



REQUEST FOR PROPOSAL (RFP)

FOR

“PROJECT ABHAYA”

**SUPPLY, INSTALLATION, COMMISSIONING, INTEGRATION AND
MANAGED SERVICES FOR IOT BASED SAFETY AND SECURITY SYSTEM FOR
WOMEN & GIRL CHILD DURING TRAVEL.**

IN ANDHRA PRADESH STATE

JUNE 2018

**TRANSPORT DEPARTMENT
GOVERNMENT OF ANDHRA PRADESH
3rd Floor, NTR Administrative Block,
PNBS Complex, Vijayawada.**



Proprietary & Confidential

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REQUEST FOR PROPOSAL STRUCTURE

This Request for Proposal (RFP) Document is meant to invite proposals from interested companies capable of delivering the services described herein. The content of this Request for Proposal (RFP) Document has been acknowledged in a single volume explained in following document:



OFFICE OF TRANSPORT COMMISSIONER, TRANSPORT DEPARTMENT

NEWSPAPER ADVERTISEMENT

TRANSPORT DEPARTMENT

Request for Proposal - Call Notice for

“PROJECT ABHAYA”

Supply, installation, commissioning, integration and
Managed services for IoT based safety and security system
for Women & Girl child during travel.

Time schedule of various Proposal related events:

Sl.No	Name of the work	Details
1	Tender Ref Number and Tender Title	603/R/IT/2018
2	Bid opening date on the website www.apecure.gov.in	14.06.2018 at 10:00 A.M
3	Last date for receiving Queries	20.06.2018 at 11:00 A.M
4	Time and Date of Pre-Bid Conference	21.06.2018 at 11:00 A.M O/o. Transport Commissioner, III floor, NTR Administrative Block, PNBS Complex, Vijayawada-520002
5	Response to queries latest by the Transport Department	28.06.2018 at 04:00 P.M
6	Bid Document Download End date	05.07.2018 at 12:00 P.M

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	and time	
7	Bid closing date and time	05.07.2018 at 05:00 P.M
8	Last Date and Time for receipt of Hard copies of Bids	05.07.2018 at 05:00 P.M
9	Time and date of Pre Qualification bids	06.07.2018 at 11:00 A.M
10	Time and opening of Technical Qualification bids	09.07.2018 at 04:00 P.M
11	Technical evaluation & POC Presentation evaluation	16.08.2018 at 11:00 A.M
12	Opening of Financial Bid and Announcement of Results	20.08.2018 at 11:00 A.M
113	Tender Document Fee (Non Refundable)	Rs.5,000/-DD from any scheduled bank in favour of Chief Accounts Officer & Financial Advisor, Office of the Transport Commissioner AP, Hyd.
14	Earnest Money Deposit (EMD) as bid security in the form of Bank Guarantee	Rs. 1.38 crores furnished by any schedule bank to Transport Commissioner, O/o. T.C., III floor, NTR Administrative Block, PNBS Complex, Vijayawada-520002
15	Contact Details	Sri M.Purendra, Deputy Transport Commissioner (IT), Phone No: 9848528304
16	Bid Validity	180 days from the last date for the submission of proposal



17	Address	Transport Commissioner, O/o. T.C., III floor, NTR Administrative Block, PNBS Complex, Vijayawada-520002
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Table 1: Time Schedule

For further details please visit: <http://www.apecurement.gov.in> and
<http://www.aptransport.org/>

Note: RFP document can be downloaded from the website <http://www.apecurement.gov.in> and
<http://www.aptransport.org/> freely, however Rs. 5000/- (Rupees Five Thousand only) in the
form of DD in favour of CAO & FA, O/o. T.C, A.P., Vijayawada shall be submitted towards the
cost of RFP document along with the bid.



NOTICE INVITING PROPOSAL (NIP)

Name of work – “PROJECT ABHAYA”: supply, installation, commissioning, integration and managed services for IoT based safety and security system for women & girl child during travel using Advanced IOT & edge computing technologies to track, and manage Ignition system in the event of a panic trigger in public transport vehicles like Auto Rickshaws, etc. in the state of Andhra Pradesh.

On behalf of the Government of Andhra Pradesh (“GoAP”), the Transport Commissioner (“TC”), Andhra Pradesh, invites eligible and competent bidders to submit their pre-qualification, technical and financial proposal for the Project, in accordance with conditions and manner prescribed in this RFP and other Bidding Documents issued by the Government of Andhra Pradesh, which is available on its e-procurement website <http://www.eprocurement.gov.in/>.

Transport Commissioner, Transport Department reserves the right to reject any or all proposals without assigning any reason.

Sd/-
Transport Commissioner
Transport Department (GoAP),
Vijayawada.



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DISCLAIMER

The information contained in this **Request for Proposal** (the “RFP”) or subsequently provided to Proposers (*as defined hereinafter*), whether verbally or in documentary or any other form by or on behalf of the Transport Commissioner, Transport Department (*as defined hereinafter*) or any of its employees or advisors, is provided to Proposers (*as defined hereinafter*) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the Transport Department to the prospective Proposers or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in preparing and submitting their Proposals (*as defined hereinafter*). This RFP includes statements, which reflect various assumptions and assessments arrived at by the Transport Department in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Proposer may require. This RFP may not be appropriate for all persons, and it is not possible for the Transport Department, their respective employees or advisors to consider the investment objectives, financial situation and needs of each person who reads or uses this RFP. The assumptions, assessments, statements and information provided in this RFP/ Proposal Documents (*as defined hereinafter*) may not be complete, accurate, adequate or correct. Each Proposer 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 RFP and obtain independent advice from appropriate sources.

Information provided in and pursuant to this RFP to Proposer is on a wide range of matters, some of which may depend upon the interpretation of the 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 Transport Department and GoAP accepts no responsibility for the accuracy or otherwise of any interpretation or opinion of law expressed herein.

The Transport Department and GoAP, their respective employees and advisors make no representation or warranty and shall have no liability to any person, including any Proposer 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



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The Transport Department and GoAP accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from the reliance of any Proposer upon the statements contained in this RFP/Proposal Documents.

The Transport Department 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 RFP/Proposal Documents.

The issue of this RFP/Proposal Documents does not imply that the Transport Department is bound to evaluate a Proposer or to appoint the Successful Proposer for the Project and Transport Department reserves the right to reject all or any of the Proposers or Proposals without assigning any reason whatsoever.

The Proposer shall bear all costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Transport Department or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will be to the account of the Proposer, and the Transport Department shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Proposer in connection with preparation or submission of the Proposal, regardless of the conduct or outcome of the Proposal Submission process.



ABBREVIATIONS

Sl. No.	Abbreviations	Explanation
1	IEC	International Electro technical Commission.
2	GNSS	Global Navigation Satellite System,
3	RoHS	Restriction of Hazardous Substances
4	SOC	System on Chip
5	SOM	System on Modules
6	LTE	Long Term Evolution
7	GSM	Global System Mobile
8	GPS	Global Positioning System
9	GPRS	General Packet Radio Service.
10	4G	4th Generation Mobile Network.
11	3G	3rd Generation Mobile Network
12	2G	2nd Generation Mobile Network
13	LOA	Letter of Award

Table 2: Abbreviations



1 Introduction (Background and Objective)

The Transport Department, Government of Andhra Pradesh, is responsible for the, regulation of motor transport in the State of Andhra Pradesh. The Transport Department performs duties including registration of motor vehicles and allied transactions, grant of authorizations to drive (public/private) vehicles, Testing & issuing of driving licenses, collection of vehicle taxes issuing of show cause notices, stoppage & collection of compounding fee and taking action against registration/permit/license holders who contravene with the provisions of the Motor Vehicles Act, 1988, Andhra Pradesh Motor Vehicles Taxation Act, 1963 and/or the rules framed there under.

Based on recent incidents in the Delhi and across India, Government of Andhra Pradesh has realized that existing system has some limitations to provide a complete safety mechanism for women or girl children travelling in public transport vehicle like Auto Rickshaw. In order to ensure safety, security, relief and rescue measures for the public (with more emphasis on safety and security for women and children) during their regular commuting, accidents, emergency and casualty, the transport department has taken mandate to provide

- Real time multimode tracking / monitoring and managing the ignition system for public transport vehicles using IOT System during the distress call management.
- Route patrol vehicles to check illegal activities and offenders and ensure safety and security of the passengers.
- Best in-service facility by using predictive and operational analytics systems

Transport Department of AP invites prospective bidders to submit the proposal for Supply, installation and commissioning, Integration and provision of managed services using IoT based Safety and Security System for Women and Children Women & Children (Needs to be Women and Girl Child) during Travel. The Core objectives are providing 2S (Safety, Security). The 2S is achieved by having Real time multimode tracking/monitoring and alerting system for public transport vehicles using IOT Systems Analytics Solution. The vendor shall provide a detailed description and functional capabilities of their solution.

The expected benefits to be derived from this system are:

1. With one touch Women and child get Police emergency services.
2. Secure, private and resilient – This system should be built considering best security standards and practices.
3. Efficient – System that is capable to deliver the services efficiently.
4. Scalable – A system that can scale up to catering other services as well as integrate third party applications.

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5. Improve response time for providing Police emergency response services.
6. Ensure state-wide coverage of the service for cabs, public transport including urban, rural and remotest areas of the state.
7. Provide 24 x 7 operational centralized and effective Police emergency response system.
8. GPS enabled quick dispatch of vehicles to the location of citizen in distress.
9. Analyze trends and optimize the use of resources to handle emergency situations.

In pursuance of the above objectives, the Transport Department has issued this RFP. Interested Bidders are requested to submit their detailed proposals ("Proposals") as per provisions of the RFP/Bidding Documents. The Proposals would be evaluated based on the criteria set out in this RFP to identify the successful Bidder for the Project ("Successful Bidder").



2 Scope of Work

2.1 Objective

Government of Andhra Pradesh (GoAP) is bound by the constitution to provide protection, liberty and equal opportunity to each individual of the state to prosper. As a first step towards that GoAP proposes “Project Abhaya”, an IoT based safety solution for women and girl children while in transport. The Transport Department has floated this RFP to prepare a system for the same.

- Transport Department of AP is planning to implement IoT based Safety and Security System for Women & Girl Child during Travel with an intention to ensure the safety and security of the women and children using public transport vehicles. In order to achieve the above, the designated public transport vehicles will be fitted with IoT devices for ensuring safety and security of Women & Girl Child
- All these IoT devices should send data to the Cloud Infrastructure.

2.2 Proposed IOT System: Overall Solution Architecture (in brief)

- IOT devices will be installed in public transport vehicles to enable safety and security for Women and Children.
- IOT Devices should have inbuilt GNSS and GSM/GPRS for both Real time location tracking and Real-time Data Communication
- Real Time Data Analytics hosted on cloud to support Transport department and Police for ensuring effective security and Safety for Women and Children using public transportation



- Mobile Application for passengers Below Diagram depicts the indicative architecture of the Expected Solution:

2.3 Scope of Work “Project Abhaya”:

The broad scope of work would include supply, installation, testing, commissioning, Integrating and maintenance of IoT based Safety and Security System for all the public transport vehicles in the state of Andhra Pradesh. This would inter-alia include:

- Supply of the complete IoT based Safety and Security System, including all necessary hardware & software components, subcomponents, spares, consumables, tools, training etc.
- Embossing of the equipment with Abhaya (or any relevant)" Logo" and inscription" Transport Department of AP".
- Installation and Commissioning of the supplied IoT systems on all the specified Vehicles.
- The IoT device should transmit the GPS Coordinates at fixed intervals at every 30 secs.
- The IoT device must have the panic button systems and during the panic button activation the GPS locations are transmitted at every 5 seconds.
- Integrating this system with the Patrol Management System at the Police Command and

Figure 1: Indicative Architecture of Expected Solution

Control Centre. The integration will enable to furnish the location of the vehicle and the details of the driver, vehicle, owner etc.





- Supply and Installation of QR codes stickers on the vehicles. QR Code should be a standard QR code sticker. The QR code when scanned through a mobile application should fetch the details about vehicle number, driver details etc. from the RTA.
- The QR Code stickers should be tamper proof and need to be from reputed companies such as 3M or equivalent.
- Application and Analytical software to be hosted on Cloud Infrastructure. The analytics will cover all scenarios which can be generated from the data points that the system captures.
- Mobile Application to suit Android, iOS and Windows based Mobile devices.
- The selected supplier shall provide Operation & Maintenance Manual in Telugu/English languages for all the systems.
- Any additional works not covered above, but necessary for the functioning of the system and required as per specification should be incorporated.
- Training to the Stakeholders for operation and maintenance of the system.
- The IoT System Set installed and commissioned shall be guaranteed for satisfactory performance for a period of 60 months from date of commissioning.
- The selected supplier shall be responsible for comprehensive maintenance of the IoT Hardware and Software for a period of 60 months.

For the successful implementation of “Project Abhaya”, it is expected to develop an integrated system where IoT, User, Driver, AP Transport Department and Police Department are always in sync. Once the IoT device is installed and registered with Police Department, it should be available for usage to all the stakeholders in the system. The proposed system will have following components with underlined features and capabilities.

The transport department has access to the list of the registered public commute vehicles, licensed drivers and authority to enforce the installation of the IoT device in all the permitted commute vehicles in State of Andhra Pradesh. As an owner and the gate keeper of the system, the transport department needs to have a web application for registration of the vehicles and IoT device in system, tracking the progress of installation, web services for providing the access to driver and vehicle database and overall repository for storing all the activities of the “Project Abhaya”. Important components of the Web Applications:

2.3.1 Web Application for Registration of Vehicle and IoT Device (Desktop)

Installation and registration of the IoT will be handled by Transport Department; we need to have an application for local staff of TD to complete the process. Application should allow scanning the QR code assigned to the vehicle and register it against the Vehicle Registration Number, Driver Mobile Number and IoT Serial Number in Transport Department Database. Once the registration is done, system should generate a sanity report for the operability of the system and store the report for reference.



2.3.1.1 Dashboard for Monitoring the Progress of the installation of IoT

Installation and registration of the IoT device in all the devices registered with Transport Department is humungous task and a system to track the progress is important for 100% coverage. This dashboard will help Transport Department to monitor in terms of setting the targets to staff and verification of the same against the targets. The Dashboard will also provide a high-level view for the senior officers of the Transport Department and should include necessary statistics at the time of implementation.

2.3.1.2 Web Application for backend operations

The IoT device will have capacity to relay GPS location every 30 seconds, Video Conference facility with the Command and Control Centre, disabling the ignition of the engine, hooter and siren to alert the nearby citizen, Display Screen to track the route of the journey and alert mechanism for passengers. The backend system has to ensure that all these capabilities are utilized and operationalized as specified in later part of this RFP. This application will also responsible for sharing the current location of the IoT device with Command and Control Center of Police Department from which distress call has been registered.

2.3.2 Mobile Application:

2.3.2.1 Mobile Application for Registration of Vehicle and IoT Device

To provide the flexibility in the operations of installation and registration of IoT devices in Transport Department, the RFP proposes a mobile based version of the desktop application with support for iOS, Android and Windows Mobile Platforms.

2.3.2.2 Mobile Application for Women and Children

The system has to establish a connection between passenger and the server to ensure the safe and secure journey for the women and children. This application will allow the passenger to scan the QR code and establish that connection. Once the connection is established, the passenger will receive information about driver, vehicle and status of the IoT. After confirming all the details, passenger will continue with the journey. The mobile application will not request for any personal information of the passenger.

2.3.2.3 MobileApp functionality

1. Open the app
2. Scan the QR code -or- enter vehicle number
3. Details about driver and vehicle details are fetched



4. Call to Actions
 - 1 ▶Capture Photos
 - 2 ▶Send Alert
 - 3 ▶Share Route
5. Tap on 'share location' to share vehicle location with Guardian /Confidante
6. Application picks current location. User will enter destination location and tap on
7. 'share my route'
8. Tap the trouble (distress) button, which will auto-alert the police command and control center, her Guardian/ Confidante
9. Hard press (anywhere) of screen will also trigger a distress alarm
10. Tap 'Video Call' button to start the video call /stream to the police officer
11. Point the mobile front camera towards the trouble mongers whose images and video are captured by the Police and the cop on duty engage them through video
12. Tap the 'shout' button to play a recorded video or 'Shout' audio in vernacular language and also auto alert the police command and control center, her Guardian/ Confidante
13. APP Interface of Guardian /Confidante [friends & family] to track Path deviations are alerted to the user and confidants first

2.3.2.4 Fail Safes

- GPS Not Powered /SIM Card Not Working
Solution:
 1. Web App indicates zero vehicle, but Women Passenger tries to log in through the APP and SHE is alerted that this Vehicle is GPS/SIM disabled.
 2. System pushes a warning message to Owner to enable GPS/SIM.
 3. After 3 warnings a penalty is generated & communicated to owner & after 5 warnings, the MVI enforcement teams and Traffic Police are informed to seize the vehicle
- Driver& Vehicle Details Not updated through his DL swipe on the QR Code reader:
Solution:
 1. Web App indicates absence of driver, but GPS indicates vehicle movement, so Women passenger alerted driver is not registered.
 2. System pushes a warning message to Owner to counsel driver to update through his DL card swipe.
 3. After 3 warnings a penalty is generated & communicated to owner & after 5 warnings, the MVI enforcement teams and Traffic Police are informed to seize the vehicle.



2.3.3 Mobile Application for Drivers

In case of rented vehicles for commercial usage by the drivers, the application will be used to tag driver with the vehicle for particular duration where driver will use the same QR code to punch in his IN and OUT time with the vehicle. This application will also be used to promote and encourage the usage of IoT device by drivers. RFP proposes an incentive driven program. This application might provide a dashboard for drivers to track their performance and records in the incentive program. In future if need arises, this application will be used to calculate the fare of the journey to replace the digital meters.

2.3.3.1 Driver Incentivizing & Loyalty

- In order to recognise or reward good drivers, it is essential to have a comprehensive incentive or recognition program that clearly defines and measures good driving behaviour. Having a driver incentive program can result in higher driver compliance ratios.
- The bidder shall propose a loyalty & incentivizing System and its complete workflow and integration mechanism.

2.3.4 IoT Device:

The IOT unit shall be of industry standard which can provide the location details accurately and reliably. The software should be capable of displaying the real time location on Google Map, speed and distance travelled by the public transport vehicles fitted with IOT devices.

2.3.4.1 IoT Device Features

- The Device must be SOC / SOM with built in GNSS 4G and capable of managing the Ignition system, Panic button and facilitate EDGE computing.
- IoT device should be able to Track the Location of the Vehicle and Transmit the data at defined periodicity to the Server. The periodicity should be configurable.
- Device should be capable of reading RFID enabled driver's License. Detection of Ignition Status, Speed, Towing, Idling, and Parked Condition.
- Both Active (when a mobile network is available, and a tracking device is connected it transmits data to a server) and Passive (when the network is not available the device stores data in its internal memory and will transmit stored data to the server later when the network is available again) tracking abilities.
- Position accuracy <3 meters
- Device should be able to function in case of non-availability of power from vehicle battery.
- Provision of a Panic Button: Following the activation of a Panic button by a driver/Passenger, the location of the vehicle must be relayed to Police and transport department.
- Tow notification: If the vehicle being tracked is getting towed, there should be a provision to get the tow notification from the device.

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- Any attempt by driver or any other personnel to tamper the device concerned authorities should be alerted
- Sleep Mode/Live status of the vehicle to be sent to the server.
- The device should be scalable to plug in the Additional features like.
 - Audio Player
 - LCD screen

2.3.4.2 IoT Device Specifications

- Shall have auto restart feature with built-in watchdog timers and intelligence
- Shall have Program over the air (POTA) feature which will update the new features automatically.
- Auto recover feature in case of device / network hanging.
- On demand status verification from remote server
- Shall have a configuration over the air feature through which all the SMART IOT device operational settings will be configured.
- The SMART IOT device shall be suitable for end to end remote operating device via GSM/GPRS.
- The unit operate on both GSM and GPRS technologies
- The unit should be capable for continuous working for 24 hours every day in the vehicle.
- The unit should have internal memory to record at least 2000 location points in case of non-availability of communication channel
- 24*7 real time position tracking of vehicles
- The periodicity of data transmission from the device shall be configured based on status of the vehicle. (Sleep or Active)
- The unit shall comprise of built in GNSS/GSM module, GSM/GNSS antenna, battery backup, internal memory etc.
- The unit should be capable of working over large range of temperature and humidity conditions across India.
- The unit shall be of automotive grade.
- The unit power consumption should be very minimal, and it should not drain the vehicle battery.
- The unit should also have High capacity Li-ion internal back-up battery for working of the unit for at least six hours in case of non-availability of external power source.
- ALERTS
 - Alert if vehicle is stationary for a longer time
 - Alert if the unit is detached from the vehicle.
 - Panic button for high alert
 - Panic button for Engine switch OFF
 - Over speed detection and alarming
 - Vehicle low battery alert
 - Engine ON detection

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- Engine OFF detection
- Vehicle Idling detection
- Vehicle parking detection
- Device power disconnect alert
- Device tampering alert

2.3.4.3 IoT Device Technical Specifications

- The hardware used in IOT system shall conform in all aspects to the relevant International Standard Specifications with latest amendments there to unless otherwise specifically mentioned in this specification.
- The hardware shall conform to the standards mentioned Specification Details table
- The hardware conforming to other internationally accepted standards, which ensure equal or higher quality than the standards mentioned above would also, is acceptable. In case of any difference between provisions of these standards and provisions of this specification, the stringent provisions shall exist.
- Specification Details:

<ul style="list-style-type: none"> ▪ SOM Make/Model 	<ul style="list-style-type: none"> :
<ul style="list-style-type: none"> - CPU - Ram - Flash - OS - Operating Temperature - Storage Temperature - Chip Set - Module function - Data speed - Sim profile switching - Built-in SW Feature - Status indications - Panic Button - Tamper Detection - Battery Status - Vehicle Status - Remote control - Interfaces - Data security - Encryption - Security 	<ul style="list-style-type: none"> : : : : : : : : : : : : : : : : : : : : : :
	<ul style="list-style-type: none"> arm cortex a7 or more embedded 2 GB DDR 2gb flash (extendable up to 4gb) embedded Linux, embedded Windows -40°C to +85°C -40°C to +105°C Qualcomm, intel, NXP, Texas Instruments LTE with fall back up to 2g cat 4 up link up to 150 mbps down link up to 50 mbps changing mobile network operator (MNO) FOTA PWR, NW, ALM high alert, engine switch off, buzzer power, box open detection low battery indication engine on/off/running/idling/parking detection on demand control from server I2C, ADC, SPI, UART, SDIOX2, USB 2.0 SSL or any TSL or any enabled

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- Certification : automotive grade
- Built in battery : storage

▪ **Applicable Standards**

The hardware used in IOT system shall conform in all aspects to the relevant International Standard Specifications with latest amendments there to unless otherwise specifically mentioned in this specification.

The hardware shall conform to following standards

- IEC 60950-1
- EN/IEC 61000 Electromagnetic compatibility
- EN60068-2-6 : Vibration 10-500 Hz Sine vibration 5g
- EN60068-2-30 : Temperature/ Humidity damp heat cycling
- EN60068-2-1 : Cold (-40° C)
- IS 9000 : Dry Heat (+85°C)
- EN60068-2-14 : Change in temperature (-40°C to +85°C)
- IEC 60068-2-29 : Shock – 10Shocks/ 6mS duration 10g
- IS 9000
- IEC 61000-4
- IS/IEC 60947-1:2004 : Ingress Protection test (IP)
- EMI/EMC : AIS004
- ISO16750-2:2010 : Over voltage protection test
- Battery backup test
- Tracking sensitivity test
- IS2465 – Electric wiring

The hardware conforming to other internationally accepted standards, which ensure equal or higher quality than the standards mentioned above would also, is acceptable. In case of any difference between provisions of these standards and provisions of this specification, the stringent provisions shall exist.

▪ **Environmental Specification**

- Maximum Ambient Air Temperature : +85° C
- Minimum Ambient Air Temperature : -40° C
- Maximum Storage Temperature : +105° C
- Minimum Storage Temperature : -40° C
- Maximum Relative Humidity : 5% ~ 95%

▪ **Mechanical Specification**

The Mechanical Specifications of the Abhaya IOT shall be as follows:

- The Unit shall be compact, rugged and reliable in design, as this device will be placed in a vehicle.



- Mounting Arrangement: Easy mounting arrangement with a hook Provision on the Unit supported with the screw fixing arrangement. So that it will be comfortably fixed inside the vehicle.
- The Unit shall comply with **IP66** rating.
- Sealing Arrangement: The Top and Base Cover shall have a suitable sealing arrangement so that the Sealing cannot be tampered.
- The Unit shall be a compact model housed in a Fire-Retardant Polycarbonate / engineering plastic enclosure.
- The Unit shall be protected effectively.

▪ **Remote Access**

The Unit should accept on demand request from remote server.

- **Data transfer in pull Mode**
 - On demand request
 - Remote configuration

▪ **Power**

- Operating voltage 8 to 18VDC
- Operating power <5W
- Operating with battery charging <8W

▪ **LTE Technology Features and Specification**

- **Wireless**
 - LTT FDD/TDD Cat4 (150/150 Mbps DL/UL)
 - GSM/GPRS/EDGE
 - WCDMA up to DC HSPA+, Rel.9
 - TD-SCDMA (China Variant Only)
 - Max IPv6, QoS
 - Inter-RAT capabilities with HSPA+
 - Control via AT commands according to 3GPP
 - TS 27.005, 27.007 VoLTE

- **GSM/ GPRS/LTE/GNSS ENGINE**

The Unit shall comply the following.

- **2G**

- The SMART IOT device shall operate in Quad band GSM | GPRS: 850 / 900 / 1800 / 1900 MHz. The modem shall also be capable of transferring data on GPRS network.
- The GSM/GPRS engine shall be fully type tested and the supplier is required to submit the test reports along with the offer.
- Voice and SMS
- Standard and extended AT command set
- Full GSM or GSM/GPRS Operating System stack



- Speed up link/down link 85.6 kbps
- **3G**
 - Speed up link/down link 384 kbps
 - Supported bands GL variants: - 4 Bands GSM|GPRS|EDGE: 850/900/1800/1900MHz-5Bands UMTS|HSPA: 800/850/900/1700/1900/2100 MHz
 - HSPA+ data up to 21.0 Mbps downlink / 5.76 Mbps uplink
 - Quad Band GPRS and EDGE
- **LTE**
 - LTE FDD Cat.4
 - Rx Diversity and MIMO DL 2x2
 - SIM application Tool Kit 3GPP TS 51.014
 - Built in UDP/TCP/FTP/SMTP stack
 - VoLTE
 - Data LTE Cat.4
 - Uplink up to 50 Mbps
 - Downlink up to 150 Mbps
 - Support bands B3,B5,B40,B41
 - Support Frequency bands GSM850, EGSM900, DCS1800, PCS1900, WCDMA and LTE modes as per 3GPP standard.
 - Internet services Built in Stack UDP/TCP/FTP/SMTP/MQTT/HTTPS
 - Sensitivity
 - 108 dBm@2G
 - -113 dBm@3G
 - -102 dBm@4G
- **SMS**
 - Point to point mobile originated and mobile terminated SMS
 - Concertinaed SMS support
 - SMS cell broadcast
 - Text and PDA mode
 - SMS over GPRS
- **Supplementary Services**
 - Call Forwarding
 - Call Barring
 - Call Hold
 - Caller ID
 - Call Waiting
 - Multi-party service
 - USSD
 - Automatic answer
- **Interfaces**



System shall support standard I/Os (Digital, Analogue and Serial Communication) for interfacing external systems (e.g. Digital input for Emergency request button interfacing, tampering detection, vehicle battery voltage reading, USB based external interfaces).

▪ **Power**

- LTE – Class 3 (0.2W)
- WCDMA – Class 2 (0.25W)
- Class 4 (2 W @ 900 MHz)
- Class 1 (1 W @ 1800 MHz)

▪ **GPS / GNSS**

- Accuracy : <3m
- Satellite channels Archie : 32 channels or more
- Sensitivity : Acquisition: -162dBm
: Navigation: -160 dBm
: Tracking: -162 dBm
: Cold start acquisition sensitivity up to 160dBm
- On-board Location device : GNSS
- TTFF (Open Sky) : Hot – less than 2s
: Warm – less than 25s
: Cold – less than 30s
- Navigation update rate : less than or equal 2Hz
- Comply with Standards : NMEA, RTCM

▪ **AUDIO SYSTEM**

The Unit should support Analog/ digital audio sub system for Buzzer and speaker

▪ **SIM CARD**

- A SIM card holder shall be provided on the mother board and shall be accessible only after removal of cover of the Unit.
- It shall not be possible to insert / remove SIM card without opening the Unit enclosure. It is desirable to have further interlocking facility under the Unit.
- Slide Type, SIM Lock function (1.8V/3V), inside

▪ **ANTENNA**

- CELLULAR Built in
- GPS Built in

▪ **MEMORY**

- The Unit shall have sufficient memory to store software and Data. The memory shall be scalable / upgradable. The modem shall have non-volatile memory, so that the stored data will not affect when device power off state.
- The nonvolatile memory should have a minimum retention time of 10 Years.
- Inbuilt 2Gb non-volatile Data memory (Expandable to 4Gb). Data memory for storing track data when power not available.
- Inbuilt 2Gb RAM



- **REAL TIME CLOCK**
 - The Unit shall have a real time clock and calendar based on a crystal with a battery totally independent of power supply.
 - It should be possible to synchronize RTC of network.
- **STATUS INDICATORS**
 - The Unit shall have LED in the front which can be visible from the distance.
 - The LED shall indicate the operational status of the Unit
 - Network status
 - Continuously glowing LED indicates absence of SIM card or no service or insufficient signal strength.
 - OFF LED indicates non-availability of power to the SMART IOT device.
 - Slow blinking LED indicates healthiness
 - LED for GPS.
- **BATTERY BACK UP**
 - Minimum 6 hours
 - Rechargeable
 - Built in charging circuitry
- **CERTIFICATIONS**
 - AIS140
 - ISO/TS 16949
- **EXTERNAL INTERFACES**
 - The SIM interface should be a 3 V/1.8V
 - USB 2.0 HS
 - USB 2.0 with OTG support Buzzer
 - RF Reader
 - EM4001 64-bit RFID Tag compatible
 - Frequency band 125kHz
 - Integrated Antenna

2.3.4.4 IOT System: Real Time Monitoring/Location Tracking and Data Analysis Software Requirement

IOT device should accept on demand request from remote server.

System Availability: The proposed system should have an availability of 99.5%. Availability is measured weekly based on 24x7 operating profile.

System Scalability: The proposed system architecture must be able to scale linearly both horizontally and vertically.

The database server/application server shall be positioned in Cloud Infrastructure. The data should not be accessible by any other agency. It shall store the vehicle position data for a period



of last six months for all the vehicles in the server hard disk/SAN storage. Thereafter archiving on a suitable media like (DVD, spare hard disk) etc.

- Integration with Google Map with API, to be provide by the Department
- The map engine specifications should zoom in/out; variable map window size/full screen map; customizable vehicles icons; re-center/planning and zoom level-based layers capable of geo-fencing creation and provision to add new land marks. It is expected that the map data will confirm to Government (Central/state) policies.
- The vehicle position in the quoted system should have better accuracy and the vehicles should be visible moving on the correct side of the road on the map. The accuracy of the system shall be such that at any point of time the vehicle shown on map shall be at a difference of EQUAL or LESS than **3 meters** from the actual position.
- The live tracking of vehicles and access of different reports should be available from the local and remote consoles/dashboards/WebApps /Mobile app.
- The access to the proposed vehicle tracking system should be based on login/password with different rights at different level of officials.
- The Administrator must be able to add, change and cancel user identification and their initial passwords and permissions for the system access. Administrator should have the right to Enable/disable IOT devices key functionality for any particular vehicle
- All the accesses to the system should be logged including date and time of access along with the IP addresses. It will maintain audit-trail of all modification/alterations carried out in the system. The system should have good security systems like Firewall, Intrusion detection system (IDS) to prevent any unauthorized access to the system
- The database should have protection from unauthorized access and attack by using Security Information and Event Management, IDS and Firewall (DMZ)to prevent any unauthorized access to the system
- Any customization required by Transport department in the formats of Dashboards/App/Reports shall be done by the Successful bidder free of cost as and when required for the first 12 months from successful User Acceptance.
- Data / Message transformation
- Traffic Control
- Access control with authentication and authorization
- Support for Industry Security Standard (e.g. SAML, OAuth etc.)
- API health and performance monitoring

2.3.4.5 IOT System: Analytics Platform, Dashboards and Reports Requirement

- Replay of exact route taken by a vehicle, on the map.
- Speed graph report.
- Vehicle activity reports including total distance of travel, average time consumption, places visited, halted etc.
- Day summary report depicting the number of trips made details of exceptions viz. Over-speeding, stoppage, geo-fence violations, halt etc.

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- Accurate log of exact kilometers travelled on basis of actual movement.
- Vehicle stop report such as vehicle stoppage, date, showing entire places visited along with date and time for a particular period.
- The system should have facility to generate report in MS Office and pdfs
- The system must be able to retrieve the history of a vehicle, showing entire places visited along with date and time for a particular period.
- The system must be able to display snapshot summary of all logged-on vehicles.
- The system bidder shall provide the Training at the user's location in the system administration, system operations, archive downloading and reports generations etc.
- Web based application compatible with all major browsers and accessible from any internet enabled device accessible through an easy to use portal that shows easy to read maps.
- Secured access to the portal via user ID and Password
- User Management with different usage rights (separately for stakeholders).
- Tracking Portal should be a user-friendly web interface, where the administrator can. Input and edit various parameters related to drivers, routes and vehicle.
- Client specific customization of reports and viewing screens.
- Capable of providing information regarding
 - o Moving – live tracking on electronic map
 - o Route, time and speed of the vehicle.
 - o Live tracking with replay of historic tracks
 - o Digital maps with zoom in and zoom out facility
 - o Personalized Dashboards
 - o Can be customized to the time intervals required
 - o Spot various vehicles in a single view
 - o Alerts and exception reports for ETA(expected time of Arrival), speed, Geo-fence violation, over speeding or other predefined events
 - o Fleet Management
 - o Trip Management
- Reports including:
 - o Tracking Report
 - o Over Speed Violation
 - o Vehicle wise stoppage Report
 - o Time based Arrival/Departure Report
 - o Consolidated report for fleet
 - o Total movement time, stop time, travelled distance, average speed etc. of each vehicle
 - o Customized reports and Dashboards as per customer requirement
 - o Geo-fencing entry–exit reports
 - o Stoppage time exceeding defined time interval
 - o Additional Adhoc Report(s) as selected by Department for the multi dimensions analysis of vehicle tracking device



- Scheduled Reports with facility to export to Microsoft Excel/pdf/word and also email possibility
 - Daily
 - Weekly
 - Monthly
 - Summary / detailed report
 - User-defined and downloadable reports

2.3.4.6 IOT System: Device Auxiliary Specification

Total number of vehicles to be equipped with IOT Device for the Phase1	100000 Auto Rickshaw in Cities of AP.
List of vehicle types, brands and models to be equipped with IOT devices	Bajaj, Mahindra, TVS, Piaggio, teja, Tuk-Tuk
Manufacturer year of vehicles	2007 onwards.
QR Code Specification	Should be 3M Quality standard QR Code sticker
Phase 2 will cover all the auto rickshaws from state of Andhra Pradesh	

Table 3: IOT Device Auxiliary Specification

2.3.4.7 IOT System: Management Requirement

All end-user applications must be fully web-architected, with no code/plugin required on the client machine.

- Based on server technology that supports vertical and horizontal scalability, fail over, clustering, and load balancing
- Ability to support and work with any of the databases such as DB2, Microsoft SQL Server, Oracle database etc.
- Ability to support advanced portal technologies
- Ability to support both on premises as well cloud technologies for hosting
- Ability of system to have prebuild tools/options to move changes from one environment to another environment (e.g. dev to QA to Prod etc.)
- Ability of the system to manage authorization processes and control the finer level of access as well.
- “User friendly” design so that it can be operated with minimal training by employees who have little or no computer experience
- Simple transaction processing
- Screens are simple and only relevant fields are shown on screen
- Intuitive menu structure

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- Ability to search in end user applications using an applicable format, i.e. search by populating specific fields in a search screen

2.3.5 Web Services for consumption of functionalities available with IoTand Command and Control Centre of Police Department:

These web services will be made available to the command and control center of Police Station which will be used to integrate inputs from IoT device to patrol response system. These web services will also be extended to mobile application installed on passenger to provide all the details of the QR code holder such as Driver Information, Vehicle Information and IoT status. For promoting the development of the third-party applications, the system should have an option for web services to be extended and utilized by the third-party transport service providers. These services can be availed by the online taxi services such as Ola, Uber, Taxi forHire, Meru etc. to integrate these facilities in their native applications.

2.3.6 Technology

- IOT layer - making interactions between user and cloud very friendly
- Privacy - At no point the User is tracked. The vehicle is tracked. Hence no violation of privacy.
- Crowd Sourcing - The Driver, Woman passenger and her Guardian/ Confidante update through the APP and the application database
- Police/ Government intervention - Only upon distress call, otherwise system auto-generates alerts,
- status updates etc., purely based on technology. Hence lesser burden on the Law and Order
- machinery resources. It is seamlessly integrated into the everyday business of Police, Transport
- department's etc.
- Addresses Governments responsibility - to safety and security of Women &Children with
- minimum invasiveness. Thus, Government fulfils its social responsibility, enhances safety & security
- Real Time Spatial & Temporal Analytics: Entire cycle is technology driven & user driven with a layer of Machine learning and Real time big data Analytics - thus stress on Government Human Resources is only during a distress situation. Hence Manageability and scalability is easy and high.

2.3.7 Technical Manpower Requirement

Bidder shall provide adequate number of personnel each responsible for a specific role within the project. Bidder must provide clear definition of the role and responsibility of

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each individual personnel. Bidder shall have a defined hierarchy and reporting structure for various teams that shall be part of the project.

The following table provides an indicative list of resource categories and the minimum resource requirements estimated for the project. However, bidder shall independently estimate the teams size required to meet the requirements of Service levels as specified as part of this tender Bidder shall propose qualified personnel with adequate skills levels to manage the system.

2.3.7.1 Man-Power during Implementation Phase I (Pilot Project)

#	Description	Min. no of Resources	Min. Deployment %	Min. Duration in Months
1.	Project Director	1	30	
2.	Project Manager	1	100	
3.	Solution Integration Expert (Web Application + IoT system + Mobile Application + Data Analytics Application + Integration with Command and Control Centre)	1	100	
4.	Web Application Solution Architect	1	100	
5.	Mobile Application Solution Architect	1	100	
6.	Data Analytics Solution Architect	1	100	
7.	Solution Expert (GIS)	1	100	
8.	Network Architect	1	100	
9.	Information Security / Cyber Security Expert	1	50	
10.	Product & QA Manager	1	50	
11.	Master Trainer	2	50	
12.	Database Architect / Modeler	1	100	
13.	Database Administrator	1	50	
14.	Cloud Deployment Architect	1	50	
15.	Business Analyst	1	100	
16.	Web Application Developers	4	100	
17.	Mobile Application Developers	3	100	
18.	Data Analytics Developers	3	100	
19.	Test Analysts	3	100	
20.	GIS Data Support Staff	2	100	
21.	Geo Fencing Staff	2	100	
22.	IoT Integration Specialist	2	100	
23.	IoT Installation Staff	10	100	
24.	Help Desk Manager	1	50	

Table 4: Man-Power during Implementation Phase I (Pilot Project)

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2.3.7.2 Technical Manpower during O&M Period

#	Description	Min. No. of Resources	Min. Involvement %
1.	Project Manager	1	100
2.	Solution Integration Expert (Web Application + IoT system + Mobile Application + Data Analytics Application + Integration with Command and Control Centre)	1	25
3.	Technical Lead	1	100
4.	Web Application Development Resource	2	50
5.	Mobile Application Development Resource	2	50
6.	Data Analytics Development Resource	2	50
7.	Solution Expert (GIS)	1	50
8.	Database Administrator	1	50
9.	IoT Integration Specialist	1	50
10.	IoT Installation Staff	15 (For Pilot Project)	100
11.	System Administrator / Application Administrator	3 (1 for each shift)	100
12.	Network Administrator	3 (1 for each shift)	100
13.	Help Desk Manager	1	50
14.	Process & Compliance Support / Service Delivery	1	100
15.	Information Security / VAPT Analyst – support	1	25
16.	Trainers	1	As and When required
17.	Helpdesk and Support Staff	9 (3 per shift)	100
18.	Helpdesk Manager	1	100

Table 5: Technical Manpower during O&M Period

2.3.7.3 Project Director

- (S)He shall be responsible for organizing, planning, directing, and coordinating the overall program effort.
- (S)He shall be responsible for allocating resources to the project.
- (S)He shall review the quality of project deliverables to ensure compliance with the agreed quality measures and standards.
- (S)He shall participate in all project meetings and project review meetings.
- (S)He shall be responsible for conflict management, issue and dispute resolution.
- (S)He shall ensure compliance to the terms and conditions of the Contract

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2.4 Individual process for Stakeholders

For the “Project Abhaya” to be successful, we have identified the stakeholders in the process and following list also includes the operational activities of each stakeholders

2.4.1 Driver

A person who has an authorized permit issued by transport department for driving the public transport vehicle such auto-rickshaws, taxis or transport buses.

- The driver upon resuming his duty will tap his RFID enabled DL card on the device and the device should capture the details of the DL Card and transmit the same to the Central Server.
- A record connecting the driver and the vehicle is created at the Server end, while simultaneously the same is created at the IoT Device.
- This record is renewed with every tap, while at the server end all the records are permanently stored, at the device end only two days records are stored locally.
- An incentive mechanism must be created to the driver to enable to tap the IoT as frequently as possible. The same may be proposed by the Bidder.
- As and when a new driver takes charge of the vehicle the above process is repeated.

2.4.2 Passenger

A person who is availing the authorized vehicles for transportations.

- As soon as the Passenger plans to board an Auto-Rickshaw, the passenger will shoot through the smart phone of the passenger, at the QR Code sticker on the Auto-Rickshaw and the same will fetch the details of the vehicle, driver along with his photograph.
- The Passenger can cross check the Drivers photograph with the Actual driver on the wheel.
- The Passenger will be asked to send a Yes / No confirmation of the driver photo match.
- In any case if the Passenger boards the Auto-Rickshaw, they will be asked to enter the destination point.
- Based on this information, the Passenger will be provided the options of intimating the journey to their confidante / guardian.
- Once this process is completed the Passenger will be given the 3 possible routes and if there is any deviation from these routes by a specified distance, the same will be intimated to the passenger by the system.



- Unless the Passenger raises a distress call on the system, the deviation will not be intimated to Police by the system.
- The distress call can be raised by hard pressing the device screen.
- The bidder may propose an incentive mechanism for the usage of the QR Code sticker by the passenger.

2.4.3 Police Department

Department responsible for proactive response in case of receiving distress alert from “Abhaya System” to Command & Control Center.

- Once a distress call is activated by the passenger either by pressing the panic button on the IoT device or through the hard press of the Mobile, the same is escalated to the Police Command and Control center and the location of the vehicle is furnished to the Police.
- The Police C&C center now alerts the nearest Patrol Vehicle based on its location and dispatches it to the location captured from the device and the system.
- Based on the gravity of the situation, the Police C&C Center may take an action to seize the Ignition system of the vehicle and arrest the movement of the vehicle.
- The Passenger once she hard presses the screen, will automatically establish a video stream between her and the Police C&C Center.
- This will enable the Police C&C Center to engage with the Events at the Distress call location and can be used to aid the track and trace of the Offender.

2.4.4 Transport Department

Project Owners and agency responsible for installing the IoT devices in transport permit vehicles.

- Transport Department is the owner of the “Project Abhaya”.
- The Transport Department is responsible for facilitating the installation of the device.
- The Transport department will publish the APIs for consuming the Driver / Vehicle / Owner details.
- Whenever the IoT device sabotage is identified by the system, the Transport Department will enquire and take the necessary action to restart the system by facilitate the trouble shooting the IoT device through the Winning bidder.



- Upon identification of wilful sabotage of the system, the Transport Department will take appropriate action under law.
- The Transport Department as part of their Annual Fitness certificate issuance and make it mandatory to demonstrate the device is operational.

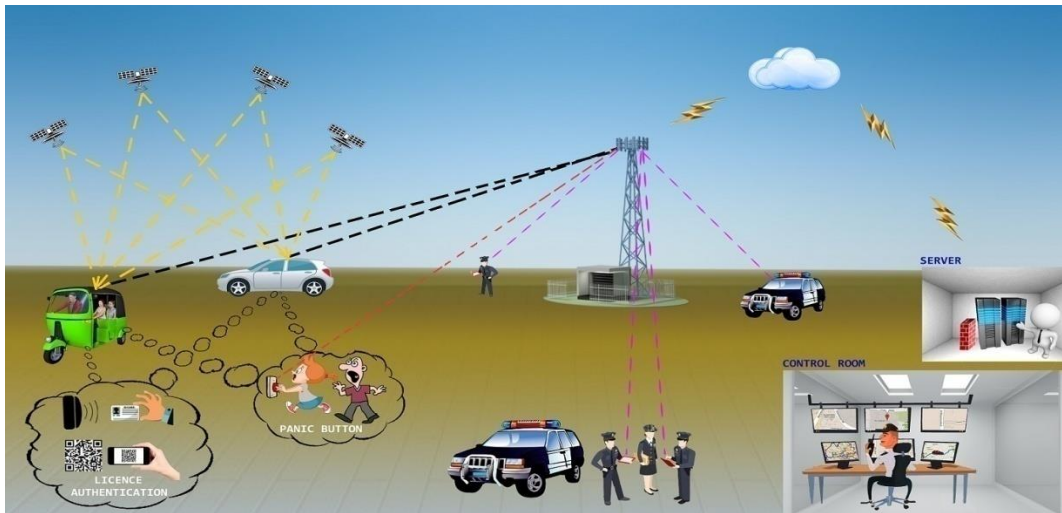


Figure 2: Operational Mechanism in case of Distress Call/Alert

2.5 Key Activities and Timelines

Refer to the Table below for key activities to be undertaken by Proposer in this project. Key observations regarding the list of activities are given below:

- Project manager shall be deployed during the entire project duration
- At least 1 functional lead shall be deployed until the Go-live date
- Proposer shall rent the necessary cloud services (DC) (empanelled with Deity) for hosting Web Applications effective T + 15 days only
- Proposer shall rent alternate disaster recovery cloud service (DR) (empanelled with Deity) for hosting DR effective T + 55 days only
- AP RTA will review and accept the software based on prototype philosophy of software development as defined in this RFP
- A 3rd party audit agency will work in parallel with the Proposer during the pilot phase
- Proposer shall conduct at least one DC-DR drill during the development phase

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- viii. The 3rd party audit agency will conduct security audit of the system as per guidelines submitted in T + 88 days. Proposer is required to do the needful to comply with the laid down security guidelines.
- ix. Load / performance testing will be done in the Disaster Recovery (DR) set-up subsequent to the scheduled launch of 3 modules in T + 88 days. Herein, the Proposer will disconnect the DC-DR link and allow load testing in the DR set-up. Subsequent to this load testing, Proposer will scrap the affected databases in the DR set-up and once again sync DC with DR. Then, Proposer will conduct the DC-DR drill to illustrate that the DC-DR sync works as required in the RFP.
- x. Delays will be attributed to AP RTA or Proposer as per the definitions given below
- xi. Proposer is required to submit detailed documentation about the software and its implementation in a phased manner and all software documentation ought to have been submitted by T + 90 days
- xii. The effort required by AP RTA to provide inputs, review feedback etc. is included in the timelines specified below:

S.no.	Activity	Timeline
1.	Date of signing of contract	T
2.	Deployment of Project Manager on-site in AP RTA premises	T + 5 days
3.	Deployment of 1 on-site functional lead in AP RTA premises	T + 10 days
4.	Constitution of User Acceptance Testing (UAT) committee	T + 15 days
5.	Third party audit kick-off meeting	T + 15 days
6.	Proposer to inform the Disaster Recovery details and required band-width	T + 15 days
7.	Illustration of prototype design with visual views for module 1	T + 30 days
8.	Deployment of server infrastructure in Cloud Services	T + 30 days
9.	Cloud Services infrastructure audit report by 3 rd party auditor	T + 30 days
10.	Submission of security audit guidelines by 3 rd party auditor	T + 30 days
11.	Initiate the process to setup of IoT Device installation centres within AP RTA Premises and other convenient locations within City.	T + 30 days



S.no.	Activity	Timeline
12.	Implementation of SLA automation tools by Proposer for Hardware module	T + 30 days
13.	Illustration of initial prototype software of modules 1	T + 30 days
14.	Illustration of enhanced prototype software of modules 1	T + 45 days
15.	Completion of Development and Integration of Module 1	T + 50 days
16.	Training on modules 1	T + 50 days
17.	Installation of IoT Devices in Auto-rickshaw (Will continue for 180 days from T + 50 days to complete the installation of 100,000 devices in all cities across the State)	T + 50 days
18.	Illustration of prototype design with visual views for modules 2 and 3	T + 50 days
19.	Report on performance testing by 3 rd party audit agency	T + 53 days
20.	Launch of telephonic help-desk	T + 55 days
21.	Launch of the first module	T + 55 days
22.	Deployment of Server infrastructure in Disaster Recovery Cloud Service	T + 55 days
23.	Illustration of initial prototype software of modules 2 & 3	T + 55 days
24.	Illustration of enhanced prototype software of modules 2 & 3	T + 75 days
25.	Completion of Development and Integration of Module 1 with Module 2 and 3.	T + 80 days
26.	Training on the modules 2 & 3	T + 80 days
27.	Launch of modules 2 & 3	T + 85 days
28.	Performance testing by 3 rd party audit agency for complete system	T + 88 days
29.	Conduct DC (Cloud) – DR (Cloud) drill	T + 88 days
30.	Implementation of SLA automation tools by Proposer for Software module	T + 90 days

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S.no.	Activity	Timeline
31.	Proposer to submit documentation about the software & its deployment	T + 90 days
32.	Go-live acceptance by the 3 member UAT committee	G = T + 3 months
33.	Completion of Installation of IoT devices in all the 100,000 Rickshaws from specified cities	G = T + 50 + 180 days
34.	Operations & Maintenance of the System	G + 5 years
35.	Start of Exit / Transition Management	G + 57 months

2.5.1 Delay Areas Attributed to AP RTA / Proposer

Any delay in compliance to the project timelines is attributed to Proposer unless and otherwise it is proven that such delay is caused by inaction of AP RTA. List of delay areas attributed to AP RTA and in few cases attributed to both AP RTA and Proposer are listed in the Table below:

S.no.	Delay Area	Attributed to
1	AP RTA delays in identifying its own representative for the UAT committee	AP RTA
2	Delay in finalization of the neutral party for the UAT committee	Share equally by AP RTA and Proposer
3	Delay in submission of deliverables by 3 rd party audit agency	AP RTA
4	Delay in provision of written feedback on software:	AP RTA
	A Initial prototype design within 3 days of illustration	AP RTA
	B Illustration of initial prototype software within 3 days of illustration	AP RTA
	C Illustration of enhanced prototype software within 3 days of illustration	AP RTA



2.5.2 System Acceptance Procedure

The acceptance of the system will be done by members of User Acceptance Testing (UAT) which is nothing, but Technical Evaluation Committee constituted within T + 15 days. This UAT committee will comprise of 1 authorized AP RTA representative, 1 authorized Proposer representative and 1 neutral party. The implementation of the Project until completion of the pilot phase will be actively monitored and governed by the UAT committee. AP RTA and Proposer will jointly decide whether to continue with the Technical Evaluation Committee set-up during the Operations & Maintenance phase.

Key observations regarding the system acceptance procedure are explained below:

- i. A 3rd party audit agency engaged by AP RTA within T + 30 days will conduct detailed study and submit a set of deliverables, which will form as key inputs for acceptance of the system by the UAT committee:
 - a. Infrastructure security audit report
 - b. Report on deployment of server infrastructure as per Bill of Materials (BoM) specified in RFP and Proposer's technical proposal
 - c. Application security audit report
 - d. Report on compliance of the software to functional requirements specified in the RFP for selection of Proposer
 - e. Audit report on DC – DR drill
 - f. Results of load and performance testing results by the 3rd party audit agency
 - g. Report on SLA automation implementation &
 - h. Software documentation
- ii. The UAT committee will take a decision on acceptance of the system and announce "Go-live" based on the following:
 - a. Deliverables submitted by the 3rd party audit agency as defined above in (i) &
 - b. Launch of the 3 software modules and handling of live transactions by end users in these modules. Specifically, key module specific process workflows should have been handled using the software in certain minimum number of live transactions spread across certain AP RTA offices as defined in section 'User Acceptance Testing and Test Scenarios'.



- iii. There is no payment linked with acceptance of the system. Acceptance of the system by the UAT committee results in “Go-live” and causes start of the O&M phase. In other words, acceptance of the system and payment for software implementation are decoupled.
- iv. Payment due to the Proposer for design, development, implementation and roll-out of the software will be done as per payment terms (i.e.) to the extent the software is developed and used. Refer payment terms for further details.
- v. UAT committee is fully empowered to accept the system, announce Go-live and start of the Operations & Maintenance phase even when some software modules are not fully implemented or rolled out across AP RTA offices. However, payment due to the Proposer will be made strictly as per the payment schedule and to the extent the software is developed and used.

2.5.3 Payment Terms & Schedule

2.5.3.1 Payment Milestones

Payment to the agency would be made on completion of work by the agency as per milestones provided. Payment to the agency shall be made as per the following terms & conditions:-

No.	Activity	Payment Amount
1	Mobilization Advance	10% of capex (on submission of performance bank guarantee for
2	Pilot Start & Acceptance	20% of Capex
3	Go Live	60% of Capex
4	O & M maintenance*	Every Year
5	Successful Operation for 57 months after Go Live	20% of Capex

*Opex cost will be paid per annum from the date of Go-Live.

Note:

- Prices should include all taxes and other expenditure etc.
- Payment shall be made in Indian Rupee (**INR**) only.
- All taxes quoted will be assumed to be as on 7th day prior to the submission of bid. Any changes in the statutory taxes or levies affected by Central/State/Other Government bodies after this date will be considered and applied after due authorization.

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2.5.3.2 Factors for Capex Bid

A. Capex

The Capex shall consist of all costs incurred till the point of Go Live:-

- Procurement & installation of the hardware IoT devices for infrastructure with necessary software mobile and web application along with Operations Control Centre at the location specified by the Department.
- Pilot demonstration.
- Other incidental services.

B. Opex

The Opex shall consist of all costs incurred after the point of Go Live till the completion of the project:-

- Operation & Maintenance of the hardware deployed at the Operations Control Centre.
- Operation & Maintenance of the application software.

3 Instructions to the Bidders

Andhra State Transport Department invites bids from eligible bidders for providing Supply, Installation, Commissioning, Integration and Managed Services for IoT based Safety and Security System for Women & Children during Travel and related services.

Sources of Funds: The Work Order will be placed on the selected vendor by the department and the payment for the services mentioned in the said work order will be made directly by Andhra state transport department from their own sources of funds as per the financial terms and conditions mentioned in this document.

3.1 Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of the Bid and any subsequent events/activities of Bidder related to this Tender. The Purchaser will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

3.2 Language of Bid

The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, such translation shall govern



3.3 Currencies of Bid

Bidders may express their bid price in Indian Rupees only. Price Bid in any currency other than INR will be treated as non-responsive and hence will be rejected.

3.4 Bid Prices

- Unless otherwise specified in the Scope of Work, Bidders shall quote for the entire Services on a Single Responsibility/ Turnkey basis such that the total Bid price covers all the obligations of the Bidder mentioned in or to be reasonably inferred from the Tender Document in respect of providing the product/services. This includes all requirements under the Bidder's responsibilities for successful implementation as per Scope of Work and, where so required by the Tender Document, the acquisition of all permits, approvals etc. and such other items and services as may be specified in the Tender Document, all in accordance with the requirements of the General Conditions of Contract.
- Bidders are required to quote the price for the required items as per Scope of Work specified in RFP.
- Bidders shall give a break-up of the prices in the manner and detail as asked for in the Price Bid failing which the Purchaser shall reserve the right to assume/extrapolate the prices for the item/services for which the price has not been quoted and the same will be binding on the Bidders. Responsibility for including all applicable taxes, duties and levies in the Bid lie with the Bidder and the Purchaser shall not be responsible for any error/omission on the part of the Bidder.
- The taxes, duties and levies shall be indicated by the Bidder in the Price Bid and shall be quoted as the rates in force as on seven (7) calendar days prior to the last date of Bid submission as mentioned in event sheet. The total price quoted by the bidder should be inclusive of all taxes.
- The prices/rates quoted by the Bidder shall remain firm (fixed) during the entire Contract Period and shall not be subject to any escalation/variation on any account, unless otherwise explicitly provided. A Bid submitted with an adjustable/variable price quotation will be treated as non-responsive and hence may be rejected.

3.5 Performance Bank Guarantee (PBG)

- The successful Bidder shall furnish the performance security in form of a Bank Guarantee issued by any nationalized bank within 15 calendar days of the receipt of notification of award from the Purchaser. The Bid Security in form of Bank Guarantee as per the Purchaser's format given in ANNEX. 1. PBG is in form of Bank Guarantee, the issuing bank should be advised to send a direct confirmation for issue of irrevocable Bank Guarantee to the Purchaser. The bank guarantee



shall be given for 10% of the total cost for the project. (As mentioned in price bid) or Successful bidder can opt for deduction of 10% of bill value in every payment made against the Invoice submitted by Bidder. Same amount will be retained by Transport Department In lieu of Performance bank Guarantee

- Performance Bank Guarantee shall remain valid for the entire contract period from date of issue of LOA and with a claim period of another ninety (90) calendar days of successful completion of contract. No interest shall be paid by the Purchaser on the Bank Guarantee deposited by the Bidder. In case of 10% deduction amount from invoice, the retained amount will be released after successful completion of contract period.

3.6 Bid Validity

- Bids submitted by Bidders shall remain valid for acceptance for One hundred and eighty days (180) calendar days from the next day of the last date of Bid submission as mentioned in event date. A Bid valid for a shorter period may be rejected by the Purchaser as being non-responsive.
- In exceptional circumstances, the Purchaser may solicit the Bidders' consent to an extension of the Bid validity period. The request and responses thereto shall be made in writing. If a Bidder accepts to prolong the period of validity, the Bid Security shall also be suitably extended. A Bidder may refuse such request which will not lead to forfeiting its Bid Security. A Bidder granting the request will neither be required nor permitted to modify its Bid.

3.7 Bid Prices and Discount

The prices quoted by the Bidder shall conform to the requirements specified below:

- All items must be listed and priced separately in the Price Schedules. If an item listed in Price Schedule is not priced, their prices shall be assumed to be included by the bidder in the prices of other items.
- Prices quoted by the Bidder must be firm and final and shall remain constant throughout the period of the contract and shall not be subject to any upward revision.

3.8 Contents of Tender Document

- The services required, bidding procedures, contract terms, etc. are prescribed in the Tender Document. Bidders are expected to examine all instructions, terms & conditions, specifications, annexures, forms and other information in the Tender Document. Failure to furnish any or all information as required or submit a Bid not substantially responsive to the Tender Document in every respect will be at the Bidder's risk and may result in rejection of the Bid.



3.9 Bidder to obtain his own information

- The Bidder shall for all purposes deemed to have independently obtained all necessary information for the purpose of preparing the Bid. The correctness of the details given in the Tender Document is for guideline information only, to help the Bidder prepare the Bid. The cost of visiting the sites shall be borne by the Bidder. Non-familiarity with the site conditions will not be considered a reason either for extra claims or for not providing services in strict conformity with scope and special conditions of the contract

3.10 Clarification on Tender Document

- Bidders requiring any clarification on the Tender Document may notify the Purchaser (at its e-mail address given in Event Date) in writing not later than 1 day before the date of pre-bid conference. Similarly, if a Bidder feels that any important provision in the documents is unacceptable such an issue should be raised at this stage. The Purchaser will respond during pre-bid conference (date, time and venue will be as mentioned in Event Date) to any request for clarification or modification of the Tender Document. Authorized Representative of the Bidders will be allowed to attend the pre-bid conference. Personal queries from individuals shall not be entertained
- Except for responses to request for any clarifications on the Bid, the Bidder shall not contact the Purchaser by any means for any matter related to this Bid from the time of submission of the Bid until the Contract is awarded to and accepted by the Successful Bidder.
- If deemed fit, written copies of the Purchaser's response (including explanation of queries without identifying its source) will be sent after pre-bid conference to all the Bidders in the form of addendum/corrigendum.

3.11 Amendment of Bidding Document

- At any time prior to the deadline for submission of the Bids, Purchaser may modify the Tender Document by issue of an addendum/corrigendum
- In addition, Purchaser may issue addendum/corrigendum to the Tender Document to make/reflect amendment(s) in terms & condition or Scope of Work specified in this Tender Document.
- Any such addendum/corrigendum will be made available at the Andhra e-Procurement website. No separate other communication in this regard shall be made with any Bidder. It will be the responsibility of the Bidder to regularly visit the website to keep them updated on such changes.



- No clarification obtained through verbal communication by the Bidders from any officer, agent or employee of the Purchaser or any staff of the Program Management Consultant will be deemed as addendum/corrigendum to the Tender document.
- The Purchaser, at its discretion for any reason whether at its own initiative or in response to a clarification requested by a bidder may add, modify or remove any element of the services of goods.
- In order to provide Bidders reasonable time to take the addendum/corrigendum into account in preparing their bids, the Purchaser may, at its own discretion, extend the last date of Bid submission. In such an event, Bidders shall not be entitled to any compensation, in any form whatsoever.

3.12 General Instruction for Bid Preparation

- The Bidders are advised to submit their Bids complete in all respect. The Bidder shall submit a comprehensive list of attached forms/declarations/certificates etc. in response to Tender Document
- The Bidders in their own interest are advised to be very careful while writing quantity and rates in Price Bid. The quantity and rates should be written very neatly, preferably typed, and there should be no overwriting or corrections. In case there are some corrections or overwriting, the same should be signed by the Authorized Signatory. The quoted prices shall be inclusive of statutory taxes, duties and other levies.
- The Scope of Work specified in this Tender Document shall be executed strictly in accordance with the conditions specified in the General Conditions of Contract and other conditions specified in various sections of this Tender Document. If any of the aforesaid conditions is not clear to a Bidder, clarification may be sought from the Purchaser as per the provisions of clause 4.12 (Clarification on Tender Document).
- The Bidders must accept all the conditions specified in the Tender Document to facilitate early finalization of Bids. Separate set of commercial conditions (such as Bidders standard printed conditions) enclosed with the offer and any reference thereto may prevent the Bid from being considered by the Purchaser.
- Consortium is allowed limited to three bidders out of which one will be the lead bidder. The bidder should submit the detail about the consortium along with the technical bid proposal.
- **“Bidder”** shall mean either a single company or a Consortium of companies submitting a Response to RFQ with the intent to be qualified as a potential bidder, for the Project. Any reference to the Bidder includes Bidding Company, Bidding Consortium/ Consortium, Member in



a Bidding Consortium and Lead Member of the Bidding Consortium jointly and severally, as the context may require.

3.13 Preparation of Bid/Proposal

- Bidder may only submit one Bid/Proposal. If Bidder submits or participates in more than one Bid even by way of Consortium partnership, all such Bids shall be disqualified.
- The Bid/Proposal as well as all related correspondence exchanged by the Bidders and the Employer shall be written in English language, unless specified otherwise.
- In preparing their Bid/Proposal, Bidders are expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the information requested may result in rejection of a Bid/Proposal.
- The Technical Bid/Proposal shall not include any financial information. A Technical Proposal containing financial information may be declared non-responsive.
- Financial Bid/Proposals: The Financial Proposal shall be prepared using the Standard Price Bid form. It shall list all costs associated with the Assignment/Job, including the various deliverables costs and taxes. The financial proposal shall not include any conditions attached to it and any such conditional financial proposal shall be rejected summarily.
- The best and firm price should only be quoted (as per the format enclosed).
- The bidder must quote in Indian Rupees (in INR) only. Bids in currencies other than INR would not be considered and the bid will be rejected forthwith
- The prices offered shall be on a fixed price basis inclusive of all taxes and should not be linked to the foreign exchange or any other variable.
- The prices offered should be inclusive of all the deliverables mentioned in **Section 4: Scope of Work**.

3.14 Procedure for submission of Bid

EMD, Tender Processing Fees and Download/upload of Tender Document:

- Bidder can download the tender document for free from the portal (<http://eproc.andhra.gov.in>) till the due date and time for bid submission. Bidder shall pay the Earnest Money Deposit (specified in table of **Key Events and Dates**) and tender processing fees prescribed in the e-Procurement portal to participate in this tender. The tender processing has to be paid through any of the five e- payment options in the portal:



- a) Bid processing fee in the form of DD issued by any scheduled Bank
- b) Earnest Money Deposit (EMD) shall be in the form of Bank Guarantee by any scheduled Bank.

Bidder, please note that payments submitted through cheque or demand draft shall not be accepted. Further details regarding e-Payment, please refer to e-Procurement portal at the above-mentioned website or call e-procurement helpline 04039999700. It will be in the interest of the bidders to familiarize themselves with the e-Procurement system to ensure smooth preparation and submission of the tender documents.

- **Modes of Submission**

- All interested bidders shall pay EMD and Tender Processing fee (as mentioned in e-Procurement Portal) and submit their Pre-qualification, Technical and Commercial RFP responses as mentioned elsewhere in the RFP. Bidder shall submit the tenders before the scheduled date and time for bid submission. Tenders cannot be submitted after the due date and time. Incomplete and draft bids shall not be considered. All required bid documents shall be filled by the bidder and submitted along with other required documents. Incomplete and incorrect documents may lead to rejection of the bid.

- **Authentication of Bid**

- The response bid shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. A letter of authorization shall be supported by a written power-of-attorney accompanying the bid. All pages of the bid, except for un-amended printed literature, shall be initialled and stamped by the person or persons signing the bid.

- **Validation of interlineations in Bid**

- The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialled by the person or persons signing the bid.

- **Clarification on Tender Document**

- A prospective Bidder requiring any clarification on the RFP Document may submit his queries to mailing address tc@aptransport.org with a copy to jtc_plg@aptransport.org and dte_it@aptransport.org as per schedule indicated in "Invitation for Bids/ Key events and dates". The queries must be submitted in the following format only to be considered for clarification



Sl. no	Section no./ Clause no.	Page no	Description/ Subject	Reference/	Clarification Sought

Table 6: Pre-Bid Queries Format

- The queries not adhering to the above-mentioned format shall not be responded. Transport Department will respond to any request for clarification to queries on the Tender Document, received not later than the dates prescribed in Invitation for Bids/ Key events and dates. The clarifications (including the query but without identifying the source of inquiry) will be uploaded on the e-Procurement portal (www.apecprocurement.gov.in)

3.15 Bid Security

- A Bidder is required to deposit, along with its Proposal, a bid security of Rs 1.38 crores (Rupees One crore Thirty Lakhs only) (the “Bid Security”), which shall be refundable within a period of 180 (one hundred and eighty) days from the date of opening of the Proposals in accordance with this RFP, except in the case of the Successful Bidder whose Bid Security shall be retained till such Successful Bidder has provided a Performance Security under the Services Agreement.
- The Bid Security shall be in the form of a bank guarantee in favour of Transport Commissioner, Government of Andhra Pradesh issued by any scheduled bank in India payable at Vijayawada, as per the format specified at Annexure 10. The validity period shall not be less than 180 (one hundred and eighty) days from the Due Date.
- The Bid Security shall be kept valid throughout the Proposal Validity Period and shall be extended, if so required by the Transport Department, in case of any extension in Proposal Validity Period in accordance hereof.
- The Proposal shall be summarily rejected if it is not accompanied by the Bid Security
- In addition to the grounds for forfeiture of the Bid Security specified elsewhere in this RFP, the Bid Security shall be forfeited in the following cases:
 - If the Bidder modifies or withdraws its Proposal except as provided in Clause 2.15;
 - If the Bidder does not provide, within the time specified by the Transport Department, any supplemental information sought by the Transport Department for evaluation of the Proposal;



- If the Bidder withdraws its Proposal during the interval between the Due Date and expiration of the Proposal Validity Period;
 - If the Successful Bidder fails to provide the Performance Security and/or execute the Services Agreement with the Transport Department within the stipulated time or any extension thereof provided by the Transport Department; and
 - If any information or document furnished by the Bidder is or discovered to be misleading, a misrepresentation, inaccurate or untrue in any material respect.
- Any such misrepresentation / inaccuracy / improper response etc. as specified in Clause 2.16 shall lead to the disqualification of the Bidder. If such disqualification / rejection occurs after the Proposals have been opened and the Shortlisted Bidder / Successful Bidder gets disqualified / rejected, then the Transport Department reserves the right to:
 - invite the remaining Qualified Bidders to submit their Proposals for the selection of the Service Provider; or
 - take any such measure as may be deemed fit in the sole discretion of the Transport Department, including annulment of the bidding process.

3.16 Verification and Disqualification

- In case it is found during the evaluation or at any time before signing of the Services Agreement or after its execution and during the period of subsistence thereof, that one or more of the pre-qualification conditions have not been met by the Bidder, or the Bidder has made misrepresentation or has given any incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Service Provider either by issue of the LOA or entering into of the Services Agreement, and if the Successful Bidder has already been issued the LOA or has entered into the Services Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by the Transport Department to the Successful Bidder or the Service Provider, as the case may be, without the Transport Department being liable in any manner whatsoever to the Successful Bidder or the Service Provider. In such an event, the Transport Department shall be entitled to encash and appropriate the Bid Security or Performance Security, as the case may be, as damages, without prejudice to any other right or remedy that may be available to the Transport Department under the Bidding Documents and/or the Services Agreement, or otherwise.

3.17 List of Documents to be submitted for this BID

- Please see ANNEXURE A for the details



3.18 Corrupt Practice

- The Purchaser requires bidders, SI, and contractors to observe the highest standard of ethics during the execution of such contracts. The following definitions apply:
 - Corrupt practice means the offering, giving receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any party in the procurement process or the execution of a contract.
 - Fraudulent practice means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract.
 - Collusive practices mean a scheme or arrangement between two or more bidders, with or without the knowledge of Transport Department, designed to influence the action of any party in a procurement process or the execution of a contract.
 - Coercive practices mean harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract
 - The Purchaser will reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent collusive or coercive practices in competing for the Contract.
 - The Purchaser will sanction a party or its successor, including declaring ineligible, either indefinitely or for a stated period of time, to participate in projects if it at any time determines that the Bidder has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, a Transport Department contract.
 - Furthermore, Bidders shall be aware of the provision stated in clause 3.15 (Termination of Contract) of the General Conditions of Contract

3.19 Conflict of Interest

- Bidder shall hold Transport Department interest paramount, without any consideration for future work and strictly avoid conflict with other assignment or their own corporate interest.
- Bidder should not be engaged in any such business (excluding any work assigned to them by Transport Department) which has conflict of interest with the project for which the bids are being submitted.
- Transport Department considers a conflict of interest to be a situation in which a party has interests that could improperly influence that party's performance of official duties or

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responsibilities, contractual obligations, or compliance with applicable laws and regulations, and that such conflict of interest may contribute to or constitute a prohibited corrupt practice. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if, including but not limited to:

- Receive or have received any direct or indirect subsidy from any of them; or have common controlling shareholders, or Have the same legal representative for purposes of this Bid, or Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of Transport Department regarding this bidding process.
- Bidders have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of Purchaser, or that may reasonably be perceived as having this effect. If the Bidder fails to disclose said situations and if the Purchaser comes to know about any such situation at any time, it may lead to the disqualification of the Bidder during bidding process or the termination of its Contract during execution of assignment.

3.20 Right of Purchaser to Accept or Reject Bids

- The Purchaser reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.
- The right to accept the Bids in response to this Tender Document will rest with the Purchaser. The Purchaser further does not bind to accept and reserves the authority to reject any or all the Bids received without assigning any reason whatsoever.

3.21 Bid Opening

- The e-procurement system allows the Purchaser to download and open the e-submitted bid files from bidders only after the time for opening the bids. The bids will be opened as per dates given in the e-proc portal.
- The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files will be considered incomplete and rejected for further bid evaluation.



3.22 Pre-Qualification

- The evaluation process of the tender, proposed to be adopted by the Purchaser is indicated under this clause. The bid will be evaluated on **Quality and Cost Based Selection (QCBS)**.
- **Evaluation of Pre-Qualification Bid**
 - First the Pre-Qualification Proposal will be evaluated and only those bidders who qualify the requirements will be eligible for next set of evaluations. Technical Proposal and Commercial Proposal of Bidders, who do not meet the Pre-Qualification criteria, will not be opened.
 - Documents and required forms uploaded by the bidders as part of the Pre-Qualification criteria will be opened and evaluated for compliance in this stage of evaluation.

S. No.	Pre-Qualification Criteria	Details
Technical Pre-Qualification Criteria		
1.	The Bidder should be a registered entity under company's act 1956 and its amendments in India or have a wholly owned subsidiary registered in India under the relevant acts.	Copy of Certificate of Incorporation issued by Registrar of Companies
2	<ul style="list-style-type: none"> • Bidder should make payment of Rs. 5000/- (Rupees Five Thousand only) for the tender processing in the form of DD issued by any scheduled bank. • Bidder should produce Bank Guarantee worth of Rs. 1.38 (Rupees One Crore Thirty Eight Lakhs only) furnished by the any scheduled bank. 	Relevant Proofs
2.	<ul style="list-style-type: none"> • The bidder should have experience in handling at least one large scale Govt IT Application/Software development projects in India in last 5 years • The Bidder should have developed and deployed at least one IOT Monitoring solution in Government/PSU/Private Sector in India/Global during the last 5 preceding years. 	Relevant copy of Work Order /Purchase order /Letter from Customer, from the client should be enclosed as documentary evidence

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	<ul style="list-style-type: none"> The Bidder should have prior experience in executing data analytics projects in Govt. /Private sector in last 5 years. 	
3	The Bidder (all consortium members) shall not have been black listed by any State Government, Central Government or any other Public-Sector undertaking or a Corporation or any other Autonomous Organization of Central or State Government.	Self-Certificate declaring that the bidder is not black listed by any Central/ State Govt. Department to be enclosed.
4	The Lead bidder must have valid Certificates for ISO 27001, ISO 9001, CMMi Level 3 or above.	Copy of valid certificates at the time of bid submission
5	The Bidder (all consortium members) Should Have GST registration	Copy of Valid GST Certification
6	The Lead Bidder should have office in Andhra Pradesh. If Local office is not available in Vijayawada, the bidder will set up an office in Vijayawada, within 30 days of award of contract	Self-Certificate declaring that the bidder shall abide by this point
7	Consortium of Maximum 3 members will be allowed.	MoU /consortium Agreement/ Teaming consortium
8	The Lead Bidder should furnish an undertaking that the Lead Bidder has the singular ownership and responsibility of the entire project deliverables.	An Undertaking to be furnished by the Lead Bidder and countersigned by all the consortium members.
Financial Pre-Qualification Criteria		



9	The bidder should have experience in handling large scale Govt IT Application Software (Web, Mobile and Embedded) development projects, IoT Devices in India in last five years with single project value more than 10 Crs or two projects value more than 5 Crs	The certificate from the client for the successful completion & implementation of software development work, shall be submitting to support the claim.
10	The average annual turnover of the Lead Bidder must have Rs. 34.62 Crores in the financial years of, 2015-16, 2016-2017 & 2017-2018 in India.	The bidder should submit certificates from a Chartered Accountant for all the above stated financial year or extracts of the balance sheet and Profit & Loss statement to support the claim.
11	All the members of the Consortium / Bidder must have positive net worth for the last 3 years preceding the date of submission of RFP and the minimum net worth should be Rs. 34.62 crores at the close of the preceding financial year.	All the members of The Consortium / bidder should submit certificates from a Chartered Accountant for all the 3-preceding financial year or extracts of the balance sheet and Profit & Loss statement to support the claim.
12	The bidder should have a minimum of 50 experienced professionals capable of developing and maintaining end to end Web, Mobile and embedded Application and analytics solutions.	The bidder should submit Self certification.

Table 7: Pre-Qualification Criteria

3.23 BID Evaluation

3.23.1 Evaluation of Technical Bid

- Only those Bidders, who meet all the pre-qualification criteria stated above, shall be considered for Techno-Commercial Evaluation of Bidder. Transport Department will review the documents of the bidder. Evaluation shall be on the basis of technical specifications proposed subject to compliance with requirements. Bids that are not substantially responsive are liable to be disqualified at Transport Department discretion.
- The evaluation committee appointed by the Client as a whole, and each of its members individually evaluates the proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub-criteria (typically not more than three per criteria) and point system specified in the Data Sheet. Each

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responsive proposal will be given a technical score (TS), the minimum eligible technical score should be 75 & above. A proposal shall be rejected at this stage if it does not respond to important aspects of the Terms of Reference or if it fails to achieve the minimum technical score

- In order to assist in the examination, evaluation and comparison of bids, the Purchaser may at its discretion ask the Bidder for a clarification regarding its bid. The clarification shall be given in writing immediately, but no change in the price shall be sought, offered or permitted. Bidder should fill and upload following required documents, which has to be used in Technical Evaluation.

3.23.2 Evaluation of Technical Bid: Points Table

SL	Technical Bid Evaluation Criteria	Details	Max. Points under each category
1	Has successfully deployed or implemented large scale Application Software development projects in Government / PSU in India <ul style="list-style-type: none"> • Value >= 5 Crore: 1 Points • Value >= 10 Crore: 3 Points • Value >= 15 Crore: 5 Points 	Documentary Evidence from client to be submitted	5
2	Has implemented or deployed IOT / Real time data Analytics Project across any of the Govt/Private in last 5 years <ul style="list-style-type: none"> • 1 Project of value 2 Cr: 2 Points • 2 Project of value 3 Cr: 3 Points. • >3 Projects of value 5 Cr: 5 Points 	Documentary Evidence from client to be submitted	5
3	The Bidder should have delivered Real Time Alerting solution with following capability Handling of data more than 1,000 IOT devices but less than 2,000 devices: 1 Points Handling of data more than 2,000 but less than 5,000 IOT devices: 2.5 Points Handling of data more than 5,000 IOT devices: 5 Points	Documentary Evidence from client to be submitted	5



4	System Demonstration and POC Evaluation	Please see POC Evaluation Criteria	80
4.a	Compliance to IOT Device Specification and demonstration of edge computing capabilities for the Abhaya Project scenarios		20
4.b	Real Time Alerting with ability to handle Stream data, and visualize KPIs and Insights		20
4.c	Solution Capability (not limiting to below points) <ul style="list-style-type: none"> a. The Bidder should demonstrate the Technology or Solution for Real Time Alerting Solution with ability to handle more than 100,000 Record streams a Second, Scalable further as required. b. The Bidder should demonstrate ability to detect Anomaly and Fraud in the Stream data. 		40
5	Technical Presentation and Proposal Quality	Its mandatory to give presentation on the proposed solution to the Technical evaluating committee	5
	TOTAL SCORE (TS)		100

Table 8: Technical Bid Evaluation Criteria

3.23.3 POC Evaluation Procedure

POC evaluation will be done by a Technical Expert Committee (TEC) setup by the department.

Members of TEC are as follows:

1. Transport Commissioner of AP
2. Commissioner Visakhapatnam.
3. DCP Traffic Vijayawada.
4. CEO Innovation Society
5. Director ESD
6. Addl Director Police Communications
7. Jt Transport Commissioner Road Safety
8. Director IT Finance Department
9. DTC Visakhapatnam
10. DTC Krishna



11. Representative of CEO e-Pragati
12. Director, MoRTH of GoI
13. Asst. Director, Ministry of Women & Child Development, GoI
14. Sr. Technical Director, NIC Vaahan & Sarathi.

3.23.4 Proof of Concept Procedure:

Process:

1. All eligible bidders (who have passed Pre-qualification) will be called for POC execution, after the pre-qualification validation
2. Each bidder will be assigned Auto Rickshaw Vehicles in the cities of Visakhapatnam (25 Auto-Rickshaws) & Vijayawada (25 Auto-Rickshaws), by the department.
3. Maximum of 7 Days will be allotted to complete, supply, installation and commissioning of the devices on allotted vehicles.
4. The next 30days will be the monitoring period of the system
5. TEC will have a detailed checklist for evaluation
6. The Evaluation committee monitors and evaluates and submits the report to department
 - After approval of Department, Eligible bidders should start POC Implementation:
 - POC to be completed within 30 Days of approval.
 - For System acceptance of POC the service provider shall demonstrate the successful operation of all features as per the Scope of Work on trial basis for 30 days with IOT devices mounted on at least 50 Auto Rickshaw vehicles in the cities of Visakhapatnam and Vijayawada, without any additional cost to Transport department.
 - The Successful operation of hosting and loading the data/ information on the POC evaluation server made available by the Department
 - Successful demonstration of Real Time tracking and performance Analytics as outlined in Scope of Work
7. Submission of Proof of Concept Implementation Report. To be submitted by all the bidders within 3days of POC Completion.
8. Department will finally assign the marks to the bidders.
9. All POC evaluation will be conducted on the server infrastructure made available by the Department

3.23.5 Evaluation Criteria (broad parameters):

1. Ease of installation and Commission
2. Compliance of the IOT device to Technical Specification.
3. Demonstration of all features of the system including simulation and demonstration of Panic / distress call related features.



4. Simulation & Demonstration of all fail safe scenarios.
5. Web & Mobile Application functionality.
6. Integration with the patrol dispatch and emergency response application at Police Command and Control Centre.
7. Latency, throughput and other performance measurements
8. Real time data Analytics of the data generated by this project.
9. Integration with the related data sources like RTA, Google Map.
10. KPIs and Insights

3.23.6 Evaluation of Financial Bid

1. The Commercial Bids of only technically qualified bidders will be opened on a prescribed date in e-Proc website
2. Only fixed price commercial bids indicating total price for the deliverables specified in this bid document will be considered.
3. Prices shall be quoted in Indian Rupees, inclusive of all prevailing taxes, levies, duties, etc., both in figure and words rounded to one rupee.
4. Any conditional bid would be rejected.
5. No escalation of cost is allowed during the validity of the contract period
6. Errors & Rectification: Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If there is a discrepancy between words and figures, the lowest amount will be considered".
7. If there is no price quoted for the deliverables, the bid shall be declared as disqualified
8. The Commercial Bids would be evaluated based on the overall price quoted by the Bidder, as Price Bid. The lowest Financial Proposal (L1) will be given a financial score (FS) of 100 points. The financial scores (FS) of the other Financial Proposals will be computed as $FS = (L1/L2) * 100$, in which (FS) is the financial score, (L1) is the lowest price, and (L2) the price of the other proposal under consideration

3.23.7 Evaluation of the Proposal

Proposals will be ranked according to their combined value of technical (TS) and financial (FS) scores using the weights. The weights are: $T_w = 60$, and $F_w = 40$ (T_w = the weight given to the Technical Proposal; F_w = the weight given to the Financial Proposal)

(Final Result Point(FRP)) = $[(TS * T_w) + (FS * F_w)]$. The bidder achieving the highest (FRP) will be considered as L1 and other bidders will have ranked with (FRP) marks as L2, L3, L4 etc.



3.24 Negotiations

- Department reserves the right to negotiate with the bidder based on the Evaluation and also based on the reference rate arrived through the project proposal. The success of the bidder will be subject to the combination of factors like Price, delivery competence and Quality.

3.25 Award of Contract

- Award Criteria
 - The Purchaser will award the Contract to the successful bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid as per the evaluation methodology of this document, provided further that the bidder is determined to be qualified to perform the Contract satisfactorily. The Purchaser shall be the sole judge in this regard.
 - For the purpose of determining the capability and capacity of the bidder to perform the Contract, the Purchaser reserves the right to verify the authenticity of the documents submitted by the bidder for meeting the qualification requirements and may undertake verification of the facilities and capabilities of the bidder
 - After approval of bid evaluation by Transport Department, the successful bidder may be invited for pre-award discussions. After pre-award discussions and prior to the expiry of the period of bid validity, Transport Department will notify the successful bidder in writing by registered letter or by email or fax in two (2) copies, that his/her bid has been accepted. This letter (hereinafter and in the Conditions of Contract called 'Letter of Award or LoA) shall name the sum which Transport Department will pay to the Contractor in consideration of the execution and completion of the scope of work by the successful bidder as prescribed under this tender document.
 - Within Fifteen (15) days of receipt of the LoA, the successful bidder shall sign and return one (1) copy of the same to Transport Department as acknowledgment of acceptance of the same.
 - If the Successful Bidder fails to sign the Contract Agreement within the specified time limit, his EMD will be forfeited and the Purchaser will have right to cancel the LoA and negotiate with the Bidder having second highest Final Score for placing the fresh LoA or invite fresh Bids.
 - After the Contract Agreement is Signed Transport Department will issue a Detailed Work Award to the successful Bidder.
 - The Period of Contract is 1 year from the data of issue of Letter of Work Order.





4 General Conditions of Contracts

4.1 Definitions and Interpretations

- All definitions and interpretations shall be made and understood as per the provisions of clause 2.1 and clause 2.2 of this Tender Document.

4.2 Bidder's Responsibilities

- The Bidder shall ensure the accuracy of all information and/or data to be supplied as described in this Tender Document.
- The Bidder shall pay for all permits, approvals and/or license fees from all local, state government authorities or public service undertakings in the State, where the offices are located which are necessary for Bidder to submit its bid and carry out its obligations under the Contract. The Purchaser shall pay for all permits, approvals and/or license fees required for the Purchaser's broader project or activities.
- No official or employee of the Purchaser shall in any way be personally bound or liable for the acts or obligations of the Purchaser under the Contract or answerable for any default or omission in the observance or performance of the acts, matters or things which are herein contained.

4.3 Extension of Time for Completion of Contract

- If at any time during performance of the Contract, the Contractor should encounter conditions impeding timely delivery of the services, the Contractor shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Contractor's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Contractor's time for performance of the Contract, in which case the extension shall be ratified by the Purchaser and the Contractor by amendment of the Contract.
- The Contractor may submit application for an extension of the time for completion if he is or will be delayed in completing the Scope of Work by any of the following causes:
 - a. Additional work ordered/ change request in writing given by the purchaser
 - b. Suspension of work ordered in writing by the Purchaser for no fault on the part of the Contractor
 - c. The delay in completion of Scope of Work caused for no fault on the part of the Contractor due to orders/instructions issued by the Purchaser or
 - d. Force Majeure as per clause 3.20.
- The Contractor shall give notice to the Purchaser of his intention to make a claim for an extension of time within fifteen (15) calendar days of the occurrence of any of the above cause(s).



- The notice shall be followed as soon as possible by the claim with full supporting details. The Contractor shall demonstrate to the Purchaser's satisfaction that it has used its best endeavour to avoid or overcome such causes for delay and the Parties will mutually agree upon remedies to mitigate or overcome causes for such delays. Notwithstanding the clause above, the Contractor shall not be entitled to an extension of time for completion, unless the Contractor, with reasonable promptness after such circumstances arise, notifies the Purchaser in writing that it may claim such extension as caused by circumstances pursuant to above and, upon request of the Purchaser, the Contractor shall substantiate that the delay is due to the circumstances referred to by the Contractor. If Purchaser agrees to or is required to grant an extension as set forth above, the Contract delivery date/completion period will be extended for a period as may be reasonable and mutually agreed but without prejudice to other terms & conditions of the Contract. However, there would not be any revision in the Contract Price due to delay caused by temporary suspension of work, minor changes to the Scope of Work, or Force Majeure. If a delay is caused by Purchaser's request for additional work or for a material change to the Scope of Work, the parties shall co-operate in good faith to agree upon reasonable and appropriate compensation for such additional work or changes in scope.

4.4 Alterations/Variations in the Contract

- The Purchaser may by Variation Order to the Contractor at any time before the LOA is issued, instruct the Contractor to alter, amend, omit, add to or otherwise vary any part of the Scope of Work. The Contractor shall not vary or alter any of the Scope of Work, except in accordance with a Variation Order from the Purchaser.

4.5 Notice and Correspondences

- Unless otherwise stated in the Contract, all notices to be given under the Contract shall be in writing, and shall be sent by personal delivery, airmail/speed post, courier, fax or Electronic Data Interchange (EDI) to the address of the Purchaser or the Contractor, as the case may be, with the following provisions:
 - a) Any notice delivered personally or sent by fax or EDI shall be deemed to have been delivered on the date of its dispatch except as otherwise specified in the Contract.
 - b) Any notice sent by airmail/speed post or courier shall be deemed (in the absence of evidence of earlier receipt) to have been delivered within Four (4) calendar days after dispatch except as otherwise specified in the Contract. In proving the fact of dispatch, it shall be sufficient to show that the envelope containing such notice was properly addressed, stamped and conveyed to the postal authorities or courier service for transmission by airmail/speed post or courier.



c) Either Party may change its postal, fax or EDI address or addressee for receipt of such notices by giving ten (10) calendar days' notice to the other Party in writing.

4.6 Designated Officer of the Purchaser

- Any decision, instruction or approval given by the Commissioner, TRANSPORT DEPARTMENT and Joint Transport Commissioner Planning and Administration to the Contractor shall have the same effect as though it had been given by the Purchaser (TRANSPORT DEPARTMENT).

4.7 Designated Officer of the Contractor

- During the signing of the contract, the Contractor shall appoint the Project Manager of the Bidder Company as named in the Bid. The Project Manager of the Bidder Company shall represent and act for the Contractor at all times during the currency of the Contract and shall communicate to the Commissioner [TRANSPORT DEPARTMENT] all the Contractor's notices, instructions, information and all other communications under the Contract.
- Any instruction or notice which TRANSPORT DEPARTMENT gives to the Project Manager of the Bidder Company shall be deemed to have been given to the Contractor.
- The Contractor shall not revoke the appointment of the Project Manager of the Bidder Company without the Purchaser's prior written consent, which shall not be unreasonably withheld. If the Purchaser consents thereto, the Contractor shall appoint some other person as the Project Manager of the Bidder Company pursuant to the procedure set out in clause 3.7.
- The Project Manager of the Bidder Company may, subject to the approval of TRANSPORT DEPARTMENT (which shall not be unreasonably withheld), at any time delegate to any person any of the powers, functions and authorities vested in him or her. Any such delegation may be revoked at any time. Any such delegation or revocation shall be subject to a prior notice signed by the Project Manager of the Bidder Company and shall specify the powers, functions and authorities thereby delegated or revoked. No such delegation or revocation shall take effect unless and until a copy thereof has been delivered to the Purchaser and the Project Manager, TRANSPORT DEPARTMENT. Any act or exercise by any person of powers, functions and authorities so delegated to him or her in accordance with this clause shall be deemed to be an act or exercise by the Project Manager of the Bidder Company.



4.8 Hardware

- The Server, Storage and other hardware infrastructure will be provided by the Transport Department. The Backup and recovery and DR will also be addressed by the Transport Department.

4.9 Billings

- The Contractor shall submit the bill in approved preformat (one original and 24 three copies) in accordance with the Contract Agreement and agreed billing schedule in Work award to the successful bidder enclosing necessary supporting documents within sixty (60) calendar days of having achieved the designated milestone activities as per the schedule specified in the RFP. The documents to be submitted will be mutually agreed between selected Bidder and TRANSPORT DEPARTMENT during Contract signing.

4.10 Payment

- Payment will be made as per conditions in the letter of Award to the successful bidder.
- The Purchaser shall verify the bill and supporting documents after receipt of bill from the Contractor. The Purchaser shall release the payment after deducting applicable taxes, penalties/liquidated damages and other recoverable. All the payments made by the Purchaser will be in Indian Rupee only. No payment made by the Purchaser herein shall be deemed to constitute acceptance by the Purchaser of the goods or services or any part(s) thereof.
- If any excess payment has been made by the Purchaser due to difference in quoted price in the proposal and Contractor's invoice, the Purchaser may without prejudice to its rights recover such amounts by other means after notifying the Contractor or deduct such excess payment from any payment subsequently falling due to the Contractor.
- At its own discretion, the Purchaser shall make payments either through crossed bank cheque or electronic bank transfer.
- Wherever applicable, tax deduction certificates shall be issued at the end of the month against deduction of statutory taxes.
- For Payment process, the bill has to be duly certified by Commissioner, TRANSPORT DEPARTMENT

4.11 Taxes, Duties & Levies

- Except as otherwise specifically provided in the Contract, the Contractor shall bear and pay all taxes, duties and levies assessed on the Contractor, its Sub-contractors or their employees by all municipal, state or national government authorities in connection with the Project. The prices quoted by the Contractor shall be inclusive of all taxes, duties and levies.



The taxes, duties and levies (including abatement/taxable composition, if any) as applicable will be paid to the Contractor against documentary evidence.

4.12 Liquidated Damages (LD)

- The Contractor should bear in mind that time is the essence of the Contract. If the Contractor fails to complete the Scope of Work of the Project or any part thereof within the Time for Completion or any extension thereof as per clause 3.3 or 3.4, the Purchaser shall recover from the Contractor as Liquidated Damage (LD) for such default and not as a penalty, without prejudice to the Purchaser's other remedies under the Contract. For imposition of LD, the loss/ damages suffered by the Purchaser due to delays by the Contractor are the basic criteria.
- The recovery towards compensation should take place when loss/damage has actually taken place on account of delay caused by the Contractor. Even if there is a delay in execution of the Contract and reasons for delay are attributable to the Contractor but the Purchaser has not suffered any actual out-of-pocket loss specifically due to delay in performance of the Contract, as evidenced by written documentation setting forth the basis for such loss, no sum as LD is recoverable from the Contractor. However, in such cases, a nominal LD as described in next clause will be recovered.
- Calculation of Liquidated Damages: A sum equivalent to half percent (0.5%) of the total price in Price Bid for each week of delay or part thereof which will elapse between the schedule time for completion and actual time for completion of the Project.
- The total recovery against liquidated damage in all cases, however, shall not exceed ten percent (10%) of the total price in Price Bid. If the amount of LD exceeds this limit, the Purchaser reserves right to terminate the Contract.

4.13 Termination of Contract

- The Purchaser, without prejudice to any other rights or remedies for breach of Contract it may possess under the Contract, give a notice in writing to the Contractor in the following circumstances stating the nature of the default and requiring the Contractor to remedy the same. If the Contractor fails to remedy or to take steps to remedy the same within fifteen (15) calendar days of its receipt of such notice, then the Purchaser may terminate the Contract forthwith by giving a written notice of thirty (30) calendar days to the Contractor.
 - If the Contractor fails to commence the Project in the manner described in the Contract Agreement, or
 - If the Contractor fails to carry on the work in conformity with the Contract Agreement, or
 - If the Contractor fails to carry on the work to the reasonable satisfaction of the Purchaser, based on the requirements in the Contract; or



- If the Contractor has abandoned or repudiated the Contract, or
- If the Contractor becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Contractor is a corporation, a resolution is passed or order is made for its winding up (whether compulsory or voluntary not being merely a voluntary liquidation for the purpose of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Contractor takes or suffers any other analogous action in consequence of debt, or
- If the Contractor assigns or transfers the Contract or any right or interest therein in violation of the provision of Contract Agreement, or
- If the Contractor, in the judgment of the Purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract including, but not limited to, wilful misrepresentation of facts concerning ownership of Intellectual Property Rights in, or proper authorization and/or licenses from the Purchaser to offer, the hardware, software, or materials provided under this Contract, or
- If the Contractor submits a false statement(s) which has a material effect on the rights, obligations or interests of the Purchaser, or
- If the Contractor accepts any trade commission, discounts or similar payments from any Third Party in discharging their duties and obligations under this Contract, or
- If the Contractor refuses or is unable to provide sufficient goods, materials or services to execute and complete the project in the manner specified in the Agreed Project Plan at rates of progress that give reasonable assurance to the Purchaser that the Contractor can meet project by the time, or
- If the amount of Liquidated Damage (LD) exceeds the 10% limit specified in clause.
- Upon receipt of the notice of termination, the Contractor shall either as soon as reasonably practical or upon the date specified in the notice of termination cease all further work, except for such work as the Purchaser may specify in the notice of termination for the sole purpose of protecting that part of the project already executed, or any work required to leave the Site in a clean and safe condition. In addition, the Contractor shall:
 - Deliver to the Purchaser the parts of the executed work up to the date of termination, and
 - If specific deliverables are to be provided by Contractor to Purchaser as part of the project, to the extent legally possible, assign to the Purchaser all right, title, and benefit of the Contractor to the deliverables, as at the date of termination, and, as may be required under the Contract.
- Consequence of termination
 - Upon termination of the Contract, the Contractor shall prepare and present a detailed exit plan within five (5) calendar days of termination notice receipt to the Purchaser. The Purchaser along with designated team will review the exit plan. If approved,



Contractor shall start working on the same immediately. If the plan is rejected, the Contractor shall prepare an alternate plan within three (3) calendar days. The Exit Plan should cover at least the following:

- a. If specific deliverables are to be provided by Contractor to Purchaser as part of the project, execute all documents that may be necessary to effectively transfer the ownership and title, including Product warranties (if applicable), to the deliverables as contemplated in previous clause.
- b. Handover the list of all IT/non-IT & other assets to the Purchaser.
- o The Contractor and Purchaser will sign a completion certificate at the end of successful completion (all points tracked to closure) of the exit plan.

4.14 Confidential Information & Intellectual Property

- The Purchaser and the Contractor shall keep confidential and shall not, without the written consent of the other Party here to, divulge to any Third Party any documents, data or other information furnished directly or indirectly by the other Party hereto in connection with the Contract, whether such information has been furnished prior to, during or following termination of the Contract. Notwithstanding the above, the Contractor may furnish to its third party the extent required for the third party to perform its work under the Contract, in which event the Contractor shall obtain from such third party an undertaking of confidentiality similar to that imposed on the Contractor under this clause.
- The Purchaser shall not use such documents, data and other information received from the Contractor for any purpose other than the operation and maintenance of the project. Similarly, the Contractor shall not use such documents, data and other information received from the Purchaser for any purpose other than the design, installation and implementation of project or such other work and services as are required for the performance of the Contract.
- The obligation of a Party under clauses defined above, however, shall not apply to that information which:
 - o Now or hereafter enters the public domain through no fault of that Party, or
 - o Can be proven to have been possessed by that Party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other Party hereto, or
 - o Otherwise lawfully becomes available to that Party from a Third Party that has no obligation of confidentiality.
- The above provisions shall not in any way modify any undertaking of confidentiality given by either of the Parties hereto prior to the date of the Contract in respect of the project or any part thereof.
- Contractor shall retain all right, title and interest in and to its software, services, trademarks, trade names, products, processes, techniques, ideas, concepts, methodologies or other



intellectual property employed or made available by Contractor during the performance of the Contract, whether developed prior to or during the term of the Contract. Purchaser shall own all its data and information ("Purchaser Business Data"). Contractor acknowledges it has no proprietary interest in any such Purchaser Business Data and subject to the limited licenses granted herein, acquires no right, title or interest from Purchaser of such Purchaser Business Data.

- The provisions of this clause shall survive termination, for whatever reason, of the contract

1.2. Contractor's staff and their conduct

- The Contractor on award of Project shall deploy qualified professionals as required for executing this Project. If at any time the Project is materially delayed by Contractor and, in the reasonable opinion of Purchaser, any additional, qualified, experienced professionals are considered necessary to timely complete the Project, they shall be deployed by the Contractor without any additional charge, subject to the provisions regarding delay and extension in clause 5.3. The Contractor shall ensure competent and efficient supervision of the services to the satisfaction of the Purchaser
- The Contractor shall be solely responsible for the proper behaviour of his employees and staff employed by him/deputed by him to provide consultancy services. The Contractor shall exercise proper degree of control over them and in particular without prejudice to the said generality the Contractor shall be bound to prohibit/prevent any of his employees (as stipulated above) from trespassing or acting in anyway detrimental or prejudicial to the interest of the community or the properties or occupiers of land or properties in the neighbourhood. In the event of such trespassing, the Contractor shall be responsible for all consequent claims or actions for damages or injury or any other grounds whatsoever. The decision of the Purchaser upon any matter arising under this clause shall be final.
- If and required by the Purchaser, all Contractor's personnel entering upon the Purchaser's premises shall be properly identified by badges of a type acceptable to the Purchaser which must be worn at all times on the Purchaser's premises.
- It is made clear that no relationship of Purchaser and employee is created between the Purchaser and the Contractor's resident engineers, employees and no claim for employment of any such personnel shall be tenable or entertained.

1.3. Insurance

- The Contractor shall at his own expense carry and maintain insurance with reputed insurance companies as per the applicable law of India to the satisfaction of the Purchaser. Insurance shall be provided for all the Contractor's employees engaged in the performance of this Contract.



- The Contractor shall also carry and maintain any and all other insurance which may be required under any law or regulation from time to time. He/ She shall also carry and maintain any other insurance, which may be required by the Purchaser.
- The Purchaser shall not be liable, in any respect, for any damages or compensation payable under law in respect or in consequence of any accident or injury to any employee or other person deployed by the Contractor or any other for this Project except an accident or injury resulting from any act or default of the Purchaser or his agents. The Contractor shall indemnify and keep indemnified the Purchaser against all such damages and compensation (save and except as aforesaid) and against all claims, demands, proceeding, costs, charges and expenses, whatsoever in respect or in relation thereto.
- The Contractor shall comply with all relevant and applicable statutory provisions in respect of the employees engaged by him at his cost and above stipulations are only indicative and not exhaustive.

1.4. Limitation of Liability

- Except in cases of gross negligence or wilful misconduct:
 - Neither Party shall be liable to the other Party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Purchaser, and
 - The aggregate liability of the Contractor to the Purchaser, whether under the Contract, in tort, or otherwise, shall not exceed the amount specified in the Contract Price.

1.5. Settlement of Disputes

- Mutual consultation

If any dispute or difference of any kind whatsoever shall arise between the Purchaser and the Contractor in connection with or arising out of the Contract including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the Project - whether during the progress of the Project or after their completion and whether before or after the termination, abandonment or breach of the Contract - the parties shall seek to resolve any such dispute or difference by mutual consultation. In the first instance, the reference of any such dispute/difference shall be made to the commissioner, Transport Department. If the parties fail to resolve such a dispute or difference by mutual consultation, then the dispute shall be referred in writing by either Party to the Adjudicator, with a copy to the other Party.

- Adjudication
 - The Adjudicator shall give its decision in writing to both parties within thirty (30) calendar days of a dispute being referred to it. If the Adjudicator has done so, and no notice of intention to commence arbitration has been given by either the Purchaser or

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the Contractor within sixty (60) calendar days of such reference, the decision shall become final and binding upon the Purchaser and the Contractor. Any decision that has become final and binding shall be implemented by the parties forthwith.

- Should the Adjudicator resign or die or should the Purchaser and the Contractor agree that the Adjudicator is not fulfilling its functions in accordance with the provisions of the Contract; another Adjudicator shall be jointly appointed by the Purchaser and the Contractor as Adjudicator under the Contract. Failing agreement between the two within thirty (30) calendar days, the Adjudicator shall be appointed under the Contract on the request of either Party by the Appointing Authority. The Adjudicator shall be paid fee plus reasonable expenditures incurred in the execution of his duties as Adjudicator under the Contract. These costs shall be divided equally between the Purchaser and the Contractor.
- Arbitration
 - If either the Purchaser or the Contractor is dissatisfied with the Adjudicator's decision, or if the Adjudicator fails to give a decision within thirty (30) calendar days of a dispute being referred to it, then either the Purchaser or the Contractor may, within sixty (60) calendar days of such reference, give notice to the other Party, with a copy for information to the Adjudicator, of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.
 - Any dispute, in respect of which a notice of intention to commence arbitration has been given, in accordance with clause 3.26, shall be finally settled by arbitration. Arbitration may be commenced prior to or after completion of the Project.
 - Any dispute submitted by a Party to arbitration shall be heard by an arbitration panel composed of three (3) arbitrators, in accordance with the provisions set forth below.
 - The Purchaser and the Contractor shall each appoint one arbitrator, and these two (2) arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the two arbitrators do not succeed in appointing a third arbitrator within thirty (30) calendar days after the latter of the two (2) arbitrators has been appointed, the third arbitrator shall, at the request of either Party or the arbitrators, be appointed by the Appointing Authority for arbitrator.
 - If one Party fails to appoint its arbitrator within fifty (50) calendar days after the other Party has named its arbitrator, the Party which has named an arbitrator may request the Appointing Authority to appoint the second arbitrator.
 - If, for any reason, an arbitrator is unable to perform its function, the mandate of the Arbitrator shall terminate in accordance with the provisions of applicable laws and a substitute shall be appointed in the same manner as the original arbitrator.



- Arbitration proceedings shall be conducted as per the provisions of the Arbitration and Reconciliation Act, 1996 in the courts in Vijayawada (Andhra Pradesh) in the English language only.
- The decision of a majority of the arbitrators (or of the third arbitrator chairing the arbitration panel, if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction as decree of the court. The parties thereby waive any objections to or claims of immunity from such enforcement.
- The arbitrator(s) shall give reasoned award.
- Notwithstanding any disputes with reference to the Contract pending for adjudication or arbitration, the Contractor shall continue to perform his obligations in connection with the Project in accordance with the Purchaser's decision or instruction, and Purchaser shall also continue to perform his obligations under the Contract including payment of any monies due to the Contractor.

4.15 Compliance with Laws and Regulations

- The laws and regulations which are to apply to the Contractor and under which the Contract is to be constructed shall be Indian Laws and Regulations.
- The Contractor shall, in all matters arising in the performance of the Contract, comply with in all respects, give all notices and pay all fees required by the provisions of any national or state statute, ordinance or other law or any regulation or by-law of any duly constituted authority.
- The Contractor shall adhere to the statutory provisions under Payment of Minimum Wages Act, Contract Labour (Regulation & Abolition) Act, Employee's Provident Fund & Miscellaneous Provisions Act, Workmen's Compensation Act, Right to Information Act, and other relevant Statutes. Non-compliance of the statutory provisions i.e. Contract Labour engaged in the job may attract penal action against Contractor from the Law Enforcing Authorities. All liabilities arising out of the non-compliance of the Law of the Land by Contractor or its personnel will have to be borne by the Contractor, and the Purchaser will not be responsible in any manner whatsoever for the same.
- The Contract shall in all respect be construed and interpreted in accordance with the Laws in force in India, including any such Laws passed or made or coming into force during the period of the Contract.

4.16 Force Majeure

- Force Majeure means any event or circumstance or combination of events and circumstances including those stated below that wholly or partly prevents or unavoidably delays the Purchaser or the Contractor in the performance of their obligation under this Contract, but only if and to the extent that such events or circumstances are not within the



reasonable control, directly or indirectly, of the affected Party and could not have been avoided if the affected Party had taken reasonable care or complied with prudent utility practices.

- Act of God, including, but not limited to lightning, drought, fire and explosion (to the extent originating from a source external to the Site), earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, war embargo, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred (100) years, or
- Any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, or
- Any event or circumstance of a nature analogous to any of the above.
- Delay or non-performance by either here to cause by the occurrence of any of Force Majeure shall not
 - Constitute a default or breach of the Contract, or
 - Given rise to any claim for damages or additional cost or expense occasioned thereby.
- If and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure.
- The Contractor or Purchaser shall not be liable for delay in performing his obligations resulting from any Force Majeure cause as referred above.
- If either Party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within fifteen (15) calendar days after the occurrence of such event.
- The Party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such Party's performance is prevented, hindered or delayed. The time for Completion shall be extended in accordance with clause 3.3
 - The Party or Parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof upon its or their performance of the Contract and to fulfil its or their obligations under the Contract, but without prejudice to either Party's right to proceed as per the provisions under clause 3.17.
 - If the performance of the Contract is substantially prevented, hindered or delayed on account of one or more events of Force Majeure during the currency of the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which the dispute shall be resolved in accordance with clause 3.17.



ANNEXURES

4.17 ANNEX. A: Information Sheet

Sl.No	Required Information	Documents to be attached in ANNEX.
1	Name and address of the Person Signing the document.	<ul style="list-style-type: none"> a) Power of Attorney attested by Notary or b) Copy of the board Resolution certified by the Company secretary for appointing the Power of Attorney or c) In case of consortium authorization on the letter head of the bidder / consortium as per ANNEX. 2
2	Whether the company is individual or proprietorship firm, Limited Company/Private Limited Company / Partnership or LLP (Limited Liability Partnerships) / or a registered business entity.	<ul style="list-style-type: none"> a) Certificate of Incorporation b) Memorandum and Article of Associations c) Proof of Listing d) Partnership deed in case of partnership/ LLP e) Consortium agreement and undertaking on Rs 10 stamp paper as per ANNEX. 7 in case of consortium f) Latest Annual report
3	Self-Declaration of not blacklisted by any of the Government Organizations / PSUs for the past 2 years	ANNEX. 3
4	Acceptance of Terms and Conditions in RFP	ANNEX. 4
5	Annual Turnover for last three years	Balance sheet, Profit& Loss Account& ITR for the financial Years (a) 2015-16 (b) 2016-17 (c) 2017-18 It should be certified by the CA in letter head of the CA firm ANNEX. 12

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5	<p>Detailed Technical Proposal should contain below minimum information (but not limited to):</p> <ol style="list-style-type: none"> 1. Company Profile 2. Technical Proposal Should Contain: <ul style="list-style-type: none"> • Functionalities of the proposed solution/services platform. • Details of Analytical platforms and the data required with formats • Technical Specifications of the proposed solution • Solution Workflow, Application Architecture and System Design and Project Execution methodology • Remote Monitoring Capabilities of the solution • Proposed Project and Resource planning detail • IOT Device preventive maintenance, Backup & restore, integration with other systems, Device and server security (data and cyber security) • Training and Support methodology • Maintenance and Support and managed services methodology for 5 years. <ol style="list-style-type: none"> a. Detailed BOQ/BOM (hardware & Software) 	ANNEX. 5 and ANNEX. 6 to be submitted as additional document
6	<p>Detailed Commercial Proposal should contain below minimum information (but not limited to)</p> <ol style="list-style-type: none"> 1. Proposed Commercial Business Mode 2. Complete Pricing details for Hardware, Software, deployment and Managed Services (year wise)& discounts. 3. Project Overhead Cost 4. Completeness of assumptions made for the commercial model 5. 5 years Support cost, maintenance cost, resource cost/plan and any other cost. 	
7	Sales / Service TAX /GSTN Registration No.	Copy of the Sales / Service Tax /GSTN Registration
8	Income TAX PAN No.	
9	Consortium Agreement	ANNEX. 8
10	Bid Authorization Letter	ANNEX. 9 and ANNEX. 11



11	Proforma of Bank Guarantee for EMD	ANNEX. 10
12	Work Order Completion Certificates	ANNEX. 13

Table 9: Information Sheet



4.18 ANNEX. 1: Preformat for Contract Performance Guarantee

Proforma for Bank Guarantee (For or Contract Performance Guarantee)

(To be stamped in accordance with Stamp Act, if any, of the Country of the issuing Bank)

Bank Guarantee no.....

Date: /

To,
Commissioner,
Transport Department
3rd Floor, NTR Administrative Building,
APSRTC, Vijayawada
Andhra Pradesh

Dear Sir/Madam,

In consideration of the.... *[Purchaser's Name]* (Hereinafter referred to as the „Purchaser“ which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assignees) having awarded to M/s*[Contractor's Name]* with its Registered/Head Office at..... (Hereinafter referred to as the „Contractor“), which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assignees), a Contract by issue of the *Purchaser's* Letter of Acceptance no. dated and the same having been acknowledged by the Contractor, for [Contract sum in figures and words] for *[Scope of Work]* and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to ten percent (10%) of the Contract Price of the aforesaid work under the Contract to the Purchaser.

We..... *[Name & Address of the Bank]* having its Head Office at..... (hereinafter referred to as the „Bank“, which expression shall, unless repugnant to the context of meaning thereof, include its successors, administrators, executors and assignees) do hereby guarantee and undertake to pay the Purchaser, on demand any and all monies payable by the Contractor to the extent of (*) as aforesaid at any time up to..... (@) [days/month/year] without any demur, reservation, contest, recourse or protest and/or without any

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reference to the Contractor. Any such demand made by the Purchaser on the Bank shall be conclusive and binding notwithstanding any difference between the Purchaser and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Purchaser and further agrees that the guarantees herein contained shall continue to be enforceable till the Purchaser discharges this guarantee or till[day/month/year] whichever is earlier.

The Purchaser shall have the fullest liberty, without affecting in any way the liability of the Bank under this guarantee, from time to time to extend the time for performance of the Contract by the Contractor. The Purchaser shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Purchaser and the Contractor or any other course or remedy or security available to the Purchaser. The Bank shall not be released of its obligations under these presents by any exercise by the Purchaser of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Purchaser or any other indulgence shown by the Purchaser or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank.

The Bank also agrees that the Purchaser at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Purchaser may have in relation to the Contractor's liabilities.

Our liability under this Bank Guarantee shall not exceed

This Bank Guarantee shall be valid up to and including

We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if the Purchaser serve upon Bank a written claim or demand within ninety (90) calendar days from the above-mentioned expiry date of validity or, from that of the extended date.

Dated this..... day of 2018 at.....

WITNESS

.....
(Signature)

.....
(Signature)



(Name)

.....

(Official Address)

.....

(Name)

.....

(Designation with Bank Stamp)

Attorney as per with Power of Attorney no.....

Dated / /

Note: The stamp paper of Rs. 200/- value shall be purchased in the name of guarantee issuing Bank.



4.19 ANNEX. 2: Proforma for Contract Agreement

CONTRACT AGREEMENT

THIS AGREEMENT made the day of between of
(herein after “the Purchaser”) of the one part, and of (herein after “the
Contractor”), of the other part:

WHEREAS the Purchaser invited bids for “Supply, Installation, Commissioning and Managed Services for IoT based Safety and Security System for Women & Children during Travel for Andhra Pradesh Transport Department” and has accepted a Bid by the Contractor for the same in the sum of
(Hereinafter “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. in this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - a) The Purchaser’s Notification (LOA) to the Contractor
 - b) The Bid Forms (including Price Bid) submitted by the Contractor
 - c) The General Conditions of Contract
 - d) The Scope of Work
 - e) The Service Level Agreement
3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
4. In consideration of the payments to be made by the Purchaser to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
5. The Purchaser hereby covenants to pay the Contractor in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of on the day, month and year indicated above.



Signed by (For the Purchaser)

Signed by (For the Contractor/Lead Member)



4.20 ANNEX. 3: Declaration on not being blacklisted

(To be submitted on the Letterhead of the Company)

To,

Commissioner,
Transport Department
Government of Andhra Pradesh,
Dr. Baba Saheb Ambedkar Building
Khairatabad, Vijayawada – 500004

Ref.: RFP for Supply, Installation, Commissioning and Managed Services for IoT based Safety and Security System for Women & Children during Travel for Andhra Pradesh Transport Department.

Dear Sir/Madam,

We confirm that our company is not blacklisted for any fraudulent actions by Andhra Transport Department or by any state/central Government institution or any Public-Sector Organization. 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

Company Seal:

Place:

Date:



4.21 ANNEX. 4: Declaration of Acceptance of Terms and Conditions in RFP

(To be submitted on the Letterhead)

To,
Commissioner,
Transport Department
3rd Floor, NTR Administrative Building,
APSRTC, Vijayawada
Andhra Pradesh

Ref.: RFP Supply, Installation, Commissioning and Managed Services for IoT based Safety and Security System for Women & Children during Travel

Dear Sir/Madam,

I have carefully gone through the Terms & Conditions contained in the RFP document [Tender no.] for Selection of Vendor Supply, Installation, Commissioning and Managed Services for IoT based Safety and Security System for Women & Children during Travel for Andhra Pradesh Transport Department. I declare that all the provisions of this RFP/Tender Document are acceptable to my company. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,
Authorized Signature [In full and initials]
Name and Title of Signatory:
Company Name: Company Seal
Address:
Place:
Date:



4.22 ANNEX. 5: Letters of Proposal Submission

(To be submitted on the Letterhead)

To,
The Commissioner,
Transport Department,
3rd Floor, NTR Administrative Building,
PNBS Complex, Vijayawada,
Andhra Pradesh

Dear Sir/Madam,

We, the undersigned, offer Supply, Installation, Commissioning and Managed Services for IoT based Safety and Security System for Women & Children during Travel for Andhra Pradesh Transport Department, in accordance with your Request for Proposal dated [Insert Date] and our Proposal.

We are hereby submitting our Proposal, which includes

- a) Financial Proposal
- b) Technical Proposal
- c) EMD of the prescribed amount (paid online as defined in the e-Procurement platform)
- d) Bid processing fee of the prescribed amount
- e) Other Necessary Compliance document

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

If negotiations are held during the period of validity of the Proposal, we undertake to negotiate on the price bid. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

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

Yours faithfully,
Authorized Signature [In full and initials]
Name and Title of Signatory:
Company Name: Company Seal
Address:
Place:
Date:



TECHNICAL BID FORMAT:

SL	Technical Bid Evaluation Criteria	Documentary details to be submitted by the Bidder	Max. Points under each category
1	<p>Has successfully deployed or implemented large scale Application Software development projects in Government / PSU in India</p> <ul style="list-style-type: none"> Value >= 5 Crore: 1 Points Value >= 10 Crore: 3 Points Value >= 15 Crore: 5 Points 	<ul style="list-style-type: none"> Name of the project Customer Name and contact details Project Start and End date Current status of the project Value of the project Type of client (Govt, PSU etc) Brief description and scope of the project 	5
2	<p>Has implemented or deployed IOT / Real time data Analytics Project across any of the Govt/Private in last 5 years</p> <ul style="list-style-type: none"> 1 Project of value 2 Cr: 2 Points 2 Project of value 3 Cr: 3 Points. >3 Projects of value 5 Cr: 5 Points 	<ul style="list-style-type: none"> Name of the project Customer Name and contact details Project Start and End date Current status of the project Value of the project Type of client (Govt, PSU etc) Brief description and scope of the project 	5

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3	<p>The Bidder should have delivered Real Time Alerting solution with following capability</p> <p>Handling of data more than 1,000 IOT devices but less than 2,000 devices: 1 Points</p> <p>Handling of data more than 2,000 but less than 5,000 IOT devices: 2.5 Points</p> <p>Handling of data more than 5,000 IOT devices: 5 Points</p>	<ul style="list-style-type: none"> • Name of the project • Customer Name and contact details • Project Start and End date • Current status of the project • Value of the project • Type of client (Govt, PSU etc) • Brief description and scope of the project 	5
4	System Demonstration and POC Evaluation	Please see POC Evaluation Criteria	80
4.a	Compliance to IOT Device Specification and demonstration of edge computing capabilities for the Abhaya Project scenarios		20
4.b	Real Time Alerting with ability to handle Stream data, and visualize KPIs and Insights		20
4.c	<p>Solution Capability (not limiting to below points)</p> <p>c. The Bidder should demonstrate the Technology or Solution for Real Time Alerting Solution with ability to handle more than 100,000 Record streams a Second, Scalable further as required.</p> <p>d. The Bidder should demonstrate ability to detect Anomaly and Fraud in the Stream data.</p>		40
5	Technical Presentation and Proposal Quality	Its mandatory to give presentation on the proposed solution to the Technical evaluating committee	5
	TOTAL SCORE (TS)		100



Financial Bid Format:

No.	Item	I. Quoted Price (INR)	Tax (Type & Rate)	II. Tax (INR)	Total Price INR (X=I+II)
1.	Capex				
1.1	Hardware procurement and installation of IoT devices				
1.2	Design, Development and Implementation of Web Application and Mobile application software				
A	Capex Total (G=1.1+1.2)				
2.	Opex				
2.1	Opex for Year 1				
2.2	Opex for Year 2				
2.3	Opex for Year 3				
2.4	Opex for Year 4				
2.5	Opex for Year 5				
B	Opex total for 5 years (H=2.1+2.2+2.3+2.4+2.5)				
C	Total price (C=A+B) in figures				
C	Total price (C=A+B) in words				



5.7 ANNEX. 6: Team Compositions and Task Assignment

(To be submitted on the Letterhead)

Place:

Date:

Ref: (Tender Ref no)

Sr. No.	Name of Staff	Area of Expertise IOT/Analytics/Project Management/Programming/Support Service	No. of years' Experience	Position/ Task assigned for this job	Experience in Telugu region & language	Contact details.

Yours faithfully,
Authorized Signature [In full and initials]
Name and Title of Signatory:
Company Name: Company Seal
Address:



4.23 ANNEX. 7: Consortium Undertaking

CONSORTIUM UNDERTAKING ON RS 10 STAMP PAPER

TO WHOMSOEVER IT MAY CONCERN

This is to state that for the purpose of the RFP Supply, Installation, Commissioning and Managed Services for IoT based Safety and Security System for Women & Children during Travel for Andhra Pradesh Transport Department, we have agreed to form a Consortium as under:

A standard consortium agreement format is enclosed, which is to be incorporated, if the RFP proposal to be submitted through consortium partnership.

SL No	Name of the company with address	Name of Signing Authority Along with Designation	Role in Consortium

Seal & Signature Party 1:

Seal & Signature Party 2:

Seal & Signature Party 3:



1.6. ANNEX. 8: Consortium MOA “Memorandum of Agreement”

Towards Contract Number <<<<Tender Number >>>> floated by Transport Department of Andhra Pradesh

Between

<<<< *Lead Bidder's Name* >>>>

And

<<<< *Consortium Partner1* >>>>

This Memorandum of Agreement (“MOA”) is entered into thisday ofby and between the concerned organizations mentioned below.

This agreement is acceptable and binding to all <<<<Number of parties>>>> parties in concern.

<<<< *Lead Bidder's Name* >>>>, <<<<“*Lead Bidder's Complete Address*”>>>>, (herein afterreferred as. <<<< >>>>, which expression shall include their successors, assigns andrepresentatives),

And.

<<<< *Consortium Partner's Name* >>>>, <<<<“*Consortium Partner's Complete Address*”>>>>, (herein after referred as. <<<< >>>>, Represented by its <<<<Name of

Representor>> which expression shall include their successors, assigns and representatives),WHEREAS:

a) <<<< *Lead Bidder's Name* >>>>(Lead Bidder)is a Company which inter alia is engaged in “PROJECT ABHAYA” -IOT Based System for Women & Girl Children Safety during travel
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<<<<Brief Profile of Prime Partner >>>>

- b) (Consortium Partner) <<<<Brief Profile of Consortium Partner>>>>
- c) (Consortium Partner) <<<<Brief Profile of Consortium Partner>>>>
- d) All the above parties have agreed to bid in consortium for. Tender No: <<<<.....>>>> for

<<<<Tender Name>>>> and this MOA is signed by all the members so as to legally bind the

members and who will be jointly and severally liable to perform the contract and allObligation hereunder.

Article 1: Preamble of MOA

1. Whereas "Transport department, Andhra Pradesh, (hereinafter referred as "client") and has invited a Tender for <<<<Tender Name>>>>. Whereas M/s. <<<< Lead Bidder's Name >>>>, has agreed to lead role and expressed its desire to bid the Tender. The " <<<< Lead Bidder's Name >>>>" shall necessarily be Lead Bidder and System integrator who shall perform system integration services and be responsible for meeting over all obligation of the contract which necessarily includes OEM (Original Equipment Manufacturer) alliance for ,supply, installation and maintenance of <<<< Required Equipment for Project's Execution>>>>to timely deliver state of art services for the project.
2. Whereas it was agreed by all consortium parties to participate in the Tender through the<<<< Lead Bidder's Name >>>> subject to the terms and conditions of this agreementwith the responsibilities and obligations as set out under Statement of Work.
3. The <<<< Lead Bidder's Name >>>> is a prospective prime contractor/ Lead Bidderand will submit the Proposal in response to the Tender and in consultation with <<<<Consortium Partner's Name >>>> for that portion of the work assigned to them andidentified in the relevant clause of this MOA.
4. Whereas all Consortium parties will exert its "best efforts", as jointly deemed reasonable,to produce the Proposal which will cause the selection of the"<<<< Lead Bidder's Name >>>>" as a prime contractor for the Project and the acceptance of the work assignedto the each parties herein under SOW, and each party will continue to exert its"best efforts" toward this objective throughout any and all negotiations concerning aContract or subcontract(s) which may follow the submission of the Proposal Neitherparty shall demand compensation of any kind from the other party during the period up tothe award of the Contract, unless otherwise agreed in writing. Each party will bear itsown costs, risks and liabilities incurred by it arising out of its obligations and effortsunder this Agreement, except where such costs, risks or liabilities are attributable to theother party or parties. Such liability includes, but is not limited to, all damages, costs andexpenses claimed from or incurred as the result of any claim or proceeding made againsta party with respect to the infringement of any patent, copyright, trademark, trade secretor other proprietary right of any third party.



5. Each party shall furnish to the other such co-operation and assistance as may be reasonably required hereunder.

ARTICLE 2: MOA FRAMEWORK

1. **Purpose.** The purpose of this MOA is to establish the general terms and conditions applicable to this MOA.
2. **Agreement.** This MOA is intended to serve as a framework for the, provision of Services under one or more Statement of Works. Business Partner Shall only be obligated to provide those services specifically agreed to under an executed Statement of Work. The Services may be performed by Business Partner by engaging its employees, contractors, or employees/contractors of its Affiliates through its offshore development center or at<<<< *Lead Bidder's Name* >>>>sites or customer's site on such terms as maybe agreed commercially in the applicable Statement of Work.
3. **Statement of Works.** Unless otherwise agreed by <<<< *Lead Bidder's Name* >>>>&Business Partner, Business Partner shall be the service provider of, and <<<< *LeadBidder's Name* >>>>shall purchase from Business Partner, company requirements for the service described in relevant-statement of work covering <<<< *LEAD BIDDER'SNAME* >>>>& Business Partner shall enter into one or more Statement of Works covering <<<< *LEAD BIDDER'S NAME* >>>>service requirements. The Statement of Works shall reference and incorporate this Agreement, and the terms and conditions set forth in this Agreement shall govern Business Partner's provision of services there under. No Project will be undertaken without a Statement of Work executed by each Party in writing. Each Statement of Work together with this Agreement shall constitute a distinct contract enforceable according to its terms.

ARTICLE 3: DEFINITIONS AND INTERPRETATIONS

1. Except for the terms defined somewhere else in this Agreement which shall prevail, the following terms when used in this Agreement (including the Recitals) shall have the following meaning:

- (a) **"Affiliate"** means an entity which controls a Party, or which is controlled by a Party oris under the common parent where "control" shall mean the ownership of 50% or more shares having voting rights or the right to elect the majority of directors.
- (b) **"MOA"** has the meaning set forth in the preamble and the relevant 'Statement of Works along with all annexes, annexure, schedules, enclosures or any other attachments there to as varied or amended in writing as mutually agreed between the Parties from time to time.
- (c) **"Business Day"** means Monday to Friday, between 0930 and 1830 hours, both inclusive but excluding public holidays and emergency holidays 'declared by the government at the place of work.
- (d) **"Confidential Information"** shall mean:
 - i. Intellectual Property Rights information;

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- ii. Technical or business information-or material not covered in (i);
 - iii. Proprietary or internal information related to the current, future and proposed products or services of the Parties including samples, financial information, process/flow charts, business models, information related to procurement requirements, purchasing, pricing, manufacturing, customers, investors, employees, business and contractual relationships, business forecasts, sales and merchandising, marketing plans, information the Parties provide regarding third parties;
 - iv. Information disclosed pursuant to this Agreement and
 - v. All such other information which by its nature or the circumstances of its disclosure is confidential.
- (e) **"Intellectual Property Rights"** means all rights including future rights in inventions patents, designs, copyrights, trademarks, service marks, databases and typography rights (whether or not any of those is registered and including applications for registrations of the foregoing) together with all trade secrets, knowhow and all rights or forms of protection of a similar nature or having - equivalent or similar effect to any of those which may subsist anywhere in the world.
- (f) **"Project"** means all items of work pertaining to Services as expressly stated/described in relevant Statement of Work (SOW).
- (g) **"Party"** or **"Parties"** shall mean and include Partner and Company, individually or collectively, as the context may so require.
- (h) **"Services"** shall mean all the services, activities and work including Information technology, project management, financial management, legal assistance and compliances, human resources management and other related services to be performed by Partner under this Agreement as per a Statement of Work.
- (i) **"Statement(s) of Work"** means the statement(s) of work signed by the Parties here to from time to time pursuant to this Agreement.
- (j) **"Term"** has the meaning assigned in Article 3 to this Agreement.

2. In this Agreement-unless the context otherwise requires:

- (a) References to Parties, schedules, clauses, paragraphs or appendices are references to Parties, schedules, clauses, paragraphs or appendices of this Agreement.
- (b) Words denoting the singular number only shall include the plural number also and vice versa.
- (c) References to the masculine include the feminine and the neuter.
- (d) Words denoting persons only shall include corporations, partnerships and unincorporated associations.
- (e) References to any party shall, 'where relevant, be deemed to be references to or to Include as appropriate, their respective successors or permitted assigns.
- (f) Headings have been included for convenience only and shall not be used in construing any provision herein.



- (g) References to any enactment shall be deemed to include references to such enactment as re-enacted, amended or extended from time to time.

ARTICLE 4: TERM

This Agreement shall come into effect from the date of execution of this Agreement and shall remain in force, for a period. of five years from the Effective Date, which period shall be automatically extended for a period of one year each time, subject to earlier termination in accordance with this Agreement.

ARTICLE 5: PROJECT ADMINISTRATION

- (a) Single Point of Contact (SPOC). Each Party shall designate" one of its employees or authorized representatives to be the SPOC for each of the Statements of Work. Each Party shall authorize its SPOC to act on behalf of that Party on all matters in relation to the relevant Statement of Work. Each Party shall notify the other in writing at least 15(fifteen) Business Days in advance of any replacement of a SPOC.
- (b) Co-ordination: The SPOC for each Statement of Work shall converse/meet as often as required to review the status of the Statement of Work.

ARTICLE 6: COMPENSATION AND EXPENSES

- (a) The business partner shall raise invoices to the <<<< LEAD BIDDER'S NAME >>>>and the <<<< LEAD BIDDER'S NAME >>>>shall pay to the Business Partner as per the terms and conditions agreed and stated in the respective Statement of Work.
- (b) Taxes: <<Prime Partner>> shall deduct applicable taxes, surcharges as per the statute from the payments to be made.

ARTICLE 7: TERMINATION

All of the Parties to this Agreement endorses the fact that the Project in question belongs to client, Hence, they will ensure their best efforts in completing the said project. However, the termination of any of the Consortium Members who are part of this agreement will be done in terms of the Tender. However, the final decision towards Termination of any of the Consortium Members vests with client only in terms of the Tender.



ARTICLE 8: CONFIDENTIALITY

- (a) All written, digital and oral information communicated by one party to another shall be held in strict confidence by both parties and be used only for purposes of this Agreement. No such information including the provisions of this Agreement shall be disclosed by the recipient without the prior written consent of the other party, except as required by law or to comply with any regulatory or similar requirement. If either party is required to disclose any Confidential Information of the other party under law, the party so required shall notify the other party immediately and shall co-operate in seeking a reasonable protective order. Notwithstanding the forgoing, information which is orally or visually disclosed to the recipient by the disclosing party, shall constitute Confidential Information if the disclosing party, within two (2) days after such disclosure, delivers to the recipient a written document or documents describing such proprietary or Confidential Information and referencing the place and date of such oral or visual disclosure and the names of the employees or officers of the recipient to whom such disclosure was made.
- (b) This Article 7 shall not apply to information which is
- in the public domain,
 - already [known to the recipient prior to receipt of such information from the disclosing party,
 - developed independently by the recipient without the benefit. of any

Confidential Information of the disclosing party, (iv) received from a third party without. Similar restriction and without breach of this Agreement or a similar agreement, or (v) the information is disclosed to the receiving party after the disclosing party's receipt of the receiving party's. written notice that it will not accept further disclosures of Confidential Information.

- (c) Notwithstanding any provision of this Article 7 to the contrary, a party. may disclose any Confidential Information of the other to the extent required by applicable law only if, prior to the disclosure, such party (a) delivers to other notice to such effect promptly after receipt of a request for disclosure and (b) takes reasonable actions, and provides reasonable assistance to the other party, to secure confidential treatment of the Confidential Information by a protective order or otherwise.
- (d) The confidentiality obligation of Company and Partner will survive for a period of one (1) year from the date of receipt of any confidential information, except in respect of software and trade secrets, which obligations shall survive to the maximum extent permissible by law.

ARTICLE 9: INTELLECTUAL PROPERTY RIGHTS



All parties agree and acknowledge that performance of this Agreement, including the Statements of Work, may result in the discovery, creation or development of work results as well as usage of any software, technique and technology of either Party. The parties agree that the IP for the respective components continues to be with the respective party that brings the IP component.

ARTICLE 10: REPRESENTATIONS AND WARRANTIES

Each Party hereby represents and warrants that:

- (a) it is a corporation duly organized and validly existing and in good standing under the laws of its jurisdiction of organization;
- (b) it is qualified to do business and in good standing in every jurisdiction where such qualification is required;
- (c) it has the corporate power and authority to negotiate, execute, deliver and perform its obligations under this Agreement;
- (d) the Services to be performed and the payments to be made hereunder shall reasonably conform to the requirements of the Parties, including those expressly set out in the Statement of Work; Except for the warranties specifically granted herein, each Party specifically excludes all other warranties, express or implied, including without limitation warranties of merchantability or fitness for purpose.

ARTICLE 11: NOTICE

- (a) All notices that are required or may be given pursuant to this Agreement must be in writing and delivered personally or by a recognized courier service or by a recognized overnight delivery Service, or by registered or certified mail, postage prepaid, to the parties.
- (b) Any such notice or other communication will be deemed to have been given and received (whether actually received or not) on the day it is personally delivered or delivered by courier or overnight delivery service or if sent by tele-fax or, mailed, when actually received on the addresses stated below:

<<<<Prime Bidder's Complete Address>>>>

<<<<Consortium Bidder's Complete Address>>>>

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ARTICLE-12: LIABILITIES AND INDEMNITIES

- (a) **Waiver of consequential damages:** In no event shall either party be liable with respect to its obligations under or arising out of this agreement for consequential, exemplary, punitive, special, or incidental damages, including, but not limited to, loss of data/programs or lost profits, loss of goodwill, work stoppage, computer failure, ' loss of work product or any and all other commercial damages or losses whether directly or indirectly caused, even if such party has been advised of the possibility of such damages.
- (b) **Limitation of Liability.** The aggregate liability of <<<<Consortium Partner's Name>>>> for all claims under this Agreement: (a) shall be limited to the Services provided by it hereunder and (ii) shall not exceed the amounts paid for the Services by <<<<LeadBidder's Name >>>> to Client for a period of twelve (12) months from the date on which such breach first arose.
- (c) Each party undertakes that it will indemnify its affiliates, officers, employees, consultants, agents and representatives and keep client and its affiliates, officers employees, consultants, agents and representatives fully indemnified against all actions, claims, proceedings, costs and damages (including any damages or compensation paid by client on the advice of its legal advisers to compromise or settle any claim) and all legal costs or other expenses arising out of any breach of this Consortium Agreement, in respect of any matter arising from the supply of services, in respect of supply of any goods, in respect of the infringement of the intellectual property rights of any third party or out of any claim by a third party including the Department of Education.
- (d) Each party shall indemnify, defend and hold the other harmless from all, damages, liabilities, costs and expenses, arising by reason of any claim for personal injury of any agent, employee, customer, or' business visitor of the indemnified or damage to tangible property in the possession or under the control of the indemnified, that arises out of any action or inaction by the indemnifier or its employees or agents; provided, however that;
- Indemnified gives indemnifier written notice of any such claims within 5 business days of knowledge of injuries;
 - Indemnified provides reasonable assistance in defending the claims;
 - Indemnified makes no admission without indemnifier prior written consent; and
 - Indemnified gives sole control of the litigation.

ARTICLE 13: PERFORMANCE SECURITY & TAXES



- (a) As a lead bidder all EMD's and Bank Guarantee shall be furnished by <<<< *LeadBidder's Name* >>>> in the name of Transport Department, Government of Andhra Pradesh. The EMD's or Guarantees shall remain valid during the currency of the contract or till such period all obligations including any warranty obligation under the contract of <<<< *LEAD BIDDER'S NAME* >>>> are complete to the satisfaction of client.
- (b) M/s <<<< *LEAD BIDDER'S NAME* >>>> shall be responsible for withholding taxes from the amounts due and payable to the consortium as may be required under applicable Laws. M/s <<<< *LEAD BIDDER'S NAME* >>>> shall pay for all other taxes in connection with this Consortium Agreement, the Lease Agreement and SLA with Client. Any change in rates of taxes, duties or levied during the Terms of this Consortium Agreement will be to the account of the M/s <<<< *LEAD BIDDER'S NAME* >>>>. M/s <<<< *LEAD BIDDER'S NAME* >>>> agrees to reimburse and hold its consortium partners harmless from any deficiency (including penalties and interest) relating to taxes that are its responsibility under this Clause.
- (c) Whereas <<<< *LEAD BIDDER'S NAME* >>>> requests Transport Department, Government of Andhra Pradesh to make effort for concessional rate of TDS and other relevant Taxes applicable. TDS of Income Tax and other relevant taxes deducted on Transport Department, Government of Andhra Pradesh portion shall be deducted by Transport Department, Government of Andhra Pradesh from <<<<
- (d) *LEAD BIDDER'S NAME* >>>> and shall be paid back after adjustment of the same in Tax Return.

ARTICLE 14: TERMS OF PAYMENT AND CONTRACT PRICE

- (a) <<<< *LEAD BIDDER'S NAME* >>>> will submit bills/invoices along with all supporting documents etc., as required under the contract with client or otherwise demanded by client. The currency of payment shall be Indian Rupees.
- (b) On behalf of the <<<< *Lead Bidder's Name* >>>> - <<<< *Consortium Partner's Name* >>>> consortium, Payment shall be received by <<<< *LEAD BIDDER'S NAME* >>>> alone from client and payment so received shall be released to other consortium partners as agreed upon mutually.
- (c) TDS of income Tax shall be borne by each party of its share.
- (d) Client shall make effort for concessional rate of TDS. TDS of Income Tax deducted on client portion shall be deducted by client from <<<< *LEAD BIDDER'S NAME* >>>> and shall be paid back after adjustment of the same in Tax Return.

ARTICLE 15: RESPONSIBILITY MATRIX



Sl.No	Activity	<<<Lead Bidder'sName >>>	<<<ConsortiumPartner's Name >>>
1	Front ending with the client on all technical and commercial issues for given opportunity		
2	Back end support to Client on all technical and commercial issues for given opportunity.		
3	Submission of Performance and other Financial securities to client for given opportunity.		
4	Delivery of all equipment's materials etc. required for the specific project as per Offer/Proposal requirement including spares to client.		
5	Installation, Integration and testing of the complete system at the client's installation sites.		
6	Provide for the connectivity as per the requirement of the Project by providing best available and latest technology.		
7	Acceptance testing of the. Complete system.		
8	Operation and Maintenance and warranty of entire infrastructure created under the given Project and maintenance of SLA during the currency of the project.		
9	Preparation of Site and training material.		



10	Appointment of Manpower, providing training to them, and maintaining 10%additional manpower for smooth running of this project in case of attrition of manpower.		
11	Providing technical product replacement and any other required support client during warranty and after warranty(AMC).		
12	Preparation and submission to client all documents required from time to time.		
13	Collection of payment from the client and disbursement to other partners.		

ARTICLE 16: MISCELLANEOUS

- (a) Entire Agreement: The Agreement and the Statements of Work issued hereunder constitute the final, entire, and exclusive agreement between the parties with respect to their subject matter and supersedes all prior oral or written agreements in this regard. In case of any inconsistency between this Agreement and a Statement of Work, the terms of Statement of Works shall prevail. Any additional or different terms in any purchase order, invoice, email or other similar documents, now or in future, shall be expressly subject to each term of this Agreement and the applicable Statement of Work.
- (b) Waiver: No change, waiver, or discharge hereof shall be valid unless in writing and signed by the party against which it is sought to be enforced. No delay or omission by either party in exercising any right hereunder shall be construed as a waiver. A waiver by either of the parties of any provision or breach shall not be a waiver of any other provision or breach.
- (c) Relationship of Parties: Partner is acting only as an independent contractor. This Agreement shall in no event be construed in such a way that either Party constitutes, or is deemed to be, the representative, agent, employee, partner, or joint venture of the other party.
- (d) Force Majeure: Neither Party shall be liable for any failure or delay in its performance due to circumstances beyond its reasonable control, provided that it notifies the other Party as soon as practicable and uses its best efforts to resume performance.

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- (e) Severability: If any provision of this Agreement is held to be unenforceable, the remaining provisions shall be unaffected. Each provision of this Agreement, which provides for a limitation of liability, disclaimer of warranties, indemnification, or exclusion of remedies is severable from and independent of any other provision. Further, in the event that any remedy hereunder is determined to have failed of its essential purpose, all limitations of liabilities and exclusions of damages shall remain in effect.
- (f) Governing Law. This Agreement shall be governed by the exclusive laws of India and courts in Vijayawada, Andhra Pradesh, India without giving effect to any rules of conflicts of law
- (g) Liquidated Damages. Any liquidated damages or any other deductions, levies, charges, penalties levied and imposed by “(Cit shall be exclusively on account of Prime Partner
- (h) Arbitration. The parties will attempt in good faith to resolve any controversy or claim arising out of or relating to this Agreement promptly by negotiations between executives of the parties Any dispute that is not thus resolved, including any question regarding its existence, shall be submitted to binding arbitration under the arbitration provisions of Indian Arbitration and Conciliation act, 1996 and the rules framed there under and to be conducted by a sole Arbitrator appointed .by the Prime partner. Venue of Arbitration shall be Vijayawada, Andhra Pradesh. The language of Arbitration will be English.
- (i) Amendments. All changes and amendments to this Agreement or to any attachment there to are valid only if made in writing and signed by both parties.
- (j) Media Releases. Neither Party shall make any disclosure regarding any matter connected with this Agreement in any media releases, public disclosures nor marketing material without the prior written consent of the other Party, except for (i) any announcement intended solely for a Party’s internal distribution, or (ii) any listing of the other Party as a reference in confidential proposals. or (iii) any disclosure required by law, or (iv) disclosures made pursuant to any announcement to any regulatory authority/body.
- (k) Assignment. Without prior written consent of the RICOH none of the Other Parties may assign any of its rights and obligations under this Agreement or any Statement of work.
- (l) Drafter. Each Party has participated in the negotiations and preparation of this Agreement and has the availability of independent counsel of its choice to review and make suitable corrections to this Agreement. In no event, therefore, shall this Agreement be construed more or less stringently against any party.
- (m) This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall together constitute one and the same instrument.

In witness whereof, the parties hereto have executed this Agreement as of the date first above written.



	For: <<Lead Bidder's Name>>	For: <<Consortium Partner's Name>>	For: <<Consortium Partner's Name>>
Signature:			
Name:			
Title			
Date			

STATEMENT OF WORK (SOW)

The "<<<< Lead Bidder's Name >>>>" shall primarily be responsible for meeting all the obligations of the Tender and in the event of the contract awarded by the Client.

The "<<<< Lead Bidder's Name >>>>" shall be authorized to receive instructions for and on behalf of the other members and shall be responsible for delivery of all the provisions of the contract.

- I. Responsibilities and Accountabilities of <<<< Lead Bidder's Name >>>> (LeadPartner): The <<<< Lead Bidder's Name >>>> is responsible for overall manage ability of the project.
- II. Responsibilities and Accountabilities of <<<< Consortium Partner's Name >>>> (Consortium Partner): is responsible jointly along with <<<< Lead Bidder's Name >>>> for implementation of the service deliverables for the project.
- III. Responsibilities and Accountabilities of <<<< Consortium Partner's Name >>>> (Consortium Partner): for supply of <<<< Required Equipment for Project Execution >>>> "<<<< Consortium Partner's Name >>>>" has agreed to supply << for this project as supplier and Will work as per the order placed by the <<<< Lead Bidder's Name >>>> at the specific agreed rate either directly or through their authorized distributor. Both <<<< Lead Bidder's Name >>>> and Business Partner shall enter into simple agreement with respect to the specification of the product, price, delivery and warranty term immediately on award of the Tender by client. "<<<< Consortium Partner's Name >>>>" shall be responsible for the delivery of the products provided. <<<< Lead Bidder's Name >>>> ensures that necessary infrastructure such as electricity, furniture's, LAN cabling etc., that are basically required for installation of the systems. Under no circumstances <<<< Consortium Partner's Name >>>> shall be responsible or accountable for any default or delay due to no readiness of the site. "<<<< Lead Bidder's Name >>>>" shall undertake the delivery only on receiving the confirmation in writing with at least 7 days from the Ricoh India Limited about the site readiness along with the formal purchase order. The "<<<< Lead Bidder's Name >>>>" to provide the correct and complete of the locations for delivery.

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1. On delivery of the products, <<<< Lead Bidder's Name >>>> shall arrange to install and to obtain the installation report from the end customer.
2. On the Product Warranty, "<<<< Consortium Partner's Name >>>>" undertakes to provide the replacement of products and services against manufacturing defects during the warranty period within resolution period as agreed.
3. Payment of "<<<< Consortium Partner's Name >>>>" will be cleared maximum within 30 days of delivery by the <<<< Lead Bidder's Name >>>> of their share of business allocated by mutual consent.
4. However, the scope of services shall not be covered under the following events.
 - a. The product is physically damaged.
 - b. The product is modified or repaired by end customer or its related party/user not authorized by Business Partner India.
 - c. The product is faulty or damaged due to electrical faults external to the PC.
 - d. Any external software that are installed by end customer which have caused malfunctions to the PC.
 - e. Defects or damage caused due to virus attack.
 - f. Cracked glass panel on monitor, LCD screen or damage caused by too much pressure exerted on the CD.
 - g. Damages caused due to acts of God & Force Majeure events.

	For:<<<<Lead Bidder's Name>>	For: <<<<Consortium Partner's Name>>	For: <<<<Consortium Partner's Name>>
Signature:			
Name:			
Title			
Date			



4.24 ANNEX. 9: Authorization Letter

AUTHORISATION ON THE LETTERHEAD OF THE BIDDER / CONSORTIUM

TO WHOMSOEVER IT MAY CONCERN

This is to state that for the purpose of the RFP Supply, Installation, Commissioning and Managed Services for IoT based Safety and Security System for Women & Children during Travel for Andhra Pradesh Transport Department, Govt of Andhra Pradesh, we have hereby authorized Mr/Ms working in capacity of with M/s to execute all documents on behalf of the Consortium for the above said RFP.

Signature Party 1 with seal:

Signature Party 2 with seal:

Signature Party 3 with seal:



4.25 ANNEX. 10:Format of the Bank Guarantee for EMD

Dated: [●]

Bank Guarantee No.:

1. In consideration of you, the Transport Department, Government of Andhra Pradesh, having its office at O/o. Transport Commissioner, III floor, NTR Administrative Block, PNBS Complex, Vijayawada – 520002, (hereinafter referred to as the “**Transport Department**”, which expression shall unless it be repugnant to the subject or context thereof include its, successors and assigns) having agreed to receive the Proposal of (a company registered under the Companies Act, 1956) and having its registered office at (hereinafter referred to as the “**Bidder**” which expression shall unless it be repugnant to the subject or context thereof include its/their executors, administrators, successors and assigns), for the (i) Provision of Data migration services for the purpose of successful migration of the data from CFST 3 tier application server of the Transport Department onto the proposed Web Application; (ii) design, development, testing, implementation of the Web Application; (iii) operation and maintenance of the Web Application including the setting up and management of the Helpdesk; and (iv) provision of comprehensive annual maintenance and facility management services; (v) other activities incidental thereto, in the manner specified in the Bidding Documents, for the Transport Department of the State of Andhra Pradesh (“**Project**”) pursuant to the RFP dated 08-01-2016 issued in respect of the Project and other related documents including without limitation the draft services agreement (hereinafter collectively referred to as “**Bidding Documents**”), we [(Name of the Bank)] having our registered office at and one of its branches at (hereinafter referred to as the “**Bank**”), at the request of the Bidder, do hereby in terms of Clause 2.1.5 read with Clause 2.4 of the RFP, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents (including the RFP) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to the Transport Department an amount of Rs. <.....>/- (Rupeesonly) (hereinafter referred to as the “**Guarantee**”) as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder fails to fulfil or comply with all or any of the terms and conditions contained in the said Bidding Documents.
2. Any such written demand made by the Transport Department stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.
3. We, the [please insert details of the bank issuing this bank guarantee] (hereinafter referred to as the “**Bank**”), do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Transport Department is disputed by the Bidder or not, merely on the first demand from the Transport

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Department stating that the amount claimed is due to the Transport Department by reason of failure of the Bidder to fulfil and comply with the terms and conditions contained in the Bidding Documents including failure of the said Bidder to keep its Proposal open during the Proposal Validity Period as set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs<....>/- (Rupees ...only).

4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred and eighty) days from the Due Date or for such extended period as may be mutually agreed between the Transport Department and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
5. We, the Bank, further agree that the Transport Department shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, *inter alia*, the failure of the Bidder to keep its Proposal open during the Proposal Validity Period set forth in the said Bidding Documents, and the decision of the Transport Department that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Transport Department and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.
6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
7. In order to give full effect to this Guarantee, the Transport Department shall be entitled to treat the Bank as the principal debtor. The Transport Department shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend time for submission of the Bids or the Proposal Validity Period or the period for conveying acceptance of Letter of Award by the Bidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the Transport Department, and the Bank shall not be released from its liability under these presents by any exercise by the Transport Department of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the Transport Department or any indulgence by the Transport Department to the said Bidder or by any change in the constitution of the Transport Department or its successor entity or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.



8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
9. We undertake to make the payment on receipt of your notice of claim on us addressed to [*name of Bank along with branch address*] and delivered at our above branch which shall be deemed to have been duly authorized to receive the said notice of claim.
10. It shall not be necessary for the Transport Department to proceed against the said Bidder before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Transport Department may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealized.
11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Transport Department in writing.
12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.
13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs. <.....>/- (.... Lakh only). The Bank shall be liable to pay the said amount or any part thereof only if the Transport Department serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before [●] (indicate date falling on the 180th day after the Due Date).

Signed and Delivered by Bank

By the hand of Mr./Ms, its and authorized official.

Signature of the Authorized Signatory)

(Official Seal)



4.26 ANNEX.11: On the Letterhead Of The Bidder / Consortium To Be Signed By
The Authorised Signatory

Ref:

Date:

SUB: AUTHORIZATION FOR ATTENDING BID OPENING

REF: EXPRESSION OF INTEREST ENQUIRY NO. _____ DATED.../.... /2018-RFP FOR
Supply, Installation, Commissioning and Managed Services for IoT based Safety and Security System for
Women & Children during Travel for Andhra Pradesh Transport Department

Sir,

I have submitted our bid for the EOI as mentioned above (Item of work) which
is due to open on (date). We hereby authorize Mr. & Mr.
(Alternative) whose signatures are attested below, to attend the bid opening for the tender mentioned
above on our behalf.

SL NO	Name	Representing Company	Signature

Above Signatures Attested

Name:

Designation:

For M/s

Along with date & Seal

Note: Permission for entry to the hall where bids are opened may be refused in case authorization as
prescribed above is not received.



4.27 ANNEX. 12: CA Certificate on Letter Head of CA Firm

TO WHOMSOEVER IT MAY CONCERN

This is to state that upon perusal of books of accounts of M/s, it is stated that their turnover is as under:

	FY 2014-15	FY 2015-16	FY 2016-17
Turnover in Crores			

That the average turnover in the last three financial years or last two audited balance sheet and current year provisional balance sheet shows an average turnover ofcrores.

Signature of CA Firm with Seal

Note: Please also submit the copy of the profit and loss account.



4.28 ANNEX. 13: Format of the completion certificate from the client

General Information	
Name of the project	
Client for which the project was executed	
Name, address and contact details of the client	
Project Details	
Description of the Project	
Scope of services	
Service levels being offered/Quality of Service (QOS)	
Technologies used	
Outcomes of the project	
Other Details	
Total cost of the project	
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	
Letter from the client to indicate the successful completion of the projects	
Copy of Work order	

[On the letterhead of the client]

Signature:

Name of the Authorized signatory:

Company seal:

Date:

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4.29 ANNEX. 14: Service Level Agreement (SLA) and Related Damages

The key performance requirements stated in the tables below (“**SLAs**”) need to be ensured by the Successful Bidder at all times during the performance of its obligations by the Successful Bidder. These performance requirements shall be strictly imposed, and a continuous monitoring would be done to ensure the performance of the portal against the target performance metrics. This SLA document highlights only the key points. Successful bidder needs to sign the detailed SLA agreement as part of the contract agreement (which shall be in line with the terms & conditions mentioned in this section), which shall be provided to successful bidder post bid evaluation.

The performance requirements have been logically segregated in the following categories:

A. Hardware

B. Software

In the event of any failure by the Successful Bidder to adhere to any of the performance requirements/ SLAs stated in tables below, the Successful Bidder shall immediately pay to the Transport Department the amounts mentioned in the column titled ‘*Damages*’ in the tables below.

The Service Provider agrees and acknowledges that the amounts specified herein below are a genuine pre-estimate of the loss suffered by the Transport Department in the event of failure by the Contractor meeting the SLAs. Certain slabs have been created for each of SLA and corresponding penalty would be imposed on Successful Bidder.

The damages are stated as percentage of certain components of cost, for example, support cost or call center cost etc. In the event of any non-payment of damages by the Successful Bidder, the Transport Department shall be entitled to deduct such amounts from any amounts payable by the Transport Department to the Successful Bidder.



4.29.1 Hardware

The purpose of this section is to establish Service Level Agreement, (SLA), for the services delivered under the Frame Agreement. The SLA includes the high-level criteria to be fulfilled by the Supplier, in order for all works performed in accordance to the Frame Agreement

This Service Level Agreement (SLA) outlines the performance parameters and quality of services to be provided by Supplier to Transport Department, Andhra Pradesh.

- In the event that a problem or fault is detected by Transport Department, Andhra Pradesh. to Supplier by SMS or telephone provided by Supplier, the fault or problem will then be logged by Supplier and followed up as specified in the Frame Agreement. The Supplier shall provide level 1 troubleshooting support for all the sites implemented with Remote Monitoring System

DURING WARRANTY PERIOD

- The Supplier shall maintain all parts and components inventory at a central location, which is accessible to the service location.
- The Supplier shall provide a weekday 9:00am to 6:00pm on call service support, which the Supplier shall response within 24 hours upon fault notification at no cost to Transport Department, Andhra Pradesh.
- The call back time upon fault escalation to Supplier shall be 15 minutes. Call back time means the time until some qualified engineer or personnel calls back. This person must be qualified to evaluate the situation and execute required remedies, including escalation and calling in expert resources
- The Supplier shall be responsible to replace any faulty parts immediately upon detection of parts faulty at no cost to Transport Department, Andhra Pradesh. Replacement of the parts shall not alter the operations of Remote Monitoring System.
- If in the opinion of Transport Department, Andhra Pradesh., the replaced or repaired parts do not function in accordance with the specifications contained in this contract, the Supplier shall replace or repair the rejected parts, at the cost and expense of the Supplier, until Transport Department, Andhra Pradesh. is satisfied with the function of the replaced / repaired parts according to the specifications.
- The Supplier shall provide onsite support services at no cost to Transport Department, Andhra Pradesh.



RESPONSE TIME

Supplier shall be bound by this SLA to repair and restore the fault or problem within the following Response Times.

MAJOR EVENT

Problem	Response Time	Target Time to Rectify	Damages
Major Event Failures related usability of the IOT System. (e.g. CPU Fault, GPS Device fault, SIM Fault, RTC clock, data not streaming, etc.)	IMMEDIATE response from Time of problem being notified by Transport Department, Andhra Pradesh.	Within 72 hours	INR 10,000 for each day of delay up to a maximum of 0.1% value of the Purchase order

MINOR EVENT

Problem	Response Time	Target Time to Rectify	Damages
Minor Event Failures that do not affect the usability. (e.g. Auxiliary or minor Sensor fault, Data Duplication, secondary memory issues etc.,)	IMMEDIATE response from time of problem being notified by Transport Department, Andhra Pradesh.	Within 144 hours	INR 2,000 for each day of delay up to a maximum of 0.05% value of the affected site Purchase Order value



Supplier to provide 100% of the Service Levels set out in this SLA. The target time to rectify starts upon Supplier receiving notification of fault from Transport Department, Andhra Pradesh.

LIQUIDATED DAMAGES

- (a) Major Event – INR 10,000 for each day of delay up to a maximum of 10% value of the affected site Purchase Order value. And after 72 hours from fault identification, Transport Department, Andhra Pradesh. team has the right to engage 3rd party Supplier to complete the task and all related charges shall be borne by the Supplier.
- (b) Major Event – INR 2,000 for each day of delay up to a maximum of 2% value of the affected site Purchase Order value. And after 144 hours from fault identification, Transport Department, Andhra Pradesh. team has the right to engage 3rd party Supplier to complete the task and all related charges shall be borne by the Supplier.

Note: This SLA document highlights only the key points. Successful bidder needs to sign the detailed SLA agreement as part of the contract agreement (which shall be in line with the terms & conditions mentioned in this section), which shall be provided to successful bidder post bid evaluation.



4.29.2 Software

Problem	Target performance	Target Time to Rectify	Damages
Availability of Critical Software Functionalities (not limited) of the Solution Such as: 1. Web Application 2. Mobile Application 3. Data Analytics Platform 4. Location Tracking Software 5. SMS Gateway 6. GPS/GIS Mapping software 7. Command Control	>=99.9%	Availability of all functionalities for at least 99.9% of time measured on monthly basis for 24x7x365 time period. Script /monitoring software-based checking daily to be facilitated by the Service Provider. Non-availability of even one of the agreed services would amount to deviation for this purpose.	% of Availability Damages as % of the Quarterly Cost of the Support Cost for the Web Application <99.9% & >=99% → 0.5% <99% & >=98% → 1% <98% & >=97% → 2% For each additional drop of 1% in performance below 97%, 2% Quarterly payment of Support Cost for WebApp will be additionally levied.
Capacity Building	At least 80% of the trainees should give a rating of satisfactory or above.	The feedback of the attendees must be taken after every training session and this feedback should be leveraged for improving the capacity building program Feedback survey to be provided to each attendee by the Bidder.	INR 10,000/- per Training session.
Delay in any of the Project Milestone	<15 days	Measured as the difference between the agreed planned date for the milestone and the actual date of its completion	If the Bidder fails to achieve the completion of any milestone within defined duration, the payment to him will be liable for deduction of 1% of the payment for that milestone for delay of 7 days or part thereof.



Average time taken for Application software for response	98% within the limit of: 2 seconds Bandwidth of 2MBPS	Script /monitoring software-based checking daily checking to be facilitated by the Service Provider.	% of Number of Transactions Damages as % of the Quarterly Cost of the Support Cost for the Web Application <99.9% >=99% →0.5% <99% >=98% →1% <98%>=97%→2% For each additional drop of 1% in performance below 97%, 2% Quarterly payment of Support Cost for Web Application will be additionally levied.
Response time for all Data Communication Transactions between IOT device and Server	98% of Business transactions within the limit of 6 seconds on 2mbps internet connection	Response time of services measured at an interval of 30 minutes and averaged monthly.	
Average uptime of the All the Software Applications (this excludes hardware Downtime)	>=99%	Measured as the percentage of time Web Application on each of the servers at Hosting place is up and running on a monthly basis. Uptime of the Software Application will be measured on 24 x 7 basis	% of Availability Damages as % of the Quarterly Cost of the Support Cost for the Web Application <99.9% >=99% →0.5% <99% >=98% →1% <98%>=97%→2% For each additional drop of 1% in performance below 97%, 2% Quarterly payment of Support Cost for Web Application will be additionally levied.

Note: This SLA document highlights only the key points. Successful bidder needs to sign the detailed SLA agreement as part of the contract agreement (which shall be in line with the terms & conditions mentioned in this section), which shall be provided to successful bidder post bid evaluation.

“PROJECT ABHAYA” -IOT Based System for Women & Girl Children Safety during travel

For further details please visit: <http://www.apecurement.gov.in>