selection of the proposed technology over other options
 3. Extent of compliance to technical requirements specified in the scope of work
3. Strength of the Bidder to provide services including examples or case-studies of similar solutions deployed for other clients
4. Clearly articulate the Strategy and Approach and Methodology for Installation, Configuration and Implementation of the project.
5. Approach and Methodology for Management of SLA Requirements specified in the bid. Bidder is required to clearly articulate how the SLA requirements would be adhered.
6. Detailed Project Plan with timelines, milestones etc. for supply, installation and commissioning of the various project components.

7.2 Format to share Project Details

Name of the Project	
General Information	
Client for which the project was executed	
Name of the client contact person(s)	
Designation of client contact person(s)	
Contact details of the client contact person(s)	
Project Details	
Description of the project	
Scope of work of the Bidder	
Deliverables of the Bidder	
Technologies used	
Current Status of the project	
Other Details	
Total cost of the project	
Total cost of the services provided by the bidder	
Total cost of the services provided by the Bidder	
Duration of the project (number of months, start date, completion date, current status)	
Other Relevant Information	
Mandatory Supporting Documents:	
<ul style="list-style-type: none"> • Work order / Purchase order / Contract for the project • Client Certificate giving present status of the project and view of the quality of services by the Bidder 	

Note: The Bidder is required to use above format for all the projects referenced by the Bidder for the pre-qualification criteria and technical bid evaluation.

7.3 Technical Bill of Material and Bill of Quantity (To be provided by the Bidder)

Notes:

1. The IA shall submit the technical proposal including the BoM with 'Make' and 'Model' details excluding the cost
2. The Bidders can add additional line items as per their requirements
3. Bidder should not share any bid price information in the technical bid
4. BMC intends to establish solution based on open source technology complying with Govt. of India policies. Accordingly, IA should offer solution based on open source technology while offering enterprise VTMS with BI solution within the scope of this tender

Hardware specifications should be as per the specifications mentioned in relevant annexure of this document. The quantity required may vary by +20% during the course of execution of the project. The unit rate quoted in the financial bid will be used to calculate the price of the varied component.

Sr. No.	Description	Make & Model
1	GPS Equipment as per specifications	
2	RFID Reader as per specifications	
3	RFID Bin Tag as per specifications	
4	RFID Windscreen Tag as per specifications	
5	Enterprise Vehicle Tracking and Monitoring System Software (VTMS) to support 3000 Plus vehicles. The software license should be genuine, full use and perpetual in the name of BMC for unlimited users including Business Intelligent reports	
6	Business Intelligence (BI) tool license 16	
	Integration of proposed enterprise VTMS with external system	
7	Integration with VTMS Equipments on vehicles.	
8	Weighbridge management system	
9	SMS Gateway	
10	SAP based fleet management for BMC vehicles	
11	Integration with BMC's Active Directory	
12	Integration with e-mail as per requirement	
13	Integration with live video stream from CCTV cameras (Future requirement)	
14	Desktop Computers – All-in-One	
15	Video wall including controller for the wall size 10 feet wide x 6 feet height (LED technology)	
16	All in one Laser Printers	
17	UPS supporting the video wall mentioned in point no. 5	
18	Fingerprint based Biometric access control at Control Room at 2 places	
19	Maintenance / Warranty services for all the hardware items supplied within the scope of this tender document (Per year for 5 years from the date of GO-Live)	
Details of Maintenance Cost for Hardware Items		

Sr. No.	Description	Make / Model	
1	All in One Desktop Computers		
2	Video wall including controller for the wall size 10 feet wide x 6 feet height (LED technology)		
3	All in One Laser Printer		
4	UPS supporting the video wall mounted		
5	Fingerprint based Biometric access control at Control Room at 2 places		
6			
7	Maintenance / Warranty services for VTMS software with BI supplied within the scope of this tender document (Per year for 5 years from the date of GO-Live)		
8	Open Source RDBMS supply, installation and maintenance for 5 years		
9	User level Training with documentation		
Manpower support onsite for 5 years on per month basis for below expertise complying with the requirement mention under “ Team during Post Implementation O&M”			
1	Project coordinator	1	NA
2	Programmer	1	NA
3	Database Administrator	1	NA
4	System Administrator for VTMS	1	NA
5	Hardware Engineer	1	NA
6	Help Desk staff to support required operation	Lump Sum	NA

Variable component

Sr. No.	Description	Make and Model	
1	Field survey for Bins (House to House / community), Offices, Chowky, dumping grounds, transfer stations etc. mapping, geofence creation and route mapping (Per point using GPS)		-

7.4 Format for Authorization Letters from OEMs

Date: dd/mm/yyyy

To,
Dy.ch.Eng. (SWM) Planning,
Grant Road, Mumbai -400007

Sub : Authorisation Letter to M/s. ----- for the participation in the bid for Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and Hardware in BMC.

Ref : Bid No: <No> Dated <DD/MM/YYYY>

Sir,

We _____, (name and address of the manufacturer) who are established and reputed manufacturers of _____ having factories at _____ (addresses of manufacturing / development locations) do hereby authorize M/s _____ (name and address of the Bidder) to bid, negotiate and conclude the contract with you against the above mentioned bid for the above equipment / software manufactured / developed by us.

We herewith certify that the above-mentioned equipment /software products are not end of the life and we hereby undertake to support these equipment /software for the duration of minimum 3 years from the date of submission of the bid.

Yours faithfully,

For and on behalf of M/s _____(Name of the manufacturer) (With Company Seal)

Signature :

Name :

Designation :

Address :

Date :

Note: This letter of authority should be on the letterhead of the concerned manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer.

8. Annexure III: Commercial Bid Formats

8.1 Commercial Bid Cover Letter

Date: dd/mm/yyyy

To

Dy.Ch.Eng. (SWM) Planning,
Grant Road, Mumbai -400007

Sub : Selection of Service Provider for the Project “**Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and Hardware in BMC**”

Ref : Bid No: <No> Dated <DD/MM/YYYY>

Dear Sir,

We, the undersigned Bidders, having read and examined in detail all the bidding documents in respect of Supply, Installation, Testing, Commissioning and Maintenance of enterprise VTMS software& hardware , Video wall with controller, Desktop Computers and Printers, Network, Electrical Components along with UPS for BMC’s Enterprise Vehicle Tracking and Monitoring System do hereby propose to provide services as specified in the bid referred above.

1. PRICE AND VALIDITY

- All the prices mentioned in our bid are in accordance with the terms as specified in the bid documents. All the prices and other terms and conditions of this bid are valid for a period of 180 calendar days from the date of opening of the Bids.
- We hereby confirm that our bid prices include all taxes. Taxes are quoted separately under relevant sections, as specified in the bid formats.
- We have studied the clause relating to Indian Income Tax and hereby declare that if any income tax, surcharge on Income Tax, Professional and any other Corporate Tax in altered under the law, we shall pay the same.

2. UNIT RATES

We have indicated in the relevant schedules enclosed, the unit rates for the purpose of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

3. DEVIATIONS

We declare that all the services shall be performed strictly in accordance with the bid documents and there are no deviations.

4. QUALIFYING DATA

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

5. BID PRICE

We declare that our Bid Price is for the entire scope of the work as specified in the bid document. These prices are indicated in the subsequent sub-sections of this Section.

6. CONTRACT PERFORMANCE GUARANTEE BOND

We hereby declare that in case the contract is awarded to us, we shall submit the contract Performance Bank Guarantee in the form prescribed in the bid.

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

We understand that our bid is binding on us and that you are not bound to accept a bid you receive. We confirm that no Technical deviations are attached here with this commercial offer.

Thanking you,

Yours faithfully,

(Signature of the Authorized Signatory)

Name:

Designation:

Seal:

Date:

Place:

Business Address:

8.2 Commercial Bid Format and Instructions

The Bidder has to quote the rate in the BoQ Spreadsheet available online with this bid. Details to be filled up for price bid are as below. This BOQ is for representational purpose.

The price shall be inclusive of Goods & Services Tax as applicable under the relevant Laws of India.

Table 1: Enterprise VTMS software with BI, Video wall with controller, IT Infrastructure Installation and Warranty support for 5 years

Sr. No.	Description	Quantity or Unit Required in nos.	Unit Rate (With GST) Rs.	Total Cost in Rs. (With GST)
1	GPS Equipment as per specifications	1700		
2	SIM cards (with maintenance of 60 months)	1700		
3	RFID Reader as per specifications	250		
4	RFID Bin Tag as per specifications	6000		
5	RFID Windscreen Tag as per specifications	250		
6	Enterprise Vehicle Tracking and Monitoring System Software (VTMS) to support 3000 Plus vehicles. The software license should be genuine, full use and perpetual in the name of BMC for unlimited users including Business Intelligent reports	1		
7	Business Intelligence (BI) tool licenses	16		
	Integration of VTMS with other external system			
	Integration with VTMS software	1		
	Integration with Weighbridge management system	1		
	Integration with HF RFID Readers at the chowkys.	1		
	SMS Gateway	1		
8	SAP based fleet management for BMC vehicles	1		
	Integration with BMC's Active Directory	1		
	Integration with e-mail as per requirement	1		
	Integration with live video stream from CCTV cameras	1		

9	Bulk SMS (100 SMS per day, 365 days x 5 years =1826 days)	1826		
10	GIS Map Service	1		
11	SSL & app uploading on play store security	1		
12	Desktop Computers – All-in-One	4		
13	Video wall including controller for the wall size 10 feet wide x 6 feet height (LED technology)	1		
14	UPS supporting the video wall as per specification	1		
15	Fingerprint based Biometric access control at Control Room at 2 places as per specification	2		
16	User level training with documentation	1		
17	All in one Laser Printers	2		

Maintenance / Warranty services for all the hardware items supplied within the scope of this tender document (Per year for 5 years from the date of GO-Live)

	Description	Quantity / Rate	Unit Rate (With GST) Rs.	Total Cost in Rs. (With GST)
A	All in One Desktop computers-			
i)	1 st year	4	Under Warranty	
ii)	2 nd year	4	Under Warranty	
iii)	3 rd year	4	Under Warranty	
iv)	4 th year	4		
v)	5 th year	4		
B	Video wall including controller for the wall size 10 feet wide x 6 feet height (LED technology)			
i)	1 st year	1	Under Warranty	
ii)	2 nd year	1	Under Warranty	
iii)	3 rd year	1		
iv)	4 th year	1		
v)	5 th year	1		
C	All in One Laser Printer			
i)	1 st year	2	Under Warranty	
ii)	2 nd year	2	Under Warranty	
iii)	3 rd year	2	Under Warranty	
iv)	4 th year	2		
v)	5 th year	2		
D	UPS supporting the video wall mounted			
i)	1 st year	1	Under Warranty	

ii)	2 nd year	1	Under Warranty
iii)	3 rd year	1	Under Warranty
iv)	4 th year	1	
v)	5 th year	1	
E	Fingerprint based Biometric access control at Control Room at 2 places		
i)	1 st year	2	Under Warranty
ii)	2 nd year	2	
iii)	3 rd year	2	
iv)	4 th year	2	
v)	5 th year	2	
F	GPS Equipments		
i)	1 st year	1700	Under Warranty
ii)	2 nd year	1700	Under Warranty
iii)	3 rd year	1700	Under Warranty
iv)	4 th year	1700	
v)	5 th year	1700	
G	RFID Readers		
i)	1 st year	250	Under Warranty
ii)	2 nd year	250	
iii)	3 rd year	250	
iv)	4 th year	250	
v)	5 th year	250	
H	RFID Bin tag as per specifications		
i)	1 st year	6000	Under Warranty
ii)	2 nd year	6000	
iii)	3 rd year	6000	
iv)	4 th year	6000	
v)	5 th year	6000	
I	RFID Windscreen tag as per specifications		
i)	1 st year	250	Under Warranty
ii)	2 nd year	250	
iii)	3 rd year	250	
iv)	4 th year	250	
v)	5 th year	250	
J	Business Intelligence (BI) solutions interface		
i)	1 st year	1	Free
ii)	2 nd year	1	
iii)	3 rd year	1	
iv)	4 th year	1	
v)	5 th year	1	
K	Open Source RDBMS maintenance for 5 years on cloud server		

i)	Maintenance for 1 st year	1		
ii)	Maintenance for 2 nd year	1		
iii)	Maintenance for 3 rd year	1		
iv)	Maintenance for 4 th year	1		
v)	Maintenance for 5 th year	1		

Manpower support onsite for 5 years-				
Sr. No.	Description	Quantity	Per Month Rate (With GST) Rs.	Total Cost in Rs. (With GST)
A	Manpower support onsite for 5 years- (Project coordinator- 1 nos, Programmer-1 nos, Hardware Engineer-1 nos & System Administrator- 2 nos)			
1	Manpower support onsite 1 st year	12 Month		
2	Manpower support onsite 2 nd year	12 Month		
3	Manpower support onsite 3 rd year	12 Month		
4	Manpower support onsite 4 th year	12 Month		
5	Manpower support onsite 5 th year	12 Month		
B	Database Administrator			
1	Database Administrator for 1st year	12 Month		
C	Field support staff per ward in single shift only for 3 months= (40 nos x 3= 120 Man Months)			
1	Field support onsite for 3 months	120 Month		
D	Help desk staff to support required operation- 1 in each shift i.e. 3 person in a day.			
1	Help desk staff for 1 st year	12 Month		
2	Help desk staff for 2 nd year	12 Month		
3	Help desk staff for 3 rd year	12 Month		
4	Help desk staff for 4 th year	12 Month		
5	Help desk staff for 5 th year	12 Month		

Variable component				
Sr. No	Description	Quantity in Nos.	Unit Rate (With GST) Rs.	Total Cost (With GST) in Rs.
1	Field survey for Bins (House to House / community), Offices, Chowky, dumping grounds, transfer stations etc. mapping, geo-fence creation and route mapping (Per point using GPS)	11000	Per point	

Note:-

- 1) Please note that this BoQ is for representational purpose. Bidders are supposed to quote their prices on the portal directly.**
 - 2) Rate analysis of the offer has to be submitted only by the 1st & 2nd lowest bidder that too after demand notification by BMC and not in commercial packet.**
1. The bidders may visit the site & obtain additional information at their own cost & responsibility.
 2. The implementation agency will quote both for implementation cost & the operation & maintenance cost, the details of which are given in the bid document.
 3. To scale up and scale down resources / infrastructure based on requirements, any line items may be removed from the scope based on BMC's discretion.
 4. All the prices are to be entered in Indian Rupees ONLY.
 5. Prices indicated in the schedules shall be inclusive of all taxes, Levies, duties etc. It is mandatory to provide breakup of all Taxes, Duties and Levies wherever asked for.
 6. During the payment stage, BMC reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated.
 7. The Bidder needs to account for all Out of Pocket expenses due to Boarding, Lodging and other related items. No additional/separate payment shall be made regarding the same.
 8. For the purpose of evaluation of Commercial Bids, BMC shall make appropriate assumptions to arrive at a common bid price for all the Bidders. This however shall have no co-relation with the Contract value or actual payment to be made to the Bidder.
 9. The Contract Price shall be firm and not subject to any alteration.
 10. The Implementation agency should be deemed to have satisfied itself as to the correctness and sufficiency of the contract price, which shall, except as otherwise provided for in the contract, cover all its obligations under the contract.
 11. Please note invitation of price discovery rate for future requirements does not imply guarantee of any additional work or any increase in scope. The price discovery rates are being invited to meet any exigency requirements if a need emerges during the period of contract with respect to deployment of additional manpower resources.
 12. The rate/cost quoted for AMC and price discovery elements would be considered for additional procurement/payment in future.
 13. Wherever present, the items mentioned as Lump Sum in above table will have quantity as 1 in the BoQ available online via e-tendering. However the bidder should consider the same as Lump Sum and submit the commercials.
 14. No advance payment shall be made towards any activity

9. Annexure IV – Draft Contract Agreement

On a Stamp Paper of ₹ 500/- for contract value up to ₹ 10,00,000/- and 0.1% of the amount above ₹ 10 lakh subject to maximum ₹ 25 Lakhs)

This Contract Agreement, hereinafter referred to as “CA” is made this ___ day of _____ 20__ at [office address]

BETWEEN

<The Municipal Commissioner>, Brihanmumbai Municipal Corporation, Maharashtra State, (which term or expression, unless excluded by or repugnant to the subject or context, shall mean and include its successors-in office and assigns) of the First Part (which term or expression, unless excluded by or repugnant to the subject or context, shall mean and include its _____ successors-in office and assigns) of the First Part

AND

M/s _____, a company registered <Select as under The Companies Act, 1956 or Partnership Act, 1932 as applicable> having its registered office at _____ and place of business at _____, hereinafter referred to as “Implementation Agency” (which term or expression, unless excluded by or repugnant to the subject or context, shall mean and include its successors and permitted assigns) of the Second Part

Each individually a “Party” hereto and collectively the “Parties”

And Whereas BMC intends to provide convenient and speedy services using Information and Communication Technologies (ICT) to its officials and has published the bid to seek services “**Supply, Installation, Testing, Commissioning and Maintenance of Enterprise Vehicle Tracking and Monitoring System Software and Hardware in BMC**” till the end of the contract period;

And whereas M/s. ----- has submitted its bid to <include scope of project and bid name> for BMC;

And whereas BMC and M/s. ----- have decided to enter into this Agreement on the terms and conditions stipulated hereinafter.

NOW, THEREFORE, in consideration of the premises, covenants and promises contained herein and other good and valuable considerations, the receipt and adequacy of which is hereby acknowledged, the parties intending to be bound legally, IT IS HEREBY AGREED between the Parties as follows:

9.1 Definitions, Interpretations and Other Terms

- a) Bid means the bid process conducted by BMC and the technical and commercial bids submitted by the successful Bidder, along with the subsequent clarifications and undertakings, if any;
- b) The “Contract” shall mean the tender and acceptance thereof and the formal Agreement if any, executed between the Bidder, Commissioner and the Corporation

together with the documents referred to therein including these conditions and appendices and any special conditions, the specifications, designs, drawings, price schedules, bills of quantities and schedule of rates. All these documents taken together shall be deemed to form one Contract and shall be complementary to one another.

- c) The “Bidder” shall mean a person or corporate body who has desired to submit Bid to carry out the Works, including routine maintenance till the tender process is concluded.
- d) “Arbitrator” means the person or persons appointed by agreement between BMC and the Bidder to make a decision on or to settle any dispute or difference between the BMC and the Bidder referred to him or her by the parties pursuant to General Conditions of Contract amended up to date.
- e) “Contract Cost” means the Contract Sum plus Price Variation. This cost shall be included in the letter of acceptance.
- f) “Excepted risks” are risks due to riots (otherwise than among Bidder’s employees) and civil commotion (in so far as both these are uninsurable), war (whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any act of government, damage from aircraft, acts of god, such as earthquake, lightning and unprecedented floods and other causes over which the Bidder has no control and accepted as such by the Commissioner or causes solely due to use or occupation by the Municipal Corporation of the works in respect of which a certificate of completion has been issued or a cause solely due to faulty municipal design of work.
- g) The “Corporation” or the “Municipal Corporation” shall mean the Brihanmumbai Municipal Corporation, constituted under the M.M.C. Act 1888 as amended up to date.
- h) h. The “Annexure” referred to in these conditions shall means the relevant annexure appended to the tender papers issued by the Municipal Corporation.
- i) The “Works” shall mean the Permanent Works and the Temporary Works or either of them as appropriate to be executed in accordance with the contract or part(s) thereof, as the case may be and shall include all extra or additional, altered or substituted works as required for performance.
- j) j. “Temporary Works” shall mean all Temporary Works of every kind required in or about execution, completion or maintenance of the work also Temporary Works are works designed, constructed, installed, and removed by the Service Provider that are needed for construction or installation of the Works of the contract as found necessary as per suggestion of the BMC.
- k) “Permanent Works” means the permanent works to be executed and installation of machineries in accordance with the Contract at specified required site and location.
- l) “Drawings” means all the drawings, calculations and technical information of a like nature provided by the BMC to the Service Provider under the Contract and all drawings, calculations, samples, patterns, models, operation & maintenance manual and other technical information of like nature submitted by the Service Provider and approved by the BMC.
- m) “Approved” shall mean approved in writing including subsequent confirmation of previous verbal approval and “approval” shall mean approval in writing including as aforesaid.

- n) "Specification" means the specification referred to in the tender and any modification thereof or addition or deduction thereto as may from time to time be furnished or approved in writing by the BMC.
- o) "Tender" means the Bidder's priced offer to the BMC for the execution and completion of the Works and the remedying of any defects therein in accordance with the provision of the Contract, as accepted by the Letter of Acceptance.
- p) "Commencement Date" means the date upon which the Bidder receives the notice to commence, issued by the BMC
- q) "Time for Completion" means the time for completing the execution of and passing the Tests on Completion of the Works or any Section or part thereof as stated in the Contract calculated from the Commencement Date.
- r) "Certificate of Taking-Over/ Take-over Certificate" shall mean the certificate issued by BMC after completion of Works in all respects.
- s) "Letter of Acceptance" means the letter of formal acceptance, signed by BMC, of the Letter of Bid, including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such letter of acceptance, the expression "Letter of Acceptance" means the Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement.
- t) "Cost" means all expenditure properly incurred or to be incurred whether on or off the site including overheads and other charges properly allocable thereto but does not include any allowance for profit.
- u) Confidential Information means all information including BMC Data (whether in written, oral, electronic or other format) which relates to the technical, financial, business affairs, customers, suppliers, products, developments, operations, processes, data, trade secrets, design rights, know-how and personnel of each Party and its affiliates which is disclosed to or otherwise learned by the other Party in the course of or in connection with this CA (including without limitation such information received during negotiations, location visits and meetings in connection with this CA).
- v) Customers mean all citizens and business organization and users who use the BMC services.
- w) Deliverables means all the activities related to the setting up and operations of the infrastructure, technical documents, Software Applications, customized Source Codes, as defined in the bid and subsequent Corrigendum (if any), based on which the technical bid and commercial bid was submitted by the Bidder and as required as per this CA.
- x) Effective Date means the date on which the Purchase Order or Letter of Intent is issued to Implementation Agency.
- y) CA means this Contract Agreement, together with the recitals and all schedules and the contents, requirements, specifications and standards of the bid (as may be amended, supplemented or modified in accordance with the provisions hereof) and the bid. In the event of a conflict between this CA and the Schedules, the terms of the CA shall prevail; with overriding effect.
- z) Performance Security means the irrevocable and unconditional Bank Guarantee provided by the Implementation Agency from by any of the approved banks as specified in Annexure V of this RFP document in favour of "Brihanmumbai

Municipal Corporation” for an amount equivalent to 10% of the total contract value i.e. Rs.....(Rupees.....only).

- aa) Proprietary Information means processes, methodologies and technical and business information, including drawings, designs, formulae, flow charts, data and computer programs already owned/licensed by either Party or granted by third parties to a Party hereto prior/ subsequent to the execution of this CA.
- bb) Required Consents means the written consents, clearances and licenses, rights and other authorizations as may be required to be obtained by the Implementation Agency, for all tasks/activities/software/hardware and communication technology for this project; from all the concerned departments/agencies, etc. as the case may be.
- cc) Bid means the bid document released vide bid document number mentioned in this document, and include all clarifications/addendums, explanations and amendments issued by the Corporation in respect thereof;
- dd) Service Level(s) means the performance standards, which will apply, to the services delivered through the Software Application and hardware implemented by the Implementation Agency.
- ee) Service Level Requirement(s) means the timelines and the quality levels to be adhered to by the Implementation Agency for delivering various services under the contract.
- ff) Services means the content and services delivered and to be delivered to the customers or the offices of BMC by the Implementation Agency, and includes but not limited to the services specified in the bid document or as may be specified and incorporated in the subsequent Agreement/s under Contract Agreement.
- gg) Users means the departmental staffs or any other BMC officials having access to application including its Implementation Agencies, technology vendors, corporations and agencies and their employees, as the context admits or requires.
- hh) “Day” means Calendar day.
- ii) “Month” means Calendar month of the Gregorian calendar.
- jj) “GCC” means General Conditions of Contract.
- kk) “Foreign Currency” means currency of a country other than that in which the works are to be located, approved by Govt. of INDIA/Reserve Bank of INDIA.
- ll) “Writing” means any hand written, type-written, or printed communication including telex and facsimile transmission, electronic and digital media.
- mm) “Country” means the country in which the Site is located.
- nn) “Variation” means a change to the:-
 - Specification and /or Drawings (if any) which is instructed by the BMC.
 - Scope in the Contract which is instructed by the BMC.
 - Price in the Contract which is instructed by the BMC.
- oo) “Specification” shall mean the specification referred to in the tender and any modification thereof or addition or deduction thereto as may from time to time be furnished or approved in writing by the BMC.
- pp) The Start Date/Commencement Date is given in the Contract. It is the date when the Service Provider shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

9.2 Interpretations

- a. References to any statute or statutory provision include a reference to that statute or statutory provision as from time to time amended, extended, re-enacted or consolidated and to all statutory instruments made pursuant to it.
- b. Words denoting the singular shall include the plural and vice-versa and words denoting persons shall include firms and corporations and vice versa,
- c. Unless otherwise expressly stated, the words “herein”, “hereof”, “hereunder” and similar words refer to this CA as a whole and not to any particular Article, Schedule. The term Articles, refers to Articles of this CA. The words “include” and “including” shall not be construed as terms of limitation. The words “day” and “month” mean “calendar day” and “calendar month” unless otherwise stated. The words “writing” and “written” mean “in documented form”, whether electronic or hard copy, unless otherwise stated.
- d. The headings and use of bold type in this CA are for convenience only and shall not affect the interpretation of any provision of this CA.
- e. The Schedules to this CA form an integral part of this CA and will be in full force and effect as though they were expressly set out in the body of this CA.
- f. Reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to such agreement, deed, instrument, license or other document as the same may be amended, varied, supplemented, modified or suspended at the time of such reference.
- g. References “roll out” includes, unless the context otherwise requires, design, development, implementation, engineering, procurement, delivery, transportation, installation, processing, fabrication, acceptance testing, certification, commissioning and other activities incidental to the construction or roll out, and “construct” or “roll out” shall be construed accordingly.
- h. Any word or expression used in this CA shall, unless defined or construed in this CA, bear its ordinary English language meaning.
- i. The damages payable by a Party to the other Party as set forth in this CA, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and liquidated damages likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalties.
- j. This CA shall operate as a legally binding agreement specifying the master terms, which apply to the Parties under this agreement and to the provision of the services by the Implementation Agency.
- k. The Corporation may nominate a technically competent agency/individual(s) for conducting acceptance testing and certification of the various requisite infrastructure to ensure a smooth, trouble free and efficient functioning of the Scheme or carry out these tasks itself.
- l. The agency/individual nominated by the Corporation can engage professional organizations for conducting specific tests on the software, hardware, networking, security and all other aspects.
- m. The agency/individual will establish appropriate processes for notifying the Implementation Agency of any deviations from the norms, standards or guidelines at the earliest instance after taking cognizance of the same to enable the Implementation Agency to take corrective action.
- n. Such an involvement of and guidance by the agency/person will not, however, absolve the Implementation Agency of the fundamental responsibility of designing,

installing, testing and commissioning the application and the infrastructure for efficient and effective delivery of services as contemplated under this bid.

- o. Following documents forming this Agreement are to be taken as mutually explanatory of one another:
 - I. This Agreement
 - II. Purchase Order or Letter of Intent issued by BMC to the successful Bidder
 - III. Clarification and Corrigendum Documents published by BMC subsequent to the bid for this work
 - IV. Bid Document of BMC for this work
 - V. Detail Commercial bid of the Implementation Agency accepted by BMC
 - VI. Successful Bidder's 'Technical Bid' submitted in response to the bid and responses/clarifications provided in response to queries raised by BEC

9.3 Term of the Contract Agreement

1. The term of this CA shall be a period of <specify period of contract> years from the date of execution of this Agreement. This includes the time required for Implementation and Operations and Maintenance Support.
2. In the event of implementation period getting extended beyond the stipulated time, for reasons not attributable to the Implementation Agency, BMC reserves the right to extend the term of the Agreement by a suitable period with mutual consensus to allow validity of contract from the date of operational acceptance.

9.4 BMC's Decision

Except where otherwise specifically stated, the BMC's representative will decide contractual matters between BMC and the Bidder in the role representing the BMC. However, if BMC's representative is required under the rules and regulations and orders of the BMC to obtain prior approval of some other authorities for specific actions, he will so obtain the approval, before Communicating his decision to the Bidder.

Except as expressly stated in the Contract, BMC's representative shall not have any authority to relieve the Contractor of any of his obligations under the contract.

9.5 Delegation

BMC's representative, with the approval of the BMC's Authority, may delegate any of his duties and responsibilities to other person(s), except to the Adjudicator, after notifying the Bidder, and may cancel any delegation after notifying the Bidder.

9.6 Communication

All certificates, notices or instructions to be given to the Bidder by BMC shall be sent on the address / Email Address or contact details given by the Bidder of Bid. The address and contact details for communication with the BMC shall be as per the details given in Contract Data. Communications between parties that are referred to in the conditions shall be in writing. The Notice sent by facsimile (fax) or other electronic means shall be effective on confirmation of the transmission. The Notice sent by Registered post or Speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service.

9.7 Other Bidders

The Bidder shall cooperate and share the Site with other Bidder, public authorities, utilities, and the BMC between the dates given in the Schedule of Other Bidder, as referred to in the Contract Data. The Bidder shall also provide facilities and services for them as described in the Schedule. The BMC may modify the Schedule of Other Bidder, and shall notify the Bidder of any such modification.

9.8 Personnel

The Service Provider's personnel shall appropriately be qualified, skilled and experienced in their respective trades or occupations. BMC shall have authority to remove, or cause to be removed, any person employed on the site or works, who carries out duties incompetently or negligently.

If BMC asks the Service Provider to remove a person who is a member of the Service Provider's staff or work force, stating the reasons, the Service Provider shall ensure that the person leaves the Site within seven days and has no further connection with the Works in the Contract.

9.9 BMC's and Service Provider's Risks

The BMC carries the risks which this Contract states are BMC's risks, and the Service Provider carries the risks which this Contract states are Service Provider's risks.

9.10 BMC's Risks

The BMC is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works, the risks of war, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot, commotion or disorder (unless restricted to the Service Provider's employees) and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the Works, other than the Service Provider's design.

9.11 Service Provider's Risks

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks, are the responsibility of the Service Provider.

9.12 Management Meetings

BMC may require the Service Provider to attend a management meeting. The business of a management meeting shall be to review the plans for progress of the Works.

BMC shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by BMC either at the management meeting or after the management meeting and stated in writing to all those who attended the meeting.

9.13 Tests

The Service Provider will have to perform the mandatory tests as prescribed in the specifications. The Service Provider shall be solely responsible for:

- a. Carrying out the mandatory tests prescribed in the Specifications, and
- b. For the correctness of the test results, whether preformed.

If BMC instructs the Service Provider to carry out a test not specified in the Specification/ Quality Assurance Handbook to check whether any work has a Defect and the test shows that it does, the Service Provider shall pay for the test and any samples. If there is no defect, the test shall be a compensation event.

The cost of testing shall be borne by the Service Provider even if the result of the sample confirm or do not confirm to the relevant specifications.

All expenditure required to be incurred in testing shall be borne by the Service Provider himself.

9.14 Variations

BMC shall, having regard to the scope of the Works and the sanctioned estimated cost, have power to order, in writing, Variations within the scope of the Works he considers necessary or advisable during the progress of the Contract. Such Variations shall form part of the Contract and the Service Provider shall carry them out and include them in updated Programmes produced by the Service Provider. Oral orders of BMC for Variations, unless followed by written confirmation, shall not be taken into account.

9.15 Payment for Variations

If rates for Variation items are specified in the Bill of Quantities, the Service Provider shall carry out such work at the same rate.

9.16 Operation and Maintenance Manuals

If Drawings and/or operating and maintenance manuals are required, the Service Provider shall supply them by the dates stated in the Contract Data.

If the Service Provider does not supply the Drawings and/or manuals by the dates stated in the contract Data, or they do not receive the BMC's approval, BMC shall withhold the amount stated in the Contract Data from payments due to the Service Provider.

9.17 Compliance with Labour Regulations

During continuance of the Contract, the Service Provider and his sub-Contractors (if any) shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority.

Furthermore, the Service Provider shall keep BMC indemnified in case any action is taken against the BMC by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If BMC is caused to pay or reimburse, such amounts as may

be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/byelaws/Acts/Rules/regulations including amendments, if any, on the part of the Service Provider, BMC shall have the right to deduct any money due to the Service Provider including his amount of performance guarantee. The BMC shall also have right to recover from the Service Provider any sum required or estimated to be required for making good the loss or damage suffered by BMC.

The Service Provider shall require his employees to obey all applicable laws, including those concerning safety at work. The employees of the Service Provider and the Sub-Contractor in no case shall be treated as the employees of the BMC at any point of time.

9.18 Format & Signing of Application

The Bidder shall provide all the information sought under this TENDER. The BMC Authority will evaluate only those applications that are received in the required formats and complete in all respects. Incomplete and /or conditional Bids shall be liable to rejection.

The Bidder will upload application in One Folder in electronic form which shall contain the scanned certified copies of the documents given below and the documents uploaded has to be digitally signed by the bidder. These copies shall be certified by Practicing Notary approved by the Govt. of Maharashtra or Govt. of India with his stamp, clearly stating his name & registration number, except where original documents are demanded

9.19 Marking of Application

The Bidder shall submit the application in the format specified in the Bid Document, together with the documents, upload in folder as “Bidder” together with their respective enclosures.

Applications submitted by fax, telex, telegram shall not be entertained and shall be rejected outright.

9.20 Clarification of Financial Bids

To assist in the examination, evaluation and comparison of Bids, BMC may, at his discretion, ask any bidder for clarification of his Bid, including breakdown of unit rates. The request for clarification and the response shall be in writing or by post/facsimile/e-mail. No Bidder shall contact BMC officials on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. Any effort by the Bidder to influence the BMC officials in the bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder’s bid.

9.21 Official Secrecy

The Service Provider shall of all the persons employed in any works in connection with the contract that the India Official Secrets Act 1923 (XIX of 1923) applies to them and will continue to apply even after execution of the said works and they will not disclose any information regarding this contract to any third party. The Service Provider shall

also bring into notice that, any information found to be leaked out or disclosed the concern person as well as the Service Provider will be liable for penal action; further the Corporation will be at liberty to terminate the contract without notice.

9.22 Subsequent Legislation

If on the day of submission of bids for the contract, there occur changes to any National or State statute, Ordinance, decree or other law or any regulation or By-laws or any local or other duly constituted authority or the introduction of any such National or State Statute, Ordinance, decree or by which causes additional or reduced cost to the Service Provider, such additional or reduced cost shall, after due consultation with the Service Provider, be determined by the concerned authority of BMC and shall be added to or deducted from the Contract Price with prior approval of competent authority and BMC shall notify the Service Provider accordingly .BMC reserve the right to take decision in respect of addition/reduction of cost in contract.

9.23 Patent, Rights & Royalties

The Service Provider shall save harmless and indemnify the Corporation from and against all claims and proceedings for or on account of infringement of any Patent rights, design trademark or name of other protected rights in respect of any constructional plant, machine work, or material used for or in connection with the Works or any of them and from and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. Except where otherwise specified, the Service Provider shall pay all tonnage and other royalties, rent and other payments or compensation, if any, required for the works.

9.24 Payment, Taxes & Claims

➤ The limit for unforeseen Risks

Under no circumstances whatever the Service Provider shall be entitled to any compensation from BMC on any account unless the Service Provider shall have submitted a claim in writing to BMC within 15 days of the case of such claim occurring.

➤ No interest for delayed payments due to disputes, etc.

It is agreed that the Brihanmumbai Municipal Corporation or its representative or Officer shall not be liable to pay any interest or damage with respect of any moneys or balance which may be in its or its representative's or officer's hands owing to any dispute or difference or claim or misunderstanding between the Brihanmumbai Municipal Corporation or its representative or Officer on the one hand and the Service Provider on the other, or with respect to any delay on the part of the Municipal Corporation of Greater Bombay or representative or Officers in making periodical or final payments or in any other respect whatever.

9.25 Receipts to be signed in firm's name by any one of the partners

Every receipt for money which may become payable or for any security which may become transferable to the Service Provider under these present shall, if signed in the partnership name by any one of the partners, be a good and sufficient discharge to the Commissioner and Municipal Corporation in respect of the money or security

purporting to be acknowledged thereby, and in the event of death of any of the partners during the pendency of this contract, it is hereby expressly agreed that every receipt by any one of the surviving partners shall, if so signed as aforesaid, be good and sufficient discharge as aforesaid provided that nothing in this clause contained shall be deemed to prejudice or effect any claim which the Commissioner or the Corporation may hereafter have against the legal representatives of any partners so dying or in respect of any breach of any of the conditions thereof, provided also that nothing in this clause contained shall be deemed prejudicial or affect the respective rights or obligations of the Service Provider and of the legal representatives of any deceased Service Provider interest.

9.26 Proprietary data

All documents and other information supplied by the Authority or submitted by a Service Provider to BMC Authority shall remain or become the property of BMC Authority. Service Provider are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. BMC Authority will not return any Application or any information provided along therewith.

9.27 Correspondence with the Service Provider

Save and except as provided in this TENDER, BMC Authority shall not entertain any correspondence with any Service Provider in relation to the acceptance or rejection of any Application.

9.28 Taxes

G.S.T. and other state levies/ cess which are not subsumed under GST will be applicable. The tenderer shall quote inclusive of all taxes. It is clearly understood that BMC will not bear any additional liability towards payment of any Taxes & Duties.

Where ever the services to be provided by the Tenderers falls under Reverse Charge Mechanism, the price quoted shall be exclusive of GST, but inclusive of Taxes/ Duties/ Cess other than GST, if any.

Rates accepted by BMC shall hold good till completion of work and no additional individual claim shall be admissible on account of fluctuations in market rates, increase in taxes/ any other levies/ tolls etc. except that payment/ recovery for overall market situation shall be made as per price variation.

9.29 Contract Execution

All required documents for execution of the contract shall be submitted within 30 days from the date of issue of letter of acceptance. If the documents are not submitted within the stipulated time a penalty of Rs 5000/- per day will be applicable to the Bidder. All contract documents need to be duly affixed with stamp duty properly signed along with evidence/proof of payment of security/contract deposit/ within 30 days from the date of letter of acceptance received by him / her.

If the amount of the Contract Deposit to be paid above is not paid within 30 days from the date of issue of Letter of Acceptance, the Tender / Contractor already accepted

shall be considered as cancelled and legal steps be taken against the Bidder for recovery of the amounts.

The amount of Performance Bank Guarantee (PBG) retained by the BMC shall be released after expiry of period up to which the contractor has agreed to maintain the work in good order is over. In the event of the contractor failing or neglecting to complete the rectification work within the period up to which the contractor has agreed to maintain the work in good order, the amount of Performance Bank Guarantee (PBG) retained by BMC shall be adjusted towards the excess cost incurred by the Department on rectification work.

9.30 Contract may be rescinded and Performance Bank Guarantee (PBG) forfeited for bribing a public officer or if contractor becomes insolvent

If the contractor assigns or sublets his contracts or attempt so to do, or become insolvent or commence any proceeding to get himself adjudicated and insolvent or make any composition with his creditors, or attempt so to do or if bribe, gratuity, gift, loan, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given promised or offered by the contractor or any of his servants or agents through any public officer, or person in the employ of BMC/Govt. in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract the Engineer In-charge may thereupon, by notice in writing rescind the contract and the Performance Bank Guarantee (PBG) of the Contractor shall thereupon stand forfeited and be absolutely at the disposal of BMC and the same consequences shall ensure as if the contract had been rescinded under above clause here of; and in addition, the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

9.31 Fees

The fees shall be inclusive of Goods & Service Tax, Income Tax, duties, fees, levies, charges, and commissions as applicable under the relevant Laws of India. Should there be a change in applicable taxes, the actual taxes on the date of billing would prevail.

9.32 Work Completion Timelines and Payment Terms

BMC desires to complete this project within five (5) calendar months after releasing the Purchase Order.

BMC shall issue purchase order to the Implementing Agency and payments will be based on acceptance of the items by BMC through User Acceptance Testing activity.

T=Date of issuance of Purchase order to Implementation Agency

BMC shall issue Purchase Order for Items as listed below				
Sr. No.	Activity / Item	Site / Location	Time Required	Payment Terms
1	Submission of Functional requirement Specification(FRS) and Software Requirement Specification (SRS) documents for VTMS with BI	BMC	BMC Within 15 days of the issue of the Purchase Order T+15	10% of the item cost of the purchase order item
2	Supply, Installation, Testing and User Acceptance of enterprise VTMS software with BI	On cloud server provided by IA	Within 120 days of the issue of the Purchase Order T+120	50% of the item cost of the purchase order item
3	Performance monitoring and acceptance of enterprise VTMS software with BI	BMC	Within 150 days of the issue of the Purchase Order T+150	<ul style="list-style-type: none"> ➤ 20% of the item cost of the purchase order item ➤ Remaining 20% of the item cost of the purchase order item will be paid after completion of O&M for one quarter
4	Integration of enterprise VTMS with external systems mentioned in this document	BMC	Within 150 days of the issue of the Purchase Order T+150	100% after acceptance of individual integrated application
5	Supply, Installation, Testing & Commissioning of GPS Equipments, RFID Reader, RFID Tags, RFID Windscreen Tags on vehicles etc. (Existing & Supplied Infrastructure)	Within BMC Limits	Within 150 days of the issue of the Purchase Order T+150	80% of the item cost of the purchase order item Remaining 20% after successful completion of 1st quarter of maintenance

				support.
6	Supply of Video wall items including controller, Desktop Computers, Printers, UPS and fingerprint based biometric access control at control room	Office of Ch Eng. (SWM), Grant Road , Mumbai - 400007	Within 120 days of the issue of the Purchase Order T+120	80% of the item cost of the purchase order item
7	Installation, Testing, User acceptance of video wall including controller, Desktop Computers, Printers, UPS and fingerprint based biometric access control at control room	Office of Ch Eng. (SWM), Grant Road , Mumbai - 400007	Within 150 days of the issue of the Purchase Order T+150	10% of the cost of the purchase order item and remaining 10% after successful completion of 1st quarter of maintenance support
8	Warranty / Annual Maintenance Support / O & M for all the items within the scope of this project for 5 years	Office of Ch Eng. (SWM), Grant Road , Mumbai - 400007	5 years from the date of User acceptance sign off	Monthly

Disbursement of payment to the Implementation Agency will be based on completion of tasks /milestone indicated in the implementation schedule; Operations and Maintenance support and final handing over of O&M to the third party on completion at the end of five (5) years of the contractual period.

Other Conditions:

1. Adherence to timelines is critical for the success of the project. Failure to comply shall attract penalties.
2. No advance payment shall be made.
3. If the Implementation Agency is liable for any penalty as per the SLA (refer to the related clause of this agreement), the same shall be adjusted from payments due to the Implementation Agency.
4. BMC will release the payment within 30 days of submission of valid invoice subject to the condition that invoice and all supporting documents produced are in order and work is performed as per the scope of the project and meeting the SLA Criteria. BMC shall be entitled to delay or withhold the payment of a disputed invoice or part of it delivered by Implementation Agency, when BMC disputes such invoice or part of it, provided that such dispute is bonafide.
5. Payment will be made by SWM Department.
6. It is mandatory for the successful bidder to open a bank account in any of the banks approved by BMC (Specified in Annexure V of the bid document) for easy and quick payments. All payments under the contract will be made only in this bank account through Electronic Clearing System/RTGS/NEFT/CBS.

7. BMC at its own discretion may decide to release the partial payment (up to 30%) for specific milestones, acceptance of which got delayed for reasons not attributable to the Implementation Agency. In such cases the remaining 70% shall be released on full acceptance of that particular milestone by BMC.
8. No payment made by BMC herein shall be deemed to constitute acceptance by BMC of the system or any module(s).
9. In case Go-Live is delayed, the corresponding operations and maintenance phase will start after the Go-Live has been completed.
- 10.A Project Implementation Committee (PIC) will be constituted which will be responsible for monitor the performance of the Implementation agency and recommend for the payment.
- 11.If the implementation agency is liable for any penalty/liquidated damages as per the SLA mentioned in this document, the same shall be adjusted from line item / quarterly payments of the service provider.
- 12.All payments shall be made for the corresponding to the goods or services actually delivered, installed, or operationally accepted, per the Contract Implementation Schedule, at unit prices and in the currencies specified in the Commercial Bids.

9.33 Service Level Agreements (SLA)

- The purpose of this Service Level Requirements/Agreement (hereinafter referred to as SLR/SLA) is to clearly define the levels of service which shall be provided by the Implementation Agency to the Corporation for the duration of this contract period of the Project.
- Timelines specified in the above section (Work Completion Timelines and Payment Terms) shall form the Service Levels for delivery of Services specified there-in.
- All the payments to the Implementation Agency are linked to the compliance with the SLA metrics specified in this document.
- The project Service Level Agreement are proposed to be performance based. For purposes of Service Level Agreement, the definitions and terms as specified along with the following terms shall have the meanings set forth below:
 1. “Uptime” shall mean the time period for which the specified services / components with specified technical and service standards are available for the application. Uptime, in percentage, of any component (Non-IT and IT) can be calculated as:
$$\text{Uptime} = \{1 - [(\text{System Downtime}) / (\text{Total Time} - \text{Planned Maintenance Time})]\} \times 100$$
 2. “Downtime” shall mean the time period for which the specified services / components with specified technical and service standards are not available for the Users, the scheduled outages /Planned Maintenance time planned in advance for application, related infrastructure and Wi-Fi PoE failures. This includes any other IT and non-IT infrastructure, their subcomponents etc. at all Project locations etc. The planned maintenance time / scheduled downtime will include activities like software upgrades, patch management, security software installations etc.
 3. The selected IA will be required to schedule ‘planned maintenance time’ with prior approval of BMC. This will be planned outside working time. In exceptional circumstances, BMC may allow the IA to plan scheduled downtime in the working hours.

4. "Incident" refers to any event / abnormalities in the functioning of the application, Infrastructure and services that may lead to disruption in normal operations.
 5. "Support" shall mean the 24x7x365 OEM support for handling reported Faults.
 6. "Response Time" shall mean the time incident is reported to the help desk and an engineer is assigned for the call.
 7. "Resolution Time" shall mean the time taken (after the incident has been reported at the (helpdesk), in resolving (diagnosing, troubleshooting and fixing) or escalating (to the second level) getting the confirmatory details about the same from the IA and conveying the same to the end user), the services related troubles during the first level escalation.
- The resolution time shall vary based on the severity of the incident reported at the help desk. The severity would be as follows:
 1. Critical / High: The application is down impacting critical business functions or multiple modules/functions down impacting users on daily operations or any module /functionality deemed as highly critical by BMC .
 2. Medium: One module/functionality down impacting critical business functions having major impact on daily operations.
 3. Low: Loss of business functionality for less than 2 users impacting day to day operations or minor functionality down impacting less than 2 users.

The SLAs have been logically segregated in the following categories:

1. Supply/Installation/Configuration of IT Infrastructure
2. IT Infrastructure Performance
3. Issue Resolution

Commencement of SLA: The SLA shall commence from implementation period itself for adherence to the implementation plan. The penalty will be deducted from the next payment milestone during the implementation period. During the O & M period, the penalty will be deducted from the quarterly payments.

T=Date of issuance of Purchase order to Implementation Agency

Sr. No	Service Metric Parameter	Threshold Metric	Frequency	Penalty
1	Supply, Installation, UAT and Commissioning of enterprise VTMS software with BI tool	Within 150 days of the issue of the Purchase Order T+150	Per Day	5000 per day up to maximum 10% of contract value post which BMC may invoke annulment of the contract.
2	Supply of GPS Equipment, RFID Reader, RFID Bin Tags, RFID Windscreen	Within 120 days of the issue of the	Per day	5000 per day up to maximum 10%

	Tags.	Purchase Order T+120		of contract value post which BMC may Invoke annulment of the contract.
3	Installation, Testing, Integration & UAT of GPS Equipment , RFID Reader, RFID Bin Tags, RFID Windscreen Tags (Existing & Supplied Infrastructure)	Within 150 days of the issue of the Purchase Order T+150	Per day	5000 per day up to maximum 10% of contract value post which BMC may invoke annulment of the contract.
4	Supply of Video wall items including controller, Desktop Computers, Printers, UPS and fingerprint based biometric access control	Within 120 days of the issue of the Purchase Order T+120	Per day	1000 per day up to maximum 10% of contract value post which BMC may Invoke annulment of the contract.
5	Installation, Testing, UAT of video wall including controller, Desktop Computers, Printers, UPS and fingerprint based biometric access control	Within 150 days of the issue of the Purchase Order T+150	Per day	1000 per day up to maximum 10% of contract value post which BMC may invoke annulment of the contract.
Performance of the Hardware & Software Solution				
Sr. No	Service Parameters	Threshold Levels	Condition	Penalty
1	Availability and Reliability of VTMS solution and devices	99.90%	If the downtime exceeds 60 min in a month for every additional 30 min. for that month	0.05% of the quarterly invoices raised to a maximum of 5% as per Point no. 8 & 9 (Maintenance & Support of the VTMS Solution) of Table 2

				below in this document, will be imposed in event of exceeding the specified.
2	Failure of Vehicle units (GPS,RFID readers, sensors, GPRS / 3G / CDMA card)	< 0.5% of the total number of vehicles in which devices are installed and declared commissioned per day	Over the 0.5% failure per day. For every instance	0.1% of the quarterly invoices raised to a maximum of 5% as per Point no. 8 & 9 (Maintenance & Support of the VTMS Solution) of Table 2 below in this document, will be imposed in event of exceeding the specified.
3	Average time for completing any query regarding vehicle status	<45 secs	For not meeting the requirement every week	0.05% of the quarterly invoices raised to a maximum of 5% as per Point no. 8 & 9 (Maintenance & Support of the VTMS Solution) of Table 2 below in this document, will be imposed in event of exceeding the specified.
4	Time for report generation	<5min	For not meeting the requirement every week	0.05% of the quarterly invoices raised to a maximum of 5% as per Point no. 8 & 9 (Maintenance & Support of the VTMS Solution) of Table 2

				below in this document, will be imposed in event of exceeding the specified.
6	Replacement of a Device (GPS, RFID, Sensors etc.)	<12 days	For every week delay	0.1% of the quarterly invoices raised to a maximum of 5% as per Point no. 8 & 9 (Maintenance & Support of the VTMS Solution) of Table 2 below in this document, will be imposed in event of exceeding the specified.

Change Requests (Applicable for all changes in the application after deployment)

1	Criticality of Change – Low	T+2 weeks, where T is the timeframe for completion of the Change request as agreed upon by BMC And Implementing agency	Weekly per Occurrence	Rs.1000 value per week for the first two weeks for each occurrence, Rs.2500 per week for every subsequent week, subject to a maximum of 10% of contract value post which BMC may invoke annulment of the contract.
2	Criticality of Change – Medium	T+1 weeks, where T is the timeframe for completion of the Change request as agreed upon by BMC And Implementing	Weekly per Occurrence	Rs. 1000 per week for the first two weeks for each occurrence, thereafter Rs.2500 per week for every subsequent week, subject to a maximum of

		agency		10% of contract value post which BMC may invoke annulment of the contract.
3	Criticality of Change – High	< T, where T is the timeframe for completion of the Change request as agreed upon by BMC and Implementing agency	Weekly per Occurrence	Rs. 2500 per week for the first two weeks for each occurrence, thereafter Rs. 5000 per week for every subsequent week, subject to a maximum of 10% of contract value post which BMC may invoke annulment of the contract.

Helpdesk (After installation & Go-Live)

1	Average Speed of Answer Speed of answer = Time taken to receive a call. Average Speed of Answer = (Sum of Speed of answer of all calls)/Total No. of calls	<=10 Seconds	Quarterly calculation	Rs.200 will be imposed in each event of exceeding the specified metric subject to a maximum of 10 % of contract value post which BMC may invoke Annulment of the contract
2	Average Hold Time (Hold time is no talk time) Average Hold Time = Sum of Hold time for all calls/Total No. of Calls	<=10 Seconds	Quarterly calculation	Rs.200 will be imposed in each event of exceeding the specified metric subject to a maximum of 10 % of contract value post which BMC may invoke Annulment of the contract
3	Average Call Lost Rate (Total No. of calls lost	<= 1%	Quarterly calculation	Rs.200 will be imposed in each

	because they were not attended by an operator / Total incoming calls) *100			event of exceeding the specified metric subject to a maximum of 10 % of contract value post which BMC may invoke Annulment of the contract
4	Call Handling Accuracy (Total No. of calls/incidents reopened)	>=95%	Quarterly calculation	Rs.500 will be imposed in each event of exceeding the specified metric subject to a maximum of 10 % of contract value post which BMC may invoke Annulment of the contract
Issue Response & Resolution During Operation and Maintenance				
1	Severity 1 Issue (Critical)	Resolution Time: <= 8 Hrs. from the time the call is logged by end user.	Daily	Rs. 300 for the first day and Rs.500 per day every subsequent day, subject to a maximum of 10 % of the total contract value, post which BMC may invoke Annulment of the contract.
2	Severity 2 Issue (Medium)	Resolution Time: <= 2 Days from the time the call is logged by end user.	Daily	Rs. 300 for the first day and Rs.500 per day every subsequent day, subject to a maximum of 10 % of the total contract value, post which BMC may invoke

				Annulment of the contract.
3	Severity 3 Issue (Low)	Resolution Time: <= 5 Days from the time the call is logged by end user.	Daily	Rs.200 for the first day and Rs. 400 per day every subsequent day, subject to a maximum of 10 % of the total contract value, post which BMC may invoke Annulment of the contract.
Timelines				
1	Submission of deliverables as relevant to the individual milestones/stages Various deliverables such as: <ul style="list-style-type: none"> • Inception Report • Project Plan • Technical Documents (FRS, SRS) etc. Severity 1 Issue (Critical)	To be submitted within 15 days of the completion of the individual milestone.	Per Occurrence	Rs. 1000 for the first week and Rs.2500 for every subsequent week subject to a maximum of 10% of the total contract value post which BMC may invoke annulment of the contract.
Other Factors				
1	Application Security Cyber Crime / Hacking /Data Theft /Fraud attributable to the service Provider	Per occurrence		Depending on the type of Incident and its impact, a penalty of 10% on the entire contract value or in case of severe issues (as defined by BMC) such breach may lead to termination of contract

Notes & Definitions:

- Severity 1: The VTMS solution down affecting critical business functions OR Multiple critical functions down affecting users on daily operations OR any module/ function deemed as highly critical by BMC.
- Severity 2: One VTMS module / functionality down affecting critical business functions OR Multiple critical functions down affecting users having a major impact on daily operations.
- Severity 3: Loss of business functionality for 10 or more users affecting day-to-day operations.
- Response Time: Response time is defined as the time the support vendor takes to respond from the time that ticket was raised.
- Resolution Time: Resolution time is defined as the time the vendor takes to resolve the issue or provide acceptable workaround for the issue.
- The solution should be able to generate reports based on the time taken for resolving issues logged by the users.
- The implementing agency should also have a performance-monitoring tool to generate reports for measuring SLA s related to performance and submit those reports on monthly basis. Additionally BMC may request for transactional data including performance parameters to be reported as required.
- The implementing agency should also have a help desk-monitoring tool to generate reports for measuring SLAs related to help desk performance and submit those reports on monthly basis. Additionally BMC may request for transactional data including performance parameters to be reported as required.
- The down time will be calculated on monthly basis. Non-adherence to any of the services as mentioned below will lead to penalty as per the SLA clause and will be used to calculate downtime. The downtime calculated shall not include the following:
 - Down time due to hardware, software application and network which is owned by BMC at their premises and which is not as part of scope in this tender.
 - Negligence or other conduct of BMC or its agents, including a failure or malfunction resulting from applications or services provided by BMC or its vendors.
 - Failure or malfunction of any equipment or services not provided by the Bidder.

However, it is the responsibility of the selected Bidder to prove that the outage is attributable to BMC. The selected Bidder shall obtain the proof authenticated by the BMC's official that the outage is attributable to the BMC.

- The Agency shall deploy sufficient manpower suitably qualified and experienced in shifts to meet the SLA. Agency shall appoint as many team members as deemed fit by them, to meet the time Schedule and SLA requirements.
- The Bidder is absolutely responsible for any legal risk arising out of employee disputes. Employees of the Bidder cannot claim themselves as employees of the BMC and are not liable for any facilities and perks provided to BMC employees.
- Once a maximum penalty of 10% of the contract value is reached, BMC has the right to call for the annulment of contract.

9.34 Professional Project Management

1. Implementation Agency shall execute the project with complete professionalism and full commitment to the scope of work and the prescribed service levels. Implementation Agency shall attend regular Project Review Meetings scheduled by BMC and shall adhere to the directions given during the meeting. Following responsibilities are to be executed by the Implementation Agency in regular manner to ensure the proper management of the project:
 - Finalization of the Project plan in consultation with BMC and its consultant. Project Plan should consist of work plan, communication matrix, timelines, Quality Plan, Configuration Management Plan, etc.
 - Plan and deploy the resources in conjunction with the Project Plan and to execute roles and responsibilities against each activity of the project plan
 - Preparation and regular update of the Risk Register and the Mitigation Plan. Timely communication of the same to all the identified project stakeholders
 - Submission of Weekly Project Progress Reports
 - Monthly Compliance report, which will cover compliances to Project Timelines, Project Team, Hardware and Software delivered, SLAs, etc.

9.35 Use and Acquisition of Assets during the term

The Implementation Agency shall:

1. Take all reasonable and proper care of the entire hardware and software, network or any other information technology infrastructure components used for the project and other facilities leased/owned by the Implementation Agency exclusively in terms of the delivery of the services as per this CA (hereinafter the "Assets") in proportion to their use and control of such Assets which will include all upgrades/enhancements and improvements to meet the needs of the project arising from time to time
2. Term "Assets" also refers to all the hardware / Software / furniture / data / documentations / manuals / catalogues / brochures / or any other material procured, created or utilized by the Implementation Agency
3. Keep all the tangible Assets in good and serviceable condition (reasonable wear and tear accepted) suitably upgraded subject to the relevant standards as stated in the bid to meet the SLAs mentioned in the contract and during the entire term of the Agreement
4. Ensure that any instructions or manuals supplied by the manufacturer of the Assets for use of Assets and which are provided to the Implementation Agency will be followed by the Implementation Agency and any person who will be responsible for the use of the Asset
5. Take such steps as may be recommended by the manufacturer of the Assets and notified to the Implementation Agency or as may be necessary to use the Assets in a safe manner
6. To the extent that the Assets are under the control of the Implementation Agency, keep the Assets suitably housed and in conformity with any statutory requirements from time to time applicable to them

7. Not, knowingly or negligently use or permit any of the Assets to be used in contravention of any statutory provisions or regulation or in any way contrary to law
8. Use the Assets exclusively for the purpose of providing the Services as defined in the contract
9. Ensure the integration of the software with hardware to be setup and the current Assets in order to ensure the smooth operations of the entire solution architecture to provide efficient services to BMC of this Project in an efficient and speedy manner
10. Implementation Agency shall not use BMC's data to provide services for the benefit of any third party, as a service bureau or in any other manner

9.36 Security and safety

1. The Implementation Agency will comply with the directions issued from time to time by BMC and the standards related to the security and safety in so far as it applies to the provision of the Services.
2. Adherence to basic e Governance Guidelines and Standards for data structure (if any) shall be adhered to.
3. Implementation Agency shall also comply with BMC / Government of Maharashtra's / Government of India's information technology security and standard policies in force from time to time as applicable. BMC shall share the relevant guidelines and standards to the Implementation Agency upon signing of the CA.
4. Implementation Agency shall use reasonable endeavors to report forthwith in writing to all the partners /contractors about the civil and criminal liabilities accruing due to any unauthorized access (including unauthorized persons who are employees of any Party) or interference with BMC's data, facilities or Confidential Information.
5. The Implementation Agency shall upon reasonable request by BMC or his/her nominee(s) participate in regular meetings when safety and information technology security matters are reviewed.
6. Implementation Agency shall promptly report in writing to BMC any act or omission which they are aware that could have an adverse effect on the proper conduct of safety and information technology security at BMC.
7. Implementation Agency shall conduct vulnerability and penetration test (from a third party testing agency which may be CERT-IN empanelled) on the proposed enterprise VTMS solution in every 6 months and submit reports to BMC. The Implementation Agency needs to update the system in response to any adverse findings in the report, without any additional cost to BMC. BMC may also depute auditors to conduct security check/ vulnerability test/penetration test.
8. The Implementation Agency and its team have to maintain the confidentiality and security of data in true spirit. In no case, breach in security of data will be acceptable. Violation of this clause may lead to severe penalties, maximum up to termination of involved agency as decided by tender issuing authority. In this regard, the Implementation Agency has comply with the following:
 - i. Non-Disclosure Agreement

Implementation Agency has to sign Non-Disclosure Agreement with BMC. It will be Implementation Agency' responsibility to get this agreement signed along with contract agreement. Format of Draft NDA is attached in Annexure VIII.

ii. Audit Trails

VTMS software provided by selected Implementation Agency should maintain audit trail of all the work done. Software should have separate login for all the users and administrator.

iii. Confinement of data

Any data or related document (both in physical and electronic format) being used for VTMS solution implementation will not be allowed to be taken outside without the permission of Head of the ward/Department.

iv. Use of data storage devices

Before the start of the work, selected bidder may proactively take permission from BMC regarding use of following electronic gadgets mainly Pen Drive, Hard Disk, CD/DVD, Internet dongles, Camera/Camcorder, Mobile phones having camera or storage facility, Any other device capable of storing or capturing data in any format by its staff in following draft format:

- ✓ Name of Staff members to be given access
- ✓ Type of device to be allowed
- ✓ Company/Make/Model of device
- ✓ Any other information required to identify device
- ✓ Reason for permission

BMC may also ask selected bidder to take such permissions specifically for any project.

9.37 Indemnity

The Implementation Agency agrees to indemnify and hold harmless BMC, its officers, employees and agents(each an "Indemnified Party") promptly upon demand at any time and from time to time, from and against any and all losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which the Indemnified Party may become subject, in so far as such losses directly arise out of, in any way relate to, or result from:

- i. Any mis-statement or any breach of any representation or warranty made by the Implementation Agency or
- ii. The failure by the Implementation Agency to fulfill any covenant or condition contained in this Agreement, including without limitation the breach of any terms and conditions of this Agreement by any employee or agent of the Implementation Agency. Against all losses or damages arising from claims by third Parties that any Deliverable (or the access, use or other rights thereto), created by Implementation Agency pursuant to this Agreement, or any equipment, software, information, methods of operation or other intellectual property created by Implementation Agency or sub-contractors pursuant to this Agreement, or the SLAs (I) infringes a copyright, trade mark, trade design enforceable in India, (II) infringes a patent issued in India, or
- iii. constitutes misappropriation or unlawful disclosure or use of another Party's trade secretes under the laws of India (collectively, "Infringement Claims");

provided, however, that this will not apply to any Deliverable (or the access, use or other rights thereto) created by (A) <insert name of the Project> by itself or through other persons other than Implementation Agency or its sub-contractors; (B) Third Parties (i.e., other than Implementation Agency or sub-contractors) at the direction of BMC, or

- iv. Any compensation / claim or proceeding by any third party against BMC arising out of any act, deed or omission by the Implementation Agency or
- v. Claim filed by a workman or employee engaged by the Implementation Agency for carrying out work related to this Agreement. For the avoidance of doubt, indemnification of Losses pursuant to this section shall be made in an amount or amounts sufficient to restore each of the Indemnified Party to the financial position it would have been in had the losses not occurred.

Any payment made under this Agreement to an indemnity or claim for breach of any provision of this Agreement shall include applicable taxes.

9.38 Third Party Claims

- a. Subject to Sub-clause (b) below, the Implementation Agency (the “Indemnified Party”) from and against all losses, claims litigation and damages on account of bodily injury, death or damage to tangible personal property arising in favor or any person, corporation or other entity (including the Indemnified Party) attributable to the Indemnifying Party’s performance or non-performance under this Agreement or the SLAs.
- b. The indemnities set out in Sub-clause (a) above shall be subject to the following conditions:
 - i. The Indemnified Party, as promptly as practicable, informs the Indemnifying Party in writing of the claim or proceedings and provides all relevant evidence, documentary or otherwise;
 - ii. The Indemnified Party shall, at the cost and expenses of the Indemnifying Party, give the Indemnifying Party all reasonable assistance in the defense of such claim including reasonable access to all relevant information, documentation and personnel. The indemnifying party shall bear cost and expenses and fees of the Attorney on behalf of the Indemnified Party in the litigation, claim.
 - iii. If the Indemnifying Party does not assume full control over the defense of a claim as provided in this Article, the Indemnifying Party may participate in such defense at its sole cost and expense, and the Indemnified Party will have the right to defend the claim in such manner as it may deem appropriate, and the cost and expense of the Indemnified Party will be borne and paid by the Indemnifying Party.
 - iv. The Indemnified Party shall not prejudice, pay or accept any proceedings or claim, or compromise any proceedings or claim, without the written consent of the Indemnifying Party;
 - v. Implementation Agency hereby indemnify and hold indemnified BMC harmless from and against any and all damages, losses, liabilities, expenses including legal fees and cost of litigation in connection with any action, claim, suit, proceedings as if result of claim made by the third party directly or indirectly arising out of or in connection with this agreement.

- vi. All settlements of claims subject to indemnification under this Article will: (a) be entered into only with the consent of the Indemnified Party, which consent will not be unreasonably withheld and include an unconditional release to the Indemnified Party from the claimant for all liability in respect of such claim; and (b) include any appropriate confidentiality agreement prohibiting disclosure of the terms of such settlement;
- vii. The Indemnified Party shall take steps that the Indemnifying Party may reasonably require to mitigate or reduce its loss as a result of such a claim or proceedings.
- viii. In the event that the Indemnifying Party is obligated to indemnify an Indemnified Party pursuant to this Article, the Indemnifying Party will, upon payment of such indemnity in full, be subrogated to all rights and defenses of the Indemnified Party with respect to the claims to which such indemnification relates.
- ix. In the event that the Indemnifying Party is obligated to indemnify the Indemnified Party pursuant to this Article, the Indemnified Party will be entitled to invoke the Performance Bank Guarantee, if such indemnity is not paid, either in full or in part, and on the invocation of the Performance Bank Guarantee, the Indemnifying Party shall be subrogated to all rights and defenses of the Indemnified Party with respect to the claims to which such indemnification relates.

Implementation Agency will defend or settle third party claims against BMC solely attributable to the Implementation Agency's infringement of any copyrights, trademarks or industrial design rights alleged to have occurred in respect of Implementation Agency branded hardware/software/deliverables etc. (together "deliverables") supplied by the Implementation Agency. The Implementation Agency shall pay all costs, damages and attorney's fees that a court finally awards.

BMC shall provide the Implementation Agency with prompt notice of such claim and extend full cooperation and assistance, information and authority reasonably necessary to defend or settle such claim. The Implementation Agency will have adequate opportunity to control the response thereto and the defense thereof.

Further as an exclusion, the Implementation Agency shall have no obligation for any claim of infringement to the extent arising from use of the deliverables in a way not indicated in the statement of work or in any specifications or documentation provided with such deliverable.

9.39 Publicity

Any publicity by the Implementation Agency in which the name of BMC is to be used should be done with the explicit written permission of The Municipal Commissioner, IT dept., Brihanmumbai Municipal Corporation.

9.40 Warranties

- a. The Implementation Agency warrants and represents to BMC that:
 - i. It has full capacity and authority and all necessary approvals to enter into and to perform its obligations under this Agreement.

- ii. This Agreement is executed by a duly authorized representative of the Implementation Agency.
 - iii. It shall discharge its obligations under this Agreement with due skill, care and diligence so as to comply with the service level agreement.
- b.** In the case of SLAs, the Implementation Agency warrants and represents to BMC, that:
- i. The Implementation Agency has full capacity and authority and all necessary approvals to enter into and perform its obligations under the SLAs and to provide the Services.
 - ii. The SLAs shall be executed by a duly authorized representative of the Implementation Agency.
 - iii. The Services will be provided and rendered by appropriately qualified, trained and experienced personnel as mentioned in the bid.
 - iv. Implementation Agency has and will have all necessary licenses, approvals, consents of third Parties free from any encumbrances and all necessary technology, hardware and software to enable it to provide the Services.
 - v. The Services will be supplied in conformance with all laws, enactments, orders and regulations applicable from time to time.
 - vi. Implementation Agency will warrant that the solution provided under the contract is new, of the most recent higher version /models and incorporate all recent improvements in design and materials unless provided otherwise in the contract.
 - vii. The Implementation Agency shall ensure defect free operation of the entire solution and shall replace any such components, equipment, software and hardware which are found defective and during the entire contract period the Implementation Agency shall apply all the latest upgrades/patches/releases for the software after appropriate testing. No additional costs shall be paid separately for the warranty other than what are the costs quoted by the Implementation Agency and as specified in the contract.
 - viii. If the Implementation Agency uses in the course of the provision of the Services, components, equipment, software and hardware manufactured by any third party and which are embedded in the Deliverables or are essential for the successful use of the Deliverables, it will pass through third party manufacturer's Warranties relating to those components, equipment, software and hardware to the extent possible.

The Implementation Agency will repair/correct the warranty defect in the Implementation Agency branded hardware/software, or correct a material non-conformance to specifications in accordance with the terms and conditions mutually agreed between the parties during the agreed warranty period and in accordance with the terms of the respective OEMs/Software vendors. Further, Implementation Agency will not be responsible for any breach of warranty or support resulting from unauthorized changes made to the software/hardware supplied by it.

Notwithstanding what has been stated elsewhere in this Agreement and the Schedules attached herein, in the event the Implementation Agency is unable to meet the obligations pursuant to the Implementation of the project, Operations and maintenance Services and any related scope of work as stated in this Agreement and

the Schedules attached herein, BMC will have the option to invoke the Performance Guarantee after serving a written notice of thirty (30) days to the Implementation Agency.

9.41 Force Majeure

The Implementation Agency shall not be liable for forfeiture of its Performance Guarantee, imposition of liquidated damages or termination for default, if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the "reasonable" control of the Implementation Agency, not involving the Implementation Agency's fault or negligence and not foreseeable. Unforeseen circumstances or causes beyond the control of the Implementation Agency include but are not limited to acts of God, war, riot, acts of civil or military authorities, fire, floods, accidents, terrorist activity, strikes or shortages of transportation facilities, fuel, energy, labor or material.

For the Implementation Agency to take benefit of this clause it is a condition precedent that the Implementation Agency must promptly notify BMC, in writing of such conditions and the cause thereof within five (5) calendar days of the arising of the Force Majeure event. BMC, or the consultant / committee appointed by BMC shall study the submission of the Implementation Agency and inform whether the situation can be qualified one of Force Majeure. Unless otherwise directed by BMC in writing, the Implementation Agency shall continue to perform its obligations under the resultant Agreement as far as it is reasonably practical, and shall seek all reasonable alternative means for performance of services not prevented by the existence of a Force Majeure event.

In the event of delay in performance attributable to the presence of a force majeure event, the time for performance shall be extended by a period(s) equivalent to the duration of such delay. If the duration of delay continues beyond a period of 30 days, BMC and the Implementation Agency shall hold consultations with each other in an endeavor to find a solution to the problem.

Notwithstanding anything to the contrary mentioned above, the decision of BMC shall be final and binding on the Implementation Agency.

9.42 Resolution of Disputes

This Contract shall be governed by laws of India. Disputes arising out of this Agreement shall be first referred to the senior executives of each party for an amicable solution. If the dispute is not resolved within a period of thirty (30) days, the same shall be referred to arbitration in accordance with Arbitration and Conciliation Act, 1996 (including all amendments thereto).

Each party shall appoint one arbitrator each and the two appointed arbitrators shall appoint the third arbitrator. The decision of the arbitrators shall be final and binding on both parties. The venue of arbitration shall be Mumbai, India.

Subject to the above, this Agreement shall be subject to the jurisdiction of the courts of Mumbai, India.

9.43 Risk Purchase Clause

In the event Implementation Agency fails to execute the project as stipulated in the CA, or as per the directions given by BMC from time to time, BMC reserves the right to procure similar services from the next eligible Bidder or from alternate sources at the cost of the Implementation Agency. Before taking such a decision, BMC shall serve a notice period of one month to the Implementation Agency.

The 30 day notice period shall be considered as the 'Cure Period' to facilitate the Implementation Agency to cure the breach. The provision for Risk Purchase shall be evoked in the event the Implementation Agency fails to correct the breach within the 'Cure Period'. Further, the Implementation Agency's liability to pay shall be set as 25% of the value of the undelivered services.

9.44 Limitation of Liability towards BMC

The Implementation Agency's liability under the resultant Agreement shall be determined as per the Law in force for the time being. The Implementation Agency shall be liable to BMC for loss or damage occurred or caused or likely to occur on account of any act of omission on the part of the Implementation Agency and its employees, including loss caused to BMC on account of defect in goods or deficiency in services on the part of Implementation Agency or his agents or any person / persons claiming through or under said Implementation Agency.

Implementation Agency's aggregate liability in connection with obligations undertaken as a part of this contract regardless of the form or nature of the action giving rise to such liability, shall be at actual and limited to the amount paid by BMC for:

- i. The particular hardware/software, OR
- ii. Services provided during the twelve (12) months immediately preceding the date of the claim that in each case is the subject of the claim.

This limit shall not apply to damages for bodily injury (including death) and damage to real property and tangible personal property for which the Implementation Agency is legally liable.

9.45 Conflict of Interest

The Implementation Agency shall disclose to BMC in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for the Implementation Agency or its team) in the course of performing the Services as soon as it becomes aware of such a conflict. Implementation Agency shall hold BMC's interest paramount, without any consideration for future work, and strictly avoid conflict of interest with other assignments.

9.46 Data Ownership

All the data created as the part of the project shall be owned by BMC. The Implementation Agency shall take utmost care in maintaining security, confidentiality and backup of this data. Access to the data / systems shall be given by the Implementation Agency only to the personnel working on the projects and their names and contact details shall be shared with BMC in advance. BMC / its authorized representative(s) shall conduct periodic / surprise security reviews and audits, to ensure the compliance by the Implementation Agency to data / system security.

The ownership of the application and the data shall rest with BMC.

9.47 Fraud and Corruption

BMC requires that Implementation Agency must observe the highest standards of ethics during the execution of the contract. In pursuance of this policy, BMC defines, for the purpose of this provision, the terms set forth as follows:

- a. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of BMC in contract executions.
- b. "Fraudulent practice" means a misrepresentation of facts, in order to influence a procurement process or the execution of a contract, to BMC, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificially high or non-competitive levels and to deprive BMC of the benefits of free and open competition.
- c. "Undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by BMC with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest.
- d. "Restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.
- e. "Coercive Practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the execution of contract.

If it is noticed that the Implementation Agency has indulged into the Corrupt / Fraudulent / Undesirable / Coercive practices, it will be a sufficient ground for BMC for termination of the contract and initiate black-listing of the vendor.

9.48 Exit Management

i. Exit Management Purpose

This clause sets out the provisions, which will apply during Exit Management period. The Parties shall ensure that their respective associated entities carry out their respective obligations set out in this Exit Management Clause.

The exit management period starts, in case of expiry of contract, at least 6 months prior to the date when the contract comes to an end or in case of termination of contract, on the date when the notice of termination is sent to the Implementation Agency. The exit management period ends on the date agreed upon by BMC or

three months after the beginning of the exit management period, whichever is earlier.

ii. Confidential Information, Security and Data

Implementation Agency will promptly, on the commencement of the exit management period, supply to BMC or its nominated agencies the following:

- a. Information relating to the current services rendered and performance data relating to the performance of the services; documentation relating to the project, project's customized source code; any other data and confidential information created as part of or is related to this project.
- b. Project data as is reasonably required for purposes of the project or for transitioning of the services to its replacing successful Bidder in a readily available format.
- c. All other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable BMC and its nominated agencies, or its replacing vendor to carry out due diligence in order to transition the provision of the Services to BMC or its nominated agencies, or its replacing vendor (as the case may be).
- d. The Implementation Agency shall retain all of the above information with them for 30 days after the termination of the contract, post which the provider has to wipe/purge/delete all information created or retained as part of this project.
- e. Implementation Agency will sign a Non-Disclosure Agreement with IT Department. The format for the same has been included in Annexure VIII.

iii. Rights of Access to Information

At any time during the exit management period, the Implementation Agency will be obliged to provide an access of information to BMC and / or any Replacing Vendor in order to make an inventory of the Assets (including hardware / Software / Active / passive), documentations, manuals, catalogs, archive data, Live data, policy documents or any other material related to implementation of the application for BMC.

iv. Exit Management Plan

Successful Bidder shall provide BMC with a recommended "Exit Management Plan" within 90 days of signing of the contract, which shall deal with at least the following aspects of exit management in relation to the SLA as a whole and in relation to the Project Implementation, the Operation and Maintenance, SLA and Scope of work definition: 3

- a. A detailed program of the transfer process that could be used in conjunction with a Replacement Vendor including details of the means to be used to ensure continuing provision of the services throughout the transfer process or until the cessation of the services and of the management structure to be used during the transfer.
- b. Plans for the communication with such of the Successful Bidder, staff, suppliers, customers and any related third party as are necessary to avoid any material detrimental impact on Project's operations as a result of undertaking the transfer.

- c. Plans for provision of contingent support to the implementation of hosted Project and Replacement Vendor for a reasonable period (minimum one month) after transfer.
- d. Exit Management Plan shall be presented by the Implementation Agency to and approved by BMC or its nominated agencies.
- e. The terms of payment as stated in the Work Completion Timelines and Payment Terms includes the costs of the Implementation Agency complying with its obligations under this Schedule.
- f. During the exit management period, the Implementation Agency shall use its best efforts to deliver the services.
- g. Payments during the Exit Management period shall be made in accordance with the Terms of Payment Schedule.

9.49 Termination of contract

BMC may, without prejudice to any other remedy under this Contract and applicable law, reserves the right to terminate for breach of contract by providing a written notice of 30 days stating the reason for default to the Implementation Agency and terminate the contract either in whole or in part:

- If the Implementation Agency fails to deliver any or all of the project requirements / operationalization / Operational Acceptance of project within the time frame specified in the contract; or
- If the Implementation Agency fails to perform any other obligation(s) under the contract.

Prior to providing a notice of termination to the Implementation Agency, BMC shall provide the Implementation Agency with a written notice of 30 days instructing the Implementation Agency to cure any breach/ default of the Contract, if BMC is of the view that the breach may be rectified.

On failure of the Implementation Agency to rectify such breach within 30 days, BMC may terminate the contract by providing a written notice of 30 days to the Implementation Agency, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to BMC. In such an event the Implementation Agency shall be liable for penalty imposed by BMC.

In the event of termination of this contract for any reason whatsoever, BMC is entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective continuity of the services which the Implementation Agency shall be obliged to comply with and take all available steps to minimize the loss resulting from that termination/ breach, and further allow and provide all such assistance to BMC and/ or succeeding vendor, as may be required, to take over the obligations of the Implementation Agency in relation to the execution/ continued execution of the requirements of this contract.

9.50 Termination for Convenience

- a) BMC, by notice sent to Service Provider, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for BMC's convenience, the extent to which performance of the Service Provider under the Contract is terminated, and the date upon which such termination becomes effective.
- b) The deliverables/ Services that are complete and ready for delivery within twenty-eight (28) days after the Service Provider's receipt of notice of termination shall be accepted by BMC at the Contract terms and prices.

For the remaining deliverables/ services, BMC may elect:

- i. To have any portion completed and delivered at the Contract terms and prices, and/or
- ii. To cancel the remainder and pay to the Service Provider an agreed amount for partially completed deliverables and Related Services.

9.51 Miscellaneous

a. Confidentiality

"Confidential Information" means all information including Project Data (whether in written, oral, electronic or other format) which relates to the technical, financial and operational affairs, business rules, citizen information, design rights, know-how and personnel of each Party and its affiliates which is disclosed to or otherwise learned by the other Party or its subcontractors (whether a Party to the contract or to the SLA) in the course of or in connection with the contract (including without limitation such information received during negotiations, location visits and meetings in connection with the contract or to the SLA) or pursuant to the contract to be signed subsequently.

Except with the prior written permission of BMC, the Implementation Agency (including all partners) and its Personnel shall not disclose such confidential information to any person or entity not expected to know such information by default of being associated with the project, nor shall the Implementation Agency and its Personnel make public the recommendations formulated in the course of, or as a result of the project. In matters pertaining to privacy of data, the Implementation Agency (including all partners) shall not use any data for analytical/commercial reasons whatsoever.

The Implementation Agency recognizes that during the term of this Agreement, sensitive data will be procured and made available to it, its Sub contractors and agents and others working for or under the Implementation Agency. Disclosure or usage of the data by any such recipient may constitute a breach of law applicable causing harm not only to the Department whose data is used but also to its stakeholders. The function of BMC requires the Implementation Agency, its Subcontractors and agents to demonstrate utmost care, sensitivity and strict confidentiality. Any breach of this Article will result in BMC and its nominees receiving a right to seek injunctive relief and damages, from the Implementation Agency.

The restrictions of this Article shall not apply to confidential information that:

- i. Is or becomes generally available to the public through no breach of this Article by the Recipient,
- ii. Was in the recipient's possession free of any obligation of confidence prior to the time of receipt of it by the Recipient hereunder,
- iii. Is developed by the Recipient independently of any of discloser's Confidential Information,
- iv. Is rightfully obtained by the Recipient from third Parties authorized at that time to make such disclosure without restriction, and
- v. Is identified in writing by the Discloser as no longer proprietary or confidential, OR
- vi. Is required to be disclosed by law, regulation or Court Order, provided that the recipient gives prompt written notice to the Discloser of such legal and regulatory requirement to disclose so as to allow the Discloser reasonable opportunity to contest such disclosure.

To the extent that such disclosure is required for the purposes of this Agreement, either Party may disclose Confidential Information to:

- i. Its employees, agents and independent contractors and to any of its affiliates and their respective independent contractors or employees and
- ii. Its professional advisors and auditors, who require access for the purposes of this Agreement, whom the relevant Party has informed of its obligations under this Article and in respect of whom the relevant Party has informed of its obligations under this Article has used commercially reasonable efforts to ensure that they are contractually obliged to keep such Confidential Information confidential on terms substantially the same as set forth in this Article. Either Party may also disclose confidential Information or any entity with the other Party's prior written consent.

The provisions of this Article shall survive the expiration or any earlier termination of this Agreement.

b. Standards of Performance

The Implementation Agency shall provide the services and carry out their obligations under the Contract with due diligence, efficiency and professionalism/ethics in accordance with generally accepted professional standards and practices. The Implementation Agency shall always act in respect of any matter relating to this contract. The Implementation Agency shall abide by all the applicable provisions / Acts / Rules / Regulations, Standing orders, etc. of Information Technology as prevalent in the country. The Implementation Agency shall also conform to the standards laid down by Government of Maharashtra or Government of India from time to time. Such standards and guidelines shall be shared with the Implementation Agency by BMC up on signing of the Contract.

c. Sub Contracts

Sub-contracting is permitted. The Implementation Agency shall seek prior approval from BMC for sub-contracting any work, if not already specified in the bid. However, such sub-contracting shall not relieve the Implementation Agency from any liability or

obligation under the Contract. The Implementation Agency shall be solely responsible for the work carried out by subcontracting under the contract. Subcontracting amount shall not be more than 25 % of the contract value.

d. Care to be taken while working at BMC Office

Implementation Agency should follow instructions issued by concerned Competent Authority from time to time for carrying out work at designated places. Implementation Agency should ensure that there is no damage caused to any private or public property. In case such damage is caused, Implementation Agency shall immediately bring it to the notice of concerned organization and BMC in writing and pay necessary charges towards fixing of the damage.

Implementation Agency shall ensure that its employees/representatives don't breach privacy of any citizen or establishment during the course of execution or maintenance of the project.

e. Compliance with Labour regulations

The Implementation Agency shall pay fair and reasonable wages to the workmen employed, for the contract undertaken and comply with the provisions set forth under the Minimum wages Act and the Contract Labour Act 1970. The salary of the manpower working on BMC project should be paid using ECS / NEFT / RTGS. A record of the payments made in this regard should be maintained by the Implementation Agency. Upon request, this record shall be produced to the appropriate authority in BMC and/or Judicial Body. If complaints are received by BMC (or any appropriate authority)

appropriate action (Liquidation of Security Deposit, Blacklisting, etc.) may be initiated as deemed necessary against the Implementation Agency. The employees of the Implementation Agency in no case shall be treated as the employees of the BMC at any point of time.

f. Independent Contractor

Nothing in this Agreement shall be construed as establishing or implying any partnership or joint venture or employment relationship between the Parties to this Agreement. Except as expressly stated in this Agreement nothing in this Agreement shall be deemed to constitute any Party as the agent of any other Party or authorizes either Party (i) to incur any expenses on behalf of the other Party, (ii) to enter into any engagement or make any representation or warranty on behalf of the other Party, (iii) to pledge the credit of or otherwise bind or oblige the other Party, or (iv) to commit the other Party in any manner whatsoever in each case without obtaining the other Party's prior written consent.

g. Waiver

A waiver of any provision or breach of this Agreement must be in writing and signed by an authorized official of the Party executing the same. No such waiver shall be construed to affect or imply a subsequent waiver of the same provision or subsequent breach of this Agreement.

h. Notices

Any notice or other document, which may be given by either Party under this Agreement, shall be given in writing in person or by pre-paid recorded delivery post. In relation to a notice given under this Agreement, any such notice or other document shall be addressed to the other Party's principal or registered office address as set out below:

Dy. Ch.Eng. (SWM) Planning,
4th Floor, Khatao Market Bldg.,
Nausher Bharucha Marg,
Grant Road (West), Mumbai – 400007

Tel: -----

Fax: -----

Implementation Agency:

Tel: -----

Fax: -----

Any notice or other document shall be deemed to have been given to the other Party when delivered (if delivered in person) between the hours of 10.00 A.M and 6.00 P.M. at the address of the other Party set forth above or on the next working day thereafter if delivered outside such hours, and seven calendar days from the date of posting (if by letter).

i. Personnel/Employees

- I. Personnel/employees assigned by Implementation Agency to perform the services shall be employees of Implementation Agency and/or its sub-contractors, and under no circumstances will such personnel be considered as employees of BMC. Implementation Agency shall have the sole responsibility for supervision and control of its personnel and for payment of such personnel's employee's entire compensation, including salary, legal deductions withholding of income taxes and social security taxes, worker's compensation, employee and disability benefits and the like and shall be responsible for all employer obligations under all laws as applicable from time to time. BMC shall not be responsible for the above issues concerning to personnel of Implementation Agency.
- II. Implementation Agency shall use its best efforts to ensure that sufficient Implementation Agency personnel are employed to perform the Services, and that, such personnel have appropriate qualifications to perform the Services. BMC or its nominated agencies shall have the right to require the removal or replacement of any Implementation Agency personnel performing work under this Agreement. In the event that BMC requests that any Implementation Agency personnel be replaced, the substitution of such personnel shall be accomplished pursuant to a mutually agreed upon schedule and upon clearance of the personnel based on profile review and personal interview by BMC or its nominated agencies as per defined SLAs. The Implementation Agency shall depute quality team for the project and as per requirements BMC shall have the right to ask Implementation Agency to change the team.

- iii. Management (Regional Head / VP level officer) of Implementation Agency needs to be involved in the project monitoring and should attend the review meeting at least once in a month.
- iv. The profiles of resources proposed by Implementation Agency in the technical bid, which are considered for Technical bid evaluation, shall be construed as 'Key Personnel' and the Implementation Agency shall not remove such personnel without the prior written consent of BMC. For any changes to the proposed resources, Implementation Agency shall provide equivalent or more experienced resources in consultation with BMC. The penalty applicable for replacement of 'Key Personnel' within the first six months of the contract shall be Rs. 25,000 per change in resource. Maximum one replacement is permissible in the first six months.
- v. Except as stated in this clause, nothing in this Agreement will limit the ability of Implementation Agency freely to assign or reassign its employees; provided that Implementation Agency shall be responsible, at its expense, for transferring all appropriate knowledge from personnel being replaced to their replacements. BMC shall have the right to review and approve Implementation Agency's plan for any such knowledge transfer. Implementation Agency shall maintain the same standards for skills and professionalism among replacement personnel as in personnel being replaced.
- vi. Each Party shall be responsible for the performance of all its obligations under this Agreement and shall be liable for the acts and omissions of its employees and agents in connection therewith.

j. Variations and Further Assurance

- a. No amendment, variation or other change to this Agreement or the SLAs shall be valid unless made in writing and signed by the duly authorized representatives of the Parties to this Agreement.
- b. Each Party to this Agreement or the SLAs agree to enter into or execute, without limitation, whatever other agreement, document, consent and waiver and to do all other things which shall or may be reasonably required to complete and deliver the obligations set out in the Agreement or the SLAs.

k. Survivability and Waiver

- i. If any provision of this Agreement or the SLAs, or any part thereof, shall be found by any court or administrative body of competent jurisdiction to be illegal, invalid or unenforceable the illegality, invalidity or unenforceability of such provision or part provision shall not affect the other provisions of this Agreement or the SLAs or the remainder of the provisions in question which shall remain in full force and effect. The relevant Parties shall negotiate in good faith in order to agree to substitute for any illegal, invalid or unenforceable provision a valid and enforceable provision which achieves to the greatest extent possible the economic, legal and commercial objectives of the illegal, invalid or unenforceable provision or part provision within seven working days.
- ii. No failure to exercise or enforce and no delay in exercising or enforcing on the part of either Party to this Agreement or the SLAs of any right, remedy or provision of this Agreement or the SLAs shall operate as a waiver of such right, remedy or provision in any future application nor shall any single or partial

exercise or enforcement of any right, remedy or provision preclude any other or further exercise or enforcement of any other right, remedy or provision.

I. Survivability

The termination or expiry of this Agreement or the SLAs for any reason shall not affect or prejudice any terms of this Agreement, or the rights of the Parties under them which are either expressly or by implication intended to come into effect or continue in effect after such expiry or termination.

9.52 Applicable Law

The contract shall be governed by the laws and procedures prescribed by the Laws prevailing and in force in India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/processing. All legal disputes are subject to the jurisdiction of Mumbai courts only.

9.53 Stamp Duty Payment

The stamp duty payable for the contract shall be borne by the Implementation Agency IN WITNESS whereof the parties hereto have signed this on the day, month and year first herein above written.

Signed, sealed and delivered

By -----

-----,

For and on behalf of Brihanmumbai Municipal Corporation

Signed, sealed and delivered

By -----

For and on behalf of the "Implementation Agency",

Witnesses:

(1)

(2)

Attachments to the Agreement:

- i. Scope of Services for the Implementation Agency
- ii. Detail Commercial bid of the Implementation Agency accepted by BMC
- iii. Corrigendum Document published by BMC subsequent to the bid for this work
- iv. Bid Document of BMC for this work
- v. LoA issued by BMC to the successful Bidder
- vi. The successful Bidder's "Technical Bid" and "Commercial Bid" submitted in response to the bid

9.54 Minimum Qualifications and Experience of Key Resources

The following are minimum qualifications and experience for key resources required to implement the enterprise VTMS software solution and IT hardware. The following personnel would be required during the Design, Configuration, Installation and Setup of the complete project within the scope of this tender.

Team during Implementation onsite and offshore.

Sr. No.	Role	Minimum Qualification and Experience
1	Project Manager	✓ B.E. / B. Tech Computer Science / IT. + M.B.A. (preferable) ✓ 8+ Years of Experience; 2+ years of Experience as Project Manager ✓ 2+ Years of experience in Vehicle Tracking Solution Implementation
2	Business Analyst	✓ B.E. / B. Tech. Computers Science / M.C.A. ✓ 4+ Years of Experience as a Business Analyst / System Analyst
3	Programmers	✓ B.E. / B. Tech. Computers Science / M.C.A ✓ 2+ Years of Experience as a programming for Vehicle tracking solutions.
4	Testers	✓ B.E. / B. Tech. Computers Science / M.C.A. ✓ 2+ Years of Experience as a tester for Vehicle tracking solutions / RFID solutions.
5	Database Administrator	✓ B.E. / B. Tech. Computers Science / M.C.A. ✓ 5+ Years of Experience as DBA ✓ Any DBA certifications will be preferred
6	System Administrator	✓ Graduate with Industry certification in system administration ✓ 5+ Years of Experience System Administrator for software solutions.
7	Hardware Engineer	✓ Graduate / Diploma with 3+ years of experience in Video Wall establishment and Maintenance.
8	GIS Analyst	✓ Graduate with Industry certification in system administration ✓ 5+ Years of Experience as GIS Analyst in VTMS solution

Team during Post Implementation (O&M)

Sr. No.	Role	Minimum Qualification and Experience
1	Project Coordinator	✓ B.E. / B. Tech Computer Science / IT. + M.B.A. (preferable) ✓ 6+ Years of Experience; 2+ years of Experience as Project Coordination, 2+ Years of experience in Vehicle Tracking Solution Implementation for Solid waste management
2	Programmer	✓ B.E. / B. Tech. Computers Science / M.C.A.

		✓ 2+ Years of Experience as a programming for Vehicle tracking solutions.
3	Database Administrator	<ul style="list-style-type: none"> ✓ B.E. / B. Tech. Computers Science / M.C.A. ✓ 5+ Years of Experience as DBA ✓ Any DBA certifications will be preferred
4	System Administrator	<ul style="list-style-type: none"> ✓ Graduate with Industry certification in system administration ✓ 5+ Years of Experience System Administrator for software solutions.
5	Hardware Engineer	✓ Graduate / Diploma with 3+ years of experience in Video Wall establishment and Maintenance.
6	Help Desk	✓ Graduate / Diploma with 3+ years of experience in helpdesk support

Annexure V: List of Approved Banks

1. The following Banks with their branches in Greater Mumbai and in suburbs and extended suburbs up to Virar and Kalyan have been approved only for the purpose of accepting Banker's guarantee from 1997-98 onwards until further instructions.
2. The Bankers Guarantee issued by branches of approved Banks beyond Kalyan and Virar can be accepted only if the said Banker's Guarantee is countersigned by the Manager of a branch of the same Bank, within the Mumbai Limit categorically endorsing thereon that said bankers Guarantee is binding on the endorsing Branch of the bank within Mumbai limits and is liable to be on forced against the said branch of the Bank in case of default by the contractor/supplier furnishing the bankers Guarantee.

A	S.B.I and its subsidiary Banks
1	State Bank Of India.
2	State Bank Of Bikaner & Jaipur.
3	State Bank Of Hyderabad.
4	State Bank Of Mysore.
5	State Bank Of Patiyala.
6	State Bank Of Saurashtra.
7	State Bank Of Travankore.
B	Nationalized Banks
8	Allahabad Bank.
9	Andhra Bank.
10	Bank Of Baroda.
11	Bank Of India.
12	Bank Of Maharashtra.
13	Central Bank Of India.
14	Dena Bank.
15	Indian Bank.
16	Indian Overseas Bank. Oriental Bank Of Commerce.
18	Punjab National Bank.
19	Punjab & Sindh Bank.
20	Syndicate Bank.
21	Union Bank Of India.
22	United Bank Of India.
23	UCO Bank.
24	Vijaya Bank.

24A	Corporation Bank.
C	Scheduled Commercial Banks
25	Bank Of Madura Ltd.
26	Bank Of Rajasthan Ltd.
27	Banaras State Bank Ltd.
28	Bharat Overseas Bank Ltd
29	Catholic Syrian Bank Ltd.
30	City Union Bank Ltd.
31	Development Credit Bank.
32	Dhanalakshmi Bank Ltd.
33	Federal Bank Ltd.
34	Indsind Bank Ltd.
35	I.C.I.C.I Banking Corporation Ltd.
36	Global Trust Bank Ltd.
37	Jammu & Kashmir Bank Ltd.
38	Karnataka Bank Ltd.
39	KarurVysya Bank Ltd.
40	Laxmi Vilas Bank Ltd.
41	Nedugundi Bank Ltd.
42	Ratnakar Bank Ltd.
43	Sangli Bank Ltd.
44	South Indian Bank Ltd.
45	S.B.I Corporation &Int Bank Ltd.
46	Tamilnadu Mercantile Bank Ltd.
47	United Western Bank Ltd.
48	Vysya Bank Ltd.
	Schedule Urban Co-op Banks
49	Abhyudaya Co-op Bank Ltd.
50	Bassein Catholic Co-op Bank Ltd.
51	Bharat Co-op Bank Ltd.
52	Bombay Mercantile Co-op Bank Ltd.
53	Cosmos Co-op Bank Ltd.
54	Greater Mumbai Co-op Bank Ltd.
55	JanataSahakari Bank Ltd.
56	Mumbai District Central Co-op Bank Ltd.
57	Maharashtra State Co-op Bank Ltd.
58	New India Co-op Bank Ltd.
59	North Canara G.S.B. Co-op Bank Ltd.
60	Rupee Co-op Bank Ltd.
61	Sangli Urban Co-op Bank Ltd.
62	Saraswat Co-op Bank Ltd.

63	ShamraoVithal Co-op Bank Ltd.
64	Mahanagar Co-op Bank Ltd.
65	Citizen Bank Ltd.
66	Yes Bank Ltd.
E	Foreign Bank
67	ABM AMRO (N.Y.) Bank.
68	American Express Bank Ltd.
69	ANZ Grindlays Bank Ltd.
70	Bank Of America N.T. & S.A.
71	Bank Of Tokyo Ltd.
72	Bankindosuez.
73	BanqueNationale de Paris.
74	Barclays bank.
75	City Bank N.A.
76	Hongkong & Shanghai banking Corporation.
77	Mitsui Taiyokbe Bank Ltd.
78	Standard Chartered Bank.
79	Cho Hung Bank.

11. Annexure VI: Authorization letter for attending pre-bid meeting / bid opening

(To be provided on the letter head of Bidder)

No.....

Date.....

To

The.....

Brihanmumbai Municipal Corporation,
Mumbai.

Sub: Bid No..... due date.....

Sir,

We here by authorize Mr./Ms.as our authorized representative, to represent us on the following occasion:-

- Pre-bid Meeting to be held on.....at.....A.M./P.M.
- Bid Opening on..... At..... A.M. /P.M.

Kindly permit him/her to attend the same.

Yours faithfully,

Name of signatory:

Designation:

Rubber Stamp:

12. Annexure VII: Pre-Bid Query Format

Bidder requiring specific points of clarification may communicate with home Department during the specified period using the following format:

BIDDER 'S REQUEST FOR CLARIFICATION	
<<Name of Organization submitting query / request for clarification>>	
<<Full formal address of the Organization including phone, fax and email points of contact>>	Tel:
	Fax:
	Email:

Sr No	Page No	Section No.	Point No.	Existing Clause	Clarification/Query of Bidder

Please prepare the table in Word/Excel Format as shown above. Any other form shall not be entertained.

13. Annexure VIII: Draft Non-Disclosure Agreement

(To be submitted on a Rs.100 Stamp Paper)

This Non-Disclosure Agreement (“Non-Disc”) is made and entered into ___ day of ___ month ___ year (effective date) by and between _____ (“Department”) and _____ (“Company”).

Whereas, Department and Company have entered into an Agreement (“Agreement”) _____ effective _____ for _____; and

Whereas, Each party desires to disclose to the other party certain information in oral or written form which is proprietary and confidential to the disclosing party, (“CONFIDENTIAL INFORMATION”).

NOW, THEREFORE, in consideration of the foregoing and the covenants and agreements contained herein, the parties agree as follows:

1. Definitions. As used herein:

- a) The term “Confidential Information” shall include, without limitation, all information and materials, furnished by either Party to the other in connection with citizen/users/persons/customers data, products and/or services, including information transmitted in writing, orally, visually, (e.g. video terminal display) or on magnetic or optical media, and including all proprietary information, customer and prospect lists, trade secrets, trade names or proposed trade names, methods and procedures of operation, commercial or marketing plans, licensed document know-how, ideas, concepts, designs, drawings, flow charts, diagrams, quality manuals, checklists, guidelines, processes, formulae, source code materials, specifications, programs, software packages, codes and other intellectual property relating to the disclosing party’s data, computer database, products and/or services. Results of any tests, sample surveys, analytics, data mining exercises or usages etc. carried out by the receiving party in connection with the Department’s information including citizen/users/persons/customers personal or sensitive personal information as defined under any law for the time being in force shall also be considered Confidential Information.
- b) The term, “Department” shall include the officers, employees, agents, consultants, contractors and representatives of Department.
- c) The term, “Company” shall include the directors, officers, employees, agents, consultants, contractors and representatives of Company, including its applicable affiliates and subsidiary companies.

2. Protection of Confidential Information: With respect to any Confidential Information disclosed to it or to which it has access, Company affirms that it shall:

- a) Use the Confidential Information as necessary only in connection with Project and in accordance with the terms and conditions contained herein;
- b) Maintain the Confidential Information in strict confidence and take all reasonable steps to enforce the confidentiality obligations imposed hereunder, but in no event take less care with the Confidential Information that the parties take to protect the confidentiality of its own proprietary and confidential information and that of its clients;

- c) Not to make or retain copy of any commercial or marketing plans, citizen/users/persons/customers database, Bids developed by or originating from Department or any of the prospective clients of Department except as necessary, under prior written intimation from Department, in connection with the Project, and ensure that any such copy is immediately returned to Department even without express demand from Department to do so;
 - d) Not disclose or in any way assist or permit the disclosure of any Confidential Information to any other person or entity without the express written consent of the other party; and
 - e) Return to the other party, or destroy, at Department's discretion, any and all Confidential Information disclosed in a printed form or other permanent record, or in any other tangible form (including without limitation, all copies, notes, extracts, analyses, studies, summaries, records and reproductions thereof) immediately upon the earlier to occur of (i) expiration or termination of either party's engagement in the Project, or (ii) the request of the other party therefore.
 - f) Not to discuss with any member of public, media, press, any or any other person about the nature of arrangement entered between Department and Company or the nature of services to be provided by the Company to the Department.
3. Onus. Company shall have the burden of proving that any disclosure or use inconsistent with the terms and conditions hereof falls within any of the foregoing exceptions.
 4. Exceptions. These restrictions of this Agreement shall not apply to any Confidential Information:
 - a) Which is independently developed by Company or lawfully received from another source free of restriction and without breach of this Agreement; or
 - b) After it has become generally available to the public without breach of this Agreement by Company; or
 - c) Which at the time of disclosure to Company was known to such party free of restriction and evidenced by documentation in such party's possession; or
 - d) Which Department agrees in writing is free of such restrictions.
 - e) Which is received from a third party not subject to the obligation of confidentiality with respect to such Information;
 5. Remedies. Company acknowledges that (a) any actual or threatened disclosure or use of the Confidential Information by Company would be a breach of this agreement and may cause immediate and irreparable harm to Department; (b) Company affirms that damages from such disclosure or use by it may be impossible to measure accurately; and (c) injury sustained by Department may be impossible to calculate and remedy fully. Therefore, Company acknowledges that in the event of such a breach, Department shall be entitled to specific performance by Company of Company's obligations contained in this Agreement. In addition Company shall indemnify Department of the actual and liquidated damages which may be demanded by Department. Moreover, Department shall be entitled to recover all costs (including reasonable attorneys' fees) which it or they may incur in connection with defending its interests and enforcement of legal rights arising due to a breach of this agreement by Company.
 6. Need to Know. Company shall restrict disclosure of such Confidential Information to its employees and/or consultants with a need to know (and advise such

employees of the obligations assumed herein), shall use the Confidential Information only for the purposes set forth in the Agreement, and shall not disclose such Confidential Information to any affiliates, subsidiaries, associates and/or third party without prior written approval of the disclosing party.

7. Intellectual Property Rights Protection. No license to a party, under any trademark, patent, copyright, design right, mask work protection right, or any other intellectual property right is either granted or implied by the conveying of Confidential Information to such party.
8. No Conflict. The parties represent and warrant that the performance of its obligations hereunder do not and shall not conflict with any other agreement or obligation of the respective parties to which they are a party or by which the respective parties are bound.
9. Authority. The parties represent and warrant that they have all necessary authority and power to enter into this Agreement and perform their obligations hereunder.
10. Dispute Resolution. If any difference or dispute arises between the Department and the Company in connection with the validity, interpretation, implementation or alleged breach of any provision of this Agreement, any such dispute shall be referred to the Hon. Municipal Commissioner, BMC.
 - a) The arbitration proceedings shall be conducted in accordance with the (Indian) Arbitration and Conciliation Act, 1996 and amendments thereof.
 - b) The place of arbitration shall be Mumbai.
 - c) The arbitrator's award shall be substantiated in writing and binding on the parties.
 - d) The proceedings of arbitration shall be conducted in English language.
 - e) The arbitration proceedings shall be completed within a period of 180 days from the date of reference of the dispute to arbitration.
11. Governing Law. This Agreement shall be interpreted in accordance with and governed by the substantive and procedural laws of India and the parties hereby consent to the exclusive jurisdiction of Courts and/or Forums situated at Mumbai, India only.
12. Entire Agreement. This Agreement constitutes the entire understanding and agreement of the parties, and supersedes all previous or contemporaneous agreement or communications, both oral and written, representations and understandings among the parties with respect to the subject matter hereof.
13. Amendments. No amendment, modification and/or discharge of this Agreement shall be valid or binding on the parties unless made in writing and signed on behalf of each of the parties by their respective duly authorized officers or representatives.
14. Binding Agreement. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.
15. Severability. It is the intent of the parties that in case any one or more of the provisions contained in this Agreement shall be held to be invalid or unenforceable in any respect, such provision shall be modified to the extent necessary to render it, as modified, valid and enforceable under applicable laws, and such invalidity or unenforceability shall not affect the other provisions of this Agreement.

- 16. Waiver. If either party should waive any breach of any provision of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision hereof.
- 17. Survival. Both parties agree that all of their obligations undertaken herein with respect to Confidential Information received pursuant to this Agreement shall survive till perpetuity even after any expiration or termination of this Agreement.
- 18. Non-solicitation. During the term of this Agreement and thereafter for a further period of two (2) years Company shall not solicit or attempt to solicit Department's employees and/or consultants, for the purpose of hiring/contract or to proceed to conduct operations/business similar to Department with any employee and/or consultant of the Department who has knowledge of the Confidential Information, without the prior written consent of Department. This section will survive irrespective of the fact whether there exists a commercial relationship between Company and Department.
- 19. Term. Subject to aforesaid section 17, this Agreement shall remain valid up to years from the "effective date".

IN WITNESS HEREOF, and intending to be legally bound, the parties have executed this Agreement to make it effective from the date and year first written above.

For Department
Name:

Title:

WITNESSES:

- 1.
- 2.

For Company
Name:

Title:

WITNESSES:

- 1.
- 2.

14. Annexure IX: Project setup location

The video wall project needs to be setup at:
Office of Chief Engineer,
Solid Waste Management Department,
Brihanmumbai Municipal Corporation,
3rd Floor, BMC's Khatav Market Building,
Khatavwadi, Slater Road, Grant Road (West)
Mumbai – 400007
022-23828903 / 23822870

15. Annexure X: Minimum Technical Specifications for items

A) Desktop Computer – All-in-one

Parameters	Specifications	Compliance (Yes/No)
Form Factor	All in One	
Processor	Latest generation with minimum 2.1 GHz, 9 MB Cache, 6 Cores equivalent to Intel Core i5-8400 / AMD or higher	
Processor Make	Intel /AMD	
Chipset	Intel /AMD	
Operating System	Microsoft Windows 10 Professional 64 bit	
RAM Size (GB)	8 GB DDR 4, 2400 MHz or higher	
Hard Disk	1 TB SATA	
Monitor Resolution (PIXELS)	1366x768 or higher	
Monitor Size (INCHES)	21” or higher	
Network Connectivity	10/100/1000 on board Integrated Gigabit Port , Wi-Fi	
Mouse	OEM USB Optical Scroll wired Mouse	
Keyboard	OEM Wired Standard USB Keyboard	
Port	USB 2.0, USB 3.0,VGA,HDMI	
Optical Drive	DVD-Writer	
Open Office	Latest Version	

B) Video Wall

1) Picture / Display

Sr.No.	Parameters	Minimum Specification	Compliance (Yes/No)
1	Diagonal screen size for 10 x 6 feet	12.19 feet	
2	Panel resolution	1920x1080p	
3	Optimum resolution	1920 x 1080 @ 60 Hz	
4	Brightness	700 cd/m ²	
5	Response time(typical)	8 ms	
6	Dynamic contrast ratio	500,000:1	
7	Aspect ratio	16:9	
8	Viewing angle(H / V)	178 / 178 degree	
9	Pixel pitch	0.63 x 0.63 mm	
10	Display colours	1.07 B	
11	Picture enhancement	11 3/2 - 2/2 motion pull down, 3D Comb filter, DE	

		interlacing, Progressive scan, 3D MA DE interlacing, Dynamic contrast enhancement	
12	Contrast ratio (typical)	1200:1	

2) Supported Display Resolution: Computer formats

Sr. No.	Resolution	Refresh Rate	Compliance (Yes/No)
1	1 640 x 480	60, 67, 72, 75 Hz	
2	800 x 600	56, 60, 72, 75 Hz	
3	1024 x 768	60 Hz	
4	1280 x 768	60 Hz	
5	1280 x 800	60 Hz	
6	1280 x 1024	60 Hz	
7	1360 x 768	60 Hz	
8	1366 x 768	60 Hz	
9	1440 x 900	60 Hz	
10	1600 x 1200	60 Hz	
11	1920 x 1080	60 Hz	
12	1920 x 1200	60 Hz	

3) Supported Video formats

Sr. No.	Resolution	Refresh Rate	Compliance (Yes/No)
1	480i	60 Hz	
2	480p	60 Hz	
3	576p	3 50 Hz	
4	576i	50 Hz	
5	720p	50, 60 Hz	
6	1080i	50, 60 Hz	
7	1080p	50, 60 Hz	
8	3840 x 2160	30 Hz	

4) Supported Connectivity

Sr.No.	Parameters	Minimum Specification	Compliance (Yes/No)
1	Video input	Component (RCA), Composite (RCA), DVI-D, HDMI (x2), VGA (Analog D-Sub), Display Port (1.2)	
2	Video output	Display Port, DVI-I, VGA (via DVI-I)	
3	Audio input	3.5 mm jack, Audio Left/Right (RCA)	
4	Audio	Audio Left/Right (RCA), External speaker	

	output	connector	
5	External control	IR (in/out) 3.5 mm jack, RJ45, RS232C (in/out) 2.5 mm jack	
6	Other connections	OPS	

5) Convenience

Sr.No.	Parameters	Minimum Specification	Compliance (Yes/No)
1	Signal Loop Through	RS232, VGA, Display Port, DVI, IR Loop through	
2	Ease of installation	Carrying Handles, Smart Insert	
3	Energy saving functions	Ambient light sensor, Smart Power	
4	Network controllable	RS232, RJ45, Card OPS RS232, One Wire (HDMI-CEC)	
5	Placement	Landscape (24/7), Portrait (24/7)	
6	Screen saving functions	Pixel Shift, Low Bright	
7	Tiled Matrix	Up to 10 x 10	
8	Control software	STCP / CMND & Control RJ45 hub: 2 ports	

6) Dimensions

Sr.No.	Parameters	Minimum Specification	Compliance (Yes/No)
1	Bezel thickness	1.8 mm (A-A) or less	
2	Bezel width	0.9mm (Even Bezel)	
3	Set dimensions (W x H x D)	1211.4 x 682.2 x 98.5 mm	
4	Set dimensions in inch (W x H x D)	47.69 x 26.86 x 3.88 inch	
5	Product weight	24.35 kg or less	
6	VESA Mount	400 x 400 mm	

7) Operating conditions

Sr.No.	Parameters	Minimum Specification	Compliance (Yes/No)
1	Temperature range (operation)	10 ~ 40 °C	
2	Temperature range (storage)	20 ~ 60 °C	
3	Altitude	0~3000m	
4	Relative humidity	20~80%	
5	MTBF	50,000 hour(s)	

8) Power

Sr.No.	Parameters	Minimum Specification	Compliance (Yes/No)
1	Consumption (On mode)	168W	
2	Standby power consumption	<0.5W	

9) Sound

Sr.No.	Parameters	Minimum Specification	Compliance (Yes/No)
1	Consumption (On mode)	168W	

10) Accessories

Sr.No.	Parameters	Minimum Specification	Compliance (Yes/No)
1	Included accessories	1 Remote Control, Batteries for remote control, AC Power Cord, RS232 cable, Quick start guide, Edge alignment pins, Edge60 Hz alignment plates	
2	Optional accessories	Edge finishing kit, HD Base T OPS Receiver (CRD25), Color calibration kit	

11) Miscellaneous

Sr.No.	Parameters	Minimum Specification	Compliance (Yes/No)
1	On-Screen Display	Languages Mainly English, Other additional languages - should support	
2	Regulatory approvals	CE, UL, CB, GOST, EPEAT, FCC, ClassB	

12) Video wall controller

Sr.No.	Item Type	Minimum Specification	Compliance (Yes/No)
1	Quad Core Processor	Intel® Xeon ® Processor E5-2609v2 with 2.50 Ghz or higher	
2	Chipset	Intel® c602 Chipset or better	
3	RAM	4GB DDR3 ECC RAM (expandable up to 256GB) or higher	
4	Expansion slots	7 x PCIeexpress X16 up to 2GB/s	
5	Hard disc	SATA 3.0Gbps, HotSwap removable	

		500GB x 2, SATA 10,000rpm RAID1/5 supported	
6	Disc storage	Portable Hard Disc 2 TB and DVD Recorder	
7	Ethernet	Minimum 2 x Standard integrated 10/100/1000 Mbps RJ45 ports	
8	Power supply	Redundant Hot Swap 500Watt power supply	
9	Accessories	Multimedia keyboard; optical scroll mouse n, ; DVI cables	
10	Dimensions	Compact	
11	Operating System	Windows 7 and higher x64 bit OR Linux	
12	Expansion slots	9x PCI express X8 Slots (up to 32 with more expansion chassis)	
13	Graphics Card	<ul style="list-style-type: none"> • Graphic Memory - up to 2GB • Wall Matrix - Any rectangular and nonrectangular matrix up to 40 Displays • Resolution - 640x480 to 2048x1080 and HDTV 1080p per output. 	
14	Video Input Card	<ul style="list-style-type: none"> • Graphic Memory - up to 2GB • Wall Matrix Any rectangular and nonrectangular matrix up to 40 Displays • Resolution - 640x480 to 2048x1080 and HDTV 1080p per output • Output Signal - DVI-I/VGA Display • Port/HDMI/Mini Display Port 	
15	DVI Input Card	<ul style="list-style-type: none"> • Inputs - 4 X HDMI / DVI /VGA • Max. FPS - 120/100fps @ 1920x1080p • Resolutions - Up to 1920 x 1200 pixels • PIP of Inputs - Display of multiple sources up to any size, everywhere on the Video wall 	
16	Network Inputs	<ul style="list-style-type: none"> • LAN - 10/100/1000 Mbps RJ45 Ports integrated • Network sources - Display of multiple PC sources in any size, everywhere on the wall with Static contents , PPT, Scada Image, Jpeg, etc. 	
17	Wall Management Software Features	<p>General:</p> <ul style="list-style-type: none"> • Multiple display support • Video wall support (with controller) • Multiple simultaneous user 	

		<p>connections</p> <ul style="list-style-type: none"> • Browser-based user interface • Third-party control API (for Crestron/AMX integration) • User-interface languages supported – English • Networked content storage support Visualizer (display agent): • Recovery after restart • No background option (to leave Windows desktop visible) • Autostart option <p>Content:</p> <ul style="list-style-type: none"> • Images (jpg, gif, tiff, png), • Video (avi, mov, mpg, wmv) • Live IP video stream (RTSP), • Remote Desktop over IP (VNC) • PowerPoint (ppt, pptx), • Word (doc, docx), Excel (xls, xlsx), PDF • Web page • Hardware input • Switched hardware input <p>Show Control:</p> <ul style="list-style-type: none"> • Live content placement control • Live content playback options control (select ppt/pptx slide, start/stop video, etc.) • Live image from the videowall /display in user interface • Preview pane for preparing layout before showing it • Scenarios (playlists) including nonlinear sequences • Display-specific grids for easy content placing • Scheduling 	
--	--	---	--

C) Multifunction Printer

Sr. No.	Parameters	Specifications	Compliance (Yes/No)
1	Printer Type	Multi-Function	
2	Printing Method	LaserJet	
3	Printer Functions	Print/Copy/Scan	

4	Printing Output	Duplex Monochrome	
5	Duty Cycle-Monthly	Up to 10000 pages	
6	Print Speed	28 ppm	
7	Output Tray Capacity	Up to 100 sheets	
8	Input Tray Capacity	150-sheet input tray 10-sheet priority tray	
9	Interface	USB 2.0, Fast Ethernet 10/100	
10	Print Resolution	600 x 600 dpi and above	
11	Compatible Operating System	Windows \ MAC \ Linux	
Scan			
12	Optical Scanning Resolution	600 x 600 dpi and above	
Copy			
	Maximum Copies	Up to 99 copies	
	Warranty	3 years	

D) 5 KVA Online Uninterrupted Power Supply (UPS) with 120 minutes Back-up:

To support the video wall and four (4) desktop PCs, there is a need of uninterrupted power supply (UPS) to monitor vehicles in true 24 x 7 mode. The proposed UPS should comply with the specifications mentioned in the below table:

Sr. No.	Specification Parameters	Expected value	Compliance (Yes/No)
1	Technology	IGBT-PWM	
2	Input Power	single phase 160V - 260V sinewave,50Hz	
3	Output power	single phase 230V ±1% sinewave,50Hz	
4	Minimum VAH	6400 VAH	
5	20% Overload limit for minimum 10 minutes	Same as specified	
6	Product Category	Online UPS	
7	Product Name	5kva online ups	
8	Specification Title	Specification Value	
9	Rating in KVA	5 KVA	
10	Technology	IGBT-PWM	
11	Input Power	Single phase 160V - 260V sinewave,50Hz	
12	Output power	single phase 230V ±1% sinewave,50Hz	
13	Backup time	120 Minutes	
14	Minimum VAH	6400 VAH	
15	Voltage Regulation	1 %	

	from no load to full load		
16	Inbuilt isolation Transformer	Same as specified	
17	20% Overload limit for minimum 10 minutes	Same as specified	
18	50% Overload limit for minimum 1 minute	Same as specified	
19	Total Harmonic Distortion	(THD) 2 %	
20	Overall Efficiency	90%	
21	Type of Battery	SMF-VRLA conforming to JISC :8702 (Pt.I,II&III);	
22	Minimum Thickness Of M.S.Sheet Enclosure Duly Painted	1.2 mm	
23	Degree of Protection	IP21	
24	Protection of Over voltage, Short Circuit & over load at UPS output terminal	Same as specified	
25	Protection for under voltage at battery terminal at 10.5V per 12 V battery	Same as specified	
26	Maximum overshoot and Under shoot of output rated voltage	4	
27	Indicators for mains presence, Battery charging and discharging, Output Over Load, Low Battery Voltage	Same as specified	
28	Digital Metering in UPS for AC Input Voltage, Output AC Voltage, Current, Frequency, Battery Voltage and Current	Same as specified	
29	Movable trolley for Batteries	Without	
30	Dry Heat Test : in accordance with IS:9000 (part 3/sec.5)1977 (reaffirmed 2007) at 55 degree C for 16 hrs	Same as specified	

31	Damp Heat in accordance with IS:9000(part 5/sec.2)1981 at Temperature of 40 degree C,two cycles of (12+12) hours each 2007)	Same as specified	
32	Cold Test : in accordance with IS:9000 (Part 2/Sec.4)1977 (Reaffirmed 2007) at - 10 degree C for 4 hrs.	Same as specified	
33	Availability of the Type Test Report from Central Govt. /NABL/ILAC Accredited lab covering all technical requirements.	Same as specified	
34	Type Test Certificate No	Certificate no.	
	Type Test Certificate date	Earliest date	
	Name of Lab	Certificate from Std. certifying agency	
	Address of the lab	Address	
	Supply and Commissioning	As specified above	
	Warranty	3 years	

E) Administrative BI Tool:

Sr. No.	Desired functionalities	Compliance (Yes/No)
1	Support Data points and hardware	
2	support to data connectors including ODBC & JDBC	
3	Architecture aware in memory multiple data source support meta data management features	
4	Support Data Connectors	
5	Single Sign on	
6	Product updates	
7	Data Governance	
8	Application Security	
9	Authentication & Security	

10	Collaboration Analytics	
11	Customizable Fields	
12	Customizable Reporting	
13	Dashboard Creation	
14	Data Storage Management	
15	Interactive Content	
16	Mobile Integration	
17	Interactive Reporting	
18	Supports OLAP (Online Analytical Processing) functions	
19	Visual Analytics	
20	Geospatial support features	
21	Intuitive interface custom charting features	
22	Activity Dashboard	
23	Access Control	
24	API	
25	Ad hoc Analysis	
26	Ad hoc Query/ Data Query	
27	Ad hoc Reporting	
28	Alerts & Intelligence	
29	Categorizing/ Hierarchy	
30	Data Filtering	
31	Data Analysis	
32	Data Visualization	
33	Data Import/Export	
34	Drag & Drop Interface	
35	Data Manipulation	
36	Graphical Data Presentation	
37	Metadata Management	
38	Supports Multiple Data Sources	
39	Product Integrations	
40	Operating Systems supported as Linux/ Windows/Unix	
41	Supported Devices should be Android, iOS	
42	Supported Servers minimum x86, pSeries	
43	Supported Web browsers as Chrome, IE, Firefox	
44	Supported Database as Oracle, Db2, MS SQL, mysql. Netezza etc.	
45	Free Upgradation to Higher Version during warranty and AMC for	

F) GPS Device

GPS base tracking device Specifications:				
Sr. No.	Part	Parameter	Details	Compliance (Yes/No)

1	Connectivity		GSM/GPRS Modem or higher, Downlink max. Speed 85.6 kbps & Uplink max. speed 42.8kbps	
		GSM/GPRS or Higher Modem –	GPRS Quad-Band 900/1800/850/1900 / GPRS/UMTS/HSDPA Dual-Band EU900/2100	
			TCP/IP over GPRS/UMTS/EDGE/HSPA with 2 parallel connections supported, text messages	
		Number	IMEI	
		Transmitting power	Class 4 (2W) at GSM 850 and EGSM 900 Class 1 (1W) at DCS 1800 and PCS 1900	
		Connectivity	GPRS or higher multi-slot class 10	
		SIM interface	SIM card: 1.8V, 3V	
		Antenna	Built in	
2	GPS Navigation	Receiver	99 Channels	
		satellite system	Multi satellite system	
		Acquisition Time	Hot Start – <2 sec,	
			Cold Start - <32 Sec, Open Sky	
		Horizontal Position Accuracy	5 meter	
		Tracking Sensitivity	-163 dBm	
		Output	NMEA Protocol	
Antenna	Built in			
3	Power	Operating Voltage	9V - 32 V	
		Operating Current	20-30mA (average),	
		Battery Reverse	Integrated Protection	
		Battery Backup	6 Hours	
4	Installation	Embedded antennas for easy installation		
5	Enclosure	Water proof casing		
6	configured over the air	Firmware upgrade		
		Configuration update		
		Reporting intervals		

		I/O setup		
		Alert Rules		
		Up to 100v power surge protection		
7	Dedicated I/O ports	4 inputs for general use including dedicated Ignition port		
		1 inputs 0-12V Analog		
		RS232		
8	Data Logger	Up to 50,000 records		
9	Operating temperature	-20 to 70°C		
10	Storage temperature	-40 to 85°C		
11	Max. relative humidity	90+/-5%		
12	Durability	IP67		

G) RFID Reader Details

RFID Reader Specifications		
Description	Minimum specifications	Compliance (Yes/No)
RF Power	0~30dBm, software adjustable	
Reading Speed	Software Programmable Average Reading per 64Bits <6ms	
Reading Mode	Timing or Touch, Software Programmable (reading should be such that the reader does reads two tags at a time)	
Communication Mode with	TCP/IP and GPRS or higher central server	
Data Input Port	Trigger input one time	
Reading Range	Max 12 m(able to calibrate)	
Communication Interface	RS232 and RS485	

Accessories	Vehicle-mount DC power cable kit Antennas, and antenna cables	
Environmental Rating	IP65	
Humidity	10% - 90%	
Shock and Vibration	Withstands standard material handling vehicle environments. Meets or	
Protection	exceeds MIL STD 810F	
Operating Temperature:	-25°C to 55°C (-13°F to 131°F)	
Storage Temperature:	-30°C to 75°C (-22°F to 167°F)	
Humidity	10% to 90%	
Power Supply	Vehicle DC power 12 to 60V, 4.5 A maximum	

H) Cloud Server:

Summary on Server Sizing			
	DC	DR	T&D
No. of VM Instances	27	16	4
Total Cores	132	100	8
Total RAM (in GB)	1488	1128	120
Total Internal Storage (in TB)	2	1	1200
Total Secondary Storage (in TB)	11	9	
Total IOPS	9400	5500	1200
System Software licenses			
Total Windows Server 2016 Standard Core	20	10	2
Total Windows Server 2016 Standard License (Pack of 2Core)	10	5	1
Total Ubuntu OS	19	12	3
Total MS SQL 2016 Standard core	4	4	2
Total MS SQL 2016 Standard License (Pack of 2Core)	2	2	1
Total MS SQL 2016 Enterprise core	4	2	0

Total MS SQL 2016 Enterprise License (Pack of 2Core) with Software Assurance	2	1	0
Design Consideration & Assumptions			
No of GPS Device tracking 8000 Nos	Considering 8000 GPS devices in 3 shifts of 2500 each and 30% concurrent connections to IoT Hub. total concurrent connections= 900		
No of SWM Operators	10		
API & ESB	For External Application Integration		

I) Bandwidth Requirement:

Bandwidth Calculation				
Users	No of concurrent connections in Sec	Payload/Device in Bytes	Total Bandwidth (Kbps)	Total Bandwidth (Mbps)
Device & Sensors	1000	1000	976.56	0.954
Operators	100	131072	12800	12.5
			Total Internet Bandwidth	13
			DC-DR Replication Bandwidth	5

16. Annexure XI: CV of the Key Manpower proposed to be submitted in the following format during Implementation and during O & M:

Name of the Staff				
Current Designation in the Organization				
Proposed Role in the Project				
Proposed Responsibilities in the Project				
Date of Birth				
Education	<ul style="list-style-type: none"> • Degree / Diploma, College, University, Year of Passing • Degree / Diploma, College, University, Year of Passing 			
Summary of Key Training and Certifications				
Language Proficiency	Language	Reading	Writing	Speaking
Employment Record (For the total relevant experience)	From / To:			
	Employer:			
	Position Held:			
	From / To:			
	Employer:			
	Position Held:			
	From / To:			
	Employer			
Position Held:				
Total No. of Years of Work Experience				
Total No. of Years of Experience for the Role proposed				
Highlights of relevant assignments handled and significant accomplishments (Use following format for each project)	Name of assignment or project:			
	Month/Year:			
	From / To:			
	Location:			
	Client			
	Main project features			
	Positions held			
Activities performed				

17. Annexure XII : Irrevocable Undertaking

Irrevocable Undertaking
(On 500 /- Stamp Paper)

I , Shri/ Smt. ----- aged, ----- years Indian
Inhabitant. Proprietor/ Partner/
Director/ of M/s -----resident at ----
----- do hereby give irrevocable
undertaking as under:

1. I say and undertake that as specified in Section 171 of CGST Act, 2017, any reduction in rate of tax on supply of goods or services or the benefit of input tax credit shall be mandatorily passed on to BMC by way of commensurate reduction in prices.
2. I further say and undertake that I understand that in case of the same is not passed on and is discovered at any later stage, BMC shall be at liberty to initiate legal action against me for its recovery including, but not limited to, an appeal to the Screening Committee of the GST counsel.
3. 3) I say that above said Irrevocable undertaking is binding upon me/ my partners/ company/ other Directors of the company and also upon my/ our legal heirs, assignee , Executor, administrator etc.
4. If I fail to compliance with the provisions of the GST Act, I shall be liable for penalty/ punishment or both as per the provisions of the GST Act.

Whatever has been stated here in above is true & correct to my/ our own knowledge & belief.

Solemnly affirmed at
This day of

DEPONANT
BEFORE ME

Interpreted Explained and Identified by me.

18. Disclaimer

The information contained in this e-tender document or provided to Bidder(s), whether verbally or in documentary or any other form, by or on behalf of the Brihanmumbai Municipal Corporation (BMC), hereafter also referred as “The BMC Authority “, or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this e-tender and such other terms and conditions subject to which such information is provided.

This e-tender includes statements, which reflect various assumptions and assessments arrived at by the Brihanmumbai Municipal Corporation (BMC) in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This e-tender may not be appropriate for all persons, and it is not possible for the Brihanmumbai Municipal Corporation (BMC), its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this e-tender. The assumptions, assessments, statements and information contained in this e-tender may not be complete, accurate, adequate or correct. Each Bidder should therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this e-tender and obtain independent advice from appropriate sources.

Information provided in this e-tender to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Brihanmumbai Municipal Corporation (BMC) accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed here.

The Brihanmumbai Municipal Corporation(BMC), its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder, under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this e-tender or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the e-tender and any assessment, assumption, statement or information contained therein or deemed to form part of this e-tender or arising in any way with pre-qualification of Applicants for participation in the Bidding Process. The Brihanmumbai Municipal Corporation (BMC) also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Applicant upon the statements contained in this e-tender.

The Brihanmumbai Municipal Corporation (BMC) may, in its absolute discretion but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this e-tender.

The issue of this e-tender does not imply that the Brihanmumbai Municipal Corporation (BMC) is bound to select and short-list pre-qualified Applications for Bid Stage or to appoint the selected Bidder or Concessionaire, as the case may be, for the Project and the Brihanmumbai Municipal Corporation (BMC) reserves the right to reject all or any of the Applications or Bids without assigning any reasons whatsoever.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Application including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by The Brihanmumbai Municipal Corporation (BMC) or any other costs incurred in connection with or relating to its Application. All such costs and expenses will remain with the Applicant and the Brihanmumbai Municipal Corporation(BMC) shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Application, regardless of the conduct or outcome of the Bidding Process.