

Annexure "A"

Clarification of M/s Arya communications & electronics services Pvt.Ltd.

Sr. No.	Bidders Queries	Response for Queries
1	Whether necessary towers as per LOS requirement to establish 1+1 HSB MW link shall be provided by M/s Maharashtra Police or it must be provided by bidders?	Required Towers will be provided or other service providers towers will be made available by Maharashtra Police.
2	It has been advised that bidder is to visit the concerned units for checking link feasibility and collect asked details themselves. In this regard please let us specifically clarify that after Survey if bidder found that MW links can not be established with the available infrastructure at repeater locations then.	
	a) If bidders propose different BOM based on actual requirements how L1 criteria shall be applied for evaluation as BOM is defined in the tender?	Not applicable.
	b) Whether payment towards supply portion is cleared by department when the installation commissioning if remain on hold due to non-availability of towers or due to any issues pertaining to Police department?	The recommendation report will be submitted by this office as per the work carried out by the supplier.
	c) As the repeater sites are distributed across Maharashtra in various ranges, it will not be possible to visit all sites within 7 days 'time span'. Request you to extend the tender submission deadline by at least 30 days.	Tender extended.
3	Kindly let us know the details of equipment available at repeaters sites which needs to be connected through G.703 /G.704 and G.823/G.824 interface protocol over microwave link.	Revised Specifications are being published.
4	We request you to organize pre bid meeting for these tenders so that clarifications issued against earlier tenders through corrigendum can be discussed and all the ambiguities in the provided clarifications are cleared.	Pre-bid Meeting was arranged on 02/12/2017 in this office.

Clarification in Technical Specifications

Bidder : M/s BRIJ Systems Limited
 Ref : Pre bid queries Dtd. 30/11/2017
 Tender No. - 1511, Serial No – DGP/17/6162/Microwave Link-2017-18/73/2017
 (These clarifications are applicable for all the responding bidders)

Sr. No.	Tender Reference (Page No./ Clause No.)	Tender Clause	BRIJ system's Observation / Query	Response to Query
1.		Payments Terms.	Not mentioned in Tender Enquiry. Hence it is requested to clarify the same.	Addl. DGP & Director Police Wireless Office will submit the recommendation report as per the work carried out by the supplier.
2.	Page No. 12 B1	Installation and commissioning	As per technical enquiry it is only a supply, but on the other hand in B1 of page 12 you are asking about installation of link. 1. List of locations. 2. Site survey Report. 3. Details related to availability, earthing, required Pole/Tower to get LOS at each location.	1. List of locations will be provided. 2. Refer Revised specifications - K(1), Bidder may visit to the sites prior to quoting for installation and commissioning. 3. As above.
3.	Page No.5 (22)	Test Certificate/Report from Lab.	Please confirm from which Lab, which type of Test Report /Clarification you require. On the other hand you are asking both field trail and Lab testing report. Hence it is requested to clarify related to point no.22 and field trail. Please confirm related to Certificates that you require like , Temperature test, FCC, EST, ETA in addition to IP67 etc.	Refer revised Specification Document page-3, Part L - Str.no.4
4.			Need Technical details/Clarification related to channel bandwidth, Modulation, Built in spectrum, interface, Mitigation capability, Latency, Network Modes, QOS, Management, Bandwidth Configuration.	Clarified in revised specifications.

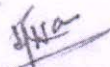
Sr. No.	Tender Reference (Page No./ Clause No.)	Tender Clause	BRIJ system's Observation / Query	Response to Query
5.			<p>Presently Radio Access Technology is available with TDD & FDD, which is software configuration & with which user can avoid/minimize interface. By considering technology benefits it will better if you upgrade Mode of operation as TDD/FDD.</p> <p>Please clarify Application & Utility of EI.</p>	Clarified in revised specifications.
6.			<p>IDU Specifications are not given.</p>	Clarified in revised specifications.
7.			<p>Need clarification related to Quantity & Deployment of terms mentioned in BOM.</p>	Clarified in revised specifications.
8.			<p>To be mentioned for maximum rating so that at remote location max. Battery capacity might be provided where power source is not available.</p>	Clarified in revised specifications.
9.		Power consumption		

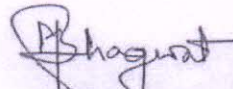
Scheme/Items proposed under Modernisation Plan.

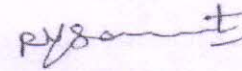
- **Microwave Link for various Units in the State**

MICROWAVE RADIO LINK (1+1) FOR DIGITAL REPEATER Qty-48

Sr.No.	Radio specification	Features
A	Spectrum	
1	Frequency range	Unlicensed band. (5.150 GHZ to 5.875GHZ)
2	Channel Spacing	Configurable on 5Mhz increment.
3	Channel Bandwidth	5 / 10 / 20 / 40 MHz
4	Mode of operation	TDD
B	Interface	
1	Ethernet Interface	10/100/1000 Base-T
2	Network Management	HTTPs, SNMPv2c, SSH
C	Performance	
1	Nominal receive sensitivity	-96 dBm
2	Latency	< 5 mSec
3	Modulation	2 X 2 MIMO- OFDM (BPSK /QPSK/16QAM/64QAM) programmable with forward error correction (FEC).
4	Quality of Service	The system shall support Flexible Quality of Services and concurrent use of IP, VoIP & Video.
D	Link Budget	
1	Transmit Power range	27 dBm or better (1 dB interval)
2	User Data Throughput	20 Mbps (full duplex) up to 50 Km.
E	Physical	
1	Antenna connection	50 ohm
2	Environmental	The system should be of reliable and field proven design and suitable for harsh environmental conditions. Outdoor Radio equipment must be IP-67 compliant & certified.
3	Temperature	Outdoor Equipment : 0°C to 55°C Indoor Equipment : 0°C to 50°C
F	Security	
1	Encryption	128 bit AES and WEP or better.
G	Management & Installation	
1	LED indicators	Power status, Ethernet link status and activity monitoring.
2	Assistance	Audible buzzer / Graphical assistance for Link alignment
3	PoE	OEM make
H	Standard	802.11a & n


K.P. Diwan
PWSIE R&D


M.C. Bhagwat
PWIE R&D


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DYSPW V-Sat

