# Request For Proposal for Supply, Installation, Operation and Maintenance of GPS & GPRS based Automatic Vehicle Tracking System in City buses run under Ranchi Municipal Corporation.



# **Ranchi Municipal Corporation**

Request For Proposal

For

# Supply, Installation, Operation and Maintenance of GPS & GPRS based Automatic Vehicle Tracking System in City buses

**UNDER JNNURM CELL** 

Municipal Commissioner Ranchi Municipal Corporation Kutchury Road, Ranchi-834001 (Jharkhand) Phone: 0651-2211215, 2203469

Fax: 0651-2211777

Email: <a href="mailto:support@ranchimunicipal.com">support@ranchimunicipal.com</a>
Website: <a href="mailto:support@ranchimunicipal.com">www.ranchimunicipal.com</a>

# **DATA SHEET**

# Important Documents to be included with the tender

Sr. No	Documents, Enclosures with Tender	Applicable / Not Applicable
1	Duly filled tender form in an envelope having two separate envelopes clearly marked "Technical Proposal" & "Financial Proposal".	
2	Technical proposal should be clearly marked "Technical proposal for supply and installation of GPS in the city buses under JnNURM".	
3	Bid security of Rs 20,000 in form of Bank Guarantee in favour of Municipal Commissioner, Ranchi Municipal Corporation, Ranchi payable at Ranchi of any scheduled bank and kept with technical proposal.	
4	Performance security (Guarantee) of Rs. 500/- per system in Form if Bank Guarantee in favour of Municipal Corporation, Ranchi, Payable at Ranchi of any scheduled bank	
5	Financial Proposal in a separate enclosed sheet be submitted clearly marked "Financial proposal for operating bus under JnNURM- do not open till technical evaluation is complete".	
6	Cost of Bidding & RFP document for Rs. 2000/- by crossed demand draft drawn in favour of Municipal Commissioner, Ranchi Municipal Corporation, Ranchi Payable at Ranchi of any scheduled bank has to be deposit for purchase of Tender Document.	
7	Copy of Pan Card, service tax Reg. No etc to be enclosed with the Technical Proposal.	
8	Detailed financial statements (Balance sheets, Profit & Loss A/C schedule notes on accounts to be enclosed with the Technical Proposal.	

# RFP for supply &Installation of GPS in City Bus.

#### **Sealed Tender in Invited for**

- A. Supply, Installation system and maintenance during one year Guarantee period.
- B. Service (Repairing, maintenance) for a period of 5 years after completing the Guarantee period of one year.

# 1. Bid summary

Sr No.	Key Information	Details
1	RFP for	Development, Procurement, Implementation, Operation and Maintenance of Automatic Vehicle Location System (AVLS) for RMC area of Operations.  RFP document is hosted online and can be downloaded from website: <a href="https://www.ranchimunicipalcorporation.com">www.ranchimunicipalcorporation.com</a> . The Bid shall be submitted in physical and electronic form (CD).
2	Scope of Work under the RFP	RMC intends to implement the GPS & GPRS based Vehicle Tracking System comprising Development, Procurement, Implementation, Operation and Maintenance of the Automatic Vehicle Location System (AVLS) for the city buses in RMC area of Operations.
3	Contract Period	The Successful Bidder will be required to sign an Agreement with the Authority under which the services as per this RFP will be required to be provided for a period of 6 (six) years from the date of issue of first Work Order/Request Order.  The first Work Order/Request Order shall be issued after successful Pilot Demonstration of AVLS. Successful Bidders are required to do a Pilot Demonstration within 2 (Two) weeks from the date of issue of LOA.
4	Rate Validity	(i) The prices/rates quoted by the bidder shall be required to be valid for a period of 12 months from the date of work order. The Request order will have to be executed by the Successful Bidder as per the quantities requested by the Authority/RMC in a Request Order at the specified sites within the specified time mentioned in Request Order.  (ii) RMC may implement the AVLS in phases. Rates beyond Rate Validity period shall be negotiated rates.
6	Warranty/ Guarantee Period	Warranty period for Hardware and Software supplied and installed by the Service Provider shall be minimum one year from the date of issue of Project Execution Certificate.

# 2. Scope of Work

The Scope of Work shall broadly comprise the following activity:

#### A. Supply and Installation of GPS system in city buses

- 1) Monitoring/Tracking the transportation of City Buses for one year during Guarantee and 5 years after completion of Guarantee.
- 2) The successful bidder shall supply GPS Devices with SIM/Data cards for enabling GPRS on the GPS Device for Vehicle Tracking. Monthly recurring charges for the same will be paid by supplies for Guarantee period of one year and later on Annual charge basis for further period of 5 years . GPRS devices are required to hold data for at least 60 days.
- 3) Monitoring of Routes and Stoppages of city buses and keeping a record of the trip they have made route wise and bus wise.
- 4) Web based application Software with hosting services, SMS gateway and Google maps.
- 5) The successful bidder shall provide off the shelf Web based Vehicle Tracking Software and customize the same as per the requirements of RMC to operate and maintain the GPS based Vehicle Tracking devices installed in transport vehicles across the Ranchi city.
- 6) The successful bidder shall install the GPS devices in all the buses within the time frame set by RMC. The reports generated from system should be sufficient to calculate the performance of the entire system and penalties as prescribed.
- 7) It is assumed that the entire route of a vehicle is covered by GPS and leading mobile network. But there might be some parts of the route where there is no network coverage. So the system must work in off-line mode too for these areas and will provide the data once the vehicle enters in the GPRS zone.
- 8) The Bidder shall be responsible for updating and upgradation (if required) of all Software and Hardware for successful operation of the Project during the Contract Period. RMC would be eligible to demand free upgrades as and when they are launched within the contract period.
- 9) All data generated during the operation period shall be the property of RMC. The vendor is also required to submit the data for every two month in the form of soft and hard copy to the RMC.
- 10) The successful bidder has to share the API/data/ specific MIS as per the requirements of RMC without any additional charges.
- 11) All the supporting accessories and associated software, monitoring dashboard will be provided by the bidder and apart from the quoted in the financial proposal, no other cost will be entertained by the RMC thereafter.
- 12) The rate of unit device is valid for one year from the date of work order. RMC may procure additional devices on the specified rates.

#### 3. Deliverables

The successful bidder shall deliver / provide the following:

- 1) Hardware –GPS Device, internal battery, internal antenna.
- 2) Web based Application Software with hosting services, SMS gateway, Google maps.
- 3) User Manuals.
- 4) Training to RMC Staff
- 5) MIS reports as defined.

- 6) Mapping of Stoppages, Routes and Depots.
- 7) Monthly operation and maintenance.
- 8) Man power in Ranchi Municipal Office at initial stage of project maximum upto six month.
- 9) GPS-VTS
  - a) Capturing latitudes, longitudes of Stoppages, Routes and Depots
  - b) Geocoding and Geofencing of Stoppages, Routes and Depots
  - c) Route fixing
  - d) GPS device installation
  - e) SMS/E mail based Alerts
  - f) Customized MIS reports
  - g) Real time location monitoring
- 10) Functional Requirement:
  - a) Tracking of Vehicle
    - i) Supply and Installation of GPS Devices: The successful bidder shall install GPS trackers (with inbuilt GPRS module) in vehicle/buses and manage the tracking of entire fleet operations on real time basis. The Successful Bidder shall replace non- functional/faulty device in given time limit from registering of complaint with new device during the contract period. Technical specifications are mentioned in the document.
    - ii) Trip Tracking: The system shall track each and every bus/vehicle carrying the passengers from Source to destination. The tracking shall be real time and web based. Entire set of applications and their features shall allow secure web based online access to obtain real time information. The secure access shall be provided through popular browser interfaces.
    - iii)Tampering Alert: In case of tampering of any equipment, component of vehicle tracking system etc., alert should be given through SMS/ On-screen Pop Up Alert with Sound on about 4 to 5 relevant Mobile Nos. or as suggested by RMC.
    - iv)Route Deviation/Excess Stoppage Alert: In case of deviation of vehicle from pre-defined routes or excess stoppage of vehicle beyond a specified time duration alert should be given through SMS on about 4 to 5 relevant Mobile Nos. or as suggested by RMC.
  - b) WEB based Vehicle Tracking Software
    - i) The Application Software should be hosted by the successful bidder at their own cost during warranty and AMC period having all the administrative rights and access to the RMC.
    - ii) The offered application software product should be readily available (off the shelf) and should be able to deliver and start implementation within the specified time frame as mentioned in this RFP.
    - iii)Geographical Boundaries of State, District, Block, village and have to update the boundaries if new administrative entities are created by the government.
    - iv)Point data relevant to Source (Depots) and destination
    - v) Real time report of the movement of the GPS enabled vehicles on the map to the users based on their privileges.
    - vi)The bidder shall maintain a dynamic reporting system. The bidder is also expected to provide hollowing customized MIS report as per requirements of RMC.
      - (a) Live location of the Vehicle
      - (b) Working Hour/ Efficiency reports
      - (c) Detailed Activity reports
      - (d) Vehicle Summary
      - (e) History Report (showing path taken by vehicle)
      - (f) Trip-wise Report
      - (g) Route Deviation Report

- (h) Vehicle stoppage report.
- (i) Monthly monitoring summary
- vii) Dynamic Route Management: must be able to create and assign routes based on the landmarks and stoppages with option to assign single or multiple vehicles on the route created.
- c) Mobile Application
  - i) Real time monitoring of vehicles
  - ii) Trip Reports
  - iii) Vehicle Day Summary

#### d) Training

Successful bidder shall provide a training manuals and user guides for the system. The Successful bidder shall also provide the training on GPS device and Tracking system to approx. 8-10 users/officials at RMC. Successful bidder shall develop a training plan that ensures all users of the system receive sufficient training to successfully operate the system. User department will provide the space for training with other logistic arrangement such as Laptop, projectors, internet connectivity etc.

#### e) Comprehensive Maintenance and Support Service

Successful bidder has to supply, operate and maintain all the items covered in the scope of this tender during contract period. Comprehensive maintenance service includes application software, parts and service,/repair work/replacement of GPS device(s) should be done by the bidder without any additional charge. However the reinstallation shall be paid additional. In case the supplied items are down and not working, the service provider should attend to the breakdown call/s within 24 Hours and rectify the problem/s of minor nature (configuration etc). If the problem is of critical and major and where the item/spare parts are to be replaced for rectification of any part/problem the call shall be completed within 48 Hours from the time of reporting the call. Failing which penalty will be recovered from monthly payment and/or from the Performance Security. In addition to attending to the Service/Corrective Calls, the successful bidder shall conduct Preventive Maintenance once in every month for all the items supplied / covered in the scope of work. The Bidder must have a complaint redressal system and centralized contact no to register the complaint about hardware/software issues and will also maintain a log of issues, time and date of receipt of call, cause / nature of problem, date & time of resolution provided etc. The details of complaint redressal system will be provided by the successful bidder to the User department during implementation of the project The successful bidder also set up a command and control system at RMC office and deploy a Project Manager to assist the department and monitor the project for entire period of contract without any additional cost to the user department.

- f) Roles and Responsibilities of the System Integrator
  - i) Understanding the scope of the work.
  - ii) Entering into agreement with RMC duly submitting the performance guarantee
  - iii)To provide software and manpower for successful implementation /completion of project.
  - iv)To implement the project with his own men and material by developing required software and also insuring all men, machines and material against all risks.
  - v) Backup of data from time to time and providing backup file with compliance report to

RMC.

vi)Submission of Monthly report to the RMC.

- g) Security Deposit/EMD
- h) Interest free Earnest Money Deposit (EMD) of Rs. 20,000/- in shape of Demand Draft or Bank Guarantee from any scheduled bank drawn in favour of Municipal Commissioner, Ranchi Municipal Corporation payable at Ranchi. The EMD of successful bidder is liable to be forfeited if the bidder revokes any terms of the tender within the validity period. EMDs given by unsuccessful bidders will be refunded after placing of work order to the successful bidder. The validity of bank guarantee shall be 72 months.

#### 4. Annual Maintenance

B. Repairing maintenance and reporting for period of 5 years after completion of the Warranty/Guarantee period.

The supplier have to repair/ replace and maintain the supplied and installed GPS equipments for a further period of five years after the completion of warranty/guarantee period. The service provider shall keep the device functional (all bill and internet charges has to be borne by the supplier) and should provide all the required reports/ data and information to RMC as and when required.

- a) AMC for this project includes all types of expenses on VTS devices like device and software maintenance, data charges, device replacement charges(in case of non functioning of the device), application hosting charges, SMS alert charges etc.
- b) The payment will be made by RMC after successful commissioning of work. The AMC payment will be done on quarterly basis based on satisfactory performance by the firm. The payment will be done at the end of each quarter.

## **ANNEXURE 1 - BIDDER PROFILE**

S N	Particula	nrs	Details to be Furnished					
Details of the Bidder(Company/ Firm)								
1	Name							
2	Address							
3	Telephone:							
4	Website/Email:							
Details o	of Authorised Person							
5	Name							
6	Address							
7	Telephone/ Email:							
Informa	tion about Company							
	Status of Company (Pub	•	Date:					
8	((Ref. Docur	nent)	Ref.: ROC Document					
9	Number of Professionals							
10	Location and Address of Of	ffices						
11	Service Tax Registration Nu	ımber						
12	Income Tax Registration No	o. (PAN)						
13	Sales Tax Registration No (	VAT)						

Signature of Bidder

# **ANNEXURE 2 - TECHNICAL SPECIFICATION**

S No	Specification/Feature	Complied
	Make	
	Model	
1	Less than 5m, 32 channel GPS & GLONASS Receiver	
2	Class 12 GPRS Communication Transceiver	
3	12/24V Operation	
4	Upto 8 Hours internal Battery Backup	
5	Extended Temperature Grade (-5 to 65 degrees Celsius)	
6	Over the Air Software Upgradability	
7	Light weight, ABS Plastic/Metal enclosure with internal GPS/GSM antennas	
8	Two status LEDs	
9	2 Digital Inputs and 1 Digital Output	
10	Internal Battery backup with built in charger	
11	Tamper Proof	
12	Main Power Tamper Alert	
13	Protocol: TCP, Data includes current time stamp, date stamp, Latitudes, Altitudes, Distance moved	
14	Tracking Interval: Programmable 5 secs and upwards, depends upon the protocol, network, and firm feature selected	
15	CPU and Memory: 32 bit application process, 16MB flash memory	
16	GSM/GPRS SMT quad band and UMTS (3G) Class 12, Device class B, High Antenna Gain	

	GPS: Channels: 32 or more, Accuracy: Less than	
	5m, Sensitivity: -159dBm or better, High Antenna	
17	Gain	
	Power Selection: 6-30V, Reverse Voltage	
18	Protection, 4kv Peak Surge Protection, inbuilt fuse	
19	Internal Battery	
	Motion Detector: The unit firmware is capable of	
	motion detection and automatically adjust its	
20	tracking interval	
	Power Consumption: 80mA average @ 12V,	
21	depends upon network setting	
22	Firmware: The VTU firmware shall support:	
	1. SMS/GPRS based configuration of tracking time	
	interval, start or stop tracking, device restart,	
	server parameters, APN server parameters to	
	support any network carrier	
	2. Dark Zone store or forward	
	3. Track on movement/ motion sensor	
	4. Data Alert on removal of main power	
23	EMI/EMC the unit meets necessary standards	
24	Humidity Level 95% RH at 390C	

Signature of Bidder

# **ANNEXURE 3 - BIDDER'S AUTHORISATION CERTIFICATE**

To,			
The Commissioner,			
Ranchi Municipal Cor	poration,		
RANCHI.			
	Designation	, is hereby authorized	to sign relevant
documents on behalf of	the company in dealing with	Tender of reference no	He
is also authorized to a	ttend meetings & submit te	chnical & commercial informa	tion as may be
required by you in the co	ourse of processing above said	d tender.	
Thanking you.			
Authorized Signatory			

# **ANNEXURE 4 - SELF-DECLARATION**

Ref.:				Date	!:	
То,						
The Commissioner,						
Ranchi Municipal Corporation,						
RANCHI.						
In response to the tender No	of GPS	based	Vehicle	Tracking	System l	as a / We is
Name of the Bidder: -						
Signature: -						
Seal of the Company: -						

# **ANNEXURE 5 - CERTIFICATE OF CONFORMITY**

	Date:
То,	
The Commissioner,	
Ranchi Municipal Corporation,	
RANCHI.	
CERTIFICAT	ГЕ
This is to certify that, the service for supply installation shall provide, if I am awarded with the work, are in condocument.	
I also certify that the price I have quoted per unit of involved in the execution of the project, to meet the of the contract.	
	Name:
	Designation:
	Seal:

#### **ANNEXURE 6 - COMMERCIAL BID**

A.	Supply, Installation, Operation and Maintenance of GPS based Vehicle Tracking System for
	Ranchi Municipal Corporation in City Buses.

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To,

The Commissioner,

Ranchi Municipal Corporation,

RANCHI.

## Format for Commercial Proposal

(Price inclusive of all taxes & duties of all the items and Services)

of GPS	y, Installation, Operation and Maintenance based Vehicle Tracking System in City Ride Buses of Ranchi Municipal Corporation	Price inclusive of all taxes & Duties
Sr No	Item Description	Cost per Unit
1	Supply, installation, operation and maintenance of GPS based vehicle tracking system in the city buses of Ranchi Municipal Corporation (including sim card charges)	

2.	Total cumulative cost of repair, maintenance and softwear support to keep the system
	functioning for 5 year.

i.	For 1 <sup>st</sup> year Rs	/per	vehicle
ii.	For 2 <sup>nd</sup> year Rs	/per	vehicle
iii.	For 3 <sup>rd</sup> year Rs	/per	vehicle
iv.	For 4 <sup>th</sup> year Rs	/per	vehicle
٧.	For 5 <sup>th</sup> year Rs	/per	vehicle

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Signature of Bidder:....

Seal

# **ANNEXURE 7 - LIST OF DOCUMENTS**

S No	Document Type	Compliance Yes/No
1	Local Office in Ranchi (Incorporation Certificate, Rent Lease Agreement, Trade License etc)	
2	OEM Authorization Certificate	
3	Work Experience (minimum 2 years of work experience with at least 500 GPS devices installed, to be furnished by attaching copies of purchase order within the span of two years.)	
4	Quality Certificate on Hardware (any two from ISO, CE, RoHS, FCC, ARAI)	
5	Copy of Valid Sales Tax/VAT certificate	
6	Self Declaration of List of Manpower (Technical and Installer based in Ranchi. Minimum 3 installer and 1 Technical is required)	
7	Security Deposit in Form of BG/DD	
8	Bid Document cost in form of DD	
9	Self declaration of Warranty Terms of 1 year on the hardware	

Signature of Bidder

#### **TERMS & CONDITIONS:**

- 1. The complete tender document for the above job can be seen on the website of Ranchi Municipal Corporation.
- 2. The bids shall be deposited in two bid system in the tender box kept at the office of undersigned till 23-09-2016 (14:00 hrs) only.
- 3. The submitted technical bids will be opened on 24-09-2016 (15:00hrs) in Office of the undersigned, In presence of bidders who wish to attend. In case of holiday on the date of opening of bid, will be opened on the next working day at the same time and venue.
- 4. Cost of tender document (in DD from any nationalized bank) favouring Municipal Commissioner Ranchi Municipal corporation should be included with the technical bid.
- 5. Security Deposit of Rs. 20,000 (in DD from any nationalized bank) favouring Municipal Commissioner Ranchi Municipal corporation should be included with the technical bid.
- 6. The bidder may preferably be the Original Equipment Manufacturer (OEM) or his authorized Distributor/ Dealer. However, In case the bidder happens to be any authorized Distributor/ Dealer, an authorization letter from the OEM is required to be submitted.
- 7. The Bidder must have its office in Ranchi. Address Proof document for the same should be produced.
- 8. The bidder should already have successfully executed at least two such Contracts of equal or greater magnitude from any Government Department/ Pvt. Companies across the country.
- 9. The bidder must possess sufficient and qualified work force to carry out the work.
- 10. In case of authorized dealer the firm has to submit the certificate of the same given by the manufacturer/OEM.
- 11. The firm must customize the software/dashboard associated with the proposed VTS devices as per the requirements of RMC without any additional cost.
- 12. Use bidder shall have to ensure necessary support for all hardware and software components during the contract period.
- 13. The firm has to give a declaration that it has not been blacklisted in the past by any Govt./Private institution of the country and there is no vigilance/any other investigating agency, Ease pending against the firm/supplier.
- 14. Copy of valid sales Tax/ VAT Registration to be submitted.
- 15. The GPS Hardware must have at least 2 quality certifications like ISO, CE, RoHS, FCC etc.
- 16. The bidder must provide a minimum warranty of 1 year on the hardware. A self declaration of the same should be furnished.