

## **CORRIGENDUM**

**Govt. of Uttarakhand  
Office of Director General of Police  
Police Headquarters, Uttarakhand  
12, Subhas Marg, Dehradun.**

**Ph . No.2712685/2735141  
Fax No.2712080/2713327  
Web Site:-[www. Uttarakhandpolice.com](http://www.Uttarakhandpolice.com)**

Tender No.R-S-2(RKH)/2010

Date: Dehradun: Oct. ,2010

In continuation of this Hqrs Tender Notice No. R-S-2(RKH)/2010 dated 14.10.10 the following amendments are being made in the tender due to some corrections in Chapter-4<sup>th</sup> & Chapter-5<sup>th</sup>

1. Last Date for receipt of Tender : Nov 9 ,2010 upto 1700 hrs
2. Opening of Technical offer : Nov 10 ,2010 upto 1200 hrs
3. Demonstration of Equipments : Nov 11- 12, 2010 from 1100 hrs
4. Opening of Financial Offer : Nov 15, 2010 from 1600 hrs

**A. Tenderer firm should be ISO 9001:2008 certified.**

**B. Point .13. Demonstration**:-The live demonstration of the quoted system is a mandatory requirement and shall include at least the following:-

The quoted System should be integrated with the digital map. The automatic vehicle tracking/location system capability will be tested by installing subsystem at least in two vehicles

Call centre capability & Dispatcher capability will be also tested at same time. The quoted GPRS based communication systems performance & capability specially the transmission of vehicle position update with in the required time period.

**C. Point 18. Guarantee/Warranty:-**

(v) Delay in attending the calls & repairing the defective card/items equipments beyond time limit specified in the clause without providing the substitute will attract penalties, after 24 hrs with interval of 8 hrs induce penalty 0.5% of the total cost of project.

**\* Correction are below**

- a. Chapter-4<sup>th</sup>
- b. Chapter-5<sup>th</sup>

Dy. Inspr. General ,Police Telecom  
Uttarakhand Police Sanchar  
Dehradun .

**Chapter-4<sup>th</sup>**  
**TECHNICAL SPECIFICATION**  
**Technical Specifications of Police Control Room Call Center**

**1. Objective:-**

Uttarakhand Police has decided to Modernize their compliant lodging System using an Automated Control room for Emergency / Police helpline / for Rishikesh in District Dehradun.

**2. Scope of Work:-**

The scope of the work is to design, supply, install and commission the Exchange Based Dial '100' Call center in the Police control rooms .The Control Room to have Call Center 4 Call takers, and 2 Wireless Operators and 2 Supervisor

**A. Requirement:**

The system requirement for both the automated exchange based Call Center 4 Call takers, and 2 Wireless Operators and 2 Supervisor.

**B. Process Flow:-**

The public shall be able to lodge the request through telephone by calling 100 from telephone line For telephonic call request, Public Dials '100' or any of the Helpline Numbers (Toll free lines) from anywhere in the City for registration of compliant.

The BSNL network forwards the calls to the EPABX at the PCR along with Caller Line Identification (CLI).The IVR system which shall be a built-in feature of ACD/CAD system shall answer the call with recorded quick announcement to the caller to confirm that they have reached the right place. The answer of call should be within less than half ring so that no time is wasted in the process. Then the IVR shall handover the call to the ACD/CAD .The ACD/CAD system of the exchange routes the call to the agent based on a pre-defined algorithm. Any VIP/ Emergency call will be indicated with an alert signal or flashing of screen. The directory of VIP telephone nos. is part of the Database. The Vehicle registration database from Road Transport Department will also be part of the database. The agent on receipt of the Calls, gets a POP up menu in the monitor with the Call details such as Door No., address based on the incoming Telephone no. using the CLI. The Directories of City Telephones (BSNL), Airtel, Reliance & other Service Providers are part of the Database and shall be provided to the successful bidder. It is the responsibility of the successful bidder to integrate the given database into their system. The agent answers the Call and check the address displayed in the POP up. If the address is confirmed, the agent proceeds further. Otherwise, he will enter the address given by the Caller. This entry by the agent shall find its way to directory database and next time when the same caller makes a call, the data entered by the agent shall also displayed. Call taker may change the address in the new challan if the incident address given by the caller is different from the one displayed. The operator should be able to key in data on the basis of information received over the telephone line in a predetermined format. The CLI and address of the calling telephone from the database should be automatically entered in the form. The form should be user friendly with most data being keyed in with the help of combo/ list boxes This form will create an incident /Challan in the System. A unique identifiable number can identify each Challan/ Incident Report. The agent generates the challan with the basic information like name, address and telephone no. of the compliant. The Date and Time will be recorded automatically based on real time.The voice communication between the caller & the agent should be recorded in the form a media file and it is the responsibility of the successful bidder to get this tagged to the challan / incident report. It should be possible to hear the file at any time while accessing the challan / incident report. The challan is passed to the Wireless Operator over the LAN. Once the wireless operator/dispatcher receives a new challan/ incident report from the call taker an automatic acknowledgement about the receipt of the same should be sent to the call taker. The Wireless Operator updates the challan with the information like the person to whom the information is passed, the Patrol Vehicle number and the name of the Police Station etc., The date and time of transmission will be recorded based on real time. The time will be recorded about when the information was passed on to the patrol vehicle and when the van had reached the scene or crime so that a clear sequential chronological report is available. Once the Wireless Operator/ Dispatcher updates any information the same should be reflected on any operators/ supervisors screen who views the Challan/ Incident Report. The Patrol Vehicle / Police Station gets into action. They get back with the feedback on the received compliant to the wireless operator. The Wireless Operator updates the challan and closes the complaint once the Patrol Vehicle has finished working on the same. The date & time of completion of the challan processing is saved so that a whole history of the challan is saved so that at later date same can be viewed as to how much time it has taken to resolve a particular incident and clear accountability can be there. Again if the Caller Dials the Call Center and asks for the Status of the Complaint, the Call Center Agent should be in a position to give the Status by seeing the updated database.

**3.0 Computer Telephony and Computer Aided Dispatch-**

Open interface based on the ECMA - CSTA (Computer Supported Telecommunications Applications) standard Protocol, enabling integration with an application or API complaint with CSTA. Synchronized Screen management for automatic presentation of call related data at the agent's screen. Allow the agents to perform call handling services such as make call, answer call, transfer call from Computer terminal using the soft phone feature buttons on the computer screen and using mouse click Hands-free attending of calls – Headsets (or Bluetooth device) to be provided for all call receivers Wireless operators and Supervisor. The bidder should provide high quality headsets to the operator, so that operator should be at ease and comfortable in using these headsets.

Communication centres which provide the operation of public safety is dependent upon information and the ability to manage it. That requirement, in turn, depends heavily upon computer-aided dispatch (CAD) software. CAD System consisted of mainframe or mini-computers located in a computer room, linked to so-called "dump" terminals in the comm. Center showing text-based information. System use a client server configuration, with data residing on a central computer, physically as small as a PC, links to workstations that consist of mid-powered PCs. The arrangement allows central storage and retrieval of data, and redundancy in case one workstation stops working.

#### **4.0 The Dial 100 program/Software to be fulfilled the following features:-**

**a. Interface information-** this is a database of the incident data, usually obtained from a telephone caller and including the location (house number and street name, commonplace name, intersection) caller info and other information gathered. When the incident is rescored in the database, CAD typically compares the location previous entries, and then display an alert if the new incident is related to a existing incident record, based on the proximity of current incident, and address, matches on previous incidents.

**b. D100 Interface-** The CAD computer is electronically connected to the 100 system, so the caller's telephone number and address o Information (ANI/ALI) are displayed on-screen, and automatically transferred to the appropriate fields of the CAD incident entry form.

**c. Location verification-** Once the incidents locations automatically entered from 100 or manually typed in, the CAD software matches it against the geofile created by the agency when the software was first installed. The geofile is a database of standardized locations, including specific house numbers and streets names, commplace names and intersections. The geofile insures that locations are within the jurisdiction, within a valid block number range and are consistently entered and entered.

**d. Information file-** Onces the location has been verified. CAD links the incident to any of its information databases, including previous incidents at that same location address alerts, free-from text information, telephone numbers, personnel lists, emergency medical dispatch procedures, fire pre-plans, suspect hazards etc.

**e. Incident display-** Once a incident is entered, CAD can display a list of pending, current and past incidents, according to the dispatcher's assignments (telephones, radio, beat, fire-police SMS, special) and preference, incidents are usually sorted by date, time and priority, but also by location, type of incident or other criteria, to make evolution of the incidents quicker and easier.

**f. Unit display-** CAD has a database of personnel and field units, which is used to display a list of active units. This database includes the unit ID assigned personnel, special capabilities. The database is linked to the incident database, allowing the dispatcher to display unit status: in-service, out-of-service, etc. Using commands or on screen buttons, the dispatcher can change a unit's status or assign it to incidents.

**g. Incident dispatch-** With information about incident about incidents and units, the dispatcher can link an incident to one or more fields units, which essentially assigns the units to the incident. Most CAD software will provide a recommendation of which units should respond, based on pre-determined tables or a unit's actual location from an AVL sub-system. Based on pre-determined tables, CAD also takes into account the type of incident (high danger, low danger), and type of unit (patrol, supervisor, canine, etc.) when making the recommendation.

**h. Time stamping-** Whenever the dispatcher takes an action (enter a new incident, dispatch a unit, unit arrives on-scene, etc.) the computer records that time and links it to the incident and unit records for later review.

**i. GIS information & Dial 100 form should be fully in together with each other.**

**l. Mapping-** Many modern comm. Centers have installed computer mapping systems to assist them in handling calls. These mapping systems can also be interfaced with the CAD to display units and incident locations.

**m. Maintenance-** The software allows the system administrator to create and edit the various support files, and to make data back-ups of the various files.

**n. Security-** CAD information is generally considered confidential for investigative reasons, for the privacy of victims and witness, and in some cases to comply with state laws. The software provides a flexible method of assigning security levels for all the various tupes of information, the various CAD functions, and all users. This functions they are allowed to perform, and what information they are allowed to see.

#### **5.0 Data base and reports**

All reports received by the Call Taker should be logged with details of time of call, calling no. Details of information received and action taken by Call Taker, Supervisor and Wireless Operator.

All data to be centrally stored on server with facility for archiving on CD media at pre-scheduled intervals

The call logs and durations of calls etc shall be amenable for report generation through search and query mode

Online facility for status monitoring and analysis

The Supervisor or any other authorized client should be able to monitor the following:

Active Incidents List with option to view details of such incidents

Access to caller voice files on Incident Reporting Workstation

Linking of Incidents Reports by Supervisor with system suggested linkages.

The supervisor shall have the facility to call any complainant who has contacted the PCR, through a soft dialing option

All the interactions, in the control room (call centre) should be recorded and the recording should be in compressed format.

The system must assign the priority to the incident based on the event code

The vendor must collect and load the data units, status codes, etc., into the system.

The system will automatically determine, the priority of the incident based on the incident type.

The system will color code events in the active event display by priority.  
 The system should allow user to add information to an incident at anytime.  
 The user should have ability to view the incident from the unit log when incident number is displayed.

**6.0 MODERNISED CONTROL ROOM AUTOMATED CALL CENTRE FEATURES:**

Sl.	Description	Compliance
1	The PBX should support ACD/CAD features with advanced call routing features.	
2	The ACD/CAD should support integrated IP IVRS to give instant announcement to the callers “This is emergency center, your calls are recorded for departmental use” and should place the call directly to the Call taker	
3	The EPABX ACD/CAD Call Centre should have 01 Call Centre supervisor to provide operational supervision and Statistical Data Reports.	
4	It should be possible to expand the number of agents upto 40 including supervisor.	
5	The supervisor shall be responsible for the Operation and control of the Call Centre. The following features shall be provided for Call Centre Supervision.	
6	The Supervisor Package shall be able to provide Dynamic configuration of the ACD/CAD. The Supervisor shall operate in standard windows framework.	
7	Supervisor shall be able to set up the call Centre queue length, Queue Over flow timing based on the time of the day, traffic conditions, no. of agents present etc. However, since it is highly difficult for an Agent to continuously alter the parameters, the ACD/CAD system, intelligently should change the maximum queue length from the original set value to the appropriate value depending on the no. of agents present. The call shall be routed to over flow destination on over flow. Vendors need to comply and also provide the documentary evidence for this facility	
8	The ACD/CAD system should capable of providing the initial announcement and wait announcement and the expected wait time to the callers by calculating the wait time based on the no. of Agents present, no. of position in the queue and the average conversation time of the Agent. This wait time announcement shall be given to the callers once they are put to Queue. Vendors need to provide this facility and also should provide documentary evidence for this feature.	
9	The ACD/CAD system shall provide at least 2 different messages to the waiting callers in between the music. Vendors need to provide this facility and also should provide documentary evidence for this feature.	
10	The ACD/CAD system should recognize the Agent by his PIN. PIN shall be entered either in the Agent desktop PC or in the Phone.	
11	The system shall treat Voice, SMS and Email as the same level and shall follow the queue seniority. This means, a caller while he is waiting in the queue and if the SMS comes next in the Queue, the system should process voice first and SMS next as all the type of communications are vital for Police department, it should not be a separate queue for each type of the contact. SMS/Email should not call for checking the mail box. This should pop up to the free available call taker automatically without a need for checking the mail box by the staff.	
12	ACD/CAD system shall be configurable for a Fixed Clerical time for all Agents or individual Agent selectable Clerical time using the key.	
13	ACD/CAD system shall allow a Pause facility for the Agents. Pause time shall be either fixed for the whole system or shall be individual Agent selectable using the key.	
14	The Supervisor shall be able to provide Real Time monitoring and reporting of call patterns and call characteristics for planning.	
15	It shall be possible to provide Real time displays for both ACD/CAD and agent groups. Each view should contain 3 separate pages, which the supervisor can switch between any times. Any number of views can be opened simultaneously each with any combination of selected group and displayed information.	
16	The ACD/CAD Group real time view shall provide actual information for each ACD/CAD group related to the ACD/CAD group displaying number of calls in the queue, current Calls, expected delay longest in queue.	
17	A customizable Dashboard to be provided by the application to mark the VIP’s and the defaulters in the applications. This dashboard should be configurable	

Sl.	Description	Compliance
18	A Directory of VIP Telephone numbers will be provided. On receipt of a call from a VIP, the call may be diverted to a particular agent and also the colour of the screen of that agent's Desk top should change to a different colour.	
19	The Agent Group details shall show averages about a. Queue b. Ring c. Talk times	
20	It should be possible to set up a view to meet precise actual needs and save it for future use without the need for any new setup procedure.	
21	It should be possible to define 1.Groups to be displayed 2.Histograms to be displayed 3.Average Values to be displayed 4.Time period to be used for statistical and trend graph calculation.	
22	It should be possible to display different agent states with colours for occupied agents, talking agents, agents in clerical state and available agents.	
23	The ACD/CAD Group view shall display Agent details with information as call state, connected number and call duration of each, per agent. It shall also inform about the current call-when did it start, how long did it ring, how long took talking state-and it shall display statistical information for each agent.	
24	When several agents are combined to form an agent group, agent real time views shall be required. The screen shall show the status as well as the averages of ringing, talking, and clerical time as per selected agent group. The supervisor shall define the type of average display information. Detailed information about the available agents per selected agent group shall also be provided.	
25	The Call Centre Supervisor reporting system shall comprise of a wide range of standard reports and enable the supervisor to specify individual parameter for reports. In addition it should be possible to create macros of a series of reports and schedule the automatic generation of reports.	
26	The following reports shall be required: (a) Call Centre performance Reports: 1.Agent Reports-queue activity, queue performance, call code activity, completed call details, log on activity and performance 2.Group Reports-Abandoned calls, Agent Activity, agent performance, Agent log-on activity, call breakdown, call code activity, call handling, call wait, calls answered, short calls. 3.Queue Reports-abandoned calls, agent activity, agent log-on activity, agent performance, call breakdown, call code activity, call handling, call waiting, answered calls, short calls, trunk utilization.	
27	The Vendor shall provide Application software for ACD/CAD and shall be required to write application for the population of the screen based on Caller Line Identification with unique ID	
28	The software shall be in English	
29	It shall provide Command Entry and Menu selection	
30	It shall provide multiple screen functionality.	
31	The Application Software should support Hooking into the data base (Add, Edit, Delete Features etc)	
32	It should support transfer of voice and Data between stations.	
33	It should provide application to dial out the other locations like fire, ambulance etc	
34	It should provide On Screen Telephone features.	
35	It should provide compatibility with Voice Logging and retrieving system with archiving on CD ROM.	
36	It shall also provide different report generation which shall be decided mutually during the system study and Design Reports/Data to be captured from database to be made available by the end user.	
37	The Application software should include multi level security options.	
38	User access should be allowed via the entry of valid username and password. The system also should validate with the ACD/CAD and will provide with the single sign, which should be allowed to extend further.	
39	Functionality available to the user will depend on the username.	
40	The agents should be able to record the complain/ requests based on multiple issues. The application should priority the complain/ requests based on the nature of request received. The agents should be able to record the complain/ requests based on the nature of request received..	
41	The request/complain should have template, which will reduce data entry operations for the call agents.	
42.	The entry of data into certain pre-defined fields will be permissible for some users only.	

Sl.	Description	Compliance
43	Provision should be made to give certain users access to the entire data or to the pre-define area.	
44	The application should track the interaction history across all media from within and outside the call Centre.	
45	The Vendor should provide application, integrated with CTI/ACD/CAD if not the vendor should provide toolkit.	
46	The application should be fully workflow integrated for the escalations, notifications, alerts and response to the same.	
47	The application should provide with GUI and easily configurable	
48	The application should provide cascade the status once the issue is resolved or any update information is received by NEAREST POLICE STATION / PATROL VEHICLE/So's mobile phone/Cheeta mobile phone/Medical services (108 or nearest hospital)/Fire service station/CUG Calling e.t.c. Once the service request/complain is resolved the VHF/telephone line is notified by the NEAREST POLICE STATION / PATROL VEHICLE/So's mobile phone/Cheeta mobile phone/Medical services (108 or nearest hospital)/Fire service station/CUG Calling e.t.c. CAD team should update appropriate service request with relevant information, which will enable the call agents to provide correct information to the customers.	
49	At any point of time it should be possible to monitor an request / Complaint of its status, length of time helps up at a particular point. This function should available through the GUI.	
50	A unified queue should be provided for the Supervisor to check the agents call status and see the progress of the call Centre and service request / complaint	
51	The agents should be able to capture notes with respect to any Complaint that he / she handles. These notes should be available Whenever the account is queried The notes should be pre-defined and user configurable Notes either be permanent or temporary History notes should be archived	
52	MIS Reports:- Following are some sample MIS Reports required:- 1. Call Centre formats 2. Crime wise Query Reports 3. Areas wise Calls Reports 4. Daily Report format 5. Particular period / monthly / yearly report format However, the design of the format shall be finalized during customization.	

#### 8.0 AVLS - SOFTWARE

- The AVL Software used for the vehicle tracking application shall be compatible With the conventional LTR trunked radio communication and GPRS.
  - The AVL Software shall log in the vehicle reports coming from more than two repeater sites through their respective base modems
  - The software shall allow the despatch controllers to select any desired zone and view the vehicles on their respective monitors
  - The software shall display vehicle location maps, logging of vehicle movements and provide the performance reports of the vehicle and drivers in a spread sheet format
  - The movement of vehicles can be played back at any time by choosing date and vehicle lds.
  - The software shall have basically two components- IOP (Input-Output Processor) and Viewer Processor
  - The above two components should be connected through TCP/IP protocol and LAN available to all Windows operating system.
  - It shall be possible for several IOPs and several viewers to be networked together.
  - It shall be possible for a viewer to access reports from any group of vehicles through one or more IOPs
  - The viewer software system shall operate on Windows OS providing mapping, tracking and logging of vehicle movements. All the viewer's station shall be equipped with this software.
- Beat Vehicles of the Department will be fitted with Global Positioning System (GPS) receivers and other necessary hardware. The position of a vehicle should be transmitted to the control room computer over communication network without any intervention of the crew of the vehicle. The hardware offered should have a very high level of reliability and capable of working in extreme climatic conditions. It should have high water and dust resistance and should be ruggedized to withstand the transportation vibration. Continuous GPS position update locally to be stored in local memory at predetermined intervals. Automatic periodical updating of vehicle locations on the city map of the city on workstation(s) at Police Control Room. The information from the control room to the beat vehicle and vice versa shall be through GSM network. Messaging (English) should be supported to and from the vehicle unit. Should be capable of sending pre-defined messages to and from the vehicle unit.
- Facility for configuring the Vehicle unit ID as per the regn. no. of vehicle. The Main application server should be a RISC server. User interface may be windows based for easy operation. The position update of the vehicles should be automatic.

#### **The detailed specifications of this software are listed below.**

- Load and calibrate maps of layered type, raster or any other type.
- Display vehicle on the maps by showing its icon in colour
- Identity code or alias name or any combination of them

- Auto scroll to keep the desired vehicle in view
- Zoom in/out
- Find selected by its ID or alias name
- Message communication with the selected vehicle
- Unlimited vehicle tracking
- Advisories to indicate vehicle moving over specified area
- Automatic detection of vehicle starting, pressing over maximum/minimum speed limits
- Multimedia alarm in control office during panic condition, passing speed limits etc.
- Command to delete a vehicle from display
- Vehicle history downloading
- Display of several vehicles on a map along with their locations, speed and direction of movements and time.
- Record all movements, date wise, vehicle wise etc.
- Reporting of GPS messages in encrypted form to prevent unauthorized interception of messages
- Conversions of encrypted messages to ASCII format and display
- Display of vehicle movements in spread sheet format for further analysis.

### **:-Specification of Hardware:-**

#### **1. EPABX SYSTEM REQUIRED:-**

Bidder shall quote for both the EPABX Exchanges and the uttrakhand State Police department reserve right to select one of them.

Sl.	Description	Parameter	Compliance
1.	Technology	PCM-TDM , IP(Both), Non-blocking	
2.	Interface	Should support all telecom interfaces in Indian Telecom Service provider offerings	
3.	Type of Interface	ISDN interface for digital, basic interface for Analog lines	
4.	No. of lines -Analog trunk and ISDN PRI lines (As per data sheet)	Tenderer to specify	
5.	Type of Extension Support	Analog, Digital and IP	
6.	Expansion of Extensions	Multiples of 16	
7.	Run Distance	Not less than 800 mtrs. on 0.5mm dia. cable	
8.	Max. Loop resistance for analog extensions	2500 ohms including telephone	
9.	Requirement at the time of supply	08 Trunk line, 01 ISDN PRI line, 8 Digital extension ports, 4 Analog extension ports, Integrated voice messaging system with minimum 4 channel current access for IVRS function , -Voice messaging -Pre-defined text to voice conversion information -Call taker name announcement played to calling public immediately after answering call , the name announcement shall be audible to both call taker and caller (automatic and linked to Login ID of call taker). -Estimated wait time incase if all call takers are not available. , -Voice mail instruction to caller incase there is no call taker available to receive the call. PCM-TDM/IP-Pulse Code Modulation-Time Division Multiplexing/Internet Protocol , ISDN-PRI-Integrated Service Digital Network –Primary Rate Interface , IVRS-Interactive Voice Response Systems	
10	Contact center Expansion available (Max. capacity)	It must support at least 30 Call center Agents	
11	Max. loop resistance for analog trunk lines	1200 ohms at –48 Volts DC	
12	Support for digital trunk lines	To be provided	

Sl.	Description	Parameter	Compliance
13	Standards which are to be supported CAS 2Mbps. as per CCITT G.703 & G 704 CAS R2 as per CCITT Q.421 to Q.424 ISDN interface as per CCITT I.430 (BRA), I.431 (PRA) I.440, I.450, I.441, I.451, G.703 (PRA), G.704(PRA), ETSI CTR3 (BA) CTR4 (PRA) & Austel	Tenderer to specify support provided clearly (CCITT-Comite Consultantif International Telephonique et Telegraphique ,CAS-Conditional Access System, ACD-Automatic Call Ditrributor , CLIP-Conditional Legar Interpreting Permit, COLP-Connected Line Identity Presentation, CLIR-Calling Line Identity Restriction , CNIP-Calling Name/Number Identification Restriction , CONP-Connection Oriented Network Protocol , CNIR-Calling Name/Number Identification Restriction, AOC-Advice of Charge	
14.	Support for QSIG (Q interface) & T Interface (Switched Public ISDN line with DSS1)	Tenderer to specify	
15.	ISDN supplementary services for Digital phone	To be provided	
16.	Support for ACD call center with CTI and advanced call routing	To be provided	
17.	Networking of multiple systems through Digital Networking a. ETS 300011 b. QSIG-ECMA 141 c. ETS 300172 d. QSIG-ECMA 143 e. ETS 300173 (CLIP, COLP, CLIR) h. ECMA 164 i. ETS 300238 (CNIP, CONP, CNIR) j. AOC ECMA 211/212	Tenderer to specify the compliance of standards	
18 (a)	Built – in Battery chargers for 4 hours of Operation during power failure	To be provided and tenderer to specify	
(b)	Sealed maintenance free battery for 4 Hours back up	Specification sheets with details of the battery used to be provided	
19	Design of EPABX System	Modular with universal slots, wall mountable	
20	Conferencing	6 party conferencing to be provided (to be configurable dynamically)	
21	Working on 230v AC mains and DC voltage	Tenderer to specify voltage and current requirements in both AC & DC supply	
22	Voice Messaging unit	To be included in the price	
23	The system shall play announcement immediatly on receiving a call from Public “ This is Police control room, All calls are recorded for investigation and future reference purpose” and place the call immediatly to Agent (operator) using ACD algorithm. The announcement shall not be auto attendant/ DISA based and the system should not expect any digit from the caller. Further, it should not wait which will cause delay for call answer	To be inbuilt in the system	
24	Digital Extension telephone instrument (as per tender Bill of Material schedule) with programmable one touch keys working on 2B+D format, Graphical display, Keys with LED,4 Programmable keys with dual function,10 fixed function keys, out of which 4 should be dual function	Tenderer to enclose detailed specifications	
25.	Digital Hand set features: Shall work on 2 wire	Tenderer to offer every feature	

Sl.	Description	Parameter	Compliance
	Shall provide Graphical display Minimum 2 lines display		
26.	Provide industry tested, proved and market-leading switches to ensure smooth installation and protecting businesses existing call center hardware investment	Tenderer to enclose the details	
27.	EPABX Brand/Model	Tenderer to specify	

## 2. (CTI+ACD) Server ,( Application & DATA BASE) Server & (GIS/AVTS) SERVER

The all Servers should work as a hot standby for each other. The configuration shall be as follows:- (Total Nos: 03)

The configuration of the Server shall be as follows:

Sl. No.	Description	Parameter
1	Processor	Dual-Core Intel(R) Xeon Quad Core E5504 at 2.0 GHz 4MB Cache
2	DDR RAM with ECC	8GB (2x4G), DDR-3 ECC RDIMM Memory expandable up to 32 GB
3	FSB	DDR-2 667MHz ECC 4R Fully-Buffered Memory
4	Cache Memory	4MB Cache
5	Hard Disk Hot swappable	2x3.5-inch, 300GB15K RPM SAS Hard Disc Drive
6	Graphics	Integrated with 8 MB DDR2 RAM
7	Color Monitor	18.5" TFT Monitor TCO 05 Certified (Same make as Server )
8	Key board	104 keys Mechanical Key Board (Same make as server)
9	DVD Drive	22x SATA DVD Writer
10	Ethernet Card	Integrated Dual Broadcom Gigabit Network Card with TOE hardware enabled
11	Mouse with pad	Optical Mouse(Same make as server)
12	SCSI Interface	Integrated ultra 320 SCSI controller SCSI Card 39320A - Dual Channel Ultra320 Controller
13	PCI SLOTS	Min. 5 Nos of PCI slots with atleast 2 Nos PCI (32/33)(V-5)-1,PCIex8-2,PCIex4-2
14	IDE	2 IDE channels for a total of 4 IDE Devices
15	Serial port	1 no
16	Parallel port	1 no
17	USB port	4USB Server Interface Pod
18	PS2 port	2 nos
19	Server Mother Board	Specify the chipset (Specify make and Model No
20	Dual SMPS	650 Watts Redundant Hot swappable Power Supply
21	Operating System	Windows operating system Win 2008,RHEL 5.x with 10 users license for 3 yrs, OEM media and license
22	Server management Software	ACPI 3.0a Supervisor & User Password Chassis intrusion , ISMS 3.X intel Virtualization Tech . Support
23	Suitable Anti virus for servers and for a minimum of 10 clients with regular updates during 3 yrs warranty/ maintenance period	(To be quoted separately)
24	Other	Should include n/c cables, spares and other items etc required for the smooth operation of the server.

## 3. Voice Logging System (Total No.01)

### A. FEATURES

Sl	Description	Compliance
1.	The recording should be done in HDD and archiving in CD-ROM	
2.	Shall be 8 port and expandable to additional 8 port in future. The recording shall be done from Digital	

	extension side. Shall be a digital voice logger	
3.	The recorded voice shall be indexed and linked with Challan Number. The voice logger shall have the CTI capabilities. It will automatically track the incoming call. The recording shall go on till the call is disconnected.	
4.	It shall be possible to configure automatic voice recording on answering the call by the Agent.	

#### B. SPECIFICATION FOR VOICE LOGGER

Sl	Description	Parameter	Compliance
1.	Shall be based on the server configuration with additional 300 GB of Hard disk , 5U space and suitable OS and Software/Hardware	Please specify the details as above for the voice logger	
2.	Combo writer with latest Read, Write speeds	Tenderer to specify	
3.	Voice Logger software compatible with the call Centre package	Please specify this in detail	

#### 4. Agents / Radio Operators / Supervisor

The workstations ( Dial 100/GIS ) shall be of the following configuration:- (Total Nos: 6+2= 08 )

Sl.	Description	Parameter	Compliance
1.	Processor	Intel Core2 duo E 6320 OR Higher	
2.	Chipset	Intel Chipset or higher	
3.	Motherboard	ORIGINAL INTEL,	
4.	Memory	2 GB DDR2 SDRAM @ 677 MHz, Expandable to 4 GB	
5.	Hard Disk Drive	300 GB SATA-II SMART III 7200 rpm with pre failure Alert	
6.	Graphics	Integrated (on board)	
7.	Audio	Integrated (on board) High Definition Audio controller with Internal Speakers	
8.	Ethernet	Integrated (on-board) 10/100/1000 controller	
9.	Bays	Minimum : 4	
9.	Slots	MINIMUM 4, 2*PCI, 1*PCIX1, 1*PCIX16	
10.	Ports	1 Serial, 8 USB (Ver 2.0) with at least 2 ports in front, rear ports - VGA, Speaker, Microphone, Headphone, 2 PS/2 ports , one RJ45 network port , optional second serial port, optional additional 2 more USB port	
11	Form Factor	Micro Tower	
12.	Power Supply	300 Watts (Surge protected)	
13.	Video Monitor	19" Dual Screen TFT Color monitor with 1024X768 @ 60Hz resolution ( CAD/GIS)	
14.	Keyboard-Mechanical/ cherry	PS/2 104 keys keyboard (preferably same make as PC)	
15	Mouse	optical scroll mouse	
16	Software	Operating system Pre installed Microsoft Windows vista Restore / Recovery CD/DVD ,OS CD and documentation CD with each PC	
17	Drivers	Drivers should be freely available on OEM's website. Supplier Also provide in bootable CD	
18	Antivirus	Latest antivirus software with license and media	

Note: Every Dual Screen Monitor shall display both GIS information, maps &.Dial 100 information in integrated manner

## 5. On Line UPS

### A. SPECIFICATION FOR 5KVA TRUE ON LINE 3 Hrs backup UPS( N+1 Redundant. = 02 )

Sl	Description	Parameter	Compliance
1	Capacity	True Online with three hour back up	
2	Type	IGBT	
	INPUT		
1	Voltage Mains (primary source)	230 VAC single/ 3 phase	
2	Voltage mains Operating	230 V AC	
3	Frequency	50Hz +/-5%	
4	Battery (secondary source)	Sealed maintenance free type battery (AH and no. of batteries shall be suitably selected for a back up time of 60 mins. (Min.)@ (80% of KVA) W resistive load or KVA load with 0.8PF. The details are to be specified by the tenderer along with the make of the battery.	
5	Min. Input voltage required for battery charging circuit to function properly	To be specified by the tenderer	
6	Battery storage Rack	External Battery storage Rack for housing the batteries with safety. Provisions to be supplied along with the UPS system (for 10 KVA).	
7	Battery Voltage (Min. & Max.)	To be specified by the tenderer	
	OUTPUT:		
1	Nominal voltage	230V AC, single phase	
2	Pre-settable range	230V +/- 5%	
3	Voltage Regulation	+/- 2%	
4	Frequency	50Hz	
5	Variation in frequency	+/- 5%	
6	Load Power factor	0.80 lag to Unity	
7	Waveform	Pure sine wave	
	OTHER/GENERAL DATA		
1	Overload capacity	120% for 10 minutes	
2	Overall Efficiency	Greater than 85% @ full load	
3	Min. Input Voltage required for battery charging circuit to operate	To be specified by the tenderer	
4	Ambient Temperature	0 deg C to 45 deg C	
5	Ambient Humidity	0-95% RH Non-Condensing	
6	Duty cycle	Continuous	
7	Cooling	Forced air cooling	
8	Protections	Overload, Short circuit , Input low voltage ,Output over voltage ,Battery over discharging, Fuses for input & output	
9	Controls	Manual. By-Pass switch with suitable current rating	
10	Power sockets	1 No. 63 Amps capacity terminal block	
11	Trip conditions	Over load	
12	Indications	Mains on, Inverter on, Battery low, Overload, Input, Under/Over Voltage	
13	Alarms (Audio)	For extreme battery low voltage and Mains failure conditions	
14	Meters	i)AC voltmeter for Input and Output ii) DC voltmeter iii)Load current for Output	
15	Extra Protections (Optional)	Output overload for short circuits, Battery Overcharge, battery reverse polarity	
16	Input Cable	Proper rated mains cable to be provided	
17	Manual	Complete user, technical and spare parts list, Circuit Diagram to be provided.	

**6. GPS RECEIVER WITH VEHICLE RADIO MODEM**

GPS Receiver Features:

Sl.	Description	GPS SPECIFICATIONS
1	General	
	1. Tracking channels	12 channels
	2. L1 frequency	Tenderer to be specify C/A code
2	Acquisition time	
	1. Cold start	60 seconds (typical) Time To First Fix (TTFF)
	2. Warm start	40 seconds (typical) with current almanac, position and time
	3. Hot start	10 seconds TTFF with current almanac, position, time and ephemeris
3	Re-acquisition time	
	1. General	1 second
	2. Maximum Blockage	Upto 30 seconds
	3. Position accuracy	Position horizontal 20 meters or better
4	Velocity	0.1 meters/sec
5	Satellite data collection	2 seconds to 12 seconds for synchronization. Continuous data collection and parity checking on all twelve channels
6	Position solution	2D position, velocity and 47 geodetic datum to be supported (Default WGS84)
7	Position update rate	1 second
8	Output messages	NMEA0183
9	Antenna	Embedded passive antenna or Active Antenna
10	Maximum vehicle Dynamics	500m/sec
11	Environmental	
	1. Operating temperature	0 deg C to 55 deg C
	2. Storage temperature range	-30 deg C to 70 Deg C
	3. Humidity	95% non condensing 40 deg C
	4. Altitude	18000 meters
12	Electrical	
	1. Power	Power derived from Radio modem (Tenderer to specify the voltage)
	2. Power consumption	0.9 Watts or better
	3. Power connector	Any standard type connector
	4. Back up power	Lithium battery inside housing (Tenderer to specify the voltage)
13	Mechanical	
	1. Cable length	Suitable interconnecting cable with connectors to be specified A
	2. Mounting	Magnetic/Clamp base
	3. Housing	Water resistant plastic

**7. VEHICLE MOUNTED UNITS –GPS/GPRS MODEM**

1 GPRS - Data rate Class 10

2 Refresh rate Shall be possible at desired intervals

3 GPRS module Embedded GPRS module with IMEI number

4 Should support SMS During GPRS outages, SMS shall be the fall back

5 Battery back up- Should be available for minimum 6 hours if the power from the vehicle battery is removed.

6 Alert to control room- The alert should be available in the Control Room software such as All Ok, Mains removed, GPS antenna open, etc

7 OTA Tracking Configuration It should support OTA Tracking facility

8 Interfaces Should offer Serial interface for Mobile data terminal for sending text messages from the command center.

9 Message It shall be possible to send messages through GPRS and SMS as per choice

10 Suitable to connect with 80 Character LCD back lit display and special keys for pre-programmed keys.

The mobile modem shall have the facility to program its identity. When its own identity code is received during the polling, it should respond by sending the required data to the base station Modem. The MODEM shall be infaceable to mobile wireless set without any modification.

Sl.	Description	Specification
1	Dimensions	Tenderer to specify
2	Weight	0.9 Kgs or less
3	Interface cable to the radio	3 feet with sealed connector
4	Voltage	6-13volt and Negative ground(Supply connected to Radio)
5	Current	Less than 250 mA
6	Modulation (same for base and mobile unit)	Tenderer to specify
7	Data rate	1200bps or 2400bps or higher
8	Source impedance	1K ohm
9	Load impedance	1K ohm
10	Polling mode	Shall be possible at desired intervals
11	Interface to radio	Suitable interface cable to mobile VHF set to be provided
12	Humidity	5%-95% RH
13	Programming software	Suitable Programming software
14	Operating temperature	0 to +55deg.C
15	Storage temperature	-30 to +70deg.C
16	Shock, Vibration, Dust	MIL Standard certificate 810 C/D/E/F issued by a standard lab to the manufacturer or equivalent Government of India approved Test lab Certificate

### 8. Multimedia Printer

Digital Copier & Multifunctional Office Machines

Digital Fax Machines, Plain Paper Type

Specification :

1. Type : Multifunctional Office Machines with composite cartridge

(single cartridge having drum and toner)

2. Document Size : A4 Size

3. Effective Scanning : A4 Size

& Recording Width

4. Modem Speed for : 33600 bps

Faxing

5. Printing Paper Size : A4 Size

6. Zoom Ratio : 50% to 200%

7. Printing Resolution : 600 x 600 dpi (minimum)

7. Automatic Document : Where Specified

Feeder

8. Port : 1 USB

9. Power Supply : AC 230 +/-10% Volts, 50 Hz

Note : The specified capacity in ppm (prints per minute) will correspond to A4 size /Legal size paper.

Specification :

1. Type : Desk Top Digital Fax machine

2. Line Type : PSTN/EPABX.

3. Printing Technology : Inkjet/Laser/Thermal Transfer as specified.

4. Document size : A4, 210x297 mm

5. Effective scanning & : A4, Min 200 mm for A4 size

Recording width

6. Printing Paper Size : A4, 210x297 mm

7. Capacity of Paper Tray : Minimum 50 sheets

8. Scanning & Printing : 200 x 100 DPI (Standard Mode)

- Resolution in fax mode 200 x 200 DPI (Fine Mode)
9. Modem Speed : 14400 bps (Fine Mode)
10. Memory : 400 KB (minimum)  
or 20 pages of ITU test chart with 5% coverage
11. Display : LED/LCD
12. Consumables : Toner/Cartridge/30 m paper roll to be supplied with machine as applicable for first filling.
13. Power Supply : 230V +/- 10% ,50 Hz+/- 3%
14. Power Consumption : To be declared by Tenderers in stand-by and operation mode.
15. Dimension & Weight : To be declared by Tenderers.
16. Operating Environment : Temperature 10 degree C to 35 degree C, 80% RH at 35 degree C.
17. The machine shall have the following minimum features.

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- (a) Redialing facility
- (b) Automatic Document Feeder Capacity : 5 Sheets (minimum)
- (c) Activity Report
- (d) Successful Transmission Completion Report
- (e) Tx Terminal Identification
- (f) Remote Terminal Identification
- (g) Error Code Indication
- (h) Error Indicator

### **9. 42" LCD Monitor/TV**

#### Specifications

Vizio SV421XVT1A 42" 1080p 240Hz LCD HDTV

Display Area: 42"  
 Diagonal Size: 42.02"  
 Display Type: LCD  
 Aspect Ratio: 16:9  
 Contrast Ratio: 50,000:1  
 Pixel Pitch: 0.4845m  
 Resolution: 1920 x 1080  
 Screen Refresh Rate: 240Hz  
 Response Time: 4 ms  
 Signal Compatibility: 1080p  
 Input Video Signal: ATSC

QAM  
 NTSC

Compatibility: VESA (600 mm X 200 mm)

Condition: Refurbished

Features: PC Input

Speakers: 2

Inputs: USB  
 S-Video  
 PC  
 Composite  
 HDMI In  
 Component  
 RF Input

Outputs: Analog Audio  
 Digital Audio Out

Output Terminals: Headphone

HDMI Ports: 4

Power Consumption: 145W

Power Source: 100~240VAC, 50/60Hz

Height (inches): 25.6

Height with Stand (inches): 27.1

Width (inches): 39.4

Depth (inches): 3.8  
 Depth with Stand (inches): 9.5  
 Unit Weight: 38.1 lbs.

**DIGITAL MAP OF RISHIKESH CITY LIMITS**

The GIS Map must contain the following functionalities:-

- 1) When used in conjunction with appropriate network analysis software, routing and driving directions must be available for each segment to cater to possible future requirements of VIP security planning and Traffic Management.
- 2) Searches for attributes such as “Nearest Hospital” etc., must be possible with the GIS.
- 3) The GIS must be capable of working with the DIAL 100 Application, so that the respective colony of origin of a telephone call is brought on the screen.
- 4) Delivery Period: The GIS would be required within a period of one week in order to assess the evaluation of the entire tracking system. Scale of 1:5000
- 5) City Rishikesh Mapping coverage areas approximately 25 square Kilometers.

Layer	Features	Description	Conformance Yes/No	Deviation if any
	<b>POLYGON FEATURES</b>			
1	District Boundaries	Name coded to polygon		
2	Colonies/Residential areas.	Name coded to polygon		
3	Boundary/Area of Police Stations	Name coded to polygon		
4	Police Zones/Subdivisions	Name coded to polygon		
5	Arterial Roads	Symbol & Name		
6	Main roads	Symbol & Name		
7	Important roads	Symbol & Name		
9	Shopping Centers	Symbol & Name		
10	Built up area	Symbol & Name		
11	Slum Area	Symbol & Name		
12	Parks and Gardens	Symbol & Name		
13	Forest area	Symbol & Name		
14	Railway stations	Symbol & Name		
15	Water bodies	Symbol & Name		
17	Police stations	Symbol & Name		
18	Hospitals	Symbol & Name		
19	Fire stations	Symbol & Name		
20	Location of VIP Residences	Symbol & Name		
21	Hotels/Restaurants	Symbol & Name		
23	Banks	Symbol & Name		
24	Cinemas	Symbol & Name		
26	Post and Telegraph offices	Symbol & Name		
27	Historical Places/temples etc.	Symbol & Name		
28	Petrol Pumps	Symbol & Name		
29	Apartments	Symbol & Name		
31	Industries	Symbol & Name		
32	Landmark buildings	Symbol & Name		
34	Traffic lights	Symbol & Name		
35	Govt. Buildings/Offices	Symbol & Name		
36	Educational and Training institutions	Symbol & Name		
37	Courts	Symbol & Name		
	<b>LINE FEATURES</b>			

38	Rail Lines	Symbol & Name		
39	Arterial road label	Labels of Arterial roads		
40	Main road Label	Labels of Main roads		
44	Important Road label	Labels of important roads		
41	Other road label	Labels of other roads		
42	Annotation layer	All important names of industries, offices, colonies, parks, water feature and other important points of interest required for Police working		
43	Arrows	To indicate flows of traffic/water drainage		

**Chapter-5**  
**Annexure-B**

**PROFORMA FOR PRICE SCHEDULE**

(Enclose with commercial bid)

Date of opening ..... Time ..... Hrs

We hereby certify that we are established manufactures/authorized representatives of M/s \_\_\_\_\_ with factories at which are fitted with modern equipment and where production methods, quality control and testing of all materials manufactured or used by us are open to inspection by the representative of the purchase. We hereby offer to supply the following items at the prices indicated below:

Sl	Description of work/items	Qty	Unit Price (INR)	Total Price (INR) with all Taxes	Make And Model
1	Call center EPABX Complete with supply unit	01			
2	Head Sets/Bluetooth for Supervisors	02			
3	Headsets/ Bluetooth for Control Room personnel	06			
4	ISDN PRI Modem-PAIR	01			
4a.	ISDN PRI Card with connection one ISDN PRI line from BSNL	01			
5	SERVERS:- a. (CTI+ACD) Server with Operating system win 2008 as per specification with CTI software b. (Application +Data Base) Server with operating system win 2008 and database with Application software for Control Room operation as per specification. c. ( GIS/AVTS) Server with operating system win 2008 for 6 user AVT/GIS software as per specification with GIS Viewer 6 user license	03			
6	Dial 100 Application Software for Control Room operation				
7	Antivirus software with 10 user license for all desktop and Servers	01			
8	8 Channel Voice logger unit	01			
9	Standard work station for Supervisor/Agents/VHF operators	08			
10	5 KVA on line UPS fro 3 hrs backup ( N+1 Redundant)	02			
11	A4 MULTIFUNCTION printer with networking and copier	01			
12	External DVD/CD Writer	01			
	<b>LAN Setup</b>				
13	Partitioning, Air-conditioning, False ceiling, re-modeling involving civil/electrical work As per site requirement(Operator room and Server room) Site preparation, Electrical works, Installation & Commissioning Charges	02 Rooms (10x12) (12x15)			
14	Digital Map of Rishikesh city (minimum if 1: 5000 Resolution)	01			
15	GPS receiver with antenna along with a modem suitable for vehicle mounting & MDT (for Vehicles with 80 Character LCD back lit display and special keys for pre-programmed keys.)	20			
16	GPRS SIM module with SMS in CUG and GPRS service, 36 months of service included	20			
17	Internet/leased line for AVTS FROM Service provider for 3 years including Routers, Modems, Security Firewall, Antivirus and	01			

	Antispam from network and intrusion Protection system				
18	Furniture for 12 persons, Chairs, Modular work stations durable and good looking.	12			
19	Wall mounted 42" LCD Display unit/TV	01			
	Total Cost + All admissible Taxes				
	<b>Optional:-</b>				
01	Wiring / Connectivity to link existing video surveillance server ( for Cameras of Ps Munni-ki-Reti And Ps Rishikesh ) integration software with pop-up facility on dialing by caller field /areas location.	--			
02	Genset-10 KVA with Panel and accessories	01			
	Total Cost + All admissible Taxes				

It is hereby certified that we have understood all the terms and conditions specified in the tender document and are thoroughly aware of the nature of job required to be done and stores/items to be supplied. We agree to abide by all the tender terms and conditions

We hereby offer to carry out the job and (or) supply the goods/items detailed above or such portion(s) thereof as you specify in the notification of award.

Dated:.....

(Signature and seal of Bidder)

- Note:**
1. Any Other items/software/service required for successful completion of work shall be provided by the finally selected bidder within the quoted prices.
  2. The bidder shall quote the rates of item 1to 24 separately as there is proposal to include more vehicles in the PCR fleet. Therefore as and when more vehicles are included in the PCR , bidder is bound to provide similar type of equipment in newly inducted vehicles