

### Clarification in Technical Specifications

Bidder : M/s Vertel Infotel Pvt. Ltd., New Delhi.

Ref : Pre bid queries dtd. 06/01/2017

Tender No. - 1222, Sr.No. DGP/17/6162/State Plan/Digital Network/Pune & Nagpur/122/2016

Digital UHF Wireless Sets & Walkie Talkies for Pune & Nagpur City. ( **These clarifications are applicable for all the responding bidders** )

Sr. No.	Tender Reference (Page No/ Clause No)	Tender Clause	Bidder's Observation/Queries	Response to Queries/ Clarification
1	Page 16 / F.Other Features Sr. No.13  G .Accessories & Manuals Sr. No. 4	H&s free accessory kit for W/T  Surveillance kit	We are presuming it is the same kindly clarify	Hands Free Kit & surveillance kit are same items. <b>1) At Page No.16</b> , At "F":-other features; Sr.No.13, It is provision on handheld for connecting hands free kit / radio programming cable . <b>2) While at "G" Sr.No.4</b> it mentions surveillance kit. –is a accessory item. ( hands free kit)
2	Page 19 / G. M&atory Requirements Sr. No.2 B.	B. Control Room installation Dispatcher system with necessary hardware & software while BOM & M&atory items does not mention it.	Therefore, kindly clarify whether despatcher system is required or not. In case it requires then despatcher details along with specifications should be provided vide corrigendum.	<a href="#">Specifications of Dispatcher and modified Schedule of requirement attached with this clarification.</a> <a href="#">Total Six (06) Dispatchers are required. Three for Pune City and three for Nagpur City.</a>
3	Page 23/ Item No.3 Sr.No.3&4	3. Output Power (at antenna port)- 23dBm (adjustable according to requirement of the site.)  4. Antenna- Internal as well as 23 dBi external with suitable mounting brackets with 45 Mtr. RF cable.	Kindly note as per WPC, MHA, Govt. of India notification, maximum EIRP in 5.8 GHz. is 36 dBm, while the tender specs out pass this limit. Therefore amendment is solicited to bring this within permissible limit otherwise it transgresses into licensed b&.  Antenna gain should be mentioned like suitable antenna to achieve 60 Km. distance	Output Power of Microwave Radio = Min. 27 dBm.  Location will be provided at the time of field trail.  Suitable Antenna to achieve min. 50 KM reliable communication.

Sr. No.	Tender Reference (Page No/ Clause No)	Tender Clause	Bidder's Observation/Queries	Response to Queries/ Clarification
4	Page 23/ Item No.3 Sr.No.7	Interface - 10/100/1000 BaseT (RJ45), G703/704, G823/824.	Kindly note that all DMR Repeaters required IP, i.e. Ethernet connectivity for linking. Therefore these unwanted additional interface will only make it prone to high cost of maintenance. Susceptibility to damage & problem in trouble shooting, thus a direct casualty to the system performance. Hence it should be amended accordingly.	Clause stand as it is.
5	Page 23/ Item No.3 Sr.No.7	Interface - 10/100/1000 BaseT (RJ45), G703/704, G823/824. Performance quotient.	Instead of 10 BaseT10/100 BaseT should be specified to cater the future requirements. Kindly make the WPC eqpt. type approval necessary to ascertain the radio link quality & performance in line with WPC regulations.	10/100 Base T accepted.  WPC equipment type approval is necessary.
6	Page 23/ Item No.3 Sr.No.5	Lightning protection	Kindly specify the technical details for the lightning protection for outdoor & indoor units.	Lighting protection Outdoor unit: Discharge Device Characteristics Surge : - 20KA Indoor unit: Surge capacity:- 1kA per wire/RJ45 connector, Circuit Type : Three stage series Hybrid.
7	Page 23/ Item No.3 Sr.No.13	Operating Temperature - -40 <sup>0</sup> C to +60 <sup>0</sup> C	Kindly amend it to -30 <sup>0</sup> C to +60 <sup>0</sup> C as in case of all other tendered items otherwise it will limit the competition as exponentially increase the price. Kindly note that -30 <sup>0</sup> C to +60 <sup>0</sup> C equipment operating temperature range is otherwise well enough to combat the environmental endurance in Maharashtra. Kindly apply same to TTA-Tower Top Amplifier since here also it mentions -40 <sup>0</sup> C to +60 <sup>0</sup> C & amend please.	TTA is not a part of this tender.

Sr. No.	Tender Reference (Page No/ Clause No)	Tender Clause	Bidder's Observation/Queries	Response to Queries/ Clarification
8	Page 23/ Item No.3 Sr.No.4	Antenna - 45 Mtr. RF Cable	<p>Kindly note as 5.8 GHz. freq. band has huge losses in co-axial cable, it is absolutely not recommended to use more than 2 to 4 Mtr. cables.</p> <p>Generally outdoor unit &amp; antenna is co-located to reduce the cable length &amp; viz.-a-viz a losses, while Ethernet cable can run from ODU to IDU upto 50 Mtr.</p> <p>Therefore kindly modify the same &amp; also specify the RF cable specifications as no details are mentioned for cables.</p>	Bidder's assumption is correct.
9	Page 23/ Item No.3 Sr.No.6&7	2 MBPS throughput at ethernet.	<p>It mentions 2 Mbps throughput whereas IDU Interface mentions 10/100/1000 BaseT which is not required.</p> <p>Even 10/100 BaseT is sufficient.</p>	It is cleared in Clarification Sr. No.5
10	Page 23/ Item No.3 Sr.No.8&9	Link eqpt. 1 + 1 Hot Standby	<p>It mentions 1+1 Hot Standby, which means both the links should live all the time. So it requires 4 radios, 4 antennas, 4 power supplies &amp; 2 routers to achieve complete redundancy.</p> <p>Therefore this needs to be amended accordingly. further router specifications are also not available.</p>	<p>Bidder understanding is correct. There should be 2 routers per 1+1 Hot Standby link.</p> <p>16 Port Router is necessary.</p>

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#### IV. DISPATCHER FOR CONTROL ROOM

Sr. No.	Specification	Required Specification
1	Calls	Group, Individual call.
2	Features	1) In bound & Out bound messaging. 2) Call recording & storage withstand 24X7 operation. 3) GPS Location & Display on free open source map. 4) Remote Enable/Disable of Radio's. 5) Remote checks whether Radio is On/Off in network.
3	Capacity	Minimum 100 radios per dispatcher.
4	Hardware software	Dispatcher along-with necessary Hardware and permanent licensed Software for GPS and SMS facility at respective Police control room with latest configuration PC and having 20 minutes UPS back up. 3 month data backup.
<b>B Mandatory Requirements :</b>		
1	Installation & commissioning	Repeater site Linking with Dispatcher
<b>C Note:</b>		
1	Technical Bid	Hard Copy of the Technical Bid submitted through e-tender should be provided by the Vendor at the time of product Evaluation.
2	Service and Spare Part support	Support for Service, Spare parts after warranty period minimum five Years and spare availability within four weeks after receipt of supply order.
3	Technical Clarification Meeting	As regards technical clarification involved on the Tender Documents, the vendor shall send quires within 7 days to the office of the Addl. D.G.P & Director of Police Wireless, M.S. Pune, after tender published. Accordingly, a meeting will be arranged within 2 to 3 days in the premises of Addl. D.G.P. & Director of Police Wireless, M.S. Pune office and the clarifications will be communicated through D.G.P. M.S. office, Mumbai.
4	Warranty	3 years from date of Test report.

(M D Kapre)  
FWSIE R & D

(T B Rajput)  
FWIE R & D

(C A Dhakare)  
DySPW R & D

**Un-priced Bill of material - Mandatory Items.**

Sr. No.	Particular	Unit Price Rs.	Quantity	Total
<b>DIGITAL UHF WIRELESS SET</b>				
1	Digital Wireless Set with DTMF Handset and Clip, GPS ready, Battery Cable, Mounting kit and Operating Manual.		362	
2	3dB Whip Antenna with connector, co-axial cable (3mtr.) and stainless steel mounting bracket.		362	
3	DTMF Handset with Clip and Battery Cable (25% Spare)		91	
4	3dB Whip Antenna with connector, co-axial cable (3mtr.) and stainless steel mounting bracket. (25% Spare)		91	
5	Hardware cable and licensed software for Programming, servicing and tuning		15	
6	Test Jig for Radio Parameter Testing and Calibration for set		15	
7	Technical / Service Manual (Original) from OEM in Hard and Soft copies.		15	
<b>DIGITAL UHF WIRELESS WALKIE TALKIE</b>				
8	Digital handheld (W/T) with flexible helical antenna and battery (belt clip with proper lock), GPS ready, Carrying Case and Operating Manual.		1285	
9	Flexible helical antenna (25% Spare)		321	
10	Spare Battery for handheld as per tender specifications		1285	
11	Desk Top type Rapid battery Charger for handheld.		1285	
12	OEM make Surveillance Kit		1285	
13	Hardware cable and licensed software for Programming, servicing and tuning handheld.		52	
14	Test Jig for Radio Parameter Testing and Calibration for handheld.		52	
15	Technical / Service Manual (Original) from OEM in Hard and Soft copies of handheld.		52	
16	Suitable connectors/adapters for testing of handheld parameters on Test Instruments.		52	
<b>DIGITAL UHF WIRELESS REPEATER</b>				
17	Digital Repeater with and Operating Manual.		8	
18	6 dB GP antenna and 60 meter coaxial cable		16	
19	Hardware and licensed software for Programming, servicing and tuning Digital Repeater		4	

(M D Kapre)  
PWSIE R & D

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(C A Dhakane)  
DySPWR & D

20	Technical / Service Manual (Original) from OEM in Hard and Soft copies of Digital Repeater		4	
<b>MICROWAVE LINKS (1+1 Hot standby) Qty 18</b>				
21	Outdoor unit with External / Integrated antenna		72	
22	IDU and PoE with Surge protection.		72	
23	Radio / Antenna mounting clamps		72	
24	Lightening arrestor for ODU		72	
25	Ethernet Switch 16 port		36	
26	1 KVA UPS with Battery for 12 Hour backup.		36	
27	Hot -Standby controlling system		09	
28	Cat 6e STP cable		As per requirement	
29	Cat 5 UTP patch cord		As per requirement	
30	Laptop		36	
31	Licensed Software for Programming and servicing		5	
32	Operating and Technical / Service Manual (Original)in Hard and Soft copies		5	
<b>DISPATCHER</b>				
33	Dispatcher system with necessary hardware & software		6	

**Un-priced Bill of material - Optional Items.**

Sr. No.	Particular	Unit Price Rs.	Quantity	Total
<b>DIGITAL UHF WIRELESS SET</b>				
1	Desktop Mike with Earphone for Control Room			
<b>DIGITAL UHF WIRELESS WALKIE TALKIE</b>				
1	Multi position Battery charger (position wise)			

**Note:** L1 will be calculated on overall price of Mandatory items.

  
(M D Kapre)  
PWSIE R& D

  
(T B Rajput)  
PWIE R& D

  
(C A Daskane)  
D<sub>2</sub>SPWR & D