



FOREST HEADQUARTERS, ODISHA
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS
ARANYA BHAWAN, BHUBANESWAR-23

Office Order No. **662** / GIS-29/2014(Vol-II), Dtd. **2nd June, 2017**

Published in the website of www.odishaforest.in & www.odisha.gov.in and mailed to all participants in Pre-Bid Conference & the prospective bidders who submitted Prebid Queries.

In pursuance to the relevant PBQ received by e-mails and the PBQ Meeting Held with the bidders on 31st of May 2017, the following clarifications only as addenda and corrigenda are issued keeping other relevant contents of the RFP unchanged and the RFP No 612/2017/GIS Dtd. 18th May 2017 stands limited modified accordingly as under. Only the Paragraphs where changes are done are placed below and the changes effected are italicized & highlighted in green Colour. Bidders are to bid accordingly as per the following revisions.

1.2: SCHEDULE OF EVENTS OF THE RFP/TENDER FOR RUGGED GPS PDAs

S. No	Events	Schedule / Details
1.	Hosting of the document on the Notice Board/ Website / News paper	18 th May 2017
2	Address for Submission of Bid	Chief Conservator of Forests, IT & GIS, O/o PCCF, Odisha, Aranya Bhawan, CS Pur, Bhubaneswar
3	Cost of RFP Document (Nonrefundable)	Rs. 5000/- in form of DD from any nationalized Bank in favour of PCCF, Odisha, Bhubaneswar.
4	<i>Earnest Money Deposit</i>	<i>In the form of a Bank Draft / Banker's Cheque / Bank Guarantee for Rs. 5.00 Lakh, from a local branch of any nationalized Bank, in favour PCCF, Odisha, Bhubaneswar, valid for 1 Year from the date of opening the bid.</i>
5	Last date of receipt of Pre-Bid Queries	28 th May 2017
6	Date & Time of Pre-Bid Conference	11.00 Hrs, 31 st May 2017
7	Last Date & Time of receipt of Bids	16.00 Hrs, 17 th June 2017
8	Opening of General Bids	10.30 Hrs of 19 th June, 2017 onwards
9	Opening Technical Bids & Technical Presentations	
10	Opening of Financial Bids	It will be duly intimated after the completion of Technical Bid Evaluation process

1.3: Minimum Technical Specifications, Functionalities, Scope of Works and Service Support benchmark / SLA of the Rugged GPS PDA System (Device along with its Ecosystem) to be procured through this RFP / Tender:

1.3.1: Specifications for GAGAN-SBAS Enabled Rugged GPS PDAs to be supplied
(Minimum Procurement is 600 Numbers of Devices):

Sl. No	Criteria	Minimum Technical & Functional Requirements	Whether Complied Yes / No	Remarks
1	Operating System	Stable Open Source Mobile Linux LTS Ver-3.2 or higher with LTS		
2	Processor	Industrial grade Mobile Processor with Min Clock Speed of 1 GHz with Max Operating temp of 70 degree centigrade.		Spec sheets of the Components OEMs are to be provided.
3	RAM	Industrial grade DDR-3/4, 1 GB or Higher		
4	User Non-removable Internal Memory cum Storage	<ol style="list-style-type: none"> Internal, fixed to motherboard , Non-Volatile Memory of Min 8 GB, eMMC 5.1 / 5.0 standard (High Temp Industrial grade eMMC) to enable the device to host 20-25 Applications & running 4-5 Apps simultaneously, including <u>automatic and all time GPS tracking</u> in the background. Auto freeing the storage space after conclusive upload of data to server. Stored contents not at all accessible to device users; for view, edit or delete. Any removable SD Card in any form is not allowed, it shall be fully user non-removable. 		
5	Display	<ol style="list-style-type: none"> Size Minimum 4.7 Inch or more, TFT; True Colour, Transmissive Sunlight readable, high-brightness display with Corning Gorilla Grade / Type, high toughened Glass Enclosure. FSTN Backlighting Enabled Display must not Degrade or Fade on Prolonged Use for minimum 5 years. Min Resolution: 800x480 Pixel. 		
6	Geolocation Position Format	Latitude & Longitude having all option of display in Degree, Minute & Second, Degree Decimal, UTM and other Grids including user defined grids.		

Sl. No	Criteria	Minimum Technical & Functional Requirements	Whether Complied Yes / No	Remarks
7	Built & Constructions	<ol style="list-style-type: none"> 1. 6 Feet Drop Resistant 2. Dust Proof, Ports are adequately Protected. 3. Fully gasketed, Waterproof / Water-resistant (IP 65-67 grade) Compliant. 4. Ergonomic Form Factor 5. Integral Protective Casing of high impact tolerant material, with rubberized non-removable exterior padding. 6. Power button should be secured from accidental shutdown due to inadvertent pressing the button. User has to press the power button for minimum 10-15 second for Power shutdown. 		
8	Operating Conditions	0 to 50 Deg. Celsius, Up to 95% Humidity (Non-Condensing)		
9	Connection Interface to PC, MAC and other Devices	<ol style="list-style-type: none"> 1. USB / Mini USB/ Thunderbolt under authentication 2. Supports Plug & Play under strict Admin control only. 3. Bluetooth 2 under authentication 		
10	Internet Data Communication Interface	<ol style="list-style-type: none"> 1. Secured Wi-Fi on 802.11 b, g & n Architecture. 2. Auto-Connect to Known & Registered Networks 3. Manual selection of Known & Registered Networks 4. On home screen constant display / alert of Internet Status with minimum one second refresh rate: (Whether Connected to Internet or & Internet Speed with respect to a Server only located at FITGC, Forest Hqrs Odisha) 5. Minimum 50 Mbps Upload and Download speed capability 6. Extremely easy to operate directly from a home screen Icon. 7. Data Monitor App on Home Screen with background refresh. 		
	GNSS / GPS Performance:			

Sl. No	Criteria	Minimum Technical & Functional Requirements	Whether Complied Yes / No	Remarks
11	GNSS Receiver Characteristics:	<ol style="list-style-type: none"> 1. GPS , GLONAS with GAGAN & Others SBAS Support . 2. High Sensitivity GPS Antenna to Capture GNSS Signals in dense canopy condition 3. GNSS Signal Multipath Rejection & Correction 4. High performance GNSS Receiver Chips on U-BLOX M8 Platform / SiRF Prima II / <i>SiRFstarIV</i> / <i>SiRFstarV</i> Grade Chipsets having integrated SBAS Support. 5. Fully & Natively SBAS Enabled on GNSS Chip level. 6. 16 parallel channel or more 7. RECEIVER: L1, C /A 8. GNSS Receiver Continuously track and uses up to 16 Satellite to compute and update position in addition to the GAGAN-SBAS Signal 9. It must capture and utilize GAGAN-SBAS Signal as a DGPS Correction, as and when available. 10. Display of GNSS Location Data, accuracy and other important data on home screen. 11. Clear display of DGPS Symbol or Icon on home screen and application screens or when SBAS DGPS Correction is available on the device. 12. Display of Satellite Signal Strength & Skyplot. 13. GAGAN SBAS supported DGPS Correction, with default and builtin option of NMEA, RINEX, RTCM 104 DGPS and RS 232 formatted GNSS Data Output. 14. Should support most widely used 100 numbers of Map Datums. 15. SI Units Supported 		
		<ol style="list-style-type: none"> 1. Warm: 15 second Max 2. Cold: 45 Second Max 		

Sl. No	Criteria	Minimum Technical & Functional Requirements	Whether Complied Yes / No	Remarks
12	GPS Location Acquisition Time	3. Assisted Cold Start Support, based on Continuously Updated Ephemeris, auto-pushed into the device from the servers of the GPS Chip's OEM as and when the device is connected to Internet.		
13	GPS Location Update Rate	In every 1 Second, Continuous		
14	Compass	<ol style="list-style-type: none"> 1. Electronic Compass with Standard Navigation Features as provided in standard GNSS Handhelds. 2. Display of True north and Mag-North, Speed, Pitch, Roll & Yaw (3 Axes Movements) 		
15	Waypoints	>1000 with names and graphic symbol, >10 nearest (automatic), >10 proximity		
16	Routes	>100 reversible routes with up to 50 points each, plus MOB & Track Back Mode		
17	Tracks	Automatic Track log; > 100 saved Tracks; retrace your path in both directions.		
18	Alarm	Approach & Arrival, Off-Course, Proximity Waypoint, Low Battery, High Temperature etc.		
19	SBAS Accuracy, DGPS and GPS Signal Security	<ol style="list-style-type: none"> 1. Position: < 3 Meter, 95% typical in clear sky condition 2. Velocity: Min 0.05 meter/sec steady state 3. Must Receive GAGAN-SBAS Signals of PRN 127 & 128 as and when available. 4. Inbuilt GNSS Anti Spoofing Mechanism. 5. SBAS / GAGAN Signal Display Icon and accuracy in Home Screen 		
20	Antenna	Appropriate Built-in Quadrifilar Helix, high sensitive, and high gain antenna to work under thick forest canopy condition.		
21	Battery	<ol style="list-style-type: none"> 1. Fully Internal Rechargeable Lithium-Polymer, Min 3.7 V, Min Capacity of 7000 mAh; 2. Battery Drain out time: Min. 8-10 hours in full & continuous field working conditions with active display time 5-6 Hrs 		

Sl. No	Criteria	Minimum Technical & Functional Requirements	Whether Complied Yes / No	Remarks
22	Charger & cable	<ol style="list-style-type: none"> 1. A high quality USB to micro USB, 2-pin charger of 10 W & 0.5 Amps output, with an input of 100-240 V & 50 Hz power Supply. 2. Cable length 1.5 m 3. The charger must full charge the battery within 3 to 5 Hrs. 		
23	Keypad	Min. 39 keys, Touch Screen Qwerty / Alphanumeric keyboard can be operated using finger touch and stylus.		
24	USB / Connection Interface	Minimum one standard USB / Mini USB/ Thunderbolt port to interface the device with PC or MAC.		
25	Desktop Interface App	Desktop interface SW (Both on Windows & MAC) for Device OS, App Update and Data Sync.		
26	Camera with GPS and Compass Integrated	<ol style="list-style-type: none"> 1. Fully Integrated embodied back Camera, Minimum 5 MP auto focus, enabled with Powerful 5m capable LED Flash. 2. Auto Geotagging support. 3. GPS (Lat, Long, Alt), Heading & Time Stamp on the Photos. 4. By default Camera is integrated natively with the Electronic Compass and Handheld PDAs to display GNSS Location, Time, Camera direction & Gyroscopic (Pitch, Roll & Yaw) Stamps on the Photos. 		
27	Device Controls & Settings, Application Management, and Application Interface with servers.	<ol style="list-style-type: none"> 1. All Current GPS PDA Apps of FD Odisha must be supported by the device and are to be ported to the device and all the Apps are to seamlessly integrate with the GPS PDA Servers System and its Enterprise Class Web-GIS Platform. 2. It must Support Min. 25 Embedded Apps for Various types of Forestry / Land Base Activity Data Collection, including All current Apps. 3. All Apps are to be built on the framework of the Current GPS PDA Apps to avoid server side integration conflicts. 4. Provision of a reliable HTTP or HTTPS 		

Sl. No	Criteria	Minimum Technical & Functional Requirements	Whether Complied Yes / No	Remarks
		<p>framework for the GPS PDA System (Device & Server System) for data transfer and onboard software /firmware updates / all device management function etc.</p> <ol style="list-style-type: none"> 5. IoT based commandeering the Device including control of camera and microphone of the device if necessary. 6. Auto-connect of the device to FITGC server to provide continuous locational intelligence. 7. Provision to Lock the Administrator defined default settings of the device. (Default / User or Admin defined Setting Lock) 8. Protection of Software Installation & Delete through a Password Locking Provision for the Administrator. 9. Internet enabled Wi-Fi Based / Over the Air Updates for OS, Apps and Data Sync, under HTTP or HTTPS only. 10. No FTP is allowed for any data or file transfer. 11. User has no control over the Device or App Management Settings, except the Brightness or Volume Control of the Device. 12. Desktop interface SW (Both on Windows & MAC) for Device OS, App Update and Data Sync. 		
28	Weight	Max 700 Grams including Battery.		
29	<i>Physical Look and Feel and GUI of the Device & its Applications.</i>	<i>To ensure familiarity of usage and ease of operating the device by field staffs, the Physical Look and Feel and the GUI (Application Screens and App Interface) of the Device should be similar / equivalent to the 600 GPS PDA Devices in use by the FD Odisha.</i>		
30	Accessories	Data downloading cable (Original), External Power-pack cum Charger, Carry Case, Vehicle Dashboard Mounting Bracket, Safety Strap, User Manual, and Training Video CD and YouTube Training Video on Web etc .		

Sl. No	Criteria	Minimum Technical & Functional Requirements	Whether Complied Yes / No	Remarks
31	SW Architecture of the Entire GPS PDA System: Device and Server Side Components	The entire System should be built on Open Source Products, without any Proprietary Product Cost Implications to Forest Department.		

CHAPTER 3

3.1 Responses to this RFP / Tender:

A. Envelop 1: RESPONSE TO PRE QUALIFICATION CRITERIA:

1. A Sealed envelope marked as PRE- QUALIFICATION CRITERIA and containing proof of all items mentioned in **Section 2.1** organized serially.
2. It must contain a copy of the original tender document, with a sign of the bidder on each page as consent to bid as per this tender's T & C.
3. Bank Draft of Rs. 5,000/ drawn in favour of PCCF, Odisha as cost of the Tender Paper.
4. *EMD in the form a Bank Guarantee/ Demand Draft/ Bankers Cheque from a Local Branch of a Nationalized Bank, in favor of Principal Chief Conservator of Forest, Odisha, for an amount of Rs. 5,00,000/-*

Certified that beyond the above changes there are no other changes in the RFP Document.

Sd/-

**Chief Conservator of Forests, IT & GIS
Forest Headquarters, Odisha.**

*******End of this document at this 8th Page*******

Memo No. 13286 Dated 02.06.2017

Copy forwarded to

1. The State Head IT Portal for publication of the addenda & corrigenda in the website www.odisha.gov.in in the all tenders section.
2. The Notice Board, O/o the PCCF, Odisha.
3. All the prospective bidders who attended the pre-bid query meeting on 31.05.2017 and those who emailed/ posted their queries.

Sd/-

**Chief Conservator of Forests, IT & GIS
Forest Headquarters, Odisha.**